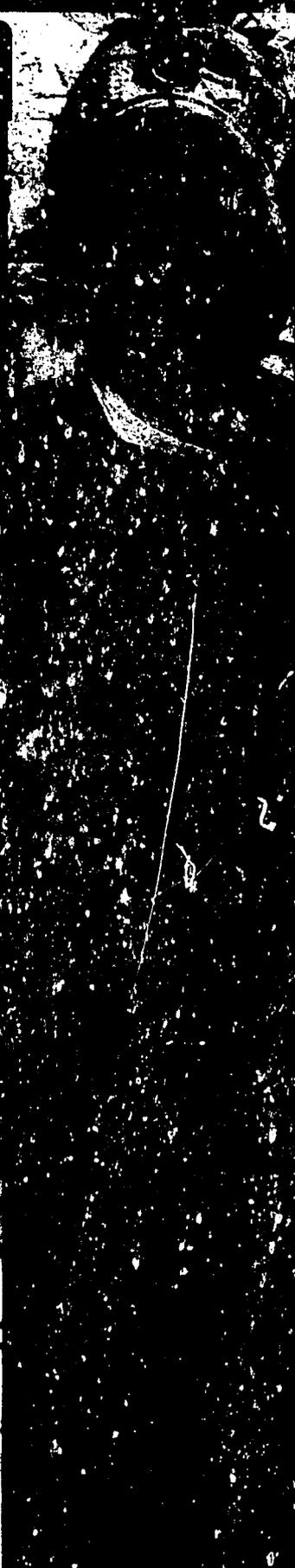


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Family Planning Saves Lives  
A STRATEGY FOR MATERNAL  
AND CHILD SURVIVAL

# FAMILY PLANNING SAVES LIVES

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**Family Planning Saves Lives** is the first in an occasional series of informational packets on population and family planning produced by IMPACT, a project of the Population Reference Bureau.

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## IMPACT

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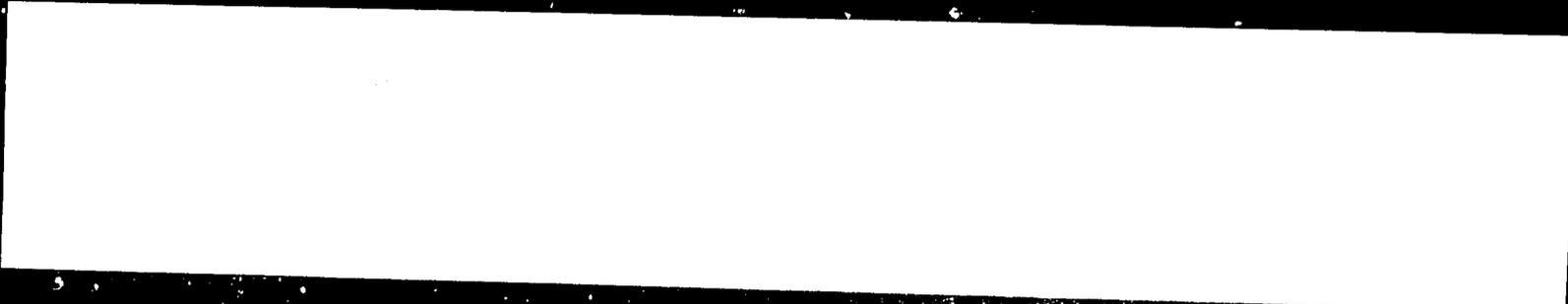
# EXECUTIVE SUMMARY



Family planning saves lives. By helping women bear their children during the healthiest times for both mother and baby, family planning helps prevent the deaths of infants, children and mothers.

Women of childbearing age and children under five make up almost 40 percent of the people in the developing world. These two groups need special programmes to ensure their survival. Though reduced over the last 30 years, mortality of mothers, infants and children in the developing world is still extremely high: in 1986 an estimated 14.7 million children under the age of five will die and an estimated 500,000 women will die of maternity-related causes. Family planning is one effective, inexpensive way to reduce these deaths. It is an investment in human resources that should be a key part of programmes designed to improve maternal and child health.

Worldwide studies demonstrate that spacing births two or more years apart significantly reduces the risk of death for a newborn infant and its next oldest brother or sister. Family planning also enables women to decide for themselves the spacing of births as well as the total number. Thus, effective use of family planning allows women to avoid unwanted pregnancies, the dangers of illegal abortions, and childbearing under circumstances that will be a threat to their infants' and their own health.



D Fabricius/Stock Boston

▲  
With anxiety etched on their faces, women in a Kenyan clinic wait for a doctor to examine their infants. Roughly 15 million children under the age of five die every year in the developing world.

# BIRTHSPACING AND CHILD SURVIVAL

Birthspacing contributes to better nutrition of older children and infants. The older child does not have to be weaned too soon if the next baby's birth is postponed for two or more years. The newborn also enjoys healthier development before and after its birth and has less competition for food and motherly care.

