

Do Family Planning Programs Enhance Children's Health?

Asia-Pacific Population & Policy summarizes research on population and reproductive health for policymakers and others concerned with the Asia-Pacific region.

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In previous decades, family planning programs were often justified by Malthusian warnings of explosive population growth that would lead to mass starvation and environmental disaster. Today, the justification for free or subsidized family planning services is more likely to be sought at the family level, emphasizing the welfare of mothers and children.

Why this change in thinking? Although population pressure on resources is still a serious problem, many of the most dire predictions have not come true. Among the research community, there has been an increasing acceptance that population growth may even be beneficial under some circumstances. The political climate for programs to "curb runaway population growth" has also become less favorable, both in developing countries and among the governments and foundations that provide financial support.

Statements from the International Conference on Population and Development, held in 1994 in Cairo, reflect the shift in emphasis from global-level demographics to the well-being of individual families:

Governments should assess the underlying causes of high child mortality and should, within the framework of primary health care, extend integrated reproductive health-care and child-health services, including safe motherhood, child-survival programmes,

and family-planning services, to all the population and particularly to the most vulnerable and underserved groups (<http://web.unfpa.org/icpd.html>, "ICPD Programme of Action," paragraph 8.17).

But do children really fare better in small families? Much of the research addressing this question has focused on family size and children's educational attainment. A few studies have also looked for relationships between family size and children's health. Results have generally been inconclusive.

Results from the Philippines show that children who were wanted at the time of conception are less likely to suffer from bouts of diarrhea or acute respiratory infection than children who were unwanted.

Information from the 1993 National Demographic Survey (NDS) in the Philippines sheds new light on this intriguing research question. The survey provides some interesting results on the implications for child health of family size and whether a child was “wanted” at the time of conception.

The National Statistics Office of the Philippines conducted the survey in 1993 in collaboration with the Department of Health, the University of the Philippines Population Institute, and other government agencies. A U.S.-based consulting firm, Macro International, provided technical assistance for the survey, and the U.S. Agency for International Development (USAID) contributed financial support.

In 1995, the East-West Center’s Program on Population coordinated several projects in collaboration with research centers in the Philippines to provide an extended analysis of NDS results. This issue of *Asia-Pacific Population & Policy* is based on one of these projects.

BACKGROUND ON THE RESEARCH QUESTION

Education. A number of studies have found inverse correlations between family size and children’s educational attainment. They have shown that children from large families are often less educated than children from small families. In some cases, an additional sibling has an estimated impact on educational attainment that is measured in years, and the cumulative impact of a number of siblings can be very large.

The difficulty comes in assigning causality to this relationship. Does large family size offer an impediment to children’s education, perhaps because family resources are thinly spread? If so, we have a strong justification for family planning programs.

Children from large families tend to receive less education and health care than children from small families, but is the relationship really causal?

An equally plausible explanation, however, is that parents who prefer large families do not value education highly. In fact, economists predict that parents who do not place a high value on the education of their children are precisely the ones most likely to have large families. This is because parents who plan to educate their children will anticipate spending money for this purpose and are thus likely to view children as an expense. Given the same level of income and assets, they would choose to have fewer children than other parents.

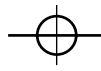
If parents who prefer large families tend to place a low priority on education, then they are unlikely to make a major investment in their children’s

education whether their ultimate family size is large or small. If this is the case, there is no clear justification for limiting fertility in terms of children’s education.

In other words, if children’s educational attainment depends on the preferences of their parents, then children from small families will not necessarily receive more education than children from large families. And a family planning program that leads to smaller families will not necessarily lead to higher educational attainment.

But what about parents who did not necessarily plan to have a large family? In studies of family size and educational attainment, few researchers have been able to examine the specific impact of *unplanned* fertility. However, in a 1980 article in *Econometrica*, Mark R. Rosenzweig and Kenneth I. Wolpin found that unplanned fertility—as exemplified by families with twins—had little effect on children’s educational attainment.

With all other factors equal, children from large families in the Philippines were less likely to receive medical treatment when they suffered from diarrhea or acute respiratory infection than were children from small families.



large numbers of children also unlikely to invest resources in their children's health, as measured in terms of disease incidence and preventive and curative care? If, indeed, children from large families are more likely than children from small families to become ill or die, then part of the reason may be that parents are choosing a course of action that leads to this outcome.

Figure 1 The impact of unwantedness on the risk of diarrhea and acute respiratory infection (ARI) among children aged 0–4: Philippines, 1993 NDS

Note: Impact is measured by percent increase in the risk of illness.

Various explanations have been put forth. It may be that resource constraints are flexible, rather than fixed as is often assumed. Parents may choose to reduce their own consumption, effectively freeing up resources for their children, or older children in large families may contribute to household income, expanding the resources available to educate younger children. As a whole, the evidence for a causal relationship between unwanted fertility, or family size in general, and children's educational attainment has not been entirely convincing.

