RWANDA FURTHER ANALYSIS

Rwanda 2010: A Dramatic Change in Reproductive Behavior

Further Analysis of the Rwanda Demographic and Health Survey 2010

Republic of Rwanda

Rwanda 2010: A Dramatic Change in Reproductive Behavior

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Additional information about the RDHS can be obtained from the National Institute of Statistics of Rwanda, P.O. Box 6139, Kigali, Rwanda; telephone: (250) 571-037, E-mail: info@statistics.gov.rw, Internet: www.statistics.gov.rw. Additional information about the DHS project may be obtained from ICF International, 11785 Beltsville Drive, Calverton, MD 20705, USA; Telephone: 301-572-0200, Fax: 301-572-0999, Email: reports@measuredhs.com, Internet: http://www.measuredhs.com.

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ABSTRACT

In Rwanda, between 2005 and 2010, there have been radical declines in the desired number of children, actual fertility, and child mortality along with a large increase in contraceptive prevalence. This study reviews trends in some of these measures. Multivariate analyses evaluate the relative importance for the desired number of children of years of schooling, wealth, urban residence, media exposure, child mortality, and attitudes toward gender equality. Variations in reproductive preferences, the total fertility rate, and unmet need for family planning are mapped for the 30 districts of Rwanda. The explanations for the rapid changes in reproductive attitudes and behavior are clearly related to the concerns of the country, the rapid rate of population growth, and its implications for economic development and reproductive health.

1. INTRODUCTION

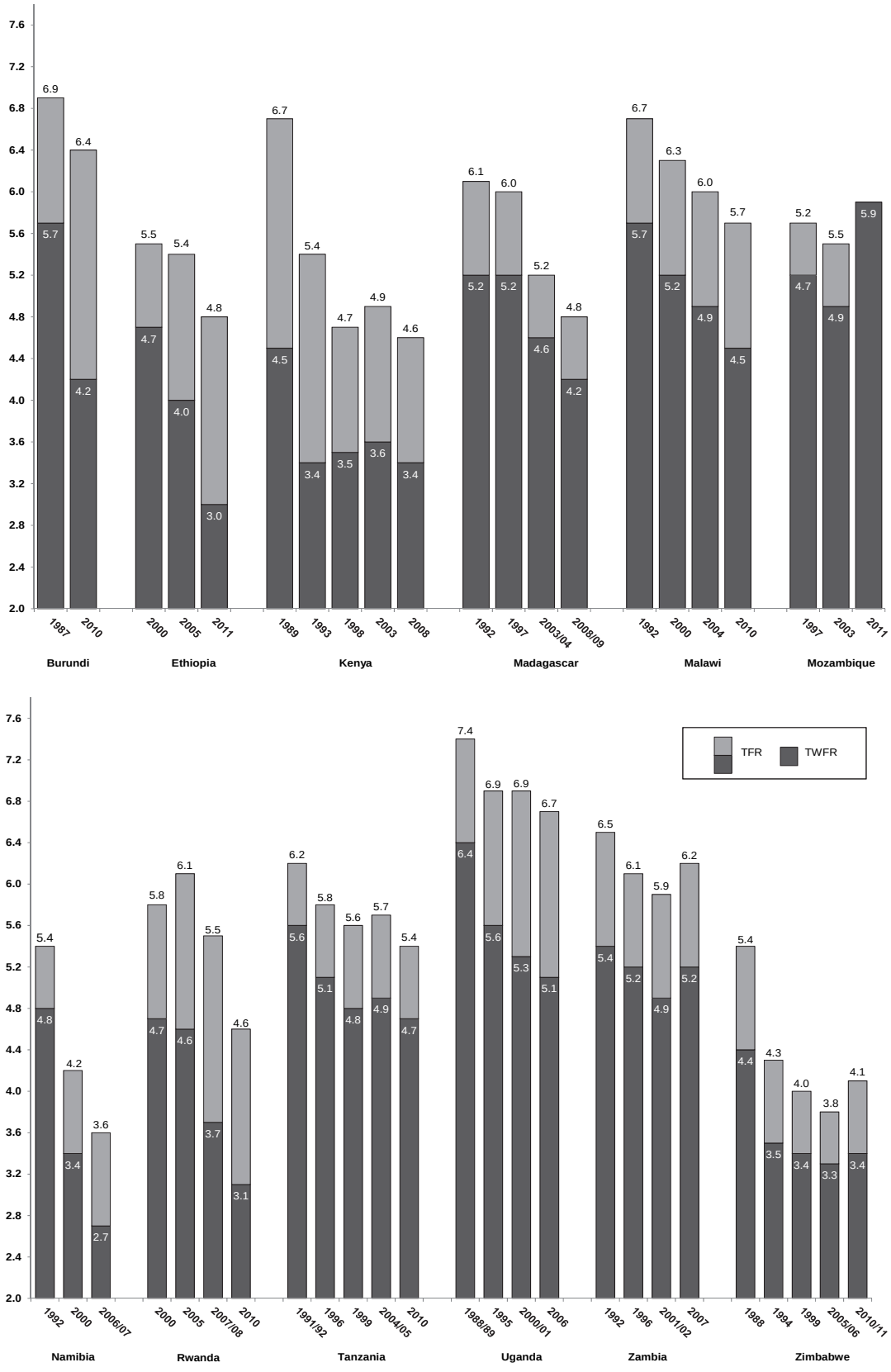
Unlike almost all other countries in sub-Saharan Africa, Rwanda has experienced recent dramatic changes in reproductive behavior. Data from the 2005 and 2010 Rwanda Demographic and Health Surveys (DHS) show that over this five-year period the percentage of married women using modern contraceptive methods increased from 10 percent to 45 percent; the total fertility rate (TFR) dropped from 6.1 to 4.6 children per woman; the wanted fertility rate fell from 4.6 to 3.1; and the number of children women consider ideal declined from 4.3 to 3.3 and, for men, from 4.0 to 2.9. There was also a 50 percent drop in the mortality rate of children under age 5 in this short time.

This study first focuses on the trends and changes in the number of children desired in Rwanda, examining these trends and their covariates and making comparisons with other countries in the same region of Africa. Then a detailed analysis concentrates on internal subdivisions of Rwanda, including provinces and districts. Following the data analysis, the paper gives a brief account of relevant changes in Rwandan government policies and programs that have contributed to the reproductive changes.

2. WANTED FERTILITY RATE

We begin with an international comparative review of trends in the total and wanted fertility rates in 12 countries of southern and eastern Africa (Figure 1). The total wanted fertility rate (TWFR) is constructed in the same way as the standard TFR except that the numerator is confined only to wanted births at each age; unwanted births during the past three years—those exceeding the ideal number—are removed. Figure 1 shows that the TWFR in Rwanda in 2010 was 3.1. Although the TWFR in all 12 countries is declining, the level of 3.1 is among the lowest and shows the greatest recent decline. Only Namibia, at 2.7 in 2006-07, and Ethiopia, at 3.0 in 2011 (Gebreselassie 2011), show similar levels. In neighboring Burundi, the TWFR declined from 5.7 to 4.2 over 23 years, but the TFR dropped much less, from 6.9 to 6.4. The trends of the TWFR in West Africa (not included here) show little evidence of decline in the number of children desired, and the TWFR remains generally between 5 and 6 children per woman.

Figure 1. Trends in total fertility and wanted fertility rates: East and Southern Africa



3. IDEAL NUMBER OF CHILDREN

A measure related to[1]the desired number of children is the average number considered ideal. In Rwanda, the mean number of children that women consider ideal was 3.3 in 2010, down from 4.3 in 2005, and from 4.9 in 2000. The value of 3.3 is the lowest in this region of Africa (among countries included in this analysis).[1] By age, the number of children that women age 15-19 consider ideal dropped from 5.1 in 2000 to 4.3 in 2005, and to 2.7 in 2010 (Figure 2). Declines in the ideal number of children are also clearly apparent among older women, although less so than at the younger ages.

