Contraceptive Use in Urban Africa: Examining Trends in Rich–Poor Gaps

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Previous studies have documented significant differences in health and reproductive health outcomes between the poor and nonpoor across various countries in sub-Saharan Africa. However, a number of these studies is dated, and the past decade has witnessed significant shifts in health and reproductive health outcomes in many African countries. Using recent data from the Demographic and Health Surveys, this paper updates and extends the literature by examining patterns in contraceptive practice among poor and nonpoor married women in urban settings in 19 African countries. First, we analyze changes in the rich–poor gaps in modern contraceptive prevalence (mCP) in urban Africa over time. We then determine the public source of the supply of modern contraceptives to the urban poor and how that supply may have changed over a 10-year period. The findings show that, in most Eastern and Southern African countries, previous gaps in mCP between the rich and poor married women have disappeared. Countries in Central and Western Africa, however, continue to have significant gaps in mCP between rich and poor women, with urban poor women experiencing only a modest improvement in mCP over the past decade. This paper contributes to our understanding about sub-regional dynamics in reproductive health outcomes in urban settings in sub-Saharan Africa.

INTRODUCTION

Urbanization, the increase in the proportion of the population concentrated in urban areas, continues to rise throughout sub-Saharan Africa (henceforth Africa). Urban areas currently contain 472 million people, and the numbers will double over the next 25 years. Between 2020 and 2050, the share of Africa's population living in urban areas is projected to grow from 41 percent to 58 percent (United Nations 2018). In addition, the global share of urban residents in Africa is projected to grow from 11.3 percent in 2010 to 20.2 percent by 2050 (Saghir and Santoro 2018). These trends are largely driven by natural increases, which derive from sustained well-above-replacement fertility levels in urban Africa with declining mortality relative to elsewhere (see Menashe-Oren and Bocquier 2021). Moreover, fertility in many African cities has plateaued at relatively high levels (Sanchez-Paez and Schoumaker 2020).

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Scholars and economists tend to view urbanization as a positive sign of societal transformation from agriculture to manufacturing and services. However, in Africa, manufacturing has seen little growth, and regular employment in the service sector has been unable to absorb more than a small fraction of the growing working-age population. As a consequence, the majority of urban populations work in the informal sector and live on the margins of modern society (De Vreyer and Roubaud 2013). UN Habitat estimates that over half of urban residents are housed in slum dwellings, characterized by inadequate construction, water and sanitation, overcrowding, and insecure tenure. The concern is that continued rapid urbanization will overwhelm measures to improve urban infrastructures and reduce prospects for poverty reduction.

Effective urban family planning services have the potential to reduce poverty and enhance welfare. At the aggregate level, pressures from rapid population growth can be reduced by helping couples avoid unintended births. The contribution of smaller numbers of well-spaced children to the survival and health of mothers and children is well-established. Children from small families are likely to receive greater parental investment, for instance, in education, than those from larger families, although evidence is mixed. A recent analysis from Nigeria suggests that a reduction in the number of dependent children in a household will improve food security and more so in urban than rural areas (Owoo 2020). Furthermore, smaller family sizes facilitate income-earning by women.

There are strong reasons to expect changes in the relationship between contraceptive practice and household wealth status in urban areas in sub-Saharan Africa. The 2012 London Summit on Family Planning issued a call for global and national commitments to enable women to have access to modern methods of contraception. Following the Summit, several governments in Africa made commitments to expand contraceptive supply and access. In addition to these commitments, several other nongovernmental family planning programs have been implemented across sub-Saharan Africa. Notably, the Urban Reproductive Health Initiative and its successor, The Challenge Initiative, has worked effectively in partnership with local authorities in over 100 cities, many in Africa, to improve access to and demand for modern contraception (Speizer et al. 2014; Winston et al. 2018). A major focus of these programs is on addressing inequities in access to modern contraceptives, with most specifically directed at the urban poor (see Beguy et al. 2017; Winston et al. 2018). Other urban interventions have focused on vouchers (Ganle et al. 2021). A decade after the London Summit, we reassess the situation of the urban poor with respect to their contraceptive practice; specifically, we evaluate how they have fared relative to nonpoor urban residents.

