Explaining Regional Fertility Variations in the Philippines

Throughout Asia, family planning policymakers and program staff are increasingly aware of local variations in the needs and priorities of their clients. To plan and conduct a successful national program, managers need good information on each region of their country plus the flexibility to adjust program activities in line with local requirements. Results from the recent National Demographic Survey (NDS) for the Philippines demonstrate how regional differences in contraceptive practices and other behavior can affect fertility levels.

The National Statistics Office of the Philippines conducted the 1993 NDS 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, 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 with research centers in the Philippines to provide an extended analysis of NDS results. This issue of Asia-Pacific Population & Policy is based primarily on reports from these projects.

FERTILITY AND CONTRACEPTIVE USE

The NDS showed a total fertility rate (TFR) for the Philippines of 4.1. This indicates the average number of children a woman could be expected to bear throughout her reproductive years based on 1991–93 age-specific fertility rates. As in many countries, fertility varied widely among regions—from a low of 2.8 in Manila to a high of 5.9 in Bicol.

Is this regional variation linked to differences in contraceptive use? Indeed, the NDS did identify large variations in contraceptive prevalence. In Northern Mindanao, 49 percent of currently married women aged 15–49 were using some form of family planning; in Eastern Visayas the proportion was only 29 percent. Contrary to expectations, however, contraceptive prevalence rates (CPR) were not highly correlated with total fertility ($r = .23$). As Figure 1a indicates, regions with high contraceptive use did not necessarily have low fertility. Results for Bicol and Manila were particularly surprising. Out of the 14 regions, Bicol had the highest fertility rate but was only fifth lowest in terms of contraceptive use; Manila was lowest in fertility but only fifth highest in contraceptive use.

APPLES AND ORANGES

One reason for these surprising results is that the TFR and the CPR are different types of measure. Looking for correlations between them is rather like comparing apples and oranges. To address this problem, it is useful to take a closer look at how the TFR is calculated.
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The NDS provided data on fertility rates for all women who were 15–49 in 1991–93. The TFR is constructed from these data for a hypothetical [synthetic] cohort of women who are assumed to live out their reproductive lives [ages 15–49] at the age-specific fertility rates that were in effect during this period. The age-specific fertility rates yield an expected number of births (actually a fraction of a birth) for a woman who is 15 years old, for a woman who is 16, and so forth. By adding up all the expected births for each year between 15 and 49, it is possible to calculate the expected total number of births over the entire reproductive lifespan of a typical woman in the synthetic cohort. This is the TFR.

By contrast, the CPR is simply the percentage of currently married women aged 15–49 who are using some method of contraception: it does not apply to a synthetic cohort. It is possible to derive a measure of contraceptive use that is comparable with the TFR, however, by calculating the percentage of person-years lived between the ages of 15 and 49 during which a synthetic cohort of women would be practicing contraception. The procedure is similar to the calculation of the TFR: the percentages of women using contraception at every age are added together, and the sum is divided by 35, the total number of person-years lived over the age range 15–49. This measure might be called the total contraception rate (TCR).

Yet this new measure of contraceptive use is still not highly correlated with regional TFR. Why not?

A CLOSER LOOK AT CONTRACEPTIVE METHODS

One reason why high contraceptive use is not necessarily linked to low fertility in the Philippines is the mix of contraceptive methods. A high proportion of women who were using contraceptives in 1991–93 were in fact using “natural family planning” or other relatively ineffective methods.

Specifically, the NDS found that 40 percent of all currently married women aged 15–49 were using some form of contraception, but only 25 percent were using the most effective methods—sterilization, the pill, IUDs, or injectables. The remaining 15 percent were using less effective methods: condoms, diaphragms, foam, jelly, or traditional methods such as periodic abstinence or withdrawal.

Low fertility at the regional level tended to be associated with the use of more effective methods. In particular, more women were using effective methods in Manila than in Bicol, and this accounted for some of the fertility differences between these two regions.

The correlation between regional fertility and the use of effective contraception was not as high as might be expected. Of course more women may have been using modern contraception, or even induced abortion, than the survey revealed. This type of underreporting may be particularly important in the Philippines where abortion is illegal and modern contraception is frowned upon by the Catholic Church. It seems clear, however, that other factors were affecting fertility levels apart from contraceptive use.

