

Does an expansion in private sector contraceptive supply increase inequality in modern contraceptive use?

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| Objective | To determine whether an expansion in private sector contraceptive supply is associated with increased socio-economic inequality in the modern contraceptive prevalence rate (MCPR inequality). |
| Methods | Multiple rounds of Demographic and Health Surveys data were analysed for five countries that experienced an increase in the private sector supply of contraceptives: Morocco, Indonesia, Kenya, Ghana and Bangladesh. Information on household assets and amenities was used to construct wealth quintiles. A concentration index, which calculates the degree of inequality in contraceptive use by wealth, was calculated for each survey round. |
| Results | <p>Socio-economic inequality in the MCPR (MCPR inequality) declined in Morocco and Indonesia, where substantial expansion in private sector contraceptive supply occurred. In both countries, poor women continued to rely heavily on contraceptives supplied by the public sector even as they increased use of contraceptives obtained from the private sector. A marginally significant decline in MCPR inequality occurred in Bangladesh, where the increase in private sector supply was modest.</p> <p>There was no significant overall change in MCPR inequality in Kenya or Ghana. In Kenya, this lack of significant overall change disguised trends moving in opposite directions in urban and rural areas. In urban Kenya, MCPR inequality declined as low-income urban women increased use of contraceptives obtained primarily from the public sector. In rural Kenya, MCPR inequality increased. This increase was associated with a decline in the supply of contraceptives by the public sector and non-governmental organizations to the poorest, rural, women.</p> |
| Conclusions | The study found no support for the hypothesis that an increase in private sector contraceptive supply leads to higher MCPR inequality. The findings suggest that continued public sector supply of contraceptives to the poorest women protects against increased MCPR inequality. The study highlights the role of the public sector in building contraceptive markets for the private sector to exploit. |
| Keywords | Contraceptive use, family planning, private sector, public sector, inequality |

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KEY MESSAGES

- The study found no support for the hypothesis that an increase in private sector contraceptive supply leads to higher inequality in the modern contraceptive prevalence rate.
- Continued public sector supply of contraceptives to the poorest women protects against increased inequality in modern contraceptive use.

Introduction

Although there is considerable interest in the determinants of socio-economic inequality in the modern contraceptive prevalence rate (MCPR inequality) (Gillespie *et al.* 2007), little is known about factors associated with MCPR inequality. Public health officials in a number of developing countries believe that increasing the role of the private commercial sector in family planning provision may reduce access to contraception among those of low income (Rosen and Conly 1999). Whether an expanding private sector contraceptive supply is associated with MCPR inequality is not known. This study uses data from Morocco, Indonesia, Kenya, Ghana and Bangladesh—five countries that have experienced an increase in private sector supply of contraceptives—to determine whether such an association exists.

Private sector family planning interventions may increase inequality in contraceptive use if, (a) they contribute to increasing contraceptive access among higher socio-economic groups without similar increases among lower socio-economic groups, and (b) the public sector does not contribute to increasing access among lower socio-economic groups.

A brief review of the literature indicates how private sector strategies for contraceptive access may influence the adoption of contraceptives by different socio-economic groups. Access has four dimensions: physical/geographic, economic, cognitive and psychosocial (Bertrand *et al.* 1995). *Physical/geographic access* refers to a potential client's proximity to a health centre. Contraceptive use increases with proximity to a health facility (Tsui and Ochoa 1992; Cochrane and Guilkey 1995; Levin *et al.* 1999). Private sector interventions usually increase the number of outlets providing family planning services, particularly in urban areas, and contribute to greater proximity to family planning services in urban areas. An increase in contraceptive access in urban areas, however, may not reduce overall inequality in contraceptive use unless contraceptive access increases in rural areas as well. Hence, the role of the public sector is likely to remain important in determining overall inequality in modern contraceptive use.

The price charged for a family planning product may influence *economic access* to that product. Studies have shown that utilization of family planning and reproductive health services is not affected by small increases in fees, especially when accompanied by quality improvements (Lewis 1986; Akin *et al.* 1995; Shaw and Griffin 1995; Alderman and Lavy 1996; Hotchkiss *et al.* 1998; Hardee and Smith 2000). However, large increases in price are likely to deter contraceptive use among the poor (Jensen *et al.* 1994; Ciszewski and Harvey 1995). The effect that private sector contraceptive supply ultimately has on economic access is likely to depend on how high the prices charged for products are in relation to income (Harvey 1994).

Cognitive access refers to the extent to which potential clients are aware of the location of service delivery points. *Psychosocial access* refers to the degree to which potential clients are unconstrained by attitudinal barriers such as stigma surrounding the use of family planning (Bertrand *et al.* 1995). While commercial distributors of re-supply methods do not usually invest in building contraceptive markets in developing countries, other private sector interventions such as social marketing interventions use mass media to make potential consumers aware of product and service availability. Social marketing campaigns reduce potential clients' barriers to contraceptive adoption (Harvey 1999; Agha 2003). However, if contraceptive marketing techniques are more effective in urban areas where access to mass media is generally higher, differentials in contraceptive access between urban and rural areas may increase because of successful private sector interventions.

A review of the literature suggests that private sector interventions may contribute to increasing MCPR inequality if they increase contraceptive access in urban areas without a corresponding increase in rural areas. Since private sector family planning interventions are usually implemented in urban areas, the public sector's role in making contraceptives accessible to poor people in rural areas is likely to be important.

Data and methods

Data sources

Data for this study come from nationally representative Demographic and Health Surveys (DHS) conducted among currently married or cohabiting women (i.e. women in union) of reproductive age (15–49 years). Standardized DHS questionnaires make it possible to examine changes in variables of interest across multiple countries.