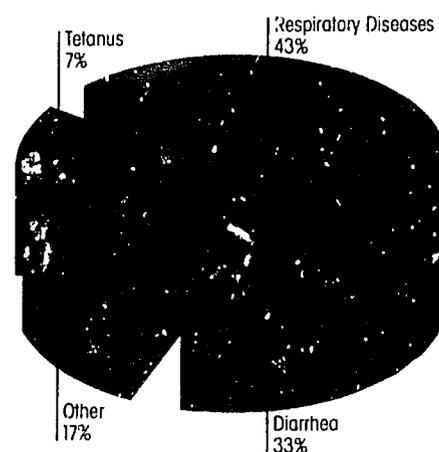
For 1986, it is estimated that one out of every 11 babies in developing countries will die during his or her first year; this adds up to 10.7 million infant deaths.<sup>18</sup> An additional 4 million children between the ages of one and five will die. This annual loss of nearly 15 million lives—a number roughly equal to the population of Uganda or the Netherlands—is a major human tragedy.

The two main causes of infant death are respiratory and diarrheal diseases, complicated by malnutrition (see Box 1). Most deaths of infants and children could be prevented through prompt treatment such as oral rehydration therapy or through preventive measures such as immunization, birthspacing, improved hygiene and nutrition programmes. Developing countries, with the support of the United

## INFANT MORTALITY

“Birthspacing helps reduce the malnutrition which makes children more vulnerable to illness and death. A malnourished child is more likely than a well nourished child to die from infectious diseases like pneumonia or measles.”

### MAIN CAUSES OF DEATH:



### RATES:

The infant mortality rate is calculated as the number of deaths of infants less than one year of age per 1000 live births in one year.

### DEATHS PER 1000 BIRTHS

	Average	Range
AFRICA	118	13 to 180
ASIA	86	4 to 194
EUROPE	14	6 to 43
LATIN AMERICA	62	13 to 119
NORTH AMERICA	10	8 to 11

“The death of one child, when death could have been avoided, is a rebuke to all humanity.”  
United Nations Secretary General  
Javier Perez de Cuellar.

Sources: See References 2, 4, 17, 18

## A STRATEGY FOR CHILD SURVIVAL

"Through breastfeeding, adequate nutrition, clean water, immunization programmes, oral rehydration therapy and birthspacing, a virtual revolution in child survival could be achieved. The impact would be dramatic in humanitarian and fertility terms."

Final declaration of the 1984 World Population Conference in Mexico City.

Many developing countries, with the support of the U.S. Agency for International Development, UNICEF, and other international donors, are focusing on activities designed to improve infant and child health. One interesting way of remembering these activities is that they spell **IF BORN**. The first set of activities—**IF**—require the services of health workers and are investments for the future. The second set—**BORN**—can be taught to, and utilized by, women at home for their children's immediate health needs.

- I**—Immunization to protect children against such deadly diseases as tetanus, measles and polio;
- F**—Family Planning to achieve the birthspacing which gives infants and children a better start in life;
- B**—Breastfeeding for infant nutrition and natural birthspacing;
- O**—Oral Rehydration Therapy to save children who suffer from diarrheal diseases;
- R**—Rearing to teach children good health habits;
- N**—Nutritional Improvement to give children an extra boost.

Source: See Reference 7

▶ The handsome Indonesian child shown here can be affected by birthspacing. Surveys show that an older child is one and a half times more likely to die if an infant is born within two years of the older child's birth.

Nations Children's Fund (UNICEF) and other international donors, have launched major child survival programmes to implement these health interventions (see Box 2). Birthspacing is an important component of these programmes because millions of infant and child lives can be saved if births are spaced two or more years apart.

Birthspacing helps reduce the malnutrition which makes children more vulnerable to illness and death. A malnourished child is more likely than a well-nourished child to die from infectious diseases like pneumonia or measles. In addition to malnutrition, environmental conditions including poor sanitation and crowded living conditions pose health risks for infants and children. Unfortunately, these are common problems of life in developing countries and solving them is a long-term development goal.



Norman Prince



Photo: Everett/Asper

Traditionally rural African women handle most of the family food production. Proper birthspacing allows this woman to have an effective young helper and the opportunity to raise her infant under the most favourable conditions.

In the meantime, spacing births at least two years apart can give children a better start. For example, one benefit of a longer birth interval is that mothers can breast-feed their children for a longer time. In turn, breastfeeding—which temporarily tends to reduce fertility—can be used to achieve healthy birthspacing in combination with effective use of family planning practices.