The trends shown in Figure 2 are for women of all marital statuses. A picture of never-married women in Figure 3 is also useful because it is free of the influence of husbands and children on women's reproductive preferences. The figure shows the drop in ideal number of children is even more vivid among never-married women from age 15-19 through age 30-34 (never-married women at older ages are too few to include). It is clear from this picture that the greatest decline in the ideal number of children occurred from 2005 to 2010.

[1] Lesotho and Swaziland have an average ideal number of children of 2.8 in 2009 and 2.5 in 2006-07, respectively, but both of these countries are influenced by high levels of HIV/AIDS.

Figure 2. Mean ideal number of children for all women, by age, Rwanda 2000, 2005, and 2010

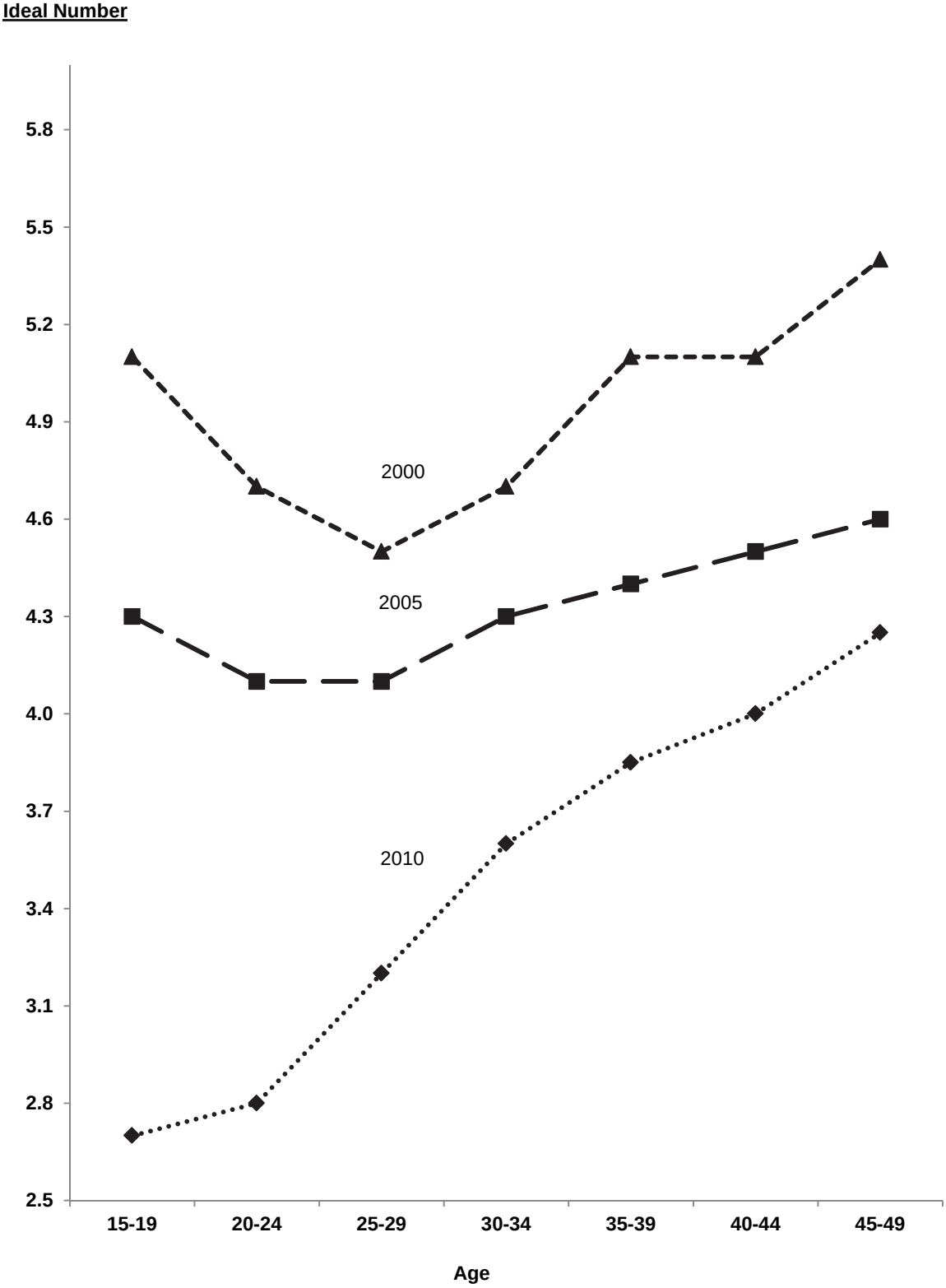
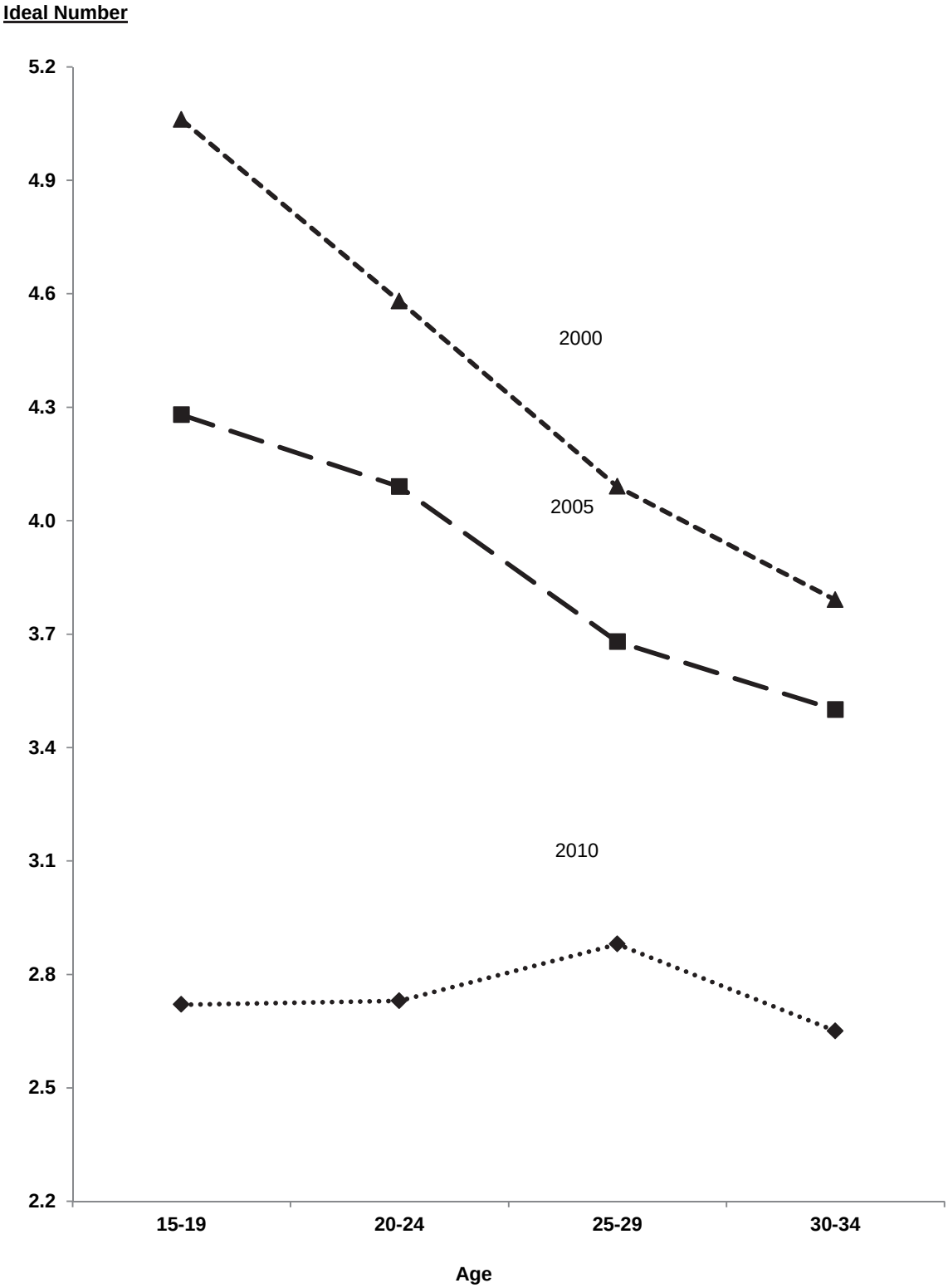