Fertility rates are higher among the urban poor than rich, in part due to relatively large gaps in modern contraceptive use between the rich and the poor in urban areas. Urban wealth gaps in health and sexual and reproductive health (SRH) outcomes are well-documented across countries in Africa and most of the developing world (Fink et al. 2014; Günther and Harttgen 2012). These gaps have been noted for several SRH outcomes across cities in the developing world (APHRC 2002, 2012; Ezeh et al. 2010; Kumar and Mohanty 2011; Rashid et al. 2011; Speizer et al. 2012). For example, using the Demographic and Health Survey for 26 countries, Ezeh et al. (2010) found that in most African countries, the levels of contraceptive use among the urban poor were close to or less than the average for rural married women. They further showed that in countries such as Benin, Nigeria, and Rwanda, currently married

women in rich urban households were about four to five times more likely than their peers in poor urban households to use modern contraceptive methods (see also Beguy et al. 2017; Fotso et al. 2013). In addition, a recent multicountry study based on data from 43 African surveys conducted between 2010 and 2018 found large differences in the proportion of demand for family planning satisfied between the urban poor and the urban rich in most countries (Hellwig et al. 2021). However, many of these studies are dated and often do not include analyses of trends over time. They also may not reflect the current situation given the recent attention to family planning globally and in Africa since the 2012 London Summit and the impact of family planning programs in bridging the gap between the rich and the poor in urban Africa. We update and extend these prior studies by asking whether the gaps in contraceptive practice observed previously among the urban poor and nonpoor in Africa have changed over time and whether the magnitude of change is similar across different regions of Africa.

We contribute to the family planning literature in two ways. First, we update the findings in Ezeh et al. (2010) by examining changes in modern contraceptive prevalence (mCP) among the urban poor (relative to the rich) between 2003–2007 and 2013–2019. Findings from recent studies suggest that the wealth gap in contraceptive use may have narrowed over time across Africa. For example, Beguy et al. (2017) found that among slum dwellers in Nairobi, Kenya, modern contraceptive use increased between 2000 and 2012. They concluded that family planning programs have the potential to expand access to modern methods of contraception among the urban poor. Similarly, quasi-experiments in Ghana and elsewhere have all shown that family planning programs in high fertility regions have the potential to increase contraceptive uptake among the poor and bridge gaps in mCP across groups defined by wealth, education, religion, place of residence, and other factors known to predict the use of modern contraception (see, e.g., Beguy et al. 2017; Phillips et al. 1988, 2012). Family planning programs, especially from public sources, ensure that contraceptives are delivered to the poor free of charge. The urban poor are also sensitized about the importance of contraceptive use, thereby breaking the usual social and cultural resistances to family planning services (Ezeh et al. 2010). A major limitation of prior studies on the potential of family planning programs in bridging the wealth gap is that they are not nationally representative and do not reflect how impacts may vary over time between countries and regions across Africa (e.g., Beguy et al. 2017; Phillips et al. 2012). Here, we pool data from 19 countries in sub-Saharan Africa to provide an up-to-date portrait of modern contraceptive practice among urban poor and nonpoor married women over a 10-year period.

Second, we extend prior research by analyzing urban poor versus nonpoor gaps in the source of modern contraceptives and how these have changed over time. Ezeh et al. (2010) argued that one of the causes of the wealth gap in the use of modern contraception is the sharp differentials in access to family planning services from public facilities (i.e., government hospitals or clinics). Most of the urban poor live in informal settlements that are not recognized by public authorities as integral parts of cities and hence are excluded from the provision of public services and amenities, including reproductive health services (see Matthews et al. 2010). The urban poor must therefore travel outside of their neighborhoods for high-quality, free, or low-cost family planning services. Traveling longer distances for contraceptive supplies increases the time and money required to obtain these services. Informal private

clinics are usually nearby but charge higher fees than public facilities for contraceptive products (Ezeh et al. 2010). Green (2002) argued that, given the level of poverty in many African countries, it takes a large proportion of households' disposable income to meet the contraceptive needs of women. This implies that the provision of family planning services from public sector sources is key to increasing contraceptive uptake in Africa and reducing various inequities in the use of modern contraception. We empirically pursue this argument by examining changes in sources where poor and nonpoor urban women procure their contraceptives. Given the implementation of several family planning programs throughout Africa over the last decade, we expect access to contraceptives from public sources to increase over time, especially among the urban poor. We expect that this increase will be associated with a reduced poor–rich gap in contraceptive practice within the 10-year period.