Evidence from the World Fertility Survey, conducted in 41 countries between 1972 and 1984, shows how effective birth-spacing can be. On the average, **babies born less than two years after their next oldest brother or sister are twice as likely to die as babies born after at least a two-year interval** (see Chart 1).<sup>9-11</sup> The older brother or sister is also

**“On the average, babies born less than two years after their next oldest brother or sister are twice as likely to die as babies born after at least a two-year interval.”**

Birth Interval  
 SHORT: less than 2 years  
 LONG: 2 or more years

INFANT MORTALITY RATE  
 (deaths per 1000 live births)



CHART 1: A comparison of mortality rates for infants born after short or long birth intervals

Source: See Reference 9

"The older brother or sister is also more likely to die—one and a half times more likely on average—if a new infant is born within two years of the older child's birth."

Birth Interval  
 SHORT Less than 2 years  
 LONG 2 or more years

CHILD DEATH RATE  
 (deaths per 1000 aged 1-4)

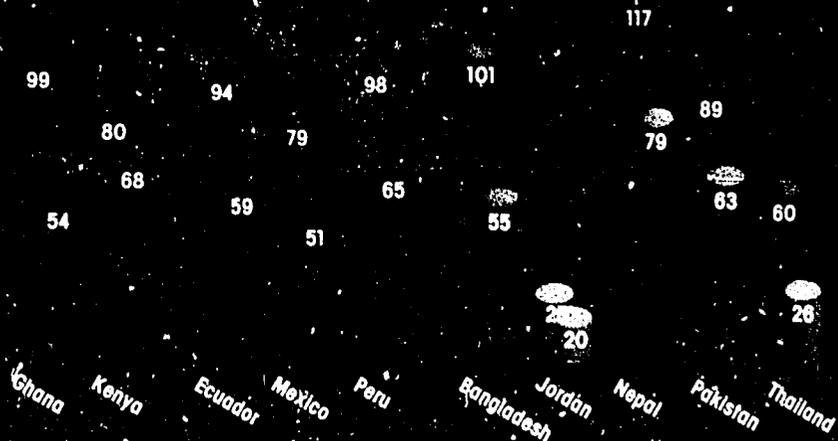


CHART 2: A comparison of death rates for children whose next youngest sibling was born after short or long birth intervals

Source: See Reference 9

more likely to die—one and a half times more likely on average—if a new infant is born within two years of the older child's birth (see Chart 2).<sup>9-11</sup> Box 3 explains some of the reasons why. Of course, average birth intervals are not the same in every developing country. Consequently,

the impact of birthspacing on infant mortality rates will vary. In countries where most babies are born after short birth intervals, more infant and child lives could be saved by birthspacing.

## HOW DOES BIRTHSPACING SAVE INFANTS' AND CHILDREN'S LIVES?

An elderly woman explained that "she has lived a long time, that she has seen it often before, that if another baby comes within two years they will have to send the first child back."<sup>1</sup>

The exact reasons why birthspacing saves infants' and children's lives are not clear, but experts offer the following possible explanations:

1. Because a pregnant woman's health and nutritional status affect her fetus, the child's environment begins before its birth. A woman may be physically depleted from a recent pregnancy. If she becomes pregnant again too soon, her pregnancy may result in a low-birth-weight baby who is much less likely to survive. Birthspacing helps to avoid this disadvantage.

2. Closely spaced siblings compete for food and other necessities in the household. For example, a young child may be weaned too soon if the mother becomes pregnant again, often depriving the child of necessary nutrients. If the weaning occurs in the first six months, the infant will also be deprived of the immunity against disease conveyed by mother's milk. Birthspacing thus gives infants and children a headstart.

▶ An Egyptian woman carrying a child makes a charming picture. On the average, babies born less than two years after their next older brother or sister are twice as likely to die as babies born after at least a two-year interval.



In many countries, birthspacing alone could prevent one in every five infant deaths.<sup>9</sup> Chart 3 shows the estimated reduction in the infant mortality rates of selected countries if all babies

were born after at least a two-year birth interval. In Bangladesh, for example, an improved birthspacing pattern could save as many as 150,000 infant lives each year.