Figure 3. Ideal number of children for never-married women, by age, Rwanda 2000, 2005, and 2010



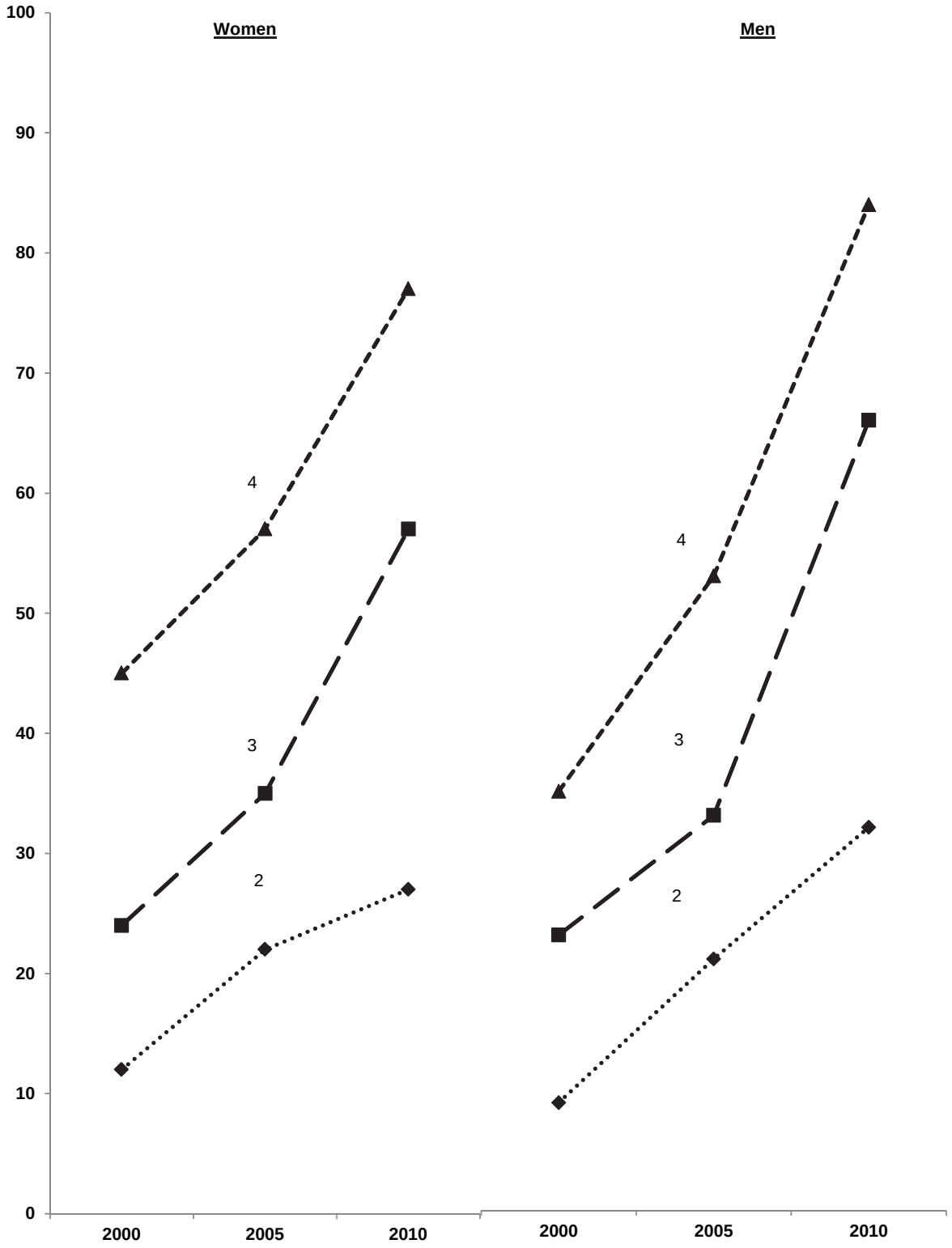
4. MEN'S IDEAL NUMBER OF CHILDREN

The average number of children that men in Rwanda consider ideal was 2.9 in 2010, a significant drop from the 4.0 average number in 2005 and 4.8 in 2000. The estimate of 2.9 is the lowest in the whole region. Except for Rwanda, men's ideal number of children is higher than women's in every country in the region (Johnson and Gu 2009; Westoff 2010), other than in Malawi, where they are the same. There is some evidence of a downward movement in men's ideal number of children but it is far from universal (not shown here).

5. INTENTION TO LIMIT FERTILITY

The remaining measure of reproductive preferences considered here, and the one that typically has shown the most predictive accuracy, is intention to limit fertility—that is, to have no more children. Because this proportion so depends on the number of living children, the overall percentage wanting no more children is influenced by the existing parity distribution. Figure 4 focuses on married persons with 2, 3, or 4 children and shows for each parity the proportion wanting no more children (which includes those contraceptively sterilized). The upward trend in desire to end childbearing over the ten-year period is very clear. Among women in Rwanda who already have 3 children, the proportion wanting no more rose from 24 percent in 2000 to 35 percent in 2005, and to 57 percent by 2010. Among men, the upward trend is slightly stronger at each parity. In 2010, about one-third of married men age 15-49 with 2 children and two-thirds with 3 children want to stop.