Selection of countries

Countries were initially selected based on two criteria: a MCPR of 20% or higher and a commercial sector share of contraceptive supply of 30% or higher in the most recent DHS survey. This information was obtained from the State of The Private Health Sector Wall Chart, which compiles data from the latest rounds of DHS and International Reproductive Health surveys (Zellner *et al.* 2005). The initial selection included 15 countries (Bangladesh, Bolivia, Brazil, Dominican Republic, Ecuador, Ghana, Guatemala, Honduras, Indonesia, Kenya, Nicaragua, Paraguay, Philippines, Morocco and Uganda) out of about 50 countries for which data were provided in the wall chart. In order to examine trends in modern contraceptive use over time, further analysis was restricted to countries in which at least

three rounds of DHS surveys had been conducted and which had experienced a steady increase in private sector provision of modern methods across survey rounds. These countries were Bangladesh, Ghana, Indonesia, Kenya, Morocco and Uganda. Findings from Uganda are not included in this report because low modern contraceptive prevalence in the first of three survey rounds (only 2.5% of Ugandan women in union were using a modern method in 1988) made it difficult to interpret changes over time. A list of survey years and sample sizes of DHS data sets from the remaining five countries is provided in the Appendix.

The small number of countries on which this study is based limits the extent to which findings from the study can be generalized. A few countries where the private commercial sector has a strong presence in family planning such as Colombia in Latin America could not be included because there was no change in private sector contraceptive supply during the period in which DHS data were collected.

Variables

The primary outcome variable of interest for this study is the level of current modern method use, based on the question: 'Are you currently doing something or using any method to delay or avoid getting pregnant?' Those who respond in the affirmative are asked: 'Which method are you using?'

The DHS collects data on the private sector share of contraceptive supply by asking current users: 'Where did you obtain [method] the last time?' The DHS questionnaire groups responses to this question in the following main categories: private hospitals/clinics, private doctors, pharmacies, shops/stores, government hospitals/clinics, government health centres, non-governmental organizations (NGOs), and friends/relatives. For the present analysis, sources of supply were reclassified into three main categories: private (private hospitals/clinics, private doctors, pharmacies, shops/stores), public, and NGO/other.

Although NGOs are usually considered part of the private sector, they are not included in this study's definition of the private sector because of our interest in contraceptives sold through commercial retail outlets. Contraceptives sold through commercial retail outlets are considered as being sold through the 'private' sector. In spite of separating NGOs, the 'private' sector category does not distinguish between methods sold by for-profit pharmaceutical distributors, or by social marketing programmes (whose price may be heavily subsidized as in the case of the Kenya and Bangladesh; which may not have any price-subsidy as in the case of Morocco and Indonesia; or which may have some level of price-subsidy as in the case of Ghana). Subsidized and unsubsidized social marketing products and commercial contraceptives may be sold through commercial pharmacies. Subsidized social marketing contraceptives were sold through pharmacies in Ghana and Bangladesh. Unsubsidized social marketing contraceptives and commercial contraceptives were sold through pharmacies in Morocco. Private sector products may also be sold by physicians or by nurses/midwives. A significant proportion of private sector contraceptive distribution in Kenya is through private doctors who obtain contraceptives for free from the government and sell them to their clients. A large proportion of private sector

contraceptive sales in Indonesia is through midwives who purchase contraceptives from the government and sell them to their clients at commercial prices.

Economic status is the primary explanatory variable of interest in this study. Principal components analysis was used to develop wealth quintiles from household assets and amenities data (Filmer and Pritchett 1999; Bollen *et al.* 2001; Filmer and Pritchett 2001; Wagstaff and Watanabe 2003; Rutstein and Johnson 2004).

Measure of inequality

The Concentration Index (CI) is used in this study to measure MCPR inequality. This is preferred over another commonly used index, the Gini coefficient, because it makes better use of information on income groups that are not at extremes (Wagstaff *et al.* 1989). The value of the CI theoretically ranges between -1 and $+1$. It has a value of 0 when there is no inequality and a value of 1 when there is complete inequality. A positive value of the CI indicates inequality in favour of the wealthy, and a negative value suggests the opposite. The study employs the convenience regression method to obtain the CI (Newey and West 1994; Kakwani *et al.* 1997). This is a relatively simple statistical procedure that enables the calculation of the CI and confidence intervals around the CI. Confidence intervals around the CI help to determine whether changes in inequality are statistically significant. In addition, bar graphs enable a comparison of MCPR in lower and higher wealth quintiles.

Results

Morocco

The family planning programme

The national family planning programme was initiated in 1966. The Ministry of Health (MOH) expanded the number of public health centres throughout the country, particularly in rural areas, and ensured that family planning was provided in all public health care facilities. Outreach visits to women, especially in underserved rural areas, were the basis of demand-creation efforts (Hajji 2003).

Until the end of 1994, all contraceptives needed by the MOH were purchased by USAID. In efforts to increase programme sustainability, contraceptive purchases were subsequently transferred to the MOH. Faced with increased demands for contraception and declining support for family planning, the MOH began relying on the private sector to play a greater role in providing family planning services (Hajji 2003).

Commercial distributors had become active in contraceptive delivery by the 1980s, with the commercial sector share of oral contraceptives (OCs) increasing to 39% by 1992 (Agha *et al.* 2006). Social marketing of OCs was initiated in 1992 and achieved success relatively easily because of the high level of acceptability of OCs in Morocco (Hajji 2003). Priced to be affordable to lower and middle income women, social marketing OCs were introduced at a price about half that of other commercially available brands. Lower-priced OCs attracted lower and middle income women to the commercial sector (Agha *et al.* 2006).

Findings

Figure 1 shows the modern contraceptive prevalence rate (MCPR) between 1987 and 2003. Between these years, modern contraceptive use increased from 29% to 55% while the private sector share doubled from 20% to 40% of the total contraceptive market. The public sector also expanded its supply of modern methods during this period, although the increase was less dramatic.

Figure 2 shows the MCPR by wealth quintiles. At a Concentration Index (CI) of 0.26, MCPR inequality was at a moderate level in 1987. Most contraceptive users, including those in the upper income quintiles, obtained contraceptives from the public sector. In spite of a substantial increase in the private sector provision of contraceptives during this period, MCPR inequality declined over time and became negligible by 2003. The decline in MCPR inequality was driven by the adoption of contraceptive use by women in the lowest quintiles. Poor women who initiated contraceptive use between 1987 and 2003 primarily obtained contraceptives from the public sector.

