

Injectable contraception and the Arab and Islamic demographic giants: Does Indonesia offer a path for Egypt to achieve replacement-level fertility?

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Egypt has the world's largest Arab population and Indonesia is its most populous Muslim-majority nation (81.1 and 239.9 million, respectively, according to the 2010 UN estimates). Egypt is in the midst of a stalled revolution and Indonesia has achieved a managed transition from autocratic rule, but both societies fall short of wider democratic standards. Both countries established clinic-oriented national family planning programs in the mid-1960s and have long shown that Islam is not necessarily a barrier to successful family planning programs. Both have comparable any-method and modern-method contraceptive prevalence rates (61% and 57%, respectively), as well as levels of unmet need (9%) (UN, 2011). However, Indonesia has achieved a more rapid fall in family size, with its total fertility rate (TFR= 2.6 in 2007) half a birth lower than Egypt (3.1).

This paper explores the extent to which Indonesia may offer lessons to help accelerate Egypt's path to fertility transition and specifically the extent to which injectable use may help in this effort. Worldwide, approximately 3.5% of currently married women of reproductive age were using injectables in 2009 (UN, 2011). The highest prevalence rate is found in Indonesia (31.8%), in contrast to the generally low rates observed in other Muslim-majority states. In Egypt, injectables are now used by over 7% of women, whereas prevalence does not reach 1% anywhere else in North Africa or Western Asia (except in Oman where use is marginally higher at 8.0%).

We examine this situation further and ask additionally how far can Indonesia serve as a model for injectable contraception for this method to assume a more vital role in Egypt's path towards replacement-level fertility and for influencing trends in other Arab populations. The paper considers the method mix and method-specific prevalence and contribution to fertility decline, fertility trends and government policies, health care structures, family planning service delivery, the scope for improving family planning services, and the recent, present and future trajectory of injectable use in each country. Trends are compared throughout in each country. This paper draws on existing reports on the course of each country's fertility transition, several nationally representative surveys for both countries, and the unpublished, diffuse grey literature on family planning and population growth. These sources allow us to provide empirical evidence on contraceptive use and fertility decline in each country; to analyze differences between each country's paths; to examine the reasons for such high injectable use in Indonesia and the marked recent increase in its uptake in Egypt; and to assess the potential for improved contraceptive use, particularly with regard to injectables.

Both Egypt and Indonesia have contraceptive prevalence rates comparable to their regional averages, which are similarly comparable to the global average (63% in 2009). The most recent Egyptian Demographic Health Survey (DHS), conducted in 2008, indicated that 60% of currently married women aged 15-49 were using contraception, with modern method use at 58%. In Indonesia, contraceptive prevalence stood at 61% in

2007, the same as for SE Asia (62% in 2009), but injectable use is almost double (31.8%) the regional average (17.7%). Egypt has historically received much attention from international family planning donors. It is pertinent to investigate if Egypt can be expected to develop continued injectable uptake such that, even if not approaching levels similar to Indonesia, it could still foreshadow a future rise in injectable use elsewhere in the region. Oral contraceptives and hormonal contraceptives more generally have historically seen resistance in Arab countries, but many have seen gains in pill use and it is possible that with sustained gains in injectable use, Egypt could again prove somewhat of a trend-setter in family planning in the Middle East. This paper assesses the factors that are contributing to increased injectable use in Egypt, as well as to changes in pill and IUD use.

Analysis of the 2007 Indonesian DHS indicates that rural women are more likely to use injectables, with access increasingly obtained through private care. The utilization of private midwives is thought to have been particularly influential in increasing injectable use. The quality of use is generally good, but there is room for improvement, with the 2007 IDHS indicating that only 4-9% were not current on injections. Indonesia stepped up resources for family planning in the late 1960s and then developed and implemented a strategy of village-based contraceptive delivery using local fieldworkers and a hierarchical logistics and management structure. In the first decade of the twenty-first century, IUDs and injectables have been offered through local midwives, meaning that they no longer have to go to government-supplied clinics. However, the National Family Planning Coordinating Board was also placed under the direction of the Ministry of Health and began to lose some focus.