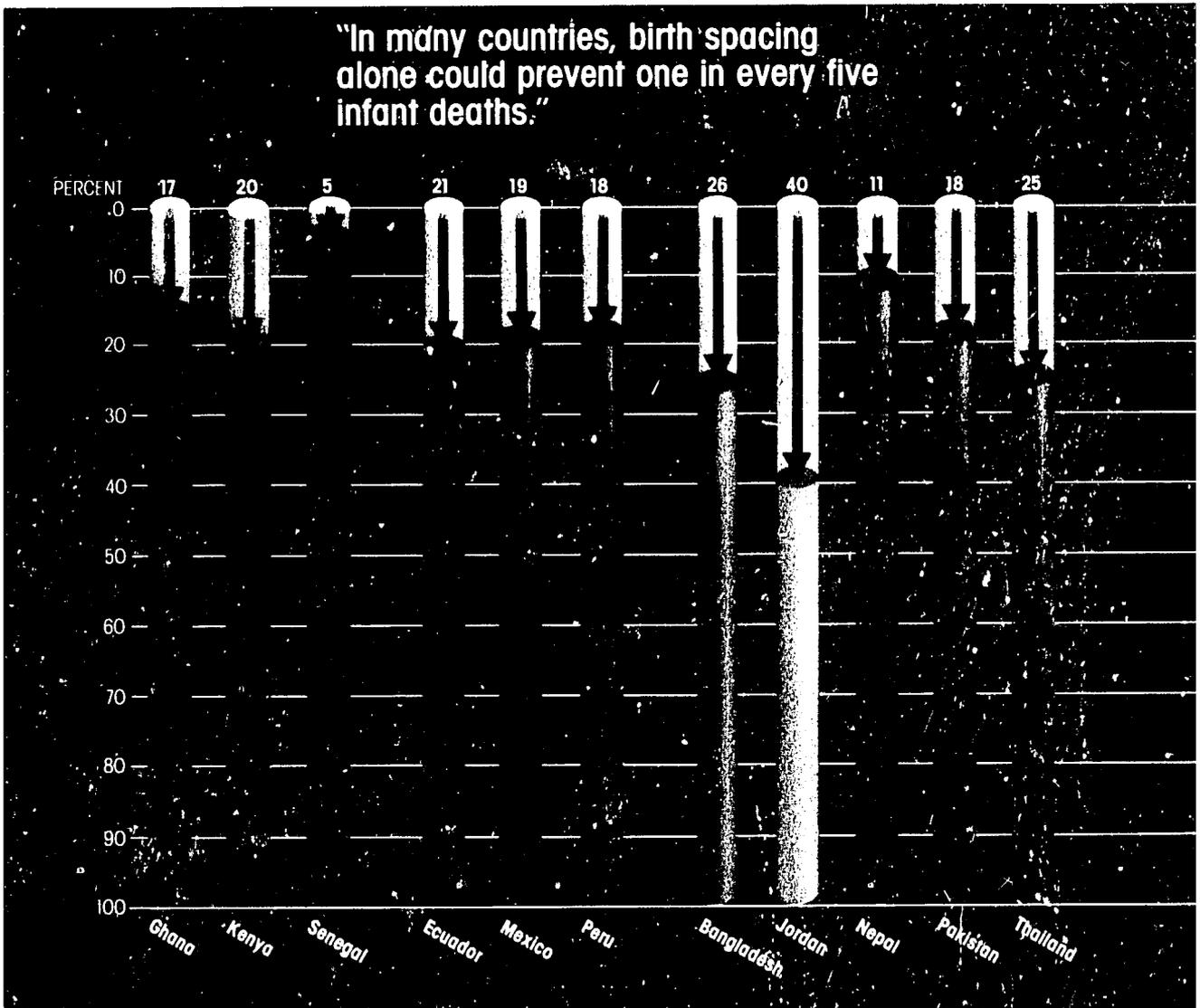


CHART 3: Estimated percent reduction in infant mortality rate if all babies were born after at least two-year birth intervals

Source: See Reference 9

## MATERNAL MORTALITY

“(Assita remembers) her own village and the girl whose hips were not yet big enough to give birth and who was in labor for three days with the baby already dead inside her, and who finally died herself in the cart, at night, as in desperation they tried to take her into town.”<sup>1</sup>

### FIVE PRIMARY COMPLICATIONS:

1. Hemorrhage, bleeding near the end of pregnancy or at delivery, is most common among older women with many children. Where blood transfusion is not available, hemorrhage may be fatal.
2. Toxemia is a condition which includes swelling of the feet and hands, high blood pressure and protein in the urine. It is more likely for women having their first child. While early diagnosis and treatment can greatly lower the risk of death, untreated toxemia can lead to seizures and death.
3. Sepsis, infection usually due to complications from an obstructed or difficult delivery, is also caused by unsanitary conditions during delivery.
4. Septic abortions often result from clandestine or traditional abortion methods. Infections caused by such methods can result in sterility or death.
5. Obstructed labor, which may lead to hemorrhage or sepsis, results from a birth canal blocked either by small pelvic size or previous injury. Where delivery by Caesarean section is not available, obstructed labor may be fatal.

**RATES:** The maternal mortality rate is usually expressed as the number of deaths to women due to pregnancy- and childbirth-related causes per 100,000 births in one year. Accurate data on maternal mortality are rare, especially on the national level. Nonetheless, there is evidence of a wide range of rates, both within and among regions.

