
***The Effects of Conflict
on Fertility Desires and Behavior
in Rwanda***

***Dissertation Submitted for Completion
of the Doctor of Public Health Degree***

***Department of Sociomedical Sciences
Mailman School of Public Health
Columbia University***

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May 2004



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“War and public health are incompatible pursuits.”

*Ron Waldman**

I. Introduction to the Study

We have only limited understanding of the effects of armed conflict on individuals' fertility desires and behaviors. Two factors contribute to this lack of available data. First, very little attention was paid to any aspect of reproductive health of refugees and displaced people prior to the mid-to-late 1990s.¹ Second, research in times of conflict, regardless of the topic, can be logistically difficult, methodologically problematic, ethically challenging and possibly dangerous.^{2,3}

Individuals' fertility desires and behaviors are influenced by a wide range of social, demographic and economic factors, such as age, parity, education, economic status and rural/urban residence. These determinants have been long studied in peaceful settings, and there has emerged a solid understanding of their roles in fertility preference formation and decision-making.^{4,5} It would be expected that refugees would continue to be influenced by these factors in the post-conflict period, just as they were prior to conflict. But it may be hypothesized that the experience of conflict would contribute to or alter individuals' fertility-related thoughts and desires as well as their ability to act on those desires.

To understand the potential effects of conflict, we must recognize the ways in which conflict touches individuals and alters social systems.⁶ One obvious result of conflict is that individuals – civilians and military – are killed and thus deprived of their

* Waldman RJ. Public Health in Times of War and Famine. What Can Be Done? What Should Be Done? *Journal of the American Medical Association*, 286(5):588-590. August 1, 2001.

very right to life. Another is that these deaths have emotional, psychological and often material consequences for the surviving family and community. But problems occur well before large-scale violence erupts and deaths mount. In societies in or moving towards conflict, health, education and other services disintegrate; the economy collapses; and social ties are strained, especially in civil conflicts. Heavy fighting forces many to flee their homes for safety and survival; loved ones are killed, tortured or raped; families are separated and material goods lost; everything familiar is ripped away. Those who are displaced may move to crowded refugee camps, experiencing high mortality and morbidity from preventable conditions and lack of care for chronic illnesses. They may stay displaced for years, perhaps eventually receiving basic services from agencies whose mission is humanitarian assistance, but living modified lives – farmers with no farms, herders with no herds, workers with no jobs, children with no schools. The displaced may face resentment and discrimination from the local people among whom they settle, who are often desperately poor themselves. Long-term impact on the environment may be difficult to avoid as refugees cut down forests for firewood, overwork the limited land they may be allowed and overburden water and sanitation facilities. In the post-conflict, ‘redevelopment’ phase, the refugees go home to decrepit houses, neglected farms, disrupted communities, shattered economies, few and poorly-functioning services. They return to a ‘home’ and a ‘community’ that are fundamentally different from the ones they left.

Since 1994, when, in 100 days from April to July, 800,000 Rwandans were murdered in the world’s most recent genocide, Rwanda and Rwandans have experienced all of these conditions. In the doctoral research presented here, I examine

how these personal and structural consequences of conflict influenced women's fertility desires and behavior in post-genocide Rwanda. The hypotheses hold, first, that women who lived in geographic areas of Rwanda which had a high proportion of the population who became refugees in 1994 were less likely to want a, or another, child in 2000 and, second, that women in these high-migration areas were therefore more likely to act on their wish to not have a(nother) child by using modern contraceptives than were women in low-migration areas.

Some definitions of terms is helpful. The word 'refugee' has a particular meaning, though it is often used broadly to connote anyone who is forced to flee his home. According to the 1951 UN Convention relating to the Status of Refugees, a refugee is a person who,

"owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion, is outside the country of his nationality, and is unable to or, owing to such fear, is unwilling to avail himself of the protection of that country..."⁷

The 1951 Convention and its 1967 Protocol⁸ set out responsibilities for provision of social services for refugees. The office of the UN High Commissioner for Refugees (UNHCR) is the UN body mandated to provide them international protection.⁹ Thus, Rwandans who fled to Zaire, Tanzania and Burundi or any other country in 1994 were officially designated 'refugees' and entitled to the protections afforded by UNHCR and the humanitarian agencies with which it works. Soldiers and persons who have participated in war crimes and violations of humanitarian and human rights law are specifically excluded from the protection accorded to refugees.¹⁰

‘Internally displaced persons’ (IDPs) are those who flee their homes for the same reasons as refugees but never cross an international border and so are not designated ‘refugees.’ As they are in their own country, they remain the responsibility of their own governments; UNHCR has no responsibility for them. A number of humanitarian agencies provide assistance to IDPs, but they generally receive less attention and resources than do refugees. Many Rwandans were internally displaced during the genocide, though their numbers are unknown.