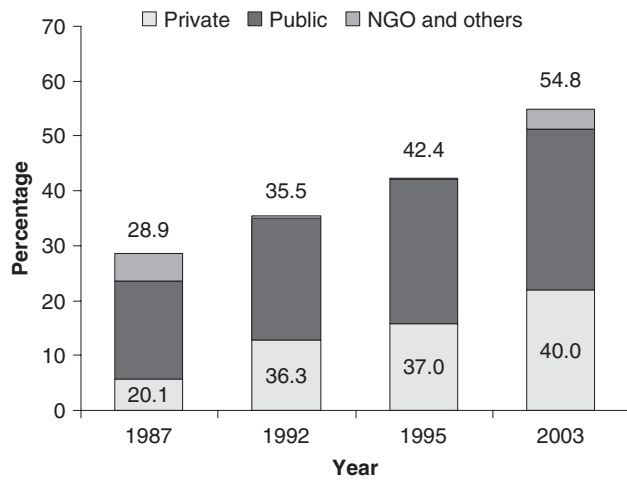


Figure 1 Current modern contraceptive use among women in union, Morocco, 1987–2003

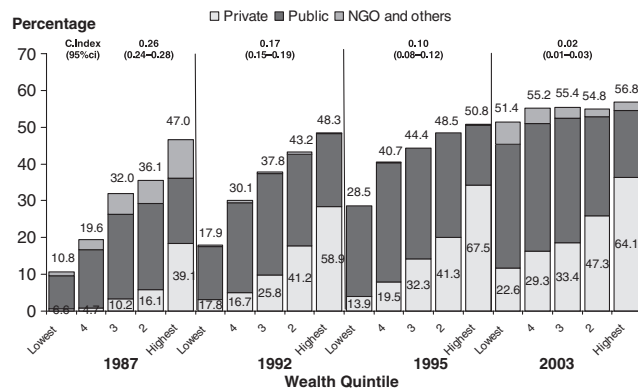


Figure 2 Current modern contraceptive use among women in union by wealth quintile, Morocco, 1987–2003

Figure 3 shows modern contraceptive use by wealth quintile in rural Morocco. The figure shows that the decline in MCPR inequality occurred primarily in rural areas. The CI declined from 0.25 in 1987 to 0.03 in 2003. An expanding public sector contraceptive supply enabled rural Moroccan women to increase modern contraceptive use. Increases in modern method use were substantial among poor rural women. In urban areas, there was a more moderate decline in MCPR inequality: the CI declined from 0.08 in 1987 to 0.01 in 2003 (not shown).

MCPR inequality declined in Morocco where a substantial expansion of the private sector contraceptive supply occurred. The public sector, which increased access to contraception among rural women, was the primary contributor to the decline in inequality.

Indonesia

The family planning programme

Indonesia’s family planning programme was initiated in the 1950s. At first, the programme focused on the dissemination of information through clinics. Family planning efforts strengthened with the formation of the National Family Planning Coordinating Board (BKKBN) in 1970. Under BKKBN’s guidance, the family planning programme went through several important phases. Between 1969 and 1974, service provision was focused on the densely populated urban areas of Java and Bali, and relied on MOH clinics for service delivery. Between 1974 and 1979, a community-based approach was adopted to expand services to rural areas. Contraceptive distribution centres were established at the village level and village-based fieldworkers led promotional efforts using peer pressure and financial incentives. The expansion of services to the less-populated outer islands occurred between 1979 and 1983 (Chandani *et al.* 2006).

The programme relied heavily on donor support. With fertility levels at 3.3 and the MCPR close to 50% by the late 1980s, donors became concerned that family planning funding would have to be increased substantially to meet increasing demand for contraceptives. In response to declining donor funds, efforts were initiated to increase the role of the private sector.

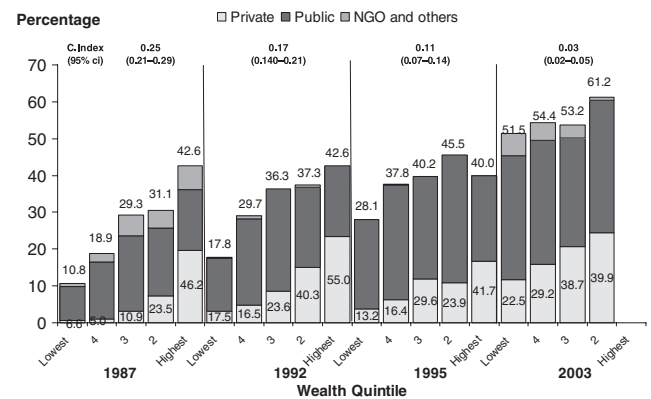


Figure 3 Current modern contraceptive use among rural women in union by wealth quintile, Morocco, 1987–2003

A cost-recovery effort was launched by the government in 1989, with users of public sector services expected to pay for services according to their socio-economic status (Chandani *et al.* 2006).

In the private sector, contraceptives were introduced at reduced but commercially sustainable prices through the Blue Circle social marketing campaign. In partnership with the Blue Circle social marketing project, four manufacturers reduced the price of contraceptives by about half. In return for the price reduction, these manufacturers received marketing support for contraceptive products sold under the Blue Circle logo. Products sold through the Blue Circle include Copper-T IUDs, Microgynon pills and Depo-Provera injectables (Chandani *et al.* 2006).

Indonesia's 1997 financial crisis had a significant impact on the public sector's capacity to provide contraceptives. Until 1997, two-thirds of women in rural Indonesia obtained modern methods from the public sector. With the onset of the financial crisis, the public sector's ability to provide donated contraceptives was severely reduced. Moreover, prices of certain contraceptives increased four-fold in the public sector and became closer to prices charged in the private sector (BPS and Orc Macro 2003).