### DEATHS PER 100,000 BIRTHS

	Estimated Average	Range
AFRICA	258	78 to 1100
ASIA	310	5 to 700
EUROPE	21	4 to 28
LATIN AMERICA	112	8 to 418
NORTH AMERICA	10	6 to 10

Sources: See References 6, 11, 13, 15

Family planning also prevents maternal deaths. Maternal deaths are those resulting from complications of pregnancy and childbirth which occur within a specified time period—usually defined as 42 days—after the termination of a pregnancy (see Box 4).<sup>13</sup> A woman who effectively uses family planning to avoid becoming pregnant thus avoids pregnancy-related illness and death. While some contraceptive methods involve slightly increased health risks, these risks are very small compared to the risk of dying from pregnancy- and childbirth-related causes (see Chart 4).<sup>9</sup>

About a half million women in developing countries die each year from such causes. These numbers are unnecessarily high, particularly because a majority of maternal deaths could be avoided if women had access to obstetrical services of health institutions.<sup>15</sup> In addition to the tragic loss of women's lives, maternal deaths leave thousands and thousands of motherless children, whose lives, health and welfare are often jeopardized.

**"While some contraceptive methods involve slightly increased health risks, these risks are very small compared to the risk of dying from pregnancy and childbirth-related causes."**

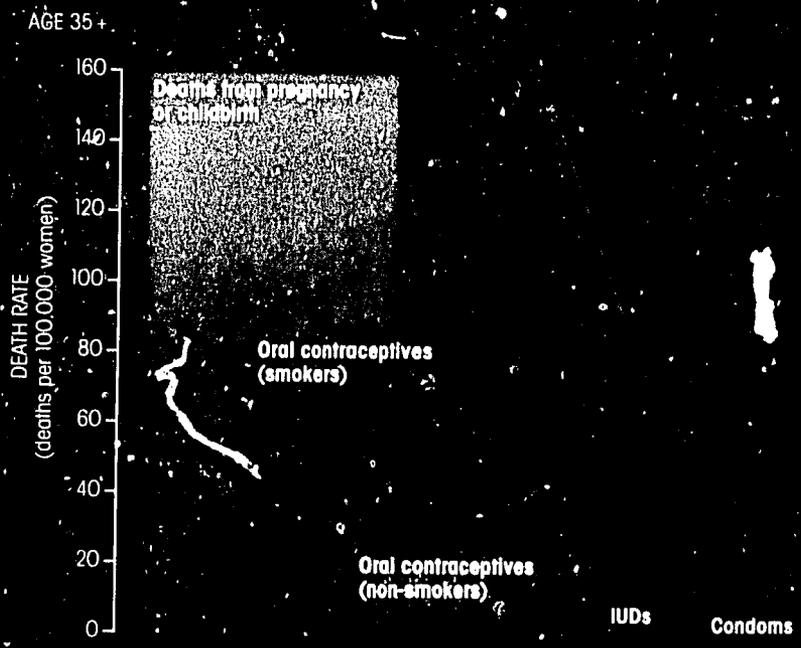


Chart 4: A comparison of estimated death rates for younger and older women from pregnancy or childbirth versus side effects of various contraceptive methods

Source: See Reference 6

## LOW-RISK CHILDBEARING FOR MOTHERS

Childbearing is far safer if pregnancy and delivery are monitored and if certain conditions are met: 1) the mother is over 18 and under 35; 2) the mother has had fewer than four births; 3) the mother's last birth has not been within two years; and 4) the mother does not have existing health problems which would be aggravated by pregnancy. Family planning can help mothers meet these safe conditions.

Another important health benefit of family planning is derived from helping women have only the children they want. To end pregnancies they did not plan to have and do not want, millions of women every year have abortions—often illegal and unsafe. Because abortion is illegal in many developing countries, the number



B. Vikander West Light

This Indian woman is blessed with a healthy child. She is fortunate—roughly one out of 11 Third World infants will die during his or her first year.