Health. In a controversial 1987 article in *Population and Development Review*, John Bongaarts claimed that the net effect of fertility limitation is potentially to increase infant mortality. His reasoning was that lower fertility implies that a larger proportion of births are first births and these entail higher risks than subsequent births.

Other researchers have claimed to find an inverse relationship between family size and the survival and health of children. The question here is much the same as it is with children's education. Are parents who choose to have

EVIDENCE FROM THE PHILIPPINES

The 1993 NDS contains detailed information on all births that occurred during the five years before the survey. This includes a retrospective question posed to mothers on whether each birth was wanted at the time of conception. The survey also contains information for each child on any episodes of diarrhea or acute respiratory infection that occurred in the two weeks before the survey, as well as any modern medical treatment sought for these conditions.

Using these data, it is possible to estimate the effects of a number of determinants on both the incidence of illness and the likelihood of treatment. Among these determinants are family size and "unwantedness"—whether or not the mother wanted the child at the time of conception. In this sample of just over 8,000 births, roughly 15 percent were classified as unwanted.

To clarify the role of family size and unwantedness, several other variables that might affect disease incidence or treatment were controlled in the analysis. These included family wealth and parents' education (as measures of income and access to information), exposure to disease, access to treatment facilities, and the age and sex of the child.

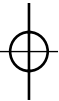
In the two weeks before the NDS, 10 percent of children aged 0–4 had suffered from an episode of diarrhea, and more than 40 percent had shown

Figure 2 The impact of a one-child increase in family size on treatment of diarrhea and acute respiratory infection (ARI) among children aged 0–4: Philippines, 1993 NDS

Note: Impact is measured by percent decrease in the probability that a child will receive treatment.

symptoms of a respiratory infection. With other variables controlled, including family size, children who had been unwanted at the time of conception were nearly 25 percent more likely to have had diarrhea than children who had been wanted (Figure 1). For respiratory infections, the difference was 15 percent. By contrast, unwantedness exerted little, if any, direct impact on the likelihood of treatment once a child became ill.

With all other variables controlled, including unwantedness, family size did not have a direct impact on the likelihood that a child would become ill, but it did have a significant influence on whether or not a sick child would receive treatment. Each additional sibling decreased the chances that a sick child would be treated for diarrhea by roughly 5 percent (Figure 2); for respiratory infection, each additional sibling decreased the likelihood of treatment by nearly 4 percent. In other words, a child with three siblings (the average family size in the Philippines) would be 10 percent less likely to be treated for diarrhea than a child with only one sibling;



the same child would be 7 percent less likely to be treated for a respiratory infection.

Several other factors did, in fact, influence disease incidence and the likelihood of treatment. As mentioned, these influences were all held constant in the analysis of the effects of wantedness and family size. Between the ages of 0 and 5, children were most likely to have either diarrhea or a respiratory infection at about 18 months of age. All other factors being equal, older children were more likely to receive treatment than younger ones.

Children from wealthy families were less likely to become ill and more likely to receive treatment than children from poor families. Children whose mothers had more years of schooling were less likely to suffer from respiratory infection than children whose mothers were less educated, but mother's education did not have a significant effect on the incidence of diarrhea. Children of educated mothers were more likely to be treated for either type of infection. No differences were detected between

girls and boys in either disease incidence or treatment.

POLICY IMPLICATIONS

Results from the NDS confirm the justification for family planning programs based on child health. Here it is important to draw a distinction, however. Some births are planned, and some are unplanned, and among unplanned births, some are actually unwanted.

Helping parents avoid unwanted births, by definition, provides them with a benefit. If the reduction of unwanted births also benefits children—perhaps by affecting the allocation of family resources—the rationale for family planning programs is further strengthened.

These results show that children suffer when they are born into a situation where they are not wanted. The effect of unwantedness on the incidence of diarrhea and respiratory infection is large enough to have a measurable impact on child mortality in the Philippines, given that roughly

one-third of all deaths among children under five are caused by diarrhea or pneumonia. A policy intervention that could yield reductions in mortality of such a magnitude would clearly be of great potential importance.

Family size does not play an important role in disease incidence, but it strongly influences the likelihood that a child who is ill will receive treatment. This impact on children's health makes the reduction of family size, in itself, a significant policy issue.

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Jensen, Eric R., Dennis A. Ahlburg, and Michael A. Costello. 1996. *The impact of wantedness and family size on child morbidity and health-care allocations within Filipino families*. Honolulu: East-West Center, Program on Population.

National Statistics Office (NSO) [Philippines] and Macro International Inc. (MI). 1994. *National Demographic Survey 1993*. Calverton, Maryland: NSO and MI.

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