Findings

Figure 4 shows the MCPR among currently married Indonesian women over time. By 1987, the MCPR had reached 44%. Between 1987 and 1997, the MCPR increased steadily by about 1 percentage point per year to reach 55%. The private sector share of modern methods increased from 12% to 41% during this period. Following the economic crisis of 1997, the increase in MCPR slowed down to less than half a percentage point per year. During this period, the private sector share increased dramatically from 41% in 1997 to 65% in 2002.

Figure 5 shows modern method use by wealth quintiles in Indonesia. By 1987, MCPR inequality was low in Indonesia (CI of 0.06) and women obtained modern contraceptives almost exclusively from the public sector. There was no significant change in MCPR inequality between 1987 and 1994. However, there was a significant decline in MCPR inequality between

1994 and 1997, as modern contraceptive use among women in the lowest quintile increased from 34% to 46%. Between 1994 and 1997, the poorest Indonesian women were able to increase contraceptive use by obtaining contraceptives from both the public and the private sectors. This indicates that the public sector remained an important provider of contraceptives to poor Indonesian women until 1997, even as the private sector started reaching poor women with contraceptive services. Between 1997 and 2002, a period during which the private sector share of the contraceptive market increased from 41% to 65%, there was no change in MCPR inequality.

Figure 6 shows the MCPR among rural, married, Indonesian women, by wealth quintiles. The increase in the private sector share of the contraceptive market following the economic crisis was particularly pronounced in rural areas. Between 1997 and 2002, the increase in use of private sector services in rural areas was much larger among women in the lower quintiles compared with women in the upper quintiles. The private sector share increased from 22% to 51% in the lowest quintile and from 54% to 66% in the highest quintile. This indicates that a substantial proportion of lower-income women who had previously obtained contraceptives from the public sector switched to the private sector after the economic crisis.

The private sector's responsiveness to changing consumer preferences was a critical element in enabling rural women in the lowest quintiles to switch to the private sector. Injectables had been rapidly gaining popularity in Indonesia since the 1980s: 9% of married women used injectables in 1987, 15% in

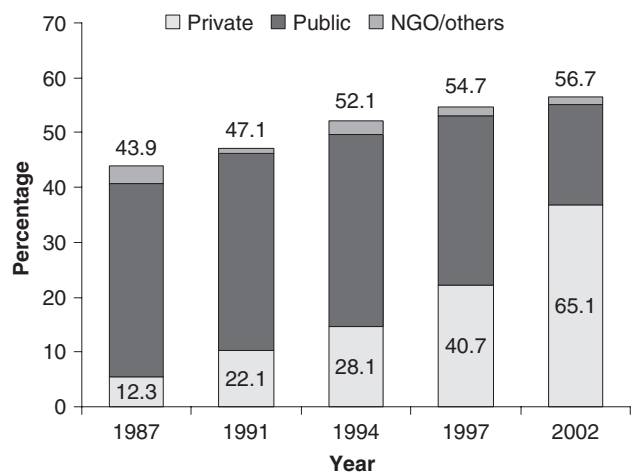


Figure 4 Current modern contraceptive use among married women Indonesia, 1987-2002

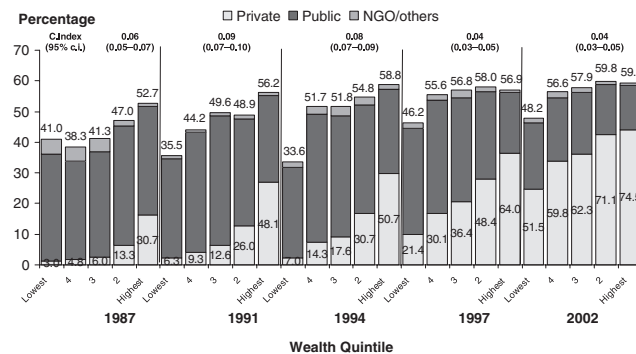


Figure 5 Current modern contraceptive use among married women by wealth quintile, Indonesia, 1987-2002

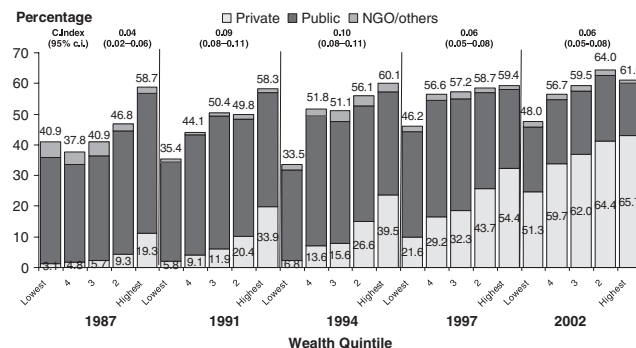


Figure 6 Current modern contraceptive use among rural married women by wealth quintile Indonesia, 1987-2002

1994 and 21% in 1997 (not shown). The percentage of private providers supplying injectables actually increased after the economic crisis and the stockout rate of injectables was much lower in the private sector than in the public sector (Frankenberg *et al.* 2003).

Kenya

The family planning programme

Although the Kenya National Family Planning Programme was initiated in 1967, the government did not consider population growth to be an issue of critical importance (Toroitich-Ruto 2001). An active family planning policy was not enacted until the mid 1970s and early 1980s when, in the face of declining national income and rapid population growth, donors tied development aid to reducing high fertility (Chimwete *et al.* 2005). Once an active family planning policy was enacted in the early 1980s, family planning clinics were built as part of an integrated, rural, family planning/maternal and child health services programme and a community-based distribution (CBD) strategy was implemented (Toroitich-Ruto 2001).

During the first two decades of the national family planning programme, the vast majority of funds (about 90%) came from donors. Donor contributions for family planning declined steadily after 1993, increasing the need for alternative financing strategies (Toroitich-Ruto 2001). However, the public sector refused to introduce user fees because of concerns that inequalities in contraceptive use would increase if contraceptives became unaffordable to the poor (Kenyan Ministry of Health *et al.* 2000). A major shift in donor and national priorities occurred during this period: financial and political support for the HIV/AIDS programme increased at the expense of support for the family planning programme (Aloo-Obunga 2003; Pathfinder International 2005). The public sector was unable to sustain contraceptive supply and procurement and logistics problems began to occur. The availability of contraceptives at public sector facilities declined between 1999 and 2004 (Kenyan Ministry of Health *et al.* 2000; Kenyan NCPAD *et al.* 2005).