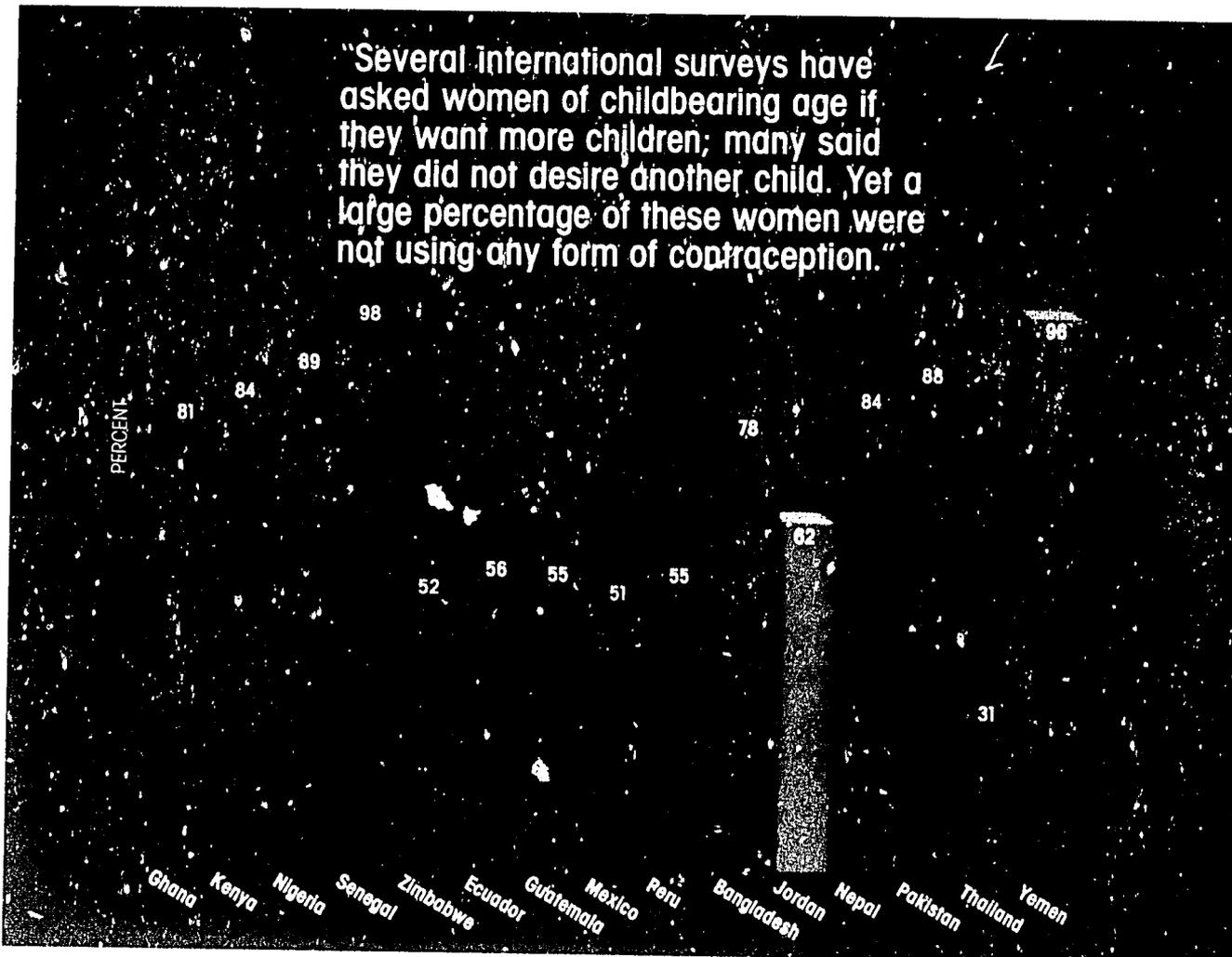


CHART 5: Percent of women not using contraception among women who say they want no more children

Source: See Reference 5

of maternal deaths due to abortion can only be roughly estimated. Nonetheless, up to half the maternal deaths in developing countries are thought to result from abortion-related complications, deaths which family planning can significantly reduce.

Many women in developing countries, especially older mothers, understand the risks of frequent childbearing both to themselves and to their infants. More and more women are using contraceptives,

But many still do not know how to avoid pregnancy or do not have access to good quality family planning services. Several international surveys have asked women of childbearing age if they want more children; many said they did not desire another child. Yet a large percentage of these women were not using any form of contraception (see Chart 5).<sup>5</sup>

"One study based on World Fertility Survey data estimated that maternal deaths could be reduced by almost one-third per year on average."