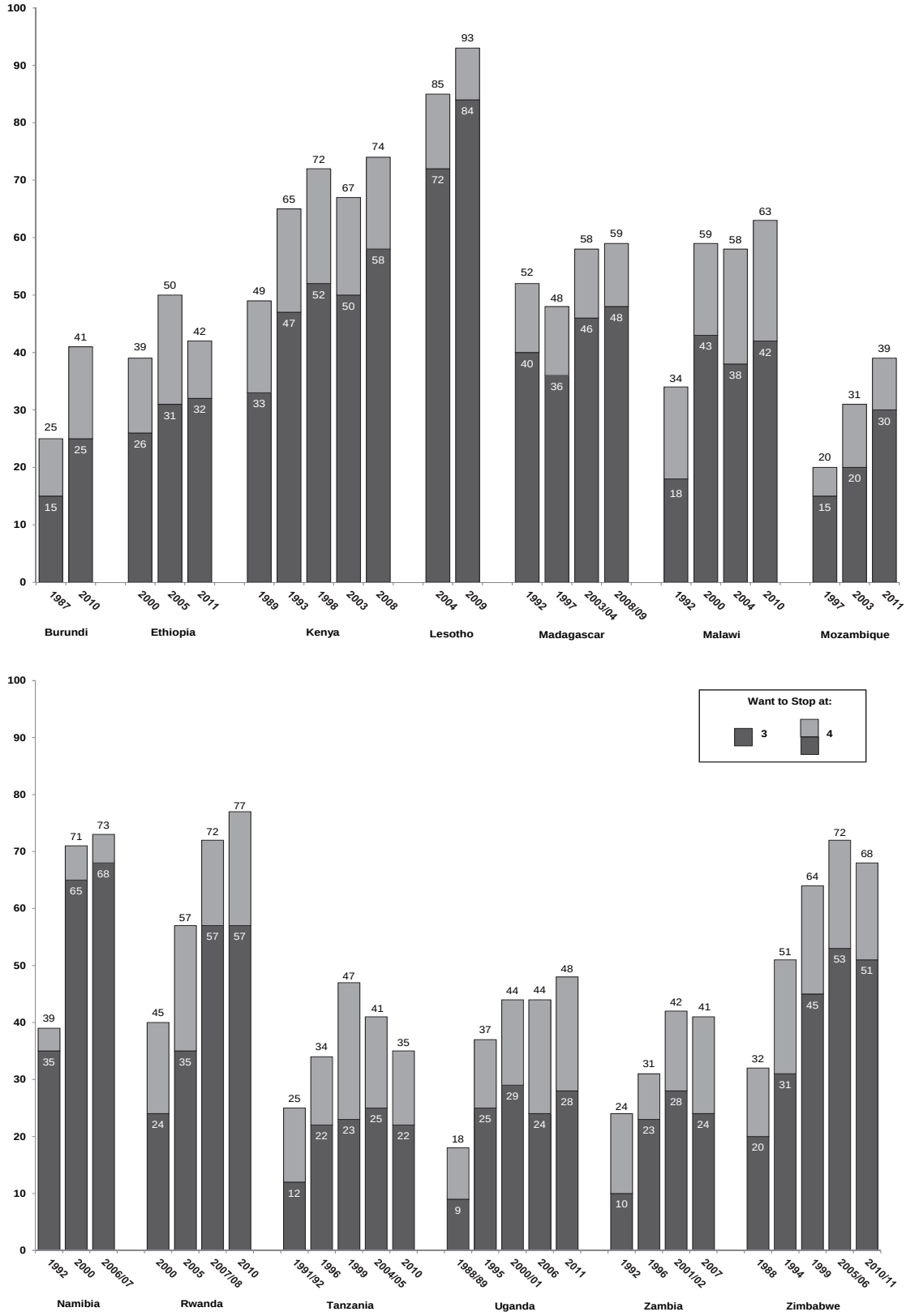
Figure 4. Trends in the percentage of married women and men who want no more children, by parity, Rwanda 2000, 2005, and 2010



6. TRENDS IN OTHER COUNTRIES

Figure 5 shows trends in the desire to end childbearing for neighboring countries for women with 3 or 4 children. In general, the proportions wanting no more children are increasing, but the levels vary among countries. Rwanda is similar to Kenya, Namibia, and Zimbabwe in this regard, although in Zimbabwe there is an interruption in the 2010-11 period. The trends for men are similar to those for women (not shown here).

Figure 5. Trends in the percentage of married women who want no more children among those with 3 or 4 living children, Rwanda 2000, 2005, and 2010



7. PROVINCIAL DIFFERENCES[2]

The large majority of the Rwandan population lives in rural areas (85 percent of the DHS 2010 sample). The residents of the capital city of Kigali (12 percent of the population) differ in various ways from the residents of the other provinces (Table 1). Women in Kigali City have more schooling (seven years on average compared with four years among women in other provinces) and are less likely to be married. They are much more likely to be exposed to mass media, particularly to television. Television is still in its infancy in Rwanda because it requires electric power; two-thirds of women in Kigali have electricity in contrast with an average of 4 percent in the other provinces. Among provinces of Rwanda, Kigali City also has the lowest proportion of Catholics and the highest proportion of Protestants, based on data from the DHS.

Table 1. Summary of selected background characteristics of women age 15-49, Rwanda 2010

	Rwanda	Kigali City	Southern Province	Western Province	Northern Province	Eastern Province
Percent in union[1]	50	45	50	51	51	53
Percent urban	15	81	11	4	6	4
Mean years schooling	4.4	6.9	4.3	3.9	4.2	4.0
Percent with no schooling	15	6	13	20	16	17
Percent listen to radio at least weekly	68	83	66	55	76	71
Percent watch TV at least weekly	9	51	3	5	4	4
Percent Catholic	43	32	48	39	54	38
Percent Protestant	41	49	34	45	32	46
Currently employed	72	61	81	72	60	79

[1] Married or living together

Table 2 presents a summary of provincial differences in reproductive behavior. The TFR is lowest in Kigali (3.5), as are the TWFR (2.6) and the number of children that women consider ideal (3.0). Men's ideal number of children varies little by province. Among married people with 3 children, the proportion of women wanting no more children is highest in Kigali, but for men the proportion is highest in the Eastern Province. The level of modern contraceptive use is lowest in the Western Province, which also shows the highest level of unmet need for family planning.

[2] Because the provincial boundaries in 2010 do not always correspond exactly with the earlier surveys, some limited estimation was required that relates to Kigali and to the North and the East.

Table 2. Summary of provincial differences in measures of reproductive behavior, Rwanda 2010

	Rwanda	Kigali City	Southern Province	Western Province	Northern Province	Eastern Province
Total fertility rate	4.6	3.5	4.6	5.0	4.1	4.9
Total wanted fertility rate	3.1	2.6	3.2	3.4	2.7	3.4
Ideal number of children (women)	3.3	3.0	3.2	3.5	3.2	3.4
Ideal number of children (men)	2.8	2.8	2.8	3.0	2.8	2.8
Percent with 3 children who want no more (women)	57	65	62	50	53	59
Percent with 3 children who want no more (men)	66	67	66	60	61	74
Percent married women using modern method	45	48	48	35	52	46
Unmet need for family planning	24	20	22	30	20	25

8. PROVINCIAL TRENDS

Figure 6 shows provincial trends from 2000 to 2010 in the average ideal number of children, for all women and men age 15-49. The general trend for both women and men is a sharp decline across the decade from 2000 to 2005 to 2010. Except for 2000, when the two sexes showed little or no difference, the average number considered ideal is consistently higher for women than for men. By 2010, the average for men had dropped to 2.8 in all provinces except the Western Province, where it was 3.0, down from 5.2 in 2000. The decline across the decade typically was slightly greater for men than for women.

Table 3 shows a review of the trends in the proportions of married women and men wanting no more children. It is confined to parents with 3 or 4 living children because the number of men is frequently too small to limit it to those with 3 children only. In all provinces, the proportion of married women and men wanting no more children increased from 2000 to 2010. One difference from the findings for ideal number of children (Figure 6) is that in the earlier surveys higher proportions of women than men report wanting no more children. In 2010, this turns around; men are slightly more likely than women to report that they want no more children.

Figure 6. Provincial trends in ideal number of children for all women and all men age 15–49, Rwanda 2000, 2005, and 2010