Data and Methods

This study draws on data from the Demographic and Health Surveys (DHS) in sub-Saharan Africa. We begin with surveys conducted in 2003–2007 (following Ezeh et al. 2010) and compare them with surveys in 2013–2019 (about 10 years later) in the same countries with an earlier survey. Because our analyses are in the context of the 2012 London Summit on Family Planning, we exclude countries whose most recent DHS was before or in 2012. Our final analytic sample is made up of 38 surveys from 19 African countries. We restrict our analysis to currently married women living in urban areas. Details of the analytic sample for each country for the two periods are shown in the Appendix.

We measure contraceptive practice focusing on three indicators: contraceptive prevalence, source of supply, and demand for family planning satisfied (hereafter *Demand Satisfied*). We define c*ontraceptive prevalence* as the proportion of currently married women using a modern method of contraception at the time of each survey. We focus on mCP, partly because traditional methods are less effective and family planning programs place little or no emphasis on their introduction or promotion (Bongaarts and Hardee 2017).[1] *Source of supply* refers to places where users procured their current contraceptives, which we coded into three categories: public, private, and *other* sources,[2] although our main analysis focused on public sources of supply. We categorized the public sector into government hospitals and clinics. *Demand Satisfied* with a modern contraceptive method represents the proportion of women with a demand for family planning who are using a modern method. It is measured as mCP/mCP + unmet need, where unmet need is constructed following the revisions specified by Bradley et al. (2012). We show absolute percentage point differences in these indicators and the percent change in differences over time.

We measure poverty levels based on household classifications using the wealth-index distribution calculated separately for urban and rural samples (see Ezeh et al. 2010; Rutstein 2008). The wealth index is coded into three categories: rich, middle, and poor.[3] The rich

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1 Modern methods in this study include female and male sterilization, the pill, the IUD, the injectable, the implant, vaginal barrier methods, male and female condoms, the Standard Days Method, and emergency contraception.

2 We categorized public sector to include government hospitals and clinics; private sourcesinclude private clinics or hospitals, NGO, physician, and pharmacy. "Other" source includesshop, friend, and family. NGO sources do not exist in all countries, and account for less than 3 percentof source of supply in countries that NGOs provide family planning services.

3 We also used a five-category wealth quintile, and the results were similar across countries.

comprise the top 40 percent of the wealth distribution and the poor the bottom 40 percent. Bearing in mind that over half of Africa's urban population lives in slum-like dwellings, many of the poor reside in informal settlements. The middle group comprise 20 percent but, for clarity of exposition, the results for this group are not shown. To achieve these percentiles, we restrict the sample to married women in urban areas. We then use the wealth index factor score variable in the DHS to create the three wealth percentiles for this study. We estimate the percentiles for the wealth index using the formula: Mean $+/-$ Z (standard deviation). All values were weighted using the appropriate sampling design provided by the Demographic and Health Survey to allow representativeness of the results.

The analyses are presented as follows: First, for the selected countries, we show trends in mCP among urban married women according to the wealth index over the 10-year period. We then examine differences in *public source of supply* of the contraceptive methods between the rich and the poor.[4] In the main analysis, we show the results for only public sources. The extent to which narrowing rich–poor gaps in mCP are associated with increased resort to public-sector supply sources indicates the contribution of government programs to the reduction of inequalities. We, therefore, expect the public sector to contribute to reducing the rich–poor gaps in mCP over time. We also expect that the public sector will become the major source of supply for poor urban women, as such sources are relatively cheaper or free for these women. Finally, we assess trends in demand satisfied.