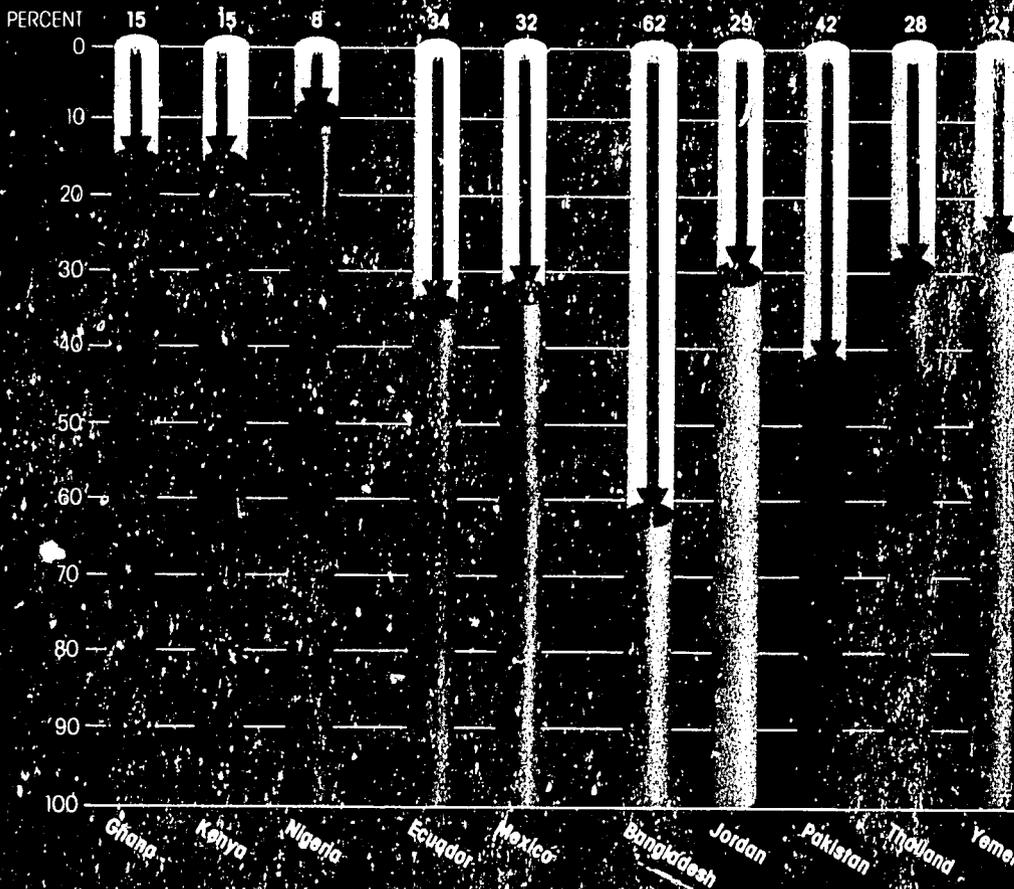


CHART 6: Estimated percent reduction in maternal mortality rate if all women who want no more children use contraception

Source: See Reference 10

One study based on World Fertility Survey data estimated that **maternal deaths could be reduced by almost one-third per year on average.**<sup>10</sup> This could be accomplished simply by avoiding births to women who desire no more children but are not now using any family planning method (see Chart 6). Giving

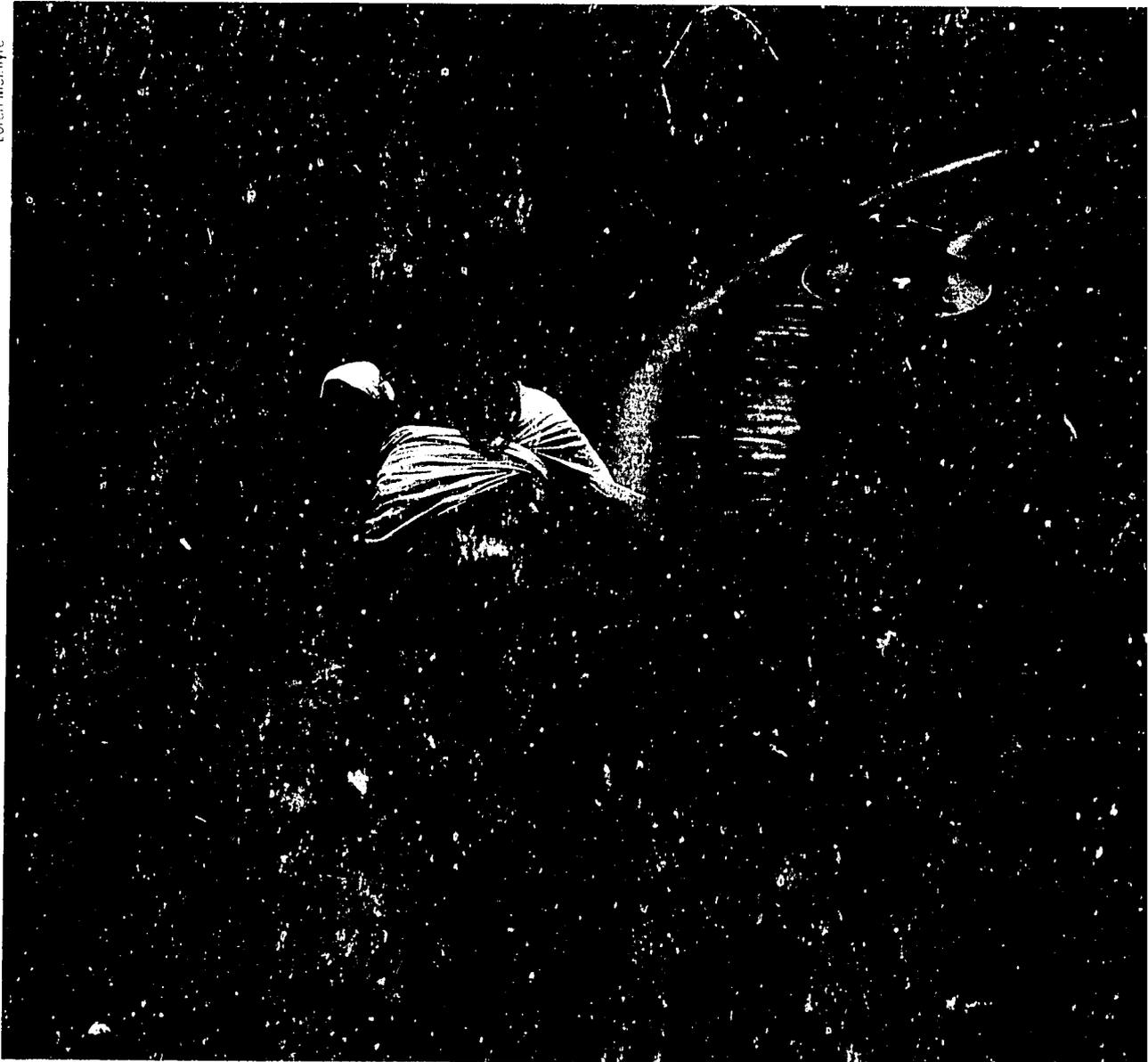
more women access to family planning information and services can help them safely achieve their own health and family-size goals.