A factor that contributed to the deepening contraceptive crisis in Kenya was the reduction in USAID funding for major NGOs (including the Family Planning Association of Kenya—the FPAK) after their refusal to comply with the reintroduction of the Mexico City Policy (Population Action International 2006). NGOs had led outreach efforts among poor women in rural communities with limited access to other sources of contraceptive supply. FPAK and Marie Stopes International had extensive CBD networks and static and mobile clinics that would normally have helped mitigate the negative effects of shortages experienced by public sector facilities (Pathfinder International 2005). Instead of being able to meet the shortfall in public sector service provision, family planning services by these NGOs declined as client fees had to be increased, staffing was reduced and operations were cut back. In the case of FPAK, the average annual couple years of protection (CYPs) declined from 100 000 CYPs per year to 60 000 CYPs per year as its CBD coverage declined and a number of its clinics were shut down (Aloo-Obunga 2003).

In spite of having had one of the first successful condom social marketing experiments in the world during the 1970s

(Black and Harvey 1976), support for private sector family planning initiatives remained weak in Kenya. The availability and low cost of public sector family planning services was itself an impediment to private sector growth in Kenya, because of the leakage of contraceptives from public sector outlets to pharmacies (D Walker, personal communication, 2006). In addition, the public sector made contraceptives available for free to private physicians who registered with the government. As a consequence of government policies, the social marketing contraceptive supply remained relatively small in Kenya. Most private sector contraceptive supply consisted of the sale of contraceptives by private physicians to their clients.

Findings

Figure 7 shows the MCPR in Kenya between 1989 and 2003. Between 1989 and 1993, contraceptive use accelerated from 18% to 27%, or by more than 2 percentage points annually. As donor contributions for family planning declined after 1993, modern contraceptive use rose by less than 1 percentage point per annum before plateauing in 1998.

Until 1993, a relatively small proportion of contraceptive users, about 10%, obtained methods from the private sector. After 1993, both private and NGO sector supply of contraceptives increased slowly. By 1998, each sector supplied about 20% of users with contraceptives. Between 1998 and 2003, some contraceptive users who had previously obtained methods from the public and NGO sectors switched to the private sector. As a result, by 2003, about one-third of users purchased their contraceptive from the private sector.

Figure 8 shows the MCPR by wealth quintiles. In 1989, MCPR inequality was at a moderate level (CI of 0.24). Between 1989 and 2003, there was no significant change in MCPR inequality, although a slight tendency for it to increase was observed between 1998 and 2003.

The lack of significant overall change in MCPR inequality disguises changes that did occur in both urban and rural Kenya. Figure 9 shows MCPR inequality by wealth quintiles in rural Kenya. There was a significant increase in MCPR inequality between 1998 and 2003, from a CI of 0.21 to a CI of 0.28. Inequality increased as contraceptive use among women in the lowest quintile declined from 17% to 13% over this period. Low-income rural women who had previously obtained contraceptives from the public or NGO sectors were unable to do so to the same extent because of contraceptive shortages at public sector clinics and declines in NGO outreach activities.

In urban areas, MCPR inequality declined from a CI of 0.30 to a CI of 0.15 between 1989 and 2003 (not shown). This decline occurred as low-income urban women increased use of contraceptives supplied primarily by the public sector (not shown).

Declining donor resources for family planning and the Kenyan government's inability to mobilize its own resources contributed to supply shortages at public sector clinics in rural areas. Coupled with a reduction in NGO outreach services, these changes contributed to a decline in contraceptive use among poor rural women and an increase in MCPR inequality in rural areas. The virtual absence of a commercial sector for family planning and a limited social marketing sector meant that shortfalls in public sector and NGO supply could not be met through the private sector.

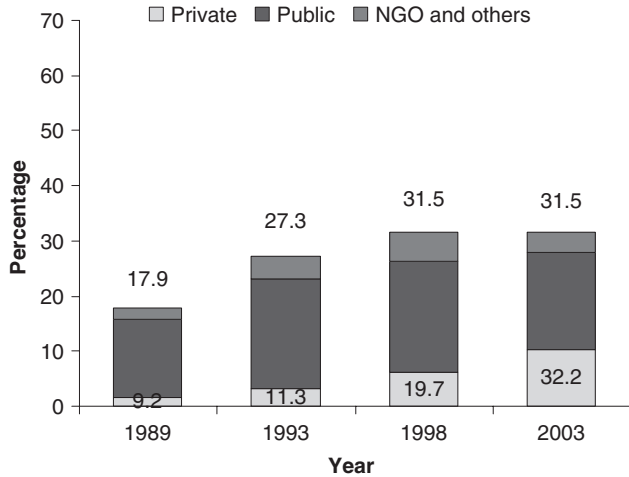


Figure 7 Current modern contraceptive use among women in union, Kenya, 1989–2003

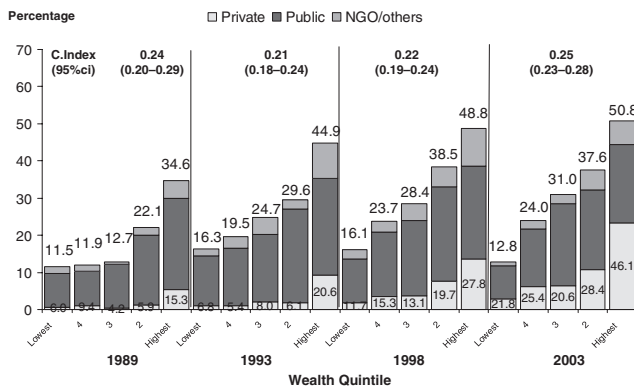


Figure 8 Current modern contraceptive use among women in union by wealth quintile, Kenya, 1989–2003