RESULTS

Use of Modern Contraception

Table 1 shows trends in rich–poor gaps in mCP across 19 African countries. Overall, contraceptive use is much higher in Eastern and Southern Africa than in Western and Central Africa. Consistent with Ezeh et al. (2010), we show significant rich–poor gaps in mCP across all but one country in the Eastern/Southern region during the 2003–2007 period. The magnitude of gaps in terms of percentage points ranges from 25 percent in Rwanda to 7 percent in Ethiopia, with a mean of 15.6 percentage points. Over the following decade, gaps in mCP between the rich and poor in urban areas virtually disappeared in Eastern and Southern Africa except in Ethiopia and Uganda. The mean regional gap shrank by 91 percent to a mere 1.5 percentage points. The disappearance of these gaps is driven by massive increases in contraceptive use among the urban poor. Over the 10-year period, the use of modern methods more than quadrupled among the urban poor in Rwanda and increased by more than 33 percentage points in Malawi. The two countries in the region where the gap in mCP remained (Ethiopia and Uganda) were also the countries where there was virtually no change in mCP over the decade (both among the rich and the poor).

Central and Western Africa show the opposite trends from Eastern and Southern Africa. Seven of the 10 countries in Western/Central Africa had significant gaps between the urban rich and poor during the period 2003–2007, with the smallest gaps in Ghana, Guinea, and Liberia. These significant rich–poor gaps remained in all the seven countries and even

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4 Statistically significant difference between the poverty levels is estimated using lincom command in STATA. In supplementary analysis (not shown), we also examine the patterns and trends in mCP for the rural poor and nonpoor.

TABLE 1   Percentage currently using a modern contraceptive method among rich and poor urban married women and changes between 2003/2007 and 2013/2019

Country/region(survey years)	2003–2007			2013–2019			%Change[c]
	Rich[a](%)	Poor[a](%)	R-P[b]gap	Rich[a](%)	Poor[a](%)	R-P[b]gap	
Eastern/Southern Africa							
Ethiopia (2005, 2016)	42.6	35.7	6.9∗	43.2	36	7.2∗	4.3
Kenya (2003, 2014)	49.3	26.4	22.9∗	53.4	49.5	3.9	−83.0
Lesotho (2004, 2014)	55.0	42.8	12.2∗	66.5	62.5	4.0	−67.2
Malawi (2004, 2015)	48.7	26.4	22.3∗	57.9	60.1	−2.2	−109.9
Namibia (2006, 2016)	67.8	50.6	17.2∗	54.6	54.7	−0.1	−100.6
Rwanda (2005, 2014)	36.6	11.3	25.3∗	48.7	49.9	−1.2	−104.7
Tanzania (2004, 2015)	36.2	26.5	9.7	34.7	34.3	0.4	−95.9
Uganda (2006, 2016)	40.7	27.9	12.8∗	41	33.8	7.2∗	−43.8
Zambia (2007, 2018)	47.9	32	15.9∗	50.7	50.8	−0.1	−100.6
Regional level	**46.7**	**31.1**	**15.6∗**	**49.6**	**48.2**	**1.5**	**−90.7**
Central/Western Africa							
Benin (2006, 2017)	14.4	4.7	9.7∗	18.1	10	8.1∗	−16.5
Cameroon (2004, 2018)	26.2	11.9	14.3∗	19.9	15.1	4.8∗	−66.4
Chad (2004, 2018)	11.3	3	8.3∗	10.9	3.6	7.3∗	−12.0
Congo (DR; 2007, 2013)	15.1	7.2	7.9∗	17.3	8.4	8.9∗	12.7
Ghana (2003, 2014)	26.6	20.9	5.7	24.6	18	6.6	15.8
Guinea (2005, 2018)	11.4	8.1	3.3	13.4	8.1	5.3∗	60.6
Liberia (2007, 2019)	16.1	15.7	0.4	23.2	31.6	−8.4∗	−2200.0
Mali (2006, 2018)	20.7	9	11.7∗	22.2	6.9	15.3∗	30.8
Nigeria (2003, 2018)	20	3.8	16.2∗	20.2	10.3	9.9∗	−38.9
Senegal (2005, 2019)	21.5	12.1	9.4∗	31.9	28.1	3.8∗	−59.6
Regional level	**18.8**	**8.4**	**10.4∗**	**18.1**	**10.5**	**7.6∗**	**−26.5**