# HEALTHY MOTHERS, HEALTHY BABIES

Timing births to maximize maternal health can also be crucial for infants. Babies born to women in high-risk categories—particularly very young mothers, older mothers and mothers with four or more previous births—are more likely to die during their first year, even if the mother survives. One study of four Asian countries estimated that if all births occurred only to women in low-risk categories, infant mortality would decline, on average, by 12 percent.<sup>16</sup>

In addition, if the woman should die during or soon after childbirth, it is unlikely her infant will survive. Her other children under five years of age are also more likely to die. Avoiding dangerous births, then, reduces maternal, infant and child mortality.

Loran McIntyre



An Andean couple and their two children manifest the joy and confidence of a healthy family unit. In common with most Third World countries, Ecuador has relatively high infant and maternal death rates. According to estimates, spacing births two or more years apart could, on average, reduce infant mortality by 20 percent while family planning could prevent 29 percent of all maternal deaths in Third World countries.

# FAMILY PLANNING AND HEALTH COSTS

Family planning is an inexpensive way to improve maternal and child health. It works, yet it does not cost a lot compared to other health programmes. A review of projects in Ghana, India, Thailand and Colombia found that family planning costs were in the middle range of all costs for primary health services provided by these projects. To illustrate, in the Danfa Comprehensive Rural Health and Family Planning Project in Ghana, the annual costs of the family planning project were about half the costs of health education, equal to the cost of the immunization programme and twice the cost of the anti-malarial programme.<sup>9</sup>

Over the long run, of course, family

planning saves a significant amount of money by reducing the number of people who will need health services and other government-supported programmes such as schooling. Such savings are difficult to quantify. However, a recent study of the Mexican government's family planning programme estimated that for every peso spent on family planning for its urban population during 1972-1981, it saved four to five pesos.<sup>12</sup> A similar study of the family planning programme in Thailand from 1972 to 1980 showed a savings ratio of seven to one.<sup>3</sup> These savings resulted from reduced demand for maternal and child health care services.



C. Aurness West Light

A Moroccan mother proudly holds her child. The number of women of childbearing age who want more children varies widely from country to country. International studies indicate, however, that a majority of Third World women who do not want any more children are not using contraceptives.



World Bank

The glowing face of this Turkish child personifies the health made possible by good nutrition and other interventions such as birth-spacing. As proclaimed by United Nations Secretary General Javier Perez de Cuellar, "The death of one child, when death could have been avoided is a rebuke to all humanity."

# ACTIONS

**Government, business and community leaders in developing countries increasingly offer family planning as a basic, cost-effective health service for mothers and children. Their experience recommends the following actions to other countries wanting to reap the health benefits of family planning:**

- ▶ **Introduce family planning into maternal and child health services, an important element of which is training for health workers.**
- ▶ **If family planning services are already provided, expand the days, hours and locations available and improve the quality of services.**
- ▶ **Make sure that family planning services are available within a reasonable distance from where potential users live, particularly in rural areas.**
- ▶ **Bring family planning directly to the people through community-based distribution of contraceptives and family planning education; this can be done by trained, non-medical workers.**

- ▶ Support private sector activities, such as the programmes of a family planning association, commercial marketing of contraceptives and the introduction of family planning into the health services offered by employers in factories, plantations, or other sites.
  
- ▶ Back up all family planning with sound communication and education. This can be done by utilizing mass media, person-to-person counseling or group discussions.
  
- ▶ Identify resources available to introduce, expand, improve and evaluate family planning services. The U.S. Agency for International Development, the United Nations Fund for Population Activities, the World Bank, and many countries offer support for family planning initiatives.

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- \*\*These references are particularly recommended for additional information. Free copies are available at the addresses indicated above. An additional resource is *Family Planning for Maternal and Child Health: An Annotated Bibliography and Resource Directory* (February 1986). A limited number of free copies are available to people from developing countries. Write Mr. Mike Fayin, American Public Health Association, 1015 15th St., N.W., Washington, D.C., 20005, USA.

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