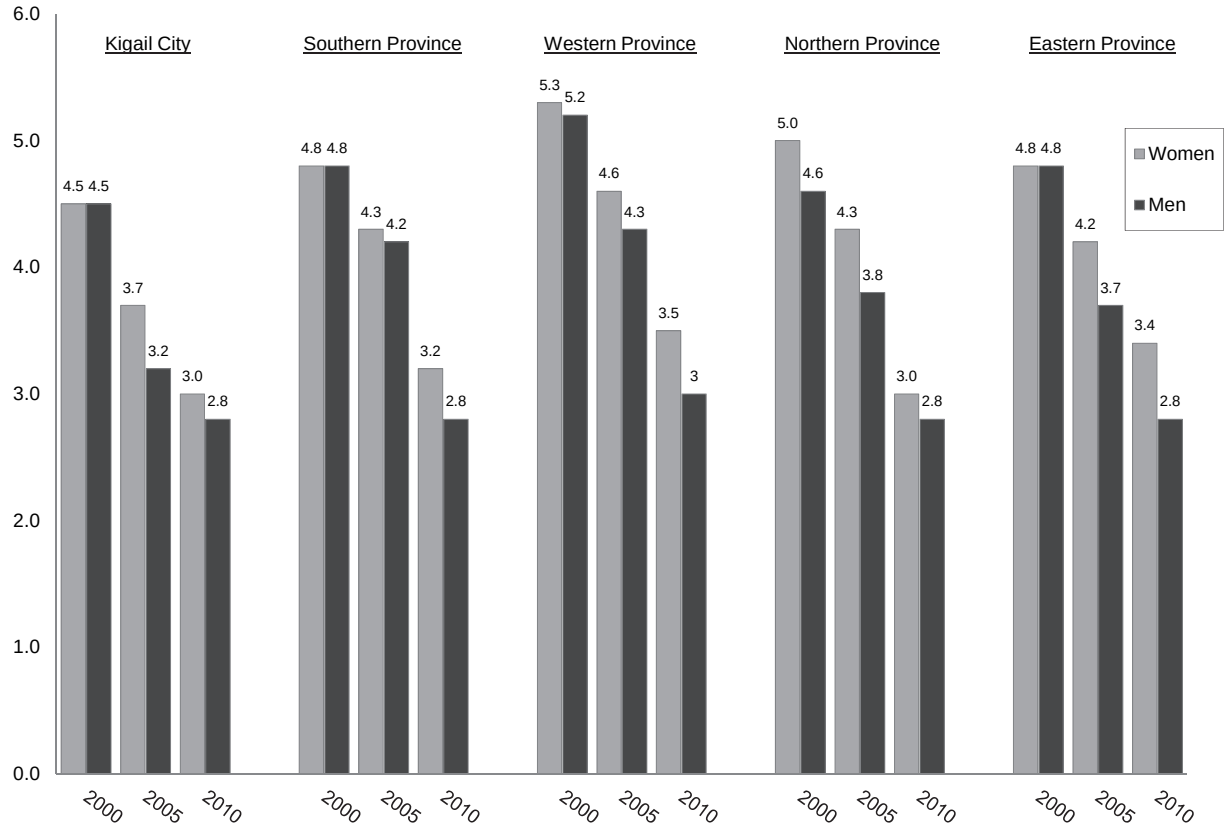


Table 3. Trends in the percentage of currently married women and men who want no more children among those with 3 or 4 living children, by province, Rwanda 2000, 2005, and 2010

	Women	Men
Kigali City		
2000	41	29
2005	65	62
2010	73	75
Southern Province		
2000	30	19
2005	43	38
2010	74	75
Western Province		
2000	26	22
2005	41	32
2010	60	65
Northern Province		
2000	39	38
2005	40	46
2010	58	72
Eastern Province		
2000	36	29
2005	52	44
2010	72	82

9. COVARIATES OF REPRODUCTIVE PREFERENCES

This section focuses on current covariates of the number of children desired other than regional differences. The first part of Table 4 includes the standard three variables, education, wealth, and urban–rural residence, and shows variations across the measures of reproductive preferences. A positive association appears between women's education and ideal number of children. However, this association is much weaker for men and, for both men and women, is non-existent for wealth and residence.

This table also includes the covariations with the proportions wanting no more children (among persons married or living together with 3 children). The highest proportions are for secondary and higher education and for urban residence. These associations are more irregular and weaker than for the other measures of reproductive preferences.

Table 4 shows a continuation of this analysis for several other measures, including religion, a measure of gender equality, and the number of child deaths. In general, there is little evidence of religious differences in reproductive preferences. Contrary to some concerns in family planning circles in Rwanda, there is no evidence to suggest that Catholics are any different than non-Catholics in their reproductive preferences. There is even some contrary evidence in the higher proportions of Catholics with 3 children who want no more children. Also, married Catholic women are more likely to be using modern contraceptive methods, at 49 percent compared with 41 percent for Protestants (not shown here). The main concern about religion and family planning relates to faith-based health facilities where modern family planning methods are not available. The opposition to contraception is not shared by many of its followers.

For both women and men there is no difference in the average ideal number of children by attitudes toward gender equality (for women, a scale of who makes various decisions in the household, and for men, an index of situations in which beating of the wife might be justified). There is a slight tendency for more egalitarian women and men to want no more children.

Particularly for women, there appears to be a difference in ideal number of children by experience of child mortality. Having had a child die seems to connect with a higher ideal number of children but, in contrast, also with a higher proportion wanting no more children. Multivariate analysis may resolve this difference, since age and number of children are relevant.

Table 4. Covariates of reproductive preferences, Rwanda 2010

	Mean ideal number of children		Percent want no more children (married with 3 children)	
	Women	Men	Women	Men
Education				
None	3.8	3.0	63	66
Primary	3.2	2.9	56	65
Secondary	2.9	2.7	71	71
Wealth				
Lowest	3.4	2.9	56	72
Second	3.4	2.8	61	66
Middle	3.3	2.9	58	64
Fourth	3.3	2.8	56	68
Highest	3.1	2.8	64	66
Residence				
Urban	3.1	2.8	68	71
Rural	3.3	2.8	57	65
Religion				
Catholic	3.6	2.8	65	67
Protestant	3.7	2.9	52	64
Adventist	3.6	2.8	57	65
Gender equality				
Low	3.7	2.9	57	60
High	3.6	2.8	61	68
Child deaths				
No	3.1	2.8	55	66
Yes	4.0	3.0	67	72

10. MULTIVARIATE ANALYSES

Table 5 and Table 6 show two sets of multivariate analyses in which, both for women and men, covariates of the ideal number of children and the proportions wanting no more children are the focus. For both women and men (Table 5), ideal number of children shows a strong relationship with the actual number of children, an association that would be expected since most births are clearly wanted (85 percent of last births were wanted in the preceding five years). Years of schooling are negatively associated with ideal number of children for both women and men, while wealth shows a positive association for women but shows no association for men. Exposure to radio is associated with a lower ideal number of children for women but shows no association for men. Current use of modern contraception also relates negatively with ideal number of children for both women and men, as does having positive attitudes toward gender equality. The number of child deaths shows a positive relationship with ideal number of children but is statistically significant only for women. The direction of this association is thus the same as in Table 4, without any other covariates controlled.

Most but not all results of factors associated with the proportion of married persons wanting no more children (Table 6) are similar to those for the ideal number of children, above. The strongest covariates among women, aside from age and the actual number of children, are urban residence, use of a modern contraceptive method, and positive gender equality attitudes. Education and wealth show no relationship with wanting or not wanting more children. Although child mortality is positively correlated with women's ideal number of children, it shows no significant association with the desire to have or not to have more children.

Among men, the ideal number of children is related positively to the actual number of children, and negatively to the amount of schooling, the use of modern contraception, and attitudes toward gender equality. Concerning intention to have another child, the only significant covariates are age and number of children.

Table 5. Covariates of the number of children considered ideal by women and men (standardized partial regression coefficients), Rwanda 2010

	All women	All men
Number of children	.331	.224
Years of schooling	– .042	– .053
Wealth	.039	(.003)
Rural-urban residence	(– .000)	(– .019)
Listens to radio	– .032	(– .004)
Watches television	(-.017)	(.021)
Using modern method	– .046	– .065
Number of child deaths	.110	(.014)
Gender equality	– .038	– .055
Age	.050	(– .012)
Number	13,503	5,679
R^2	.193	.049

( ) not significant at .05 level

Table 6. Odds ratios of married women and married men with one or more live births who want no more children, Rwanda 2010

	Odds ratios	
	Women	**Men**
Number of children	2.70	2.50
Education		
None	1.00	1.00
Elementary	(0.90)	(1.16)
Secondary or higher	(1.05)	(1.14)
Wealth		
Lowest	1.00	1.00
Secondary or higher	(0.98)	(1.01)
Middle	0.77	(1.04)
Fourth	(0.90)	(1.11)
Highest	(0.84)	(0.89)
Residence		
Urban	1.00	1.00
Rural	0.69	(0.83)
Child mortality		
No	1.00	1.00
Yes	(1.09)	(1.19)
Using modern method		
No	1.00	1.00
Yes	1.24	(1.05)
Gender equality attitudes		
Low	1.00	1.00
High	1.13	(0.89)
Age	1.08	1.04
Number	6,296	2,520
R^2	0.40	0.34

( ) not significant at .05 level

11. CHILD MORTALITY AND REPRODUCTIVE PREFERENCES

A very important recent development in Rwanda has been a decline in child mortality. Between the five years preceding 2005 and the five years preceding 2010, the mortality of children under age 5 dropped by 50 percent. Given the declines in wanted and actual fertility rates over the decade, it is interesting to reflect on the extent of a possible direct connection between child survival and lower fertility. A common belief is that a decline in the child death rate will be associated with a decline in the wanted number of children because fewer births will be needed to reach the desired number of surviving children.