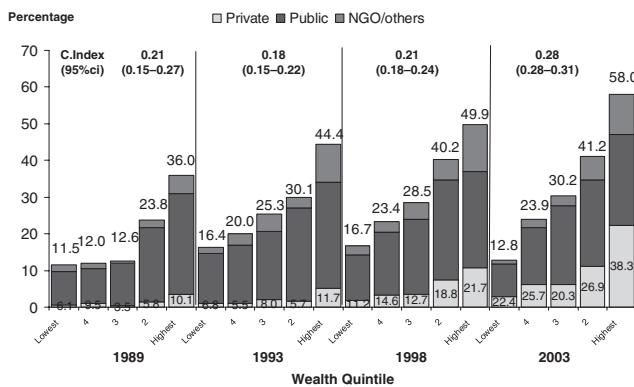


Figure 9 Current modern contraceptive use among rural women in union by wealth quintile, Kenya, 1989–2003

Ghana

The family planning programme

Although Ghana formulated a population policy as early as 1969, the national family planning programme remained weak and lacked strategic direction until the mid 1990s. For example,

the programme lacked standardized family planning guidelines: a 1993 situation analysis showed that 90% of service providers did not give a contraceptive method to women who had fewer than three children. Moreover, many providers were unwilling to provide methods to married women until they had received spousal consent.

Providers had exaggerated fears about the risks of hormonal methods. Consistent with poor provider attitudes toward methods, clients had negative perceptions of modern methods: rumors about side effects of methods and health concerns regarding use of contraceptives were widespread (Adamchak *et al.* 1995).

Ghana’s population policy was revised in 1994. Programme activities placed emphasis on increasing the availability of longer-term methods such as injectables (Hong *et al.* 2005), and public sector providers were trained in the provision of injectables. Use of injectables increased from 0.3% in 1988 to 5.4% in 2003, with the public sector providing the vast majority (not shown). However, the supply of contraceptives to rural health centres was not consistent. An analysis of facility surveys showed a trend of declining contraceptive supplies at government health centres located in rural areas between 1996 and 2002 (Hong *et al.* 2005).

Condoms and OCs were provided through the private sector. The Ghana Social Marketing Foundation (GSMF) contributed to the expansion of the private sector contraceptive supply. GSMF trained pharmacists and chemical sellers in contraceptive method provision and provided subsidized OCs and condoms through these outlets. However, for contraceptive distribution the social marketing project relied primarily on pharmaceutical distributors whose business was concentrated in metropolitan areas. Because the distributors’ business was principally in metropolitan areas and GSMF sales comprised no more than 3–4% of their business, the distributors did not have sufficient incentive to carry products to rural communities where commercial product markets were limited. Hence social marketing sales were mainly in the metropolitan areas between Accra and Kumasi (Adamchak *et al.* 1995). Between 1988 and 2003, OC use increased from 1.8 to 5.6%, and condom use increased from 0.3 to 3.1%. However, both distribution and pricing strategies kept private sector contraceptives out of reach of lower-income women: more than 70% of social marketing condom and OC clients belonged to the wealthiest income quintile (Winfrey 2003).

The Planned Parenthood Association of Ghana (PPAG) became an important player in family planning service delivery after 1994 when USAID made a significant investment in PPAG’s CBD programme. PPAG operated clinics and community-based family planning programmes in Ghana via volunteer agents working in rural areas. In 2002, PPAG provided nearly 130 000 CYPs and was considered the most successful agency operating community-based family planning programmes in Ghana. It was the second largest distributor of contraceptives in rural Ghana. However, the number of its service delivery locations declined significantly when PPAG lost USAID funding after the re-introduction of the Mexico City Policy. This resulted in the dismantling of a large operation of contraceptive services; more than half of PPAG’s 192 staff members were laid off and more than 1000 volunteers were without the structure that motivated

them and supplied them with contraceptives (Solo *et al.* 2005; Owusu-Ansah 2007). By 2004, the number of clinical services provided and contraceptives distributed by PPAG declined to less than half their 2002 level (Owusu-Ansah 2007).

Findings

Figure 10 shows the MCPR in Ghana between 1988 and 2003. In 1988, modern contraceptive use was only 5%. About 24% of Ghanaian women obtained contraceptives from the private sector. Compared with other countries examined in this study, the NGO sector provided a relatively large share of modern methods, 39%. Modern contraceptive use reached 19% by 2003, with the private sector share increasing to 42% and the NGO sector share declining to 9%. The public sector provided nearly half of all modern methods by 2003.

Figure 11 shows the MCPR by wealth quintiles in Ghana. In 1988, the level of MCPR inequality was at a moderate level (CI of 0.32). There was a marginally significant decline in MCPR inequality between 1988 and 1998 (from a CI of 0.32 to 0.18). This decline occurred as women in the lowest quintile increased their use of modern methods, which were supplied primarily by the public (56%) and NGO (23%) sectors. While the overall contribution of the NGO sector to contraceptive provision

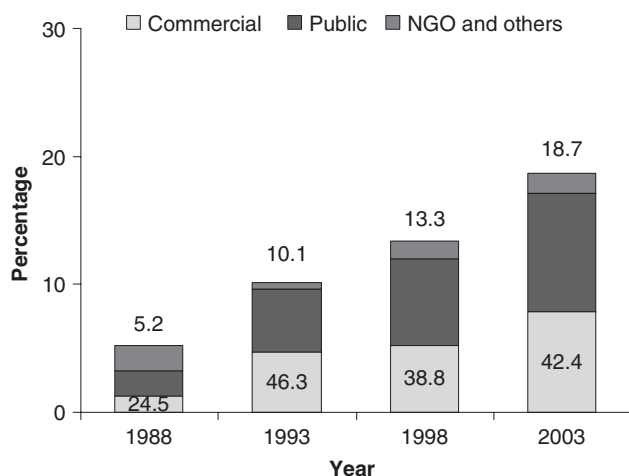


Figure 10 Current modern contraceptive use among women in union, Ghana, 1988-2003