[a] "Rich" and "poor" are defined as the top 40 percent and the bottom 40 percent of the wealth-index distribution.
[b] R-P represents the rich–poor gap, calculated by subtracting modern contraceptive prevalence (mCP) for poor from mCP for rich.
[c] % Change represents the change in the rich–poor gap between the two survey years; calculated as (Rich mCP − Poor mCP)/Rich mCP.
∗Significant difference between the rich and the poor at p < 0.01.
SOURCE: Demographic and Health Surveys.

increased in four countries over time (Table 1). In two of the three countries with nonsignificant gaps in the 2003–2007 period, the gap became significant in the 2013–2019 period. In eight of the 10 countries in the region, the urban poor are significantly less likely to use modern contraception than the urban rich in the more recent period. The mean regional gap changed little from 10 percentage points in 2003/2007 to eight percentage points in the recent period. Even in Nigeria, where the use of modern contraceptives among the urban poor almost tripled over the decade, the urban rich were still twice as likely as the urban poor to report the use of modern methods.

The two countries in Western/Central Africa where no significant disadvantage of the urban poor in contraceptive use was found in the recent period present very contrasting scenarios. In Ghana, rich–poor gaps in mCP were not significant in either period. mCP declined over time among the rich and the poor in urban Ghana, and while the rich remained more likely to use modern contraception, the gap remained nonsignificant. In Liberia, the urban poor were as likely as the urban rich to use modern contraception in the earlier period. Over the decade, however, mCP increased much more among the urban poor in Liberia, making it the only country of all 19 countries where the urban poor were significantly more likely to use modern contraception than the urban rich. Senegal, one of the countries where the Bill and Melinda Gates Foundation-funded Urban Reproductive Health Initiative was implemented, showed a pattern similar to those of countries in Eastern and Southern Africa, with the rich–poor gap in mCP largely disappearing over time due to a sharp increase in use among the

TABLE 2   Percentage of current users who obtain contraceptives from the public source among rich and poor urban married women and changes between 2003/2007 and 2013/2019

Country/region(survey years)	2003–2007			2013–2019			
	Rich[a](%)	Poor[a](%)	R-P[b]gap	Rich[a](%)	Poor[a](%)	R-P[b]gap	%Change[c]
Eastern/Southern Africa							
Ethiopia (2005, 2016)	58.2	67.6	−9.4	60.4	71.3	−10.8	15.7
Kenya (2003, 2014)	27.5	69.3	−41.9∗	49.3	69.8	−20.5∗	−51.0
Lesotho (2004, 2014)	56.2	75.8	−19.6∗	46.9	69.4	−22.5∗	14.7
Malawi (2004, 2015)	52.0	80.7	−28.8∗	63.5	81.7	−18.3∗	−36.4
Namibia (2006, 2016)	65.8	93.9	−28.1∗	55.3	93.9	−38.7∗	37.8
Rwanda (2005, 2014)	45.0	63.4	−18.4	74.1	87.9	−13.8∗	−25.2
Tanzania (2004, 2015)	73.6	85.6	−12.0	52.7	71.2	−18.4∗	53.2
Uganda (2006, 2016)	17.9	30.1	−12.3	39.0	71.0	−32.1	161.0
Zambia (2007, 2018)	66.1	69.6	−3.5	79.6	91.1	−11.4∗	228.4
Regional level	**53.0**	**77.3**	**−24.3∗**	**60.2**	**78.5**	**−18.4∗**	**−24.4**
Central/Western Africa							
Benin (2006, 2017)	48.4	65.8	−17.4	48.4	76.7	−28.3∗	62.4
Cameroon (2004, 2018)	27.9	26.4	1.5	43.0	52.2	−9.2	−728.1
Chad (2004, 2018)	66.7	58.6	8.1	71.7	92.3	−20.6	−356.3
Congo (DR; 2007, 2013)	20.4	31.8	−11.4	30.5	35.5	−5.0	−56.2
Ghana (2003, 2014)	51.6	59.2	−7.5	63.0	71.0	−8.1	7.0
Guinea (2005, 2018)	53.6	53.9	−0.2	56.6	62.4	−5.7	2391.3
Liberia (2007, 2019)	36.7	66.0	−29.3	51.6	71.8	−20.2∗	−31.1
Mali (2006, 2018)	43.9	49.1	−5.2	61.6	80.5	−18.9	262.1
Nigeria (2003, 2018)	29.5	31.4	−2.0	60.5	67.8	−7.3	268.2
Senegal (2005, 2019)	69.1	62.6	6.5	88.8	92.5	−3.7	−157.4
Regional level	**44.3**	**51.6**	**−7.3∗**	**58.4**	**67.9**	**−9.4∗**	**29.7**