The results of the preceding analysis indicate that, as hypothesized, the total number of children desired by women is higher for women who have experienced the death of a child, a result that persists with a variety of controls of other covariates (Table 5). For men, there seems to be no significant effect.

Five to 10 years of decline in child mortality may or may not be a long enough interval to diffuse or penetrate into the reproductive culture, especially if the reasons for the sharp mortality declines may be less likely to reflect underlying social and economic improvements. The declines in mortality may be caused by a widespread use of vaccines, community-based services, or other health interventions, without more basic changes in reproductive attitudes.

12. DISTRICT LEVEL ANALYSIS

The 2010 Rwanda DHS includes numerous characteristics of the sample tabulated by local districts. These consist of 30 administrative areas in 97 tables. We constructed a data file to permit analyses of key measures related to reproductive behavior, especially measures connected with the desired number of children (Table 7). These aggregate summary statistics are appropriate for such data as rates of fertility, contraceptive use, and unmet need for family planning. Detailed analyses of relationships are not possible due to the limited number of districts (30), but showing local variations within the larger regions may be useful for the program development.

We have prepared several maps focused on the measures of desired fertility. We begin in Figure 7 with the TFR for each district. The national TFR, calculated for the three years preceding the survey in 2010, is 4.6 births per woman. Lower rates are observed for districts in and around the capital city, with 2.9 the lowest in Nyarugenge, a district of Kigali. The highest TFRs are in the Western and Eastern Provinces, ranging from 4.6 to 5.4.

The geographic distribution of wanted fertility rates (Figure 8) is similar to that of the TFR in some but not all respects. Given the high correlation between the TFR and the TWFR (0.86), this similarity is to be expected. The lowest TWFRs are in the capital districts and in the adjacent districts in the North, and in the northern districts of the Southern Province, generally in the geographic center of the country. Collectively, these 11 districts show an average TWFR of 2.7 and an average TFR of 3.8, which indicates that about a quarter of their fertility is unwanted. In the Western and Eastern Provinces, every district has a TWFR between 3.0 and 3.9.

Table 7. Summary of reproductive measures for districts of Rwanda, 2010

	Total fertility rates	Wanted fertility rates	Mean ideal number of children (women)	Percent want no more (have 3)[1]	Currently using modern method[1]	Percent unmet need[1]	Mean ideal number (males)
Rwanda	4.6	3.1	3.3	57	45	24	2.8
Kigali City	3.5	2.6	3.0	65	48	20	2.9
Nyarugenge	2.9	2.3	3.2	61	52	20	3.0
Gasabo	3.8	2.6	2.9	69	45	22	2.7
Kicukiro	3.4	2.6	3.1	62	47	19	2.8
Southern Province	4.6	3.2	3.2	62	48	22	2.8
Nyanza	4.8	3.4	3.3	72	48	26	2.9
Gisagara	4.8	3.5	3.4	47	44	23	2.8
Nyaruguru	5.4	3.8	3.8	38	42	21	3.4
Huye	4.7	3.6	3.6	54	41	26	2.9
Nyamagabe	5.1	3.3	3.0	64	39	29	2.5
Ruhango	4.1	2.7	3.1	74	52	26	2.6
Muhanga	3.8	2.8	2.8	78	62	10	2.6
Kamonyi	4.1	3.0	2.8	75	60	16	2.7
Western Province	5.0	3.4	3.5	50	36	30	3.0
Karongi	4.6	3.3	3.1	72	40	28	2.9
Rutsiro	5.2	3.5	3.1	68	41	24	2.9
Rubavu	5.3	3.6	3.7	38	29	36	3.2
Nyabihu	4.9	3.3	3.5	36	41	28	2.9
Ngororero	4.6	3.2	3.3	60	45	21	2.8
Rusizi	5.1	3.5	3.8	30	23	36	3.4
Nyamasheke	5.0	3.5	3.7	38	28	38	3.0
Northern Province	4.1	2.7	3.2	53	52	20	2.7
Rulindo	3.3	2.5	2.8	48	49	22	2.8
Gakenke	4.7	2.9	3.1	67	56	20	2.7
Musanze	4.6	2.8	3.1	52	51	20	2.6
Burera	3.6	2.7	4.0	32	45	22	2.9
Gicumbi	4.1	2.4	3.1	65	58	17	2.7
Eastern Province	4.9	3.4	3.4	59	46	25	2.8
Rwamagana	4.6	3.3	2.9	81	50	23	2.5
Nyagatare	5.1	3.9	3.9	52	43	27	2.9
Gatsibo	4.9	3.0	3.2	56	50	24	2.7
Kayonza	5.1	3.4	3.3	63	48	25	3.0
Kirehe	4.7	3.1	3.5	55	43	33	2.8
Ngoma	5.0	3.8	3.6	54	46	19	3.0
Bugesera	5.0	3.2	3.2	61	43	22	2.8

[1] Based on currently married women

* Source: derived from tables in Appendix D in *Rwanda Demographic and Health Survey 2010*

Figure 7. Total fertility rate, by district.