There have been recent changes in adolescent sexual behavior in Indonesia (Utomo and McDonald, 2009), but in Egypt, it remains unacceptable to use contraception before marriage and first child. Use of contraception is lower in rural areas, with injectable use also slightly higher in Upper Egypt. There is high knowledge of injectables, whose prevalence rate is comparable to that for IUDs in the 1980s. However, 26% of women who start using any method discontinue after 12 months from side effects or health concerns and the proportion is even higher with pill and injectable methods. The retention of pill users has long been problematic, with providers often switching clients from one brand to another and not equipped adequately to deal with questions, misconceptions, and problems. IUD use climbed steadily since 1965 when the copper-T IUD was introduced and constraints to IUD use were removed. IUD use has been significantly positively associated with quality of family planning services for women who obtained an IUD from public sources, but not from private sources (Hong et al. 2006).

Both Egypt and Indonesia exhibit skewed contraceptive method mix, relying heavily on a single reversible method that accounts for over 50% of contraceptive use, a measure of method skew (Sullivan et al. 2006). In Egypt, IUD use stands at 36% and the proportion of women using injectables has risen steadily from 0.1% to 7.45 over the two decades from 1998-2008, whereas oral contraceptive use, still the second most popular method, first fell (from 15% to 10%) and then rose slightly (to 12%). Method skew reflects

cultural preferences or social norms, as well as supply side considerations, which will be considered here.

The Egyptian and Indonesian national family planning programs have received strong bureaucratic and financial support. The Indonesian government has supported family planning more fully and earlier than Egypt, but each has had highly active and successful IEC efforts. However, each program has recently hit trouble. Political paralysis threatens to undermine Egypt's family planning program, one of the world's oldest and which has underachieved with respect to the huge resources invested in it. On the other hand, it has followed the principles of voluntarism, even though women's opportunities remain circumscribed and personal autonomy remains limited. Indonesian governments have long applied considerable pressure on women and couples to have few children, raising troubling ethical questions, and politicians have now shifted their attention and resources elsewhere. In both countries, government policies have led to a loss of method choice and a narrowed range of approved family planning providers, with little improvement in reproductive health care quality.

A review of available literature on method choice in these countries provides substantial insight into the different patterns of method skew. In Indonesia, injectables have been increasingly offered by local midwives with strong incentives to do so and by a growing number of private providers, sometimes of questionable quality. The countries have relied on a dissimilar mixture of methods to achieve their fertility declines, although reliance on injectables has risen particularly in Indonesia, at the expense of other methods. Abortion has also played a more significant role in the Indonesian fertility transition

In Egypt, the public sector is the main source of contraceptives, especially injectables and IUDs, with oral contraceptives most often obtained through private sector sources. There have been some problems with unregulated injections. The IUD is three times more popular than pills, which have fallen from favor, whereas injectable use has shown a steady rise. We examine this situation further and ask how far can Indonesia serve as a model, both for injectable contraception to assume a more vital role in Egypt's path towards replacement-level fertility and for influencing trends in other Arab populations. There are problems with the long-term sustainability of each program given the high method skew.

This paper examines multiple factors contributing to method skew and sustained adoption of injectable contraceptives in Egypt and Indonesia. It shows that to some extent, Indonesia can serve as a model for injectable contraception to help accelerate Egypt's path towards replacement-level fertility. In turn, Egypt's adoption of injectable use can serve as a catalyst for other Arab populations. Increased demand for injectable contraceptives and overburdened health systems have prompted the increased provision of injectables by community health workers in many African countries (Janowitz et al., 2012; Stanback and Miller, forthcoming). There has been less need to make up such workforce shortages in Egypt, but this situation may change following the ongoing turmoil in the country. Service quality is an important influence of clinical contraceptive

method use in each country, and improvements may help spur further use of injectables and other contraceptives, as well as influence the course of fertility decline.

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