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Unintended pregnancy and women's use of prenatal care in Ecuador

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Abstract

This paper assesses the relationship between unintended pregnancy — both unwanted and mistimed — and several dimensions of use of prenatal care among women in Ecuador, where the level of unintended pregnancy has risen considerably in recent years. Data were collected from a nationally representative sample of 3988 women interviewed in the 1994 Demographic and Maternal–Child Health Survey. Multivariate logistic regression was used to assess jointly the effect of pregnancy intention status (unwanted, mistimed, planned) on three aspects of prenatal care use while controlling for potential confounders. Women with unwanted pregnancies were 32% less likely than women with planned pregnancies to seek out prenatal care. Women with unwanted pregnancies were also 25% less likely to initiate care in the first trimester and 29% less likely to receive at least an adequate number of visits. Mistimed pregnancy was not associated with receiving care, timely initiation of care or receiving an adequate number of visits.

Keywords: Unintended pregnancy; Prenatal care; Ecuador

Introduction

Both researchers and health care providers have argued that it is important to prevent unintended pregnancies because of their negative effects on the health of women and infants. It is posited that women with planned pregnancies, compared to those with unintended pregnancies, are likely to be better prepared, emotionally and financially, for the demands of pregnancy and childbearing and more likely to take better care of themselves and the developing fetus during pregnancy. For example, women with unintended pregnancies may be less likely to seek prenatal care than women with planned pregnancies (Institute of Medicine, 1995). The effect of unintended pregnancy on prenatal care use is of concern because, while the benefits of routine prenatal care for all women are currently under debate, some elements of prenatal care have been associated with positive pregnancy outcomes. These include folic acid and iron supplementation, detection and treatment of tuberculosis and malaria, tetanus immunization, detection and care of pre-eclampsia, and screening for and treatment of syphilis (Fiscella, 1995; WHO, 1994; Rooney, 1992; Institute of Medicine, 1988; Bergsjo & Villar, 1997; Villar & Bergsjo, 1997; Villar, Garcia & Walker, 1993; Kogan, Martin, Ventura et al., 1998).

Most studies of the relationship between pregnancy intention status and prenatal care use have been con-

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ducted in the United States. In an extensive literature search for rigorously conducted scientific studies, the only located U.S. study that examined the separate impacts of *unwanted* (woman did not want any more children), *mistimed* (unintended, but woman desired a child at some point in the future) and *planned* pregnancy found that both women with unwanted pregnancies and women with mistimed pregnancies were less likely than those with planned pregnancies to initiate prenatal care in the first 8 weeks of pregnancy. However, pregnancy intention status was not associated with receiving the recommended number of prenatal care visits (Kost, Landry & Forrest, 1998).

Other U.S. studies measured pregnancy intention status in only two categories and were conducted among nonrepresentative samples of women. A study of married women and another of women aged 18–26 experiencing their first births found that women with planned pregnancies were slightly more likely than women with unintended pregnancies (unwanted and mistimed) to initiate prenatal care in the first trimester (Marsiglio & Mott, 1988; Weller, Eberstein & Bailey, 1987). A study conducted in the state of Missouri found that women who felt "unhappy" when they discovered they were pregnant were 40% less likely to receive adequate prenatal care than women who were happy to be pregnant. Adequate prenatal care was defined in terms of both timely initiation of care (in the first 4 months of pregnancy) and number of visits (eight or more for a pregnancy over 36 weeks) (Sable, Stockbauer, Schramm & Land, 1990).

Only two identified studies of the relationship between pregnancy intention status and use of prenatal care focused on women in developing countries. An analysis of Demographic and Health Survey data from Kenya and Namibia found that, in Kenya, both women with unwanted pregnancies and those with mistimed pregnancies had significantly fewer prenatal care visits than women with planned births. In Namibia, however, pregnancy intention status was not associated with the number of prenatal visits. Intention status was not associated with initiating care in the first trimester in either Kenya or Namibia (Gage, 1996). A study in Peru found that women with unwanted pregnancies were less likely than those with wanted pregnancies (defined as planned or mistimed) to have received at least one prenatal care visit. This study did not distinguish between planned and mistimed pregnancy; nor did it explore dimensions of prenatal care use other than use or nonuse (Tam, 1991).

This paper assesses the relationship between unintended pregnancy — both unwanted and mistimed — and several dimensions of use of prenatal care among women in Ecuador. The consequences of unintended pregnancy are of particular concern in Ecuador because levels of unintended pregnancy have risen markedly in recent years. Between 1989 and 1994, the proportion of pregnancies reported as unwanted rose from 6.7 to 19.3%, and the proportion that were mistimed rose from 5.8 to 16.3% (CEPAR, 1995). In contrast, levels of unintended pregnancy decreased during the same time period in every other Latin American country but Paraguay (Bongaarts, 1997).

Data and methods

Data for this study were drawn from the 1994 Ecuador Demographic and Maternal–Child Health Survey, hereafter referred to by its Spanish-language acronymn, ENDEMAIN (*Encuesta Demográfica y de Salud Materna e Infantil*). The ENDEMAIN was a three-stage cluster design sample survey of women aged 15–49 years. Twenty thousand households were randomly selected for interview, and 71.8% had at least one woman of reproductive age (15–49). Interviewers completed 13,582 interviews, achieving a 96.4% response rate.

Multivariate logistic regression analysis was used to assess jointly the effect of pregnancy intention status and other factors on women's use of prenatal care services. Analysis was conducted on all women (n = 3988) who experienced a pregnancy that resulted in a live birth or a stillbirth between January, 1992 and the ENDEMAIN interview date (May–August, 1994). Approximately 99% of reported pregnancies ended in a live birth, raising the possibility that pregnancies ending in stillbirths were underreported. The sample is limited to women whose last pregnancy ended not previous to January, 1992 to minimize problems of recall bias and ex post facto rationalization regarding the intention status of their pregnancy (Lloyd & Montgomery, 1996). To control for nonindependence of pregnancies to the same mother, a woman is represented only once in the sample; only the most recent pregnancy per woman is included. All analyses incorporated sampling weights to take unequal probabilities of selection into account.

We examine three measures of women's use of prenatal care — receiving at least one prenatal care visit, timely initiation of care, and adequate number of visits. Based on recommendations from a World Health Organization technical working group, starting care in the first trimester is considered timely initiation, and four or more visits are considered a minimum adequate number for full-term pregnancies (WHO, 1994). Analysis of timely initiation of care and adequate number of visits was conducted among women who received at least one prenatal care visit (n = 3041). The variable "adequate number of visits" is adjusted for length of gestation; for example, if a woman's pregnancy ended during the eighth month, three visits is