

Global Trends in Contraceptive Method Mix and Implications for Meeting the Demand for Family Planning

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September 2012

Abstract

Measuring progress in meeting the demand for family planning requires going beyond overall levels and trends to assess the diversity of contraceptive methods used. We examine changes in contraceptive method mix from 1990 to 2010 for 194 countries and how levels and trends in contraceptive prevalence and unmet need for family planning are associated with the concentration and average use-effectiveness of method mix profiles. We draw on annual Bayesian hierarchical model-based estimates of contraceptive prevalence (any, modern and traditional methods) and unmet need for family planning among married women aged 15-49 and apply method mix distributions from surveys. Modern contraceptive methods account for most of current contraceptive use worldwide, and those methods are responsible for nearly all of the increase in contraceptive use since 1990. For most countries one or two methods account for at least half of total use, yet the particular methods that dominate vary widely.

Introduction

Improvements in meeting the demand for family planning require not only data on overall levels and trends in contraceptive prevalence and unmet need for family planning but also an assessment of the diversity of contraceptive methods used. A key objective of family planning programmes, stated strongly in the Programme of Action of the 1994 International Conference on Population and Development, should be to ensure that "...women and men have information and access to the widest possible range of safe and effective family-planning methods in order to enable them to exercise free and informed choice" (United Nations 1996). Of course, use of specific methods does not approximate access, but they are indeed related. Prior research has shown that as access to a range of modern contraceptive methods improves, modern contraceptive prevalence increases (see Ross et al. 2001), and a high concentration of contraceptive use on one or two methods may be a sign of a limited range of available methods (Sullivan et al. 2006).

We provide updated estimates of the method mix profiles for 194 countries—one of the most comprehensive assessments to date—and examine how levels and trends in contraceptive prevalence and unmet need for family planning are associated with the concentration and average use-effectiveness of method mix profiles.

Data and methods

Analysis of family planning levels and trends is difficult because the number of survey-based observations per country is limited or often not recent. In a 2012 compilation of

data on family planning indicators for 194 countries and areas, 60% of countries and areas with data on contraceptive prevalence had less than five observations over a 30 year period (United Nations forthcoming). To strengthen the comparability of our analysis of family planning levels and trends, we draw on annual Bayesian Hierarchical model-based estimates of contraceptive prevalence and unmet need for family planning (Alkema et al. 2012) and apply survey-based observations on method mix from a United Nations Population Division database on contraceptive prevalence (United Nations forthcoming).

We calculate a cut-point indicator of a skewed method mix (50% or more of contraceptive prevalence is based on one method) and average use-effectiveness of the method mix (multiplying the percentage of all users according to the method they use by the proportion of users who do not become pregnant during one year of method use).

Preliminary results

Most of the increases in contraceptive prevalence that occurred between 1990 and 2010 were attributable to increases in the use of modern methods. Worldwide, 57.0% (54.1–59.7) of married women of reproductive-age were using a modern method in 2010, constituting nine in ten of women using contraception. The prevalence of modern method use in 2010 ranged from 8.3% in Middle Africa to over 70% in Eastern Asia, Northern America, and Northern Europe. The largest absolute increases from 1990 to 2010 in the use of modern methods (more than 15 percentage points) were in Central America, Eastern Europe, and three subregions of Africa (Eastern Africa, Northern Africa, and Southern Africa). In parallel with total contraceptive prevalence, the increase in modern method use globally and among developing countries significantly slowed in 2000-2010 compared with the 1990s. Among subregions, the increase in modern method use was significantly slower in Eastern Asia and Northern Africa and faster in Eastern Africa in 2000-2010 compared with the 1990s.

In most countries, one or two methods account for at least half of total contraceptive prevalence, yet the particular methods that dominate widely vary among countries. Female sterilization is the single most common contraceptive method (figure 1). It is used by about 19 per cent of the world's married women of reproductive age, or 30 per cent of current contraceptive users. The IUD is the most common temporary method, employed by 14 per cent of married women, or 23 per cent of contraceptive users. Female sterilization and the IUD together account for over half of contraceptive use within marital unions. However, there are many individual countries where those methods account for only a small fraction of total contraceptive use. Other methods employed by at least 5 per cent of married users of contraception are the pill (14 per cent of users), male condom (12 per cent), injectables (6 per cent) and rhythm and withdrawal (5 per cent each).

