

**Describing marital dynamics in lower- and middle-income countries with under-utilized
Demographic and Health Surveys data**

Courtney Allen, DHS Program, ICF
Sara Yeatman, University of Colorado Denver

SHORT ABSTRACT (<150 words)

The Demographic and Health Surveys (DHS) Program collects data about key events in the life of the respondent during the five-year calendar period preceding the interview. This calendar is best known for its rich contraceptive and reproductive data, but lesser known, and even lesser used, are the union data: a month-by-month five-year history about the marital status of the respondent. We use the full set of DHS union calendars spanning 24 years (1990-2014) from 62 surveys in 25 countries from South America, Asia, and Africa to construct marital indicators that have never previously been described for lower- and middle-income countries. Specifically, we will use survival techniques to estimate the length of marriage and time to remarriage for women who marry or divorce within the calendar period. This descriptive analysis will offer new insight into marital dynamics and shed light on the utility of an under-utilized source of nuptiality data.

EXTENDED ABSTRACT

Introduction

The Demographic and Health Surveys (DHS) Program collects data about key events in the life of the respondent during the five-year calendar period preceding the interview. This calendar is best known for its rich contraceptive and reproductive data, but lesser known, and even lesser used, are the union data: a month-by-month five-year history about the marital status of the respondent. These data give invaluable insight on marital formation and dissolution. Moreover, marital status is an important determinant of reproductive behavior and fertility intentions.

Among the many contingencies that might shape a woman's fertility life course, is marriage—when she gets married, the quality of the marriage, how many times she marries, and the length of the period between marriages. The union calendar gives unique insights into a five-year window of a woman's union history, allowing for novel examination of marital dynamics and their relationship with fertility behaviors.

Without using union calendar data, there are several pieces of union information available in DHS data that are used to construct marital indicators. Current marital status, number of marriages (either one marriage or more than one), and date of first marriage are the three data points that many researchers have used to understand marital dynamics in countries where DHS data are collected (e.g., Clark and Brauner-Otto 2015; Smith-Greenaway and Clark 2018). We hope that in describing ways DHS union calendar data can be used to supplement and inform these often-used marital indicators, researchers will take a step towards including these data when examining marital dynamics over time. Though union calendars are no longer part of the standard DHS questionnaire, we find they possess valuable and overlooked information on union dynamics and allow for new inquiry into the dynamic relationships between union formation, dissolution, remarriage and fertility.

In the final paper, we will construct marital indicators that have never previously been described for lower- and middle-income countries. Namely, calendar data make it possible to measure the length of marriages and time to remarriage, the latter of which remains a particularly elusive data point among household surveys. Though a five-year calendar period is a short period in a respondent's lifetime, in countries with common occurrences of marriage dissolution and remarriage it may be possible to see many marital events within the calendar period.

Methods

The DHS Program first developed the calendar to improve the collection of monthly data on contraceptive practices and piloted a version in Peru as early as 1986 (INEI/Perú 1988). The calendar, considered to be a

rich source of data with many potential uses (Goldman, Moreno, and Westoff 1989), became part of the DHS standard questionnaire in high contraceptive prevalence countries in DHS Phases II-IV. During this time, marital data was also collected alongside the monthly contraceptive practices and birth histories. After 2003, when DHS began to collect contraceptive and reproductive information in the calendar in most countries despite contraceptive prevalence, the union calendar was cut from the standard questionnaire and only collected in few countries afterward.

We refer to a sole calendar period, though the length of each respondent's calendar actually varies from five to seven years. The length of the calendar is dependent upon when the respondent was interviewed and the length of the survey data collection. The calendar period usually includes data for each month (up to the month of the interview) of the year of interview and five calendar years preceding the year of the interview.

The calendar has one data point for each month, either the respondent was in a union – formal marriage and cohabitation alike – or the respondent was not. We are limited to this binary marital status category; however, most demographic research on marriage in sub-Saharan Africa does not distinguish between formal and informal unions (Meekers 1992), so this is not a major limitation, at least for that region. Additionally, although the calendar data will indicate the month a union ended, we may not know the nature of a marriage dissolution if it was not a respondent's most recent marital event. For example, if a marriage ends within the calendar period and the respondent remains unmarried until the survey, we can discern the nature of the dissolution from the woman's current marital status (divorce, separated, widowed). If, however, the marriage ends and is followed by remarriage, we cannot know how this previous marriage ended (e.g. divorce or death of a spouse). Additionally, due to the lack of information outside of this period, we are limited to activity that occurs within the period unless a woman is still in her first union.

Using data spanning 24 years (1990-2014) from 62 surveys in 25 countries from South America, Asia, and Africa, we will describe recent marital dynamics, by estimating the number of marriages, divorces, and remarriages women have experienced in the five-year calendar period. Length of marriage can be constructed for marriages that begin during the calendar and length of time to remarriage if this period occurs during the calendar. Using survival analysis we will describe the duration of marriages and time spent between marriages (in the event of remarriage). This method allows for the right and left censoring of marital events in the calendar.

References

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