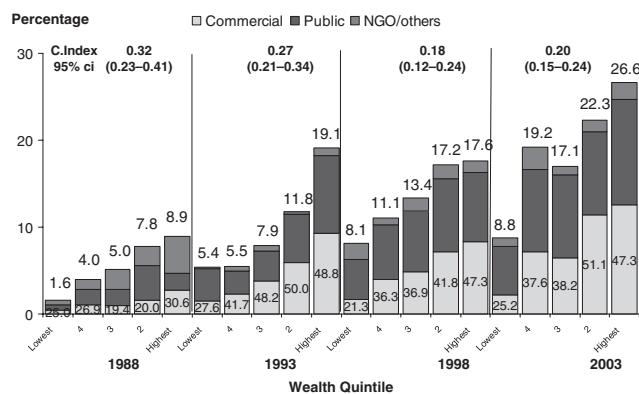


Figure 11 Current modern contraceptive use among women in union by wealth quintile, Ghana, 1988-2003

declined between 1988 and 1998 (from 39 to 11%), the poorest women became more reliant on the NGO sector for their contraceptive supply than in the past.

MCPR inequality showed no significant change between 1998 and 2003, although there was a slight upwards tendency during this period. There was no increase in modern method use among the poorest women over this period. These women lived primarily in rural areas and relied heavily on the public and NGO sectors for their contraceptive supply. The dismantling of the PPAG infrastructure after the loss of USAID support in 2002, and the declining supply of contraceptives to government rural health centres between 1996 and 2002, are likely to have contributed to the lack of increase in modern method use among women in the lowest quintile.

In sum, after an initial decline, MCPR inequality showed a slight (non-significant) upward tendency in Ghana as contraceptive use among the poorest women stabilized at a low level (at about 9%). A decline in contraceptive supply to rural health centres combined with a reduction in NGO service delivery locations limited poor women’s access to contraceptive methods.

Bangladesh

The family planning programme

The Bangladesh family planning programme is recognized for the doorstep delivery of family planning services, an approach developed in response to the needs of a predominantly rural population characterized by low female mobility. The national programme hired and trained married, female family welfare assistants to provide contraceptives to and to counsel rural women in their homes. At its peak in the mid 1990s, 28 000 female family welfare assistants worked in hamlets throughout the country (Phillips and Hossain 2003). The door-to-door delivery of non-permanent methods contributed to a shift away from the earlier focus of the programme on sterilization. By 1993/94, for example, OC use had reached 17% and represented nearly half of the MCPR.

By 1997, a shift had occurred in the national family planning service delivery model. Because the culture of family planning had become ubiquitous in Bangladesh, policymakers felt that the doorstep delivery of services had become less important (Phillips and Hossain 2003). Instead, an integrated health and population strategy was adopted. Community ‘satellite clinics’ that provided basic health care and family planning were the focus of this strategy and family welfare assistants were redeployed to these satellite clinics. Instead of mass home visits, they started focusing on potential clients who found it difficult to make clinic visits (Phillips and Hossain 2003).

The private sector started becoming an important provider of OCs by the early 1990s, with 20% of OC users obtaining methods from private sector outlets in 1993/94. Most OCs and condoms obtained from private sector outlets were sold at low prices because of the substantial subsidy received through social marketing (Chawla *et al.* 2003). The Social Marketing Company (SMC) sold donated OCs and condoms at prices lower than the bulk product costs. By 2002, SMC had captured slightly more than two-thirds of the market for condoms and just under one-third of the market for OCs (Chawla *et al.* 2003). OC use increased to 26% in 2004 (not shown). Contraceptives sold by commercial distributors at commercially profitable prices were a very small part of the private sector contraceptive supply.

Injectables and sterilization continued to be provided by the public sector. Sterilization use declined from 8% in 1993/94 to 5% in 2004 while injectable use increased from 5% to 10% during the same period (not shown).

Findings

Figure 12 shows the MCPR among married women in Bangladesh. By 1993/94, the MCPR had reached 36% and the vast majority of women obtained contraceptives from the public sector. Between 1993/94 and 1996/97, the MCPR increased by 2 percentage points a year. After home visits were scaled down in 1997, however, the MCPR increased by only half a percentage point per year. The scaling down of home visits was also associated with more women obtaining contraceptives from private sector sources: by 2004, one-third of women obtained modern methods from the private sector, compared with one-fifth in 1996/97.

Figure 13 shows the MCPR by wealth quintiles. By 1993/94, MCPR inequality was extremely low (CI of 0.04). The public sector programme provided contraceptives to most women, including those in the highest income quintile. MCPR inequality remained at this level until 1999/2000. Between 1999/2000 and 2004, there was a (marginally) significant decline in MCPR inequality as contraceptive use among women in the two lowest

quintiles increased. Women in these two quintiles continued to rely heavily on the public sector for their contraceptive methods even as they increased use of private sector supplied methods during this period.

A strong public sector programme had nearly eliminated MCPR inequality in Bangladesh by the start of the study period. MCPR inequality remained low as contraceptive users slowly switched to highly subsidized methods available through the private sector. The use of private sector contraceptive outlets started increasing somewhat more rapidly after the end of doorstep delivery of family planning methods, as low-priced contraceptives became available in a large number of conveniently located retail outlets. Between 1999/2000 and 2004, an increase in modern method use among women in the lowest quintile resulted in a further decline in MCPR inequality.

Discussion

If private sector expansion were associated with increased socio-economic inequality in modern contraceptive use, countries in which the largest expansion of private sector contraceptive supply occurred would be the ones in which increases in MCPR inequality would be expected. Evidence presented in this study shows that there was no increase in MCPR inequality in countries where the largest expansion of private sector contraceptive supply occurred, Morocco and Indonesia. In Morocco, the public sector increased rural women’s access to contraception and contributed to the decline in inequality. In Indonesia, the decline in MCPR inequality was associated with higher contraceptive use among women in the lowest quintile who continued to rely heavily on the public sector as they increased use of private sector sources of contraceptives.