[a] "Rich" and "poor" are defined as the top 40 percent and the bottom 40 percent of the wealth-index distribution.
[b] R-P represents the rich–poor gap, calculated by subtracting mCP for poor from mCP for rich.
[c] % Change represents the change in the rich–poor gap between the two survey years; calculated as (Rich mCP − Poor mCP)/Rich mCP.
∗Significant difference between the rich and the poor at p < 0.01.
SOURCE: Demographic and Health Surveys.

urban poor. Still, despite a 60 percent decline in the rich—poor gap in urban Senegal, the gap remained significant.

We further examined whether these patterns and gaps also exist in rural areas (table not shown). The results show that much lower levels of contraceptive use and the gap between the rich and the poor exist in all countries and all regions, and this has not changed over time. Only Rwanda and Liberia have been able to achieve equitable access across urban-rural and rich–poor divides in their respective countries. The overall level of mCP, however, is almost double in Rwanda, compared to Liberia.

Source of Supply of Modern Contraceptives

In our next research question, we hypothesized that significant increases in the use of modern methods among the urban poor would be driven by rising contributions of the public sector as the source of supply for contraceptive commodities. Table 2 investigates this hypothesis by examining trends in the public source of contraception among urban women by wealth status. The results show that the public sector is a major source of contraceptive supply for the urban poor in Eastern and Southern Africa, with 65 percent to 94 percent of urban poor women in most countries relying on public sources for their contraceptive supplies in both periods. Thus, the large increases in modern method use by the urban poor have been fueled by the public sector. In these regions, urban poor women are more likely to obtain their supplies from public sources than urban nonpoor women, with a mean gap of 18 percentage points in the more recent period. In three of the five countries where

the gap was not significant in the earlier period, they became significant, suggesting the strong role that the supply of contraceptives in public health facilities can play in improving use among urban poor women and reducing the rich–poor gap in use. Similarly, the urban rich are significantly more likely to rely on private sources than urban poor women (results not presented). In Namibia, for instance, while more than 40 percent of urban rich women received their contraceptives from private sources, less than 7 percent of urban poor women did so. Increased reliance by the poor on public sector sources was particularly striking in Rwanda, Uganda, and Zambia, and in only one country, Tanzania, did it decline appreciably.

In Western/Central Africa, reliance on the public sector was much lower than in Eastern/Southern Africa, and rich–poor differences were also small and generally statistically insignificant. Despite increases among both groups, the average regional rich–poor gap changed little: seven percentage points in 2003/2007 to nine percentage points in 2013/2019. In over half of the countries (Benin, Chad, Congo DR, Guinea, Mali, and Nigeria), modern method use among the poor remained at 10 percent or less; thus, supply source data have limited value. A focus on the remaining countries reveals a variety of trends. In Cameroon, the gap in supply source widened, but in Liberia, it narrowed. In Ghana, there was little change.

In Senegal, where the Urban Reproductive Health Initiative implemented an urban family planning program that targeted the urban poor, the very large increase in contraceptive use among the poor was accompanied by a steep rise in reliance on the public sector supplies, from 63 percent to 93 percent. These results show that the large differences in contraceptive prevalence between Eastern/Southern Africa and Western/Central Africa and the continued existence of rich–poor gaps in mCP in Western/Central Africa can be explained in part by the more limited role the public sector plays in Western/Central Africa in the supply of contraceptive commodities.