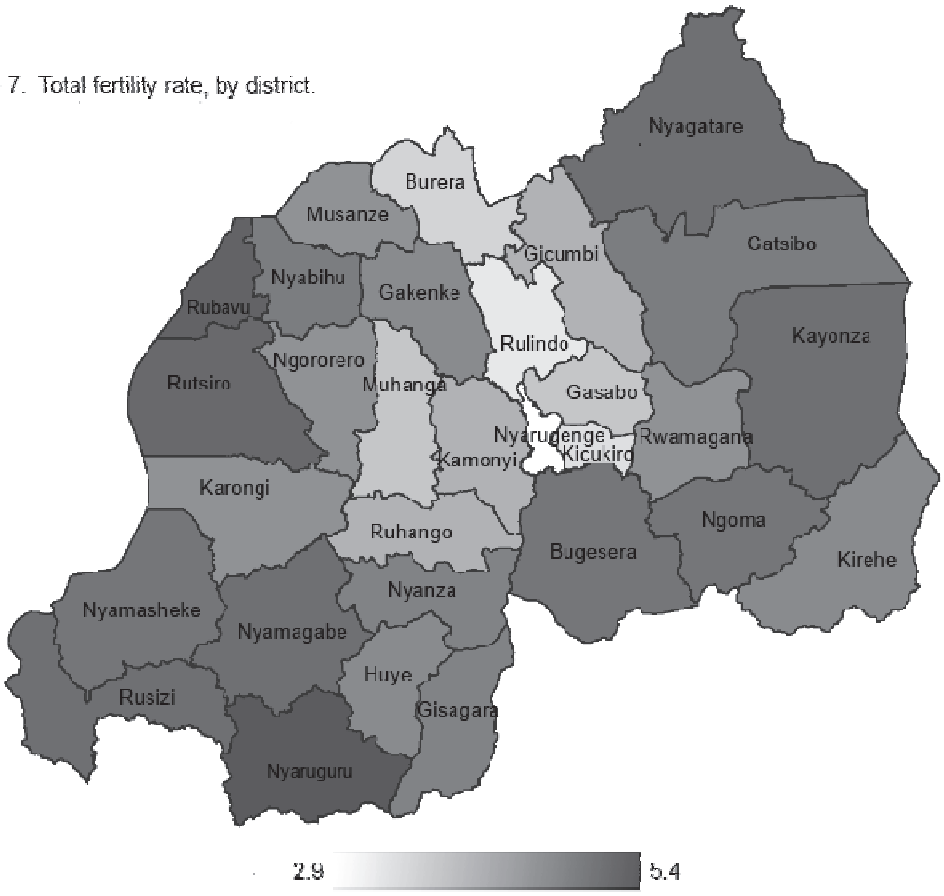
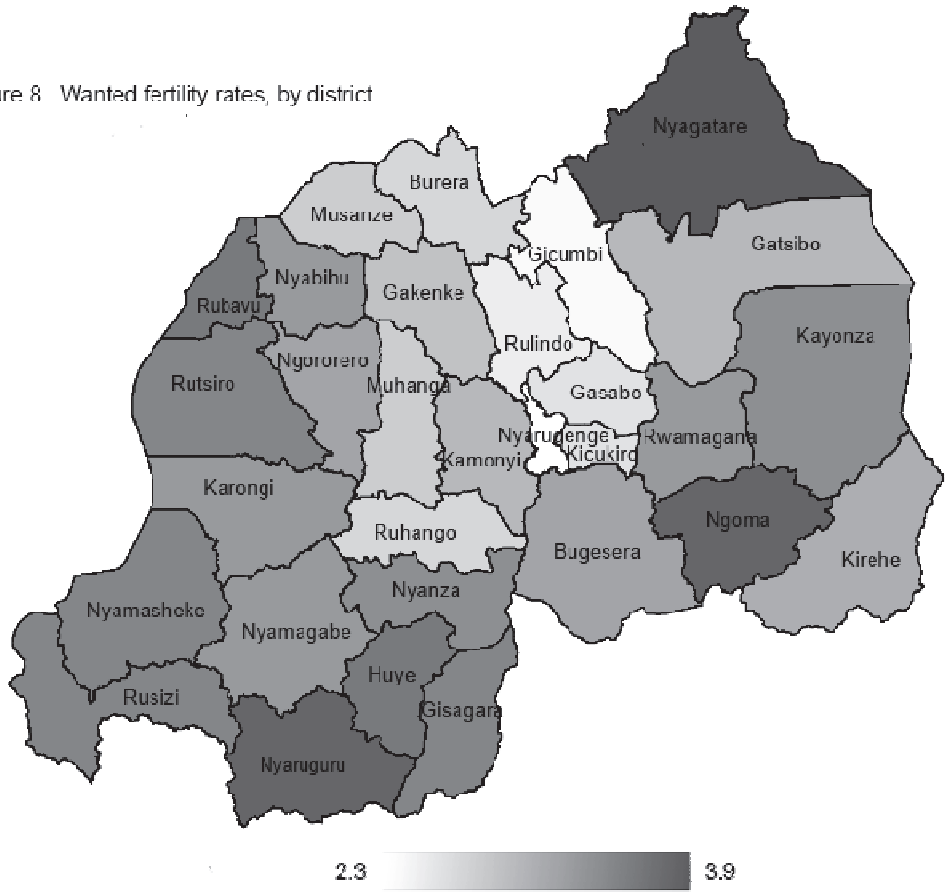


Figure 8 Wanted fertility rates, by district



We have also plotted the district distribution of women's ideal number of children (Figure 9), which also shows strong similarity with the TWFR. The main difference in the two measures is that the TWFR by design excludes births above the ideal number at each age in the past three years, while the ideal number of children alone is a more hypothetical current measure that intends to communicate the desired number under the best of circumstances. In addition, the TWFR is constructed as a rate, not as an individual measure, and is intended to be compared with the observed TFR. Overall, women's average ideal number of children tends to be slightly higher than the TWFR. In the district of Burera in the north of the country, women's ideal number of children is 4.0, which is much higher than the TWFR, at 2.7 children per woman. Other districts show similar values of these two measures.

We also compared men's ideal number of children (not mapped here) with women's. One statistical difference between the two is a much smaller variance for men than for women. For the country as a whole, the estimate of men's ideal number is 2.8 children compared with 3.8 for women. Men's ideal number of children ranges from 2.5 in Nyamagabe and in Rwamagana to 3.4 in Nyaruguru and in Rusizi, adjacent districts in the extreme southwest of the country. The standard deviation for the measure for men is 0.22 but is 0.34 for women, around the mean of 3.3.

The fourth map (Figure 10) shows the percentage of married women with 3 children who want no more children. The national average is 57 percent, with a range from 30 percent in Rusizi in the extreme southwest to 81 percent in Rwamagana, just east of Kigali City. This district has, along with the capital districts, the most education in the country (the correlation across districts between median years of schooling and the percentage of women with 3 children wanting no more children is 0.51). In general, the districts with the lowest percentages on this "want no more" measure are in the Western Province, while the highest percentages are in the upper districts in the Southern Province (Muhanga, Kamonyi, Ruhango, and Nyanza).

Figure 11 shows the distribution of unmet need for family planning. The lowest levels of unmet need are in Muhanga (10 percent) and in districts adjacent to the Western Province. The highest levels of unmet need—above 30 percent—are in Nyamasheke, Rusizi, Rubavu, and Kirehe.

Table 7 presents all of these measures, and others related to the desired number of children, for each of Rwanda's 30 districts.

Figure 9. Mean women's ideal number of children, by district

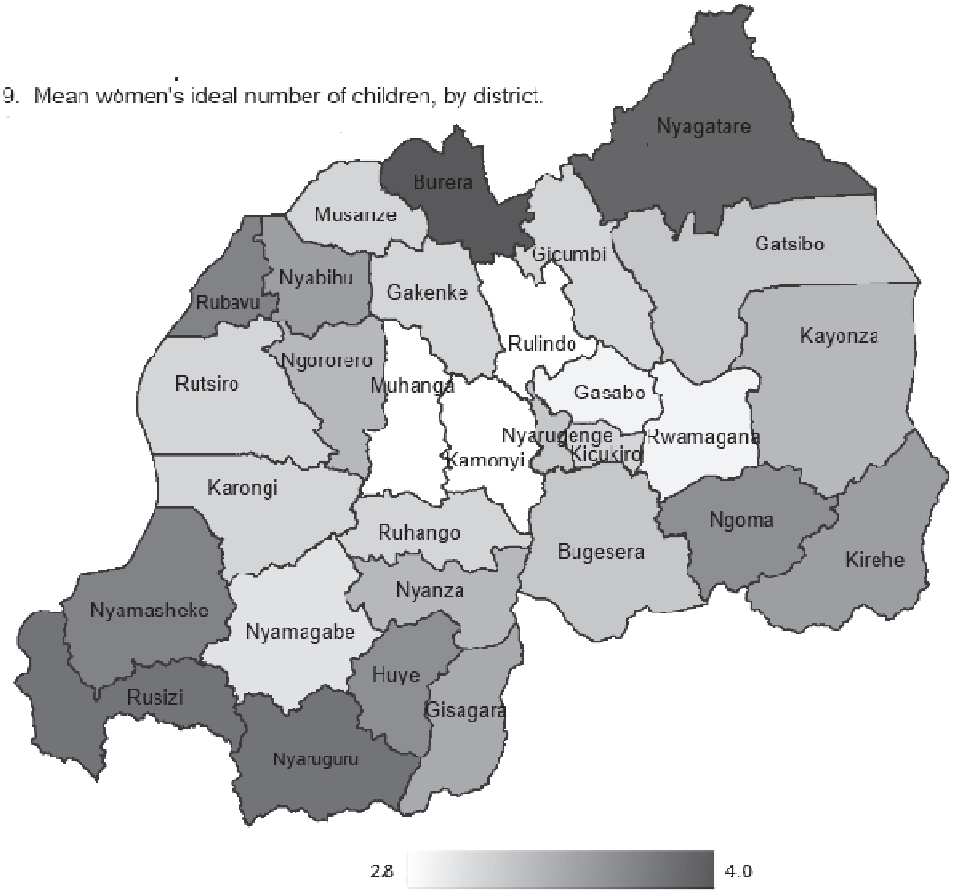


Figure 10. Percent of married women (with 3 children) who want no more children.