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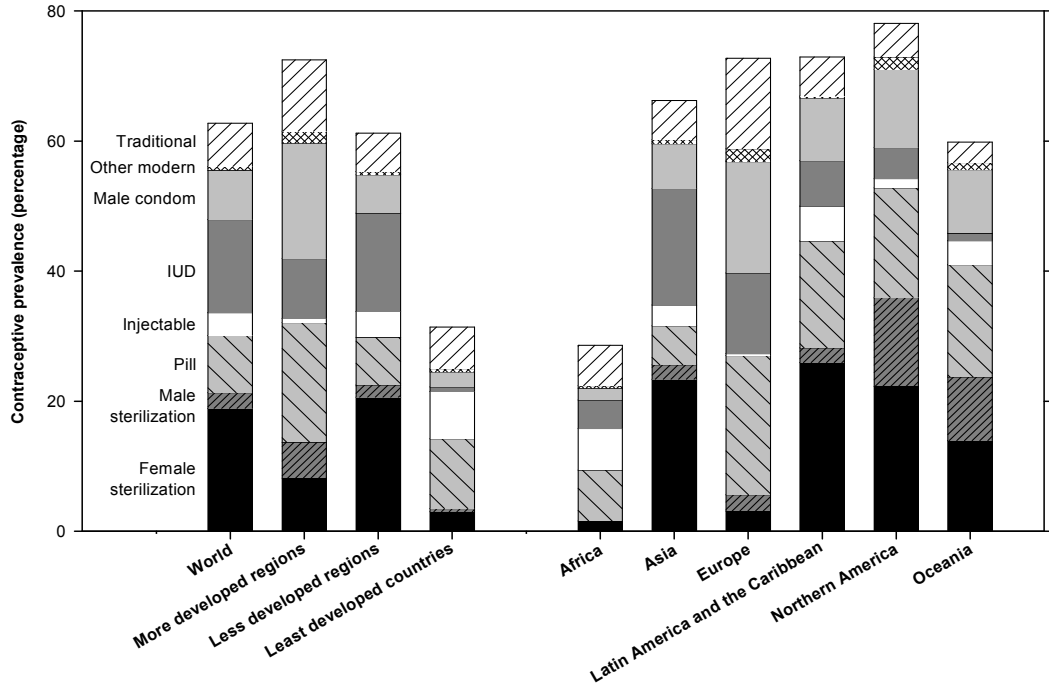
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Figure 1. Prevalence of use of specific contraceptive methods, and method mix, by major area and development region, 2010

