

Use of Maternal and Child Health Services by Adolescents in Developing Countries

The lower use of maternal and child health services by adolescents, compared with older women, is mainly found in Bangladesh, India, and Indonesia.

High levels of early childbearing in developing countries have resulted in pregnancy and childbirth being the leading cause of death among girls ages 15 to 19. Pregnant adolescents are at increased risk for maternal mortality, low infant birth weight, and infant mortality. Youth are also more likely than older women to be poor and to have less autonomy, poor nutrition, first pregnancies, lack of access to health services, and poor health care behavior. All of these factors can lead to negative maternal and child health (MCH) outcomes.

Health care services can directly influence MCH outcomes. Timely, quality prenatal care can prevent, identify, and treat iron deficiency, anemia, and malaria. Prenatal care provides an entry into the health system and can be a venue to teach adolescents to recognize the signs of obstetric complications and possible responses.

Emergency obstetric care is especially important for adolescents who experience obstructed labor, pregnancy-induced hypertension, eclampsia, or severe untreated anemia. Also, infant immunizations are widely recognized as one of the most cost-effective health interventions.

Evidence of use of MCH services by adolescents is mixed. In addition, few studies have taken into account the many factors, other than age, associated with adolescence that may contribute to poor outcomes.

Methods

To assess adolescent use of MCH services, YouthNet used Demographic and Health Surveys (DHS) in 15 developing countries to compare adolescents and older women in their use of prenatal care, delivery care, and immunization services (for the infant), controlling for mediating factors. Five countries

with DHS surveys since 1992, large sample sizes, and low median ages at first birth were chosen from each of three regions (Latin America, Asia, and Africa).

The study used six dependent variables to represent MCH use: prenatal care, delivery care, and four immunizations (BCG, the third polio dose, the third DPT dose, and measles). Prenatal care was defined as having had at least one visit with a skilled provider (doctor or person with midwifery training). Delivery care was similarly defined as having delivered with a skilled attendant.

When prenatal and delivery care were the dependent variables, the study populations were women ages 15 to 29 with a birth in the previous three or five years. When immunizations were the dependent variables, children 12 months or younger born to women in the three or five years before the survey were the study population. Mother's age at the time of the infant's birth was the independent variable of interest. Other independent variables were marital status, education level, school status, the World Bank wealth index, place of residence, parity, ethnicity, and sex of the infant. Multivariable logistic regressions were used in the analyses.

Results

In the majority of the analyses (90 analyses were done, examining six dependent variables in 15 countries), the level of use of MCH services did not vary by age. The table (see next page) shows the countries where adolescents were significantly less likely than older women to use various MCH services. Regarding prenatal care with a skilled attendant, there were statistically significant differences in four countries. In five countries, adolescents were significantly less likely to deliver with a skilled attendant, compared with women ages 19 to 23.

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For more information,
please contact:

YouthNet

2101 Wilson Boulevard
Suite 700
Arlington, VA 22201 USA

telephone
(703) 516-9779

fax
(703) 516-9781

e-mail
youthnet@fhi.org

web site
www.fhi.org/youthnet



Countries Where Adolescents Were Significantly ($p < 0.05$) Less Likely Than Older Women to Use MCH Services

MCH Service	Africa	Latin America	Asia
<i>Prenatal care with skilled personnel</i>		<i>Nicaragua</i>	<i>Bangladesh, India (≤16 only), Indonesia (17-18 only)</i>
<i>Delivery with a skilled attendant</i>		<i>Brazil</i>	<i>Bangladesh, India, Indonesia, Nepal</i>
<i>BCG</i>		<i>Nicaragua, Peru (≤16 only)</i>	<i>India (≤16 only), Indonesia (≤16 only)</i>
<i>DPT (3)</i>	<i>Malawi, Uganda</i>	<i>Brazil, Guatemala, Nicaragua, Peru (≤16 only)</i>	<i>Bangladesh, India, Indonesia</i>
<i>Polio (3)</i>	<i>Uganda</i>	<i>Guatemala, Nicaragua, Peru (≤16 only)</i>	<i>India</i>
<i>Measles</i>	<i>Uganda</i>	<i>Nicaragua, Peru (≤16 only)</i>	<i>Bangladesh, India, Indonesia (≤16 only)</i>

Compared with the maternal care results, there were more differences in the dependent variables related to immunization between infants born to adolescents and infants born to older women. In particular, infants born to adolescents in nine of the 15 countries in the study were significantly less likely to receive their 3rd DPT immunization than infants born to older women.

Conclusions and Implications

In Bangladesh, India, and Indonesia, adolescents were less likely than older women to use MCH services. These findings are independent of control variables. Adolescents ages 16 and younger in India and Indonesia were less likely to use MCH services. The study controlled for household socioeconomic status through the wealth index but not for women's ability to leverage assets. Generally, status and decision-making power are lower among adolescents compared with older women in Bangladesh, India, and Indonesia, which could explain some lower MCH use in these countries.

In Nicaragua and Peru, adolescents were less likely to use MCH services than older women. In the Latin America region, taking parity into account allowed important age differences

to appear. In African countries, no significant differences were revealed between younger and older women with the exception of Uganda, where infants born to adolescents were consistently less likely to receive vaccinations.

The most consistent difference by age across countries occurred when third polio, third DPT, and measles vaccinations were the dependent variables. Behavioral differences, such as lower parental attention and effort by adolescents, could have led to this finding.

Findings suggest a need to target adolescents in Asia for services, while simultaneously investigating the country specific contextual reasons for the age differences. In Latin America, efforts should target young women in their first pregnancy. In general, the level of use among women of all ages suggests that efforts are needed across regions to increase MCH services use regardless of age.

— Heidi W. Reynolds

Heidi W. Reynolds, who led the research on MCH services, is a Senior Research Associate at FHI.

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