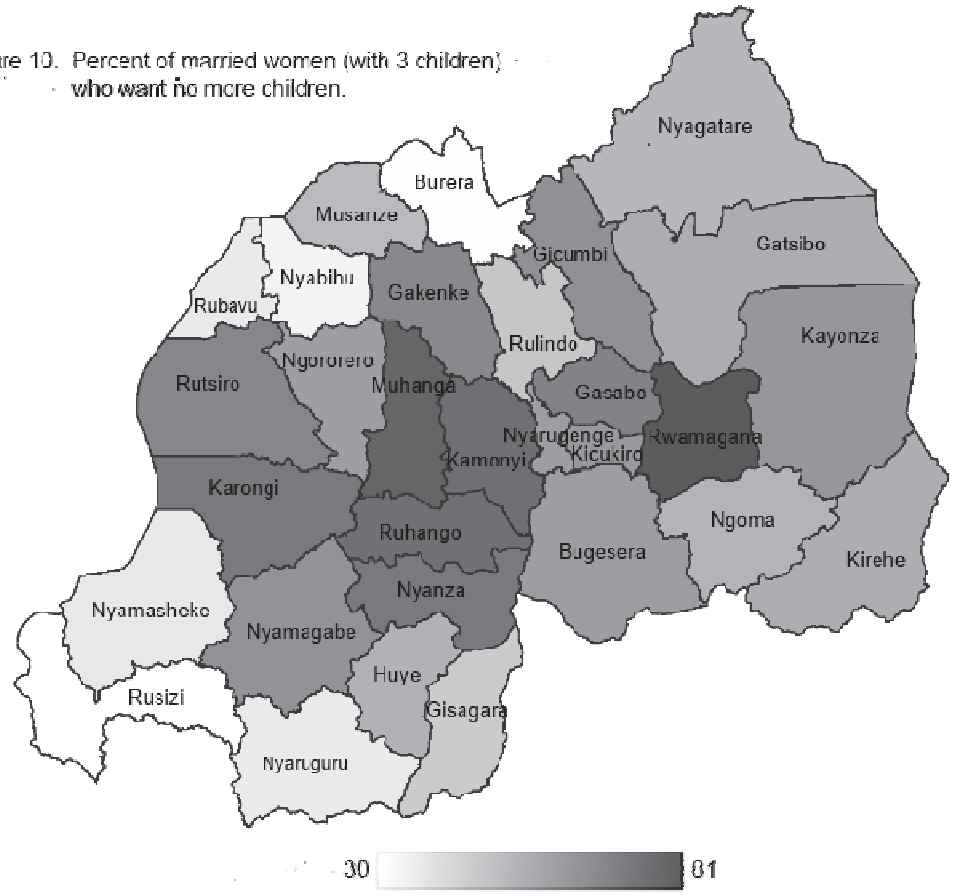
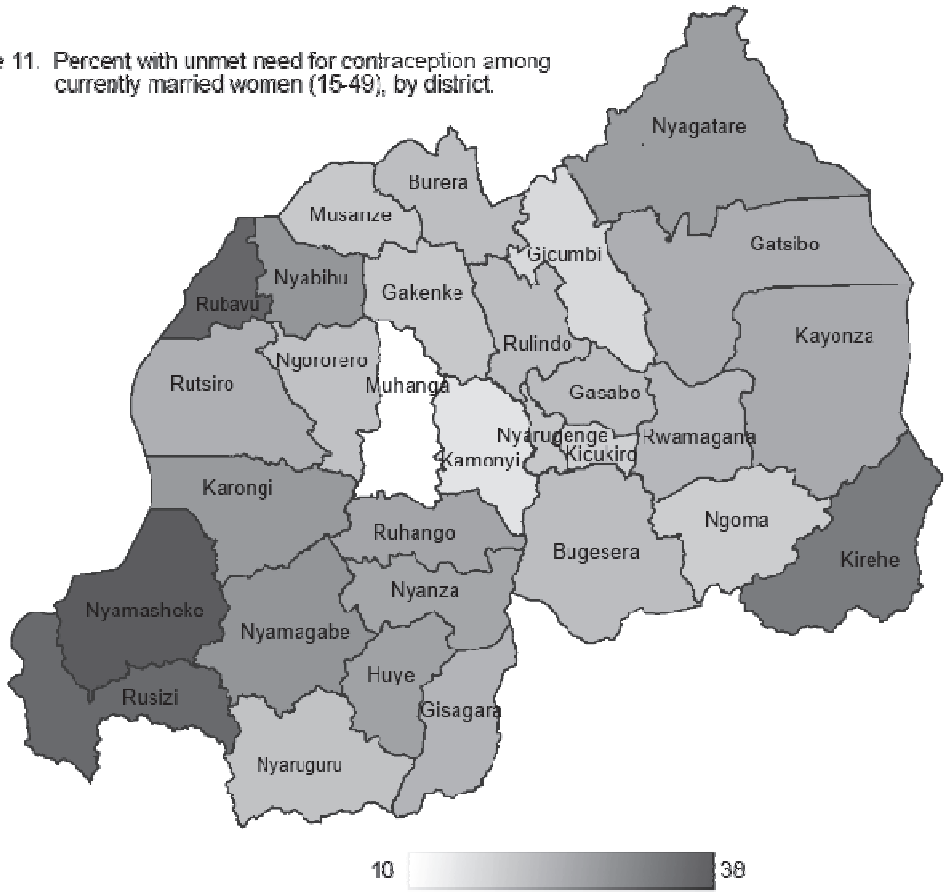


Figure 11. Percent with unmet need for contraception among currently married women (15-49), by district.



13. EXPLANATIONS FOR THE CHANGES

The dramatic changes in reproductive attitudes and behavior in Rwanda have clearly been a response to the government's commitment in the population policy arena. The main driving force has been recognition by the president of the country, Paul Kagame, and members of his government and parliament, of Rwanda's rapid population growth and its implications for economic development and the level of poverty. An important element in this recognition was the exposure of Rwandan parliamentarians in mid-decade to the computer model RAPID, a product of the Futures Group, that showed the economic advantages of reducing the fertility rate in Rwanda, a country with very high population density.

At the highest level, the Rwandan government has prioritized family planning and works to increase access to and public awareness around family planning. The Ministry of Finance and Planning supports family planning programs as a national priority. Parliament houses a network for Parliamentarians Working on Population and Development (RPRPD) that advocates for family planning (among other programs) to the government. A Family Planning Technical Working Group (TWG) is composed of family planning implementing agencies, including key stakeholders such as the Ministry of Health, the United Nations (UN), the US Agency for International Development (USAID), and other public and private institutions as well as the civil society. They meet monthly to plan and develop strategies and ensure that they are implemented at every level.

The full story was told by Julie Solo (Solo 2008) in an informative account that describes the resulting emphasis on family planning and public health programs. A more recent publication (Teller and Hailemariam 2011) asserted that "…the National Family Planning Program in Rwanda is a phenomenal success" and that the national Vision 2020 "specifically identifies family planning as a crucial intervention to the long-term economic goals of the nation." Family planning services including contraceptives are free, and, as has been noted, one gets the impression that family planning is really in the air in Rwanda, where leaders promote the small family ideal, which is communicated on the radio and in other means of community outreach (Westoff 2013).

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