A. Percentage of women using specific methods among those aged 15-49 who are married or in a union



B. Percentage share of method in overall use

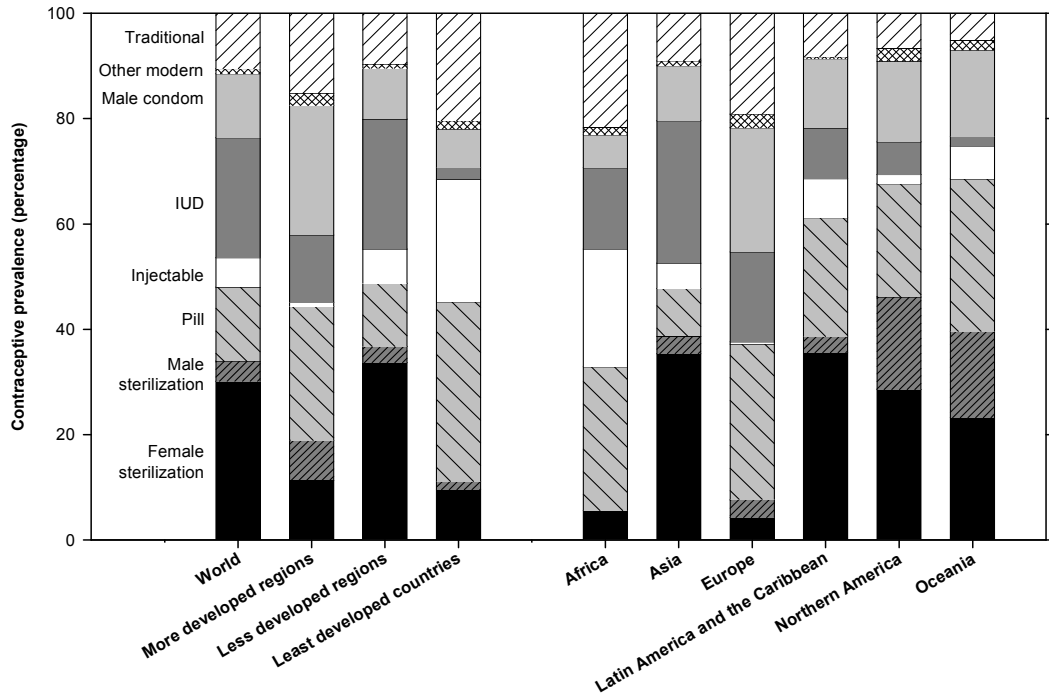
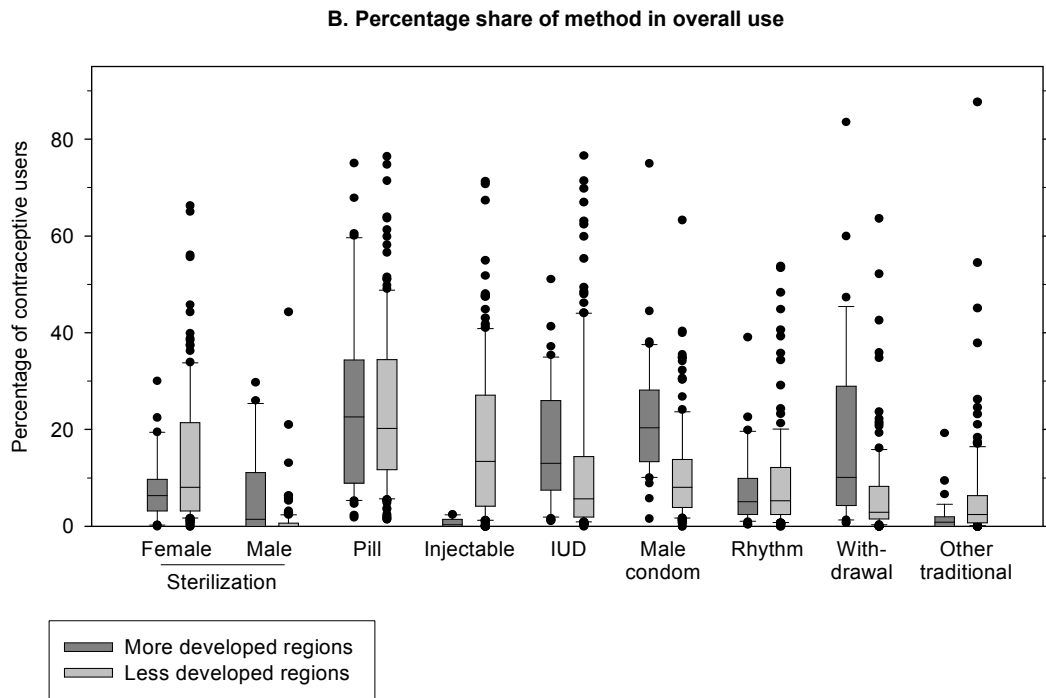
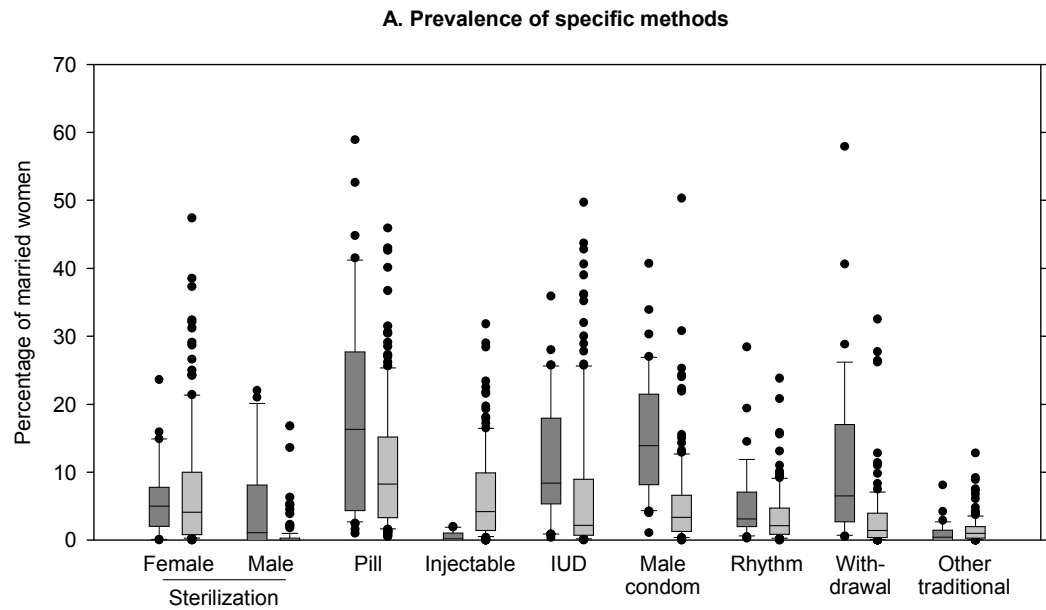


Figure 2. Distribution of countries according to the prevalence of use of specific contraceptive methods and method mix: more developed and less developed regions



NOTES: The shaded box spans the central 50 per cent of the distribution of values, with the median marked within the box. The upper and lower “whiskers” show, respectively, the 90th and 10th percentiles of the distribution. Values beyond those points are shown separately.