Percent of Demand for Family Planning Satisfied

We show in Table 3 trends in demand satisfied in urban Africa. We expect the patterns to be similar to mCP. Overall, the results show that demand satisfied is much higher in Eastern and Southern Africa than in Western and Central Africa in both periods. In Eastern/Southern Africa, demand satisfied changed little among the urban rich but rose steeply among the poor, on average from 50 percent to 68 percent. The net result was that gaps in demand satisfied between the rich and poor in urban areas virtually disappeared in Eastern and Southern Africa except in Kenya, Namibia, and Uganda, where the gap diminished substantially but remained statistically significant. At the regional level, the average percentage point gap fell by 82 percent, from 18 percent to 3 percent.

In Central and Western Africa, the mean regional demand satisfied rose from 33 percent to 41 percent for the rich and from 19 percent to 31 percent for the poor, but the gap fell modestly from 14 to 10 percentage points. Statistically significant gaps remained in the more recent period in seven of the 10 countries. The exceptions were Ghana and Liberia, where demand satisfied was higher for the poor than for the rich and Senegal.

TABLE 3   Percentage of demand for family planning satisfied by use of modern methods among rich and poor urban married women and changes between 2003/2007 and 2013/2019

Country/region(survey years)	2003–2007			2013–2019			
	Rich[a](%)	Poor[a](%)	R-P[b]gap	Rich[a](%)	Poor[a](%)	R-P[b]gap	%Change[c]
Eastern/Southern Africa							
Ethiopia (2005, 2016)	66.5	60.8	5.7	73.9	68.5	5.4	−5.3
Kenya (2003, 2014)	71.7	47.5	24.2∗	74.5	67.4	7.1∗	−70.7
Lesotho (2004, 2014)	70	61	9.0∗	82.4	81	1.4	−84.4
Malawi (2004, 2015)	71	44.6	26.4∗	76.1	77.9	−1.8	−106.8
Namibia (2006, 2016)	82.4	66.7	15.7∗	84.1	74.5	9.6∗	−38.9
Rwanda (2005, 2014)	52.8	19.3	33.5∗	70.5	68.5	2.0	−94.0
Tanzania (2004, 2015)	59.5	48.5	11.0∗	52.3	54	−1.7	−115.5
Uganda (2006, 2016)	58.3	40.3	18.0∗	61.6	53.3	8.3∗	−53.9
Zambia (2007, 2018)	67.6	49.8	17.8∗	72.4	70.3	2.1	−88.2
Regional level	**67.3**	**49.55**	**17.7∗**	**71.1**	**67.88**	**3.2∗**	**−81.8**
Central/Western Africa							
Benin (2006, 2017)	22.7	10.9	11.8∗	34.1	22.9	11.2∗	−5.1
Cameroon (2004, 2018)	42.8	25.7	17.1∗	44.8	36.8	8.0∗	−53.2
Chad (2004, 2018)	23.9	8.5	15.4	27.8	14.1	13.7∗	−11.0
Congo (DR; 2007, 2013)	23.8	15.1	8.7	27.9	16.3	11.6∗	33.3
Ghana (2003, 2014)	44.9	33.2	11.7∗	36.2	38.8	−2.6	−122.2
Guinea (2005, 2018)	33.5	25.1	8.4∗	46.5	33.1	13.4∗	59.5
Liberia (2007, 2019)	29.3	27.1	2.2	40.3	48.5	−8.2∗	−472.7
Mali (2006, 2018)	35.3	21.5	13.8∗	48.5	16.4	32.1∗	132.6
Nigeria (2003, 2018)	42.6	17.3	25.3∗	44	30.8	13.2∗	−47.8
Senegal (2005, 2019)	39.5	25	14.5∗	61	53.1	7.9	−45.5
Regional level	**33.4**	**19.21**	**14.2∗**	**41**	**30.65**	**10.4∗**	**−27.0**

[a] "Rich" and "poor" are defined as the top 40 percent and the bottom 40 percent of the wealth-index distribution.
[b] R-P represents the rich–poor gap, calculated by subtracting mCP for poor from mCP for rich.
[c] % Change represents the change in the rich–poor gap between the two survey years; calculated as (Rich mCP − Poor mCP)/Rich mCP.
∗Significant difference between the rich and the poor at p < 0.01.
SOURCE: Demographic and Health Surveys.