OTHER DETERMINANTS OF FERTILITY

Results from the NDS point to two factors, other than contraception, that help explain regional differences in fertility. One of these “proximate determinants of fertility” is the proportion of a woman’s reproductive years spent unmarried, and thus presumably not exposed to the risk of pregnancy. This is derived from the number of years before marriage plus the years spent divorced, widowed, or separated. Late marriage accounted for most of the time that women spent unmarried.

Overall, fertility tended to be lower in regions where women spent more of their reproductive years unmarried. In particular, marriage variables helped account for the low fertility in Manila: women in the capital spent more of their reproductive years unmarried than women in any other region.

A second proximate determinant of fertility is infecundity. Following the standard definition used in Demographic and Health Surveys (DHS), women were considered infecund if they had been married during the entire five-year period before the survey, had not used any method of contraception, but had not become pregnant.
relying on relatively ineffective methods, periods of conventional unmet need, during which women report that they want to stop having children or delay the birth of their next child but are not using any type of contraception, and periods during which women have no need for family planning, either because they want to become pregnant or because they are pregnant already.

Clearly the first two of these categories account for a large proportion of the person-years during which women are exposed to the risk of pregnancy. They represent the obvious target for family planning programs in the Philippines.

For the country as a whole, the NDS found that 26 percent of currently married women aged 15–49 have a conventional unmet need for family planning. Another 12 percent are using natural family planning or other relatively ineffective methods. This brings the total potential target group for family planning efforts up to 38 percent of all the currently married women in the Philippines.

**POLICY IMPLICATIONS**

What do these results mean? Clearly, policymakers and program managers cannot assume that low or high fertility rates necessarily reflect the success or failure of a family planning program. A number of factors may influence fertility levels in addition to contraceptive use. These factors may be even more important than contraception in explaining regional variations in fertility. Regions with high contraceptive use that still have relatively high fertility require further scrutiny to determine what additional factors are keeping fertility high.

In regions with high conventional unmet need, women have told interviewers that they want to delay their next birth or stop having children altogether, but they are not using family planning. Here, the policy implication is to do a better
job in providing appropriate contraceptives. The specific method mix will differ depending on whether the need is for spacing or for limiting births. Spacing needs can be met through the use of pills, injectables, or condoms, whereas limiting needs are best met through sterilization or longer-term reversible methods such as the IUD. Community-based family planning workers may also need training to help them provide women with accurate information on the advantages and disadvantages of different methods.

For regions with especially large numbers of women using less effective methods, policies need to stress family planning education, encouraging women to use modern methods or, at the least, to use traditional methods more effectively. In the Philippines, efforts should address the women who rely on ineffective methods but do not know at what point during the menstrual cycle they are most at risk of becoming pregnant—11 percent of all ever-married women aged 15–49 according to the NDS. One rather surprising finding was that women with higher levels of formal schooling were just as likely not to know when they were at risk of pregnancy as less-educated women.

The balance between these approaches will differ among regions. In the Philippines, conventional unmet need for contraception appears to be high in Eastern Visayas, whereas the use of ineffective methods combined with poor knowledge of the menstrual cycle is particularly high in Northern Mindanao and Bicol.

In designing effective family planning programs, policymakers need to understand the relative importance of all the factors that contribute to high levels of fertility and how these vary in different parts of the country. This approach calls for a level of program flexibility that can be achieved by decentralizing the planning and management process or, alternatively, by developing a national planning structure that can create and monitor programs tailor-made for local areas.

Today, local variations in family planning needs and priorities are a particularly important research area in the Philippines because the government is following a course of budgetary “devolution” that calls for increasing decentralization of program and resource-management decisions. In general, decision-making has moved down to the provincial and even the municipal levels, skipping over the regions. There is, thus, a need for more of the type of analysis presented here, focusing on the local levels where government decision-making is now taking place.

This new focus has implications for research. Increasingly, local staff will be involved in collecting, analyzing, and interpreting the data needed to make informed management decisions. The expanded use of personal computers and appropriate software makes such decentralization feasible. To take advantage of these technological advances, training for local-level staff in data-collection and analytical techniques has become an important priority.

Dr. James A. Palmore, Jr. died suddenly of a heart attack on 20 February 1996. He was a good friend and valued colleague. This issue of Asia-Pacific Population & Policy, which he first outlined, is dedicated to his memory.

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