There was also no overall increase in MCPR inequality in countries where the private sector expansion was of a lower magnitude. In Bangladesh, a marginally significant decline in MCPR inequality was associated with an increase in contraceptive use among women in the two lowest quintiles who increased use of methods supplied both by the public and the private sectors. Both Kenya and Ghana experienced an overall stagnation of MCPR inequality at moderate levels of inequality. Ownership of a donor-driven family planning programme was never taken by the Kenyan government and weak support for the social marketing programme held it back from making a substantial contribution. In Ghana, the public sector programme remained weak and, although social marketing was encouraged, the social marketing programme’s distribution and pricing policies placed limits on who it could reach.

The findings of this study have important implications for better targeting of public sector interventions. As the private sector expands, the public sector must increasingly target low income women living in rural areas. As long as the public sector remains an important source of contraceptives for the poorest women, an expansion in private sector supply is unlikely to lead to greater inequality in contraceptive use.

The focus of this study was to test whether an expansion in the private sector contraceptive supply was associated with increased socio-economic inequality in contraceptive use. The study found no evidence to support this hypothesis. However, it is extremely important to note that there was no decline in

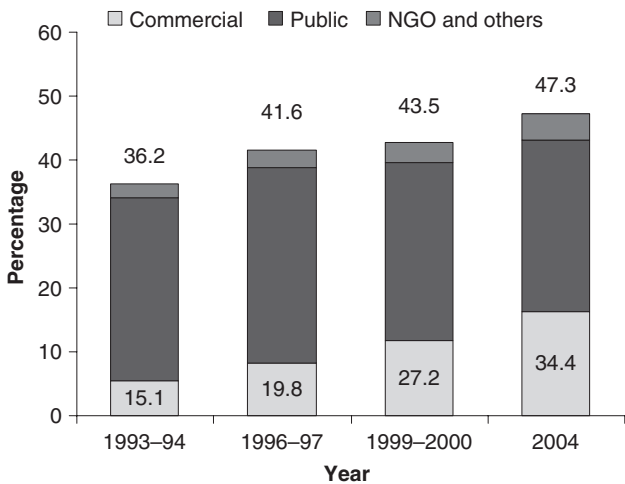


Figure 12 Current modern contraceptive use among married women, Bangladesh, 1993–2004

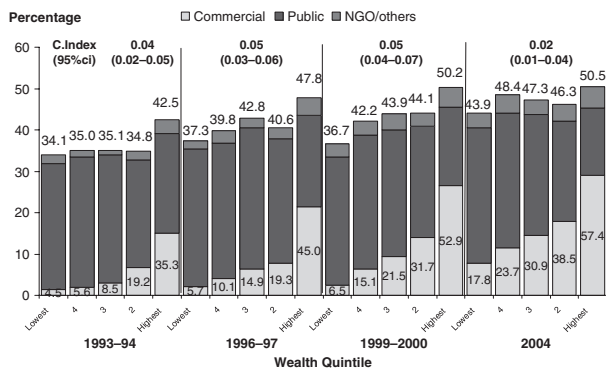


Figure 13 Current modern contraceptive use among married women by wealth quintile, Bangladesh, 1993–2004

socio-economic inequality in contraceptive use associated with increased private sector contraceptive supply. Most governments and all donors have reducing inequality and inequity as a development goal. The findings of this study suggest that the public sector will have an important role to play in reducing socio-economic inequalities in contraceptive use.

The study findings suggest that the public sector had an important role in building contraceptive markets for the private sector to exploit. Both Indonesia and Morocco had strong public sector family planning programmes that emphasized community-based distribution and building demand for family planning among low-income and rural women. The government's support for the private sector in Morocco enabled the public sector to focus on rural areas, as the private sector expanded its supply in urban areas. In Indonesia, the government's support of the private sector enabled the private sector to grow. It was the responsiveness of the private sector to consumer demand that fuelled the increase in injectable use in Indonesia and provided an alternative to the declining public sector contraceptive services after the economic decline. Had similar governmental support for the private sector been available in Kenya, it is conceivable that the private sector may have been in a position to respond to consumer demand for contraceptives once donor resources, which had driven the family planning programme for three decades, started declining. In Ghana, the weak public sector programme did not raise consumer demand to a level where the private sector could exploit it sufficiently. In Bangladesh, the public sector programme increased demand in part through doorstep delivery of family planning. As the doorstep delivery was phased out, the social marketing programme started making inroads by substantially increasing the supply of subsidized contraceptives through large numbers of conveniently located retail outlets.

A limitation of this study is that the demand for modern contraceptive use is assumed to be equal across wealth quintiles. If the demand for contraceptive use is not equal across wealth quintiles, MCPR inequality may reflect differing needs across wealth levels rather than differing levels of access to services. As part of this study, we analysed inequality in the total demand (a combination of unmet need and current use) for modern methods (not shown). The CI of total demand showed that inequality in total demand was substantially lower than the inequality in modern contraceptive use (not shown), indicating that the assumption of equal demand across wealth quintiles would not alter the conclusions reached by this study.

Another limitation of the study is the overlap between the public and private sectors in situations where subsidies are provided to social marketing programmes. By focusing on distribution channels rather than the cost of running a programme, and by describing whether the private sector in a specific country is represented by the commercial sector, by a social marketing programme with a price subsidy or by a social marketing programme without a price subsidy, this limitation is largely overcome.

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Appendix

Year and sample size of Demographic and Health Surveys used in the study

| Country and Year of Survey | Number of Women in Union |
|----------------------------|--------------------------|
| Morocco | |
| 1987 | 5447 |
| 1992 | 5118 |
| 1995 | 2470 |
| 2003 | 8782 |
| Indonesia | |
| 1987 | 10907 |
| 1991 | 21 187 |
| 1994 | 26 186 |
| 1997 | 26 833 |
| 2002–03 | 27 858 |
| Kenya | |
| 1989 | 4778 |
| 1993 | 4583 |
| 1998 | 4847 |
| 2003 | 4876 |
| Ghana | |
| 1988 | 3156 |
| 1993 | 3204 |
| 1998 | 3229 |
| 2003 | 3694 |
| Bangladesh | |
| 1993–94 | 8989 |
| 1996–97 | 8450 |
| 1999–2000 | 9696 |
| 2004 | 10 553 |