DISCUSSION

The pronounced contrast between countries in Eastern/Southern Africa and those in Western/Central Africa in levels of mCP, trends in rich–poor gaps in mCP over time, and in the role of the public sector as a source of supply for modern contraception for poor urban women suggest that Africa is quite diverse in its contraceptive use patterns. Rather than generalizing about Africa, family planning studies in Africa should distinguish between these regions.

In six of nine East/Southern African countries, mCP changed little among the rich, and in many of these cases, percent demand satisfied may have stabilized at around 70 percent (but not in Uganda and Tanzania). This level of demand satisfied is similar to that of low-fertility countries such as India, Bangladesh, and Indonesia (but lower than that of low-fertility countries in Latin America, such as Colombia and Nicaragua). This suggests that a saturation point may have been reached in demand satisfied in some urban populations of East/Southern Africa, indicating that short-term future fertility change may come primarily from the rural population.

The limited role of the public sector in Western/Central Africa and the lack of change over time are key to understanding why these two regions have remained impervious to efforts to change the high fertility norms and low contraceptive use patterns. Until governments in the region begin to actively engage in making family planning services readily available in public facilities with a view to meeting the needs of poor women, who comprise most of the population in these countries, the prevailing high fertility and low contraceptive use patterns

in the regions will most likely not change, and the regions will not be able to achieve the demographic dividend.

In Central/West Africa, mCP among the urban rich changed little or declined in seven of 10 countries but at a low level and with demand satisfied of around 40 percent. The rich, being also better educated, are bound to be the forerunners of social change. Therefore, their lack of change over 10 years suggests a bleak prognosis in terms of increases in mCP for the urban poor. What is needed is vigorous demand creation aimed at both rich and poor people to reduce suspicion of, or ambivalence toward, modern methods. Another explanation of persistent low mCP among the urban rich is that they are using alternative means to modern contraception to regulate fertility, for example, traditional methods and abortion. This is true of the urban population of Ghana, which probably has the lowest TFR in the region (Blanc and Gray 2000).

The results suggest that the increased role of the public sector as a source of contraceptive supply is associated with the elimination of inequities in mCP between rich and poor women in urban Africa. The continued existence of such disparities in mCP by wealth status in rural areas in Eastern and Southern Africa suggests that even in these regions, further increases in contraceptive use are possible by addressing rich–poor gaps in access to modern contraceptives and by adopting a pro-poor approach in programs that seek to promote contraceptive uptake in Africa.

The results for Western and Central Africa remain concerning. In these regions, family planning programs should focus on supporting the provision of contraceptive commodities in public health facilities and generating demand for modern contraception, especially in most of the Francophone countries. Evidence from Senegal, where the Urban Reproductive Health Initiative was implemented, shows a 2.3-fold increase in mCP, a 2.1-fold increase in demand satisfied, and 93 percent of urban poor women obtain their methods from public sources, suggesting that such programs can be effective in generating and meeting demand for modern contraception in the region.

SUMMARY AND CONCLUSION

In this study, we have updated and extended prior studies by examining changes in contraceptive practice between the poor and rich in Africa over a 10-year period. Ezeh et al. (2010) showed that the urban poor have worse reproductive health outcomes than their rich peers. This study is dated so we provided an update to see if the patterns persist. First, we estimated changes in mCP between the rich and poor in urban areas over time. We found that the rich–poor gaps in mCP have disappeared for most countries in Eastern and Southern Africa. For countries in Central and Western Africa, there are still statistically significant gaps in mCP between women in rich and poor urban households.

We expected that support from the public sector in the provision of contraceptive supplies would increase mCP among the urban poor and reduce inequities in use by wealth status in urban areas. We, therefore, examined the sources of supply of contraceptive commodities to determine whether there have been changes in sources that the urban poor (relative to the rich) use to procure their contraceptives. The results showed statistically significant

differences between the rich and poor in obtaining their contraceptive supplies from public sources in Eastern/Southern African countries. In these countries where mCP has significantly increased for the urban poor, governments have expanded contraceptive access to the urban poor over the 10-year period or countries. Supporting and strengthening the public provision of contraceptive services will be key to improving contraceptive uptake in Africa and to address existing inequities in the access and use of modern contraceptives in the region.

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