‘Genocide’ is another term that bears defining. The word itself did not exist until Raphael Lemkin, a Polish Jew who escaped the Nazis but who lost some 50 family members to the Holocaust, invented it in the early 1940s. He combined the Greek “geno” meaning “race” or “tribe” with the Latin “cide” meaning “killing.”¹¹ In December 1948, the UN General Assembly passed the Convention on the Prevention and Punishment of the Crime of Genocide, which defined genocide as:

“any of the following acts committed with intent to destroy, in whole or in part, a national, ethnical, racial, or religious group, as such:

- A. Killing members of the group;
- B. Causing serious bodily harm or mental harm to members of the group;
- C. Deliberately inflicting on the group the conditions of life calculated to bring about its physical destruction in whole or in part;
- D. Imposing measures intended to prevent births within the group;
- E. Forcibly transferring children of the group to another group.”¹²

All participating countries are required to prevent and punish actions of genocide in war and peacetime. The US signed the Convention in 1948, but it was not until November 1988 that the US ratified the treaty, becoming the 98th country to do so.[†]

This research contributes in two ways to the knowledge base on reproductive health among conflict-affected populations. First, it adds to the meager literature on the topic. There have been few in-depth investigations of the fertility-related desires and behaviors of those affected by conflict. Consequently, we really do not know what role conflict plays, or even in which direction it might operate. It may be that conflict survivors immediately want to replace lost children and other loved ones, and so desire many and rapid births. Conversely, those living the uncertain life of a refugee or suffering the physical and psychological scars of their experience of conflict may not want to bear children. This study adds a case analysis to what is already known, and thus helps develop the field.

Second, this research contributes to the understanding of the Rwandan experience in particular. Rwanda's national family planning program was active and quite successful in the 1980s, particularly when compared to programs in other sub-Saharan African countries. Yet the national contraceptive prevalence rate for modern methods among women in union declined between 1992 and 2000 from 12.9% to 4.3%, as measured by the 1992 and 2000 Rwandan Demographic and Health Surveys.^{13,14} Of 38 developing countries in the world that had multiple DHS surveys between 1990 and 2003, Rwanda was the only country in which contraceptive prevalence fell. In fact,

[†] Senator William Proxmire was the champion of the Genocide Convention's ratification in the US Senate, speaking on it *every day* from 1967 to 1986, a total of 3,211 times. In 1986, the Senate passed the resolution, but waited until 1988 to pass the implementation act.

in all but seven of these 38 countries, prevalence increased by at least ten percentage points.¹⁵ Understanding the factors that contributed to this decline, and the relative role of each, may help program planners as they redesign Rwanda's reproductive health services programs.

I have an additional interest in carrying out this particular piece of work. I visited Rwanda often between 1986 and 1994 to work on two reproductive health projects with Rwanda's National Population Office (ONAPO) and Ministry of Health. These were formative professional experiences for me, and I valued the productive and enjoyable working relationships and friendships that developed between me and my Rwandan colleagues. As it happened, I was in Rwanda, in the northeastern préfecture of Byumba, on April 6, 1994 when the genocide began. I left Rwanda, safely, on April 11.

While my presence during the genocide and prior experiences in Rwanda do not influence the data that form the basis of this doctoral research, they can not help but have influenced my analysis, understanding and interpretation of those data. In this dissertation, I attempt to use my experiences to usefully inform my presentation and exposition of the effects of conflict on women's fertility desires and behavior in this beautiful, damaged country.

This dissertation presents background information relevant to the study topic, the analytic methods used and the analysis and results, followed by a discussion and conclusion. Chapter II is a review of the literature that describes the current state of knowledge about fertility and family planning in populations affected by armed conflict.

In Chapter III, readers are introduced to modern Rwanda and its history. Also included in this chapter is a chronology of the 1994 genocide and mass migration of refugees and the aftermath of these events. Chapter IV presents Rwanda's population policies and programs from colonial times to the present, as well as a description of the reproductive health status of Rwandan women. The study hypotheses, methods and measures used to carry out the analysis are presented in Chapter V. Chapter VI describes and discusses the results of the study. A brief conclusion is presented in Chapter VII.

Accompanying the text is a series of personal essays in which I reflect on my work in Rwanda and on the experience of being present at the beginning of the genocide in April 1994. These essays are supplementary to the dissertation itself, and may be read or not at the preference of the reader.

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***A personal perspective
A decade of collaboration in Rwanda***

I woke up on April 7, 1994 in Byumba, in northeastern Rwanda, to what was to be the “after” part of my life. The “before” part was over; I would be irrevocably changed by my experiences of the next days, weeks and months.

The Rwandan genocide had begun the evening of April 6; we only learned about it the next morning on the radio. I made it across the border to Tanzania safely on April 11, after much negotiation, luck and help from some very brave people, many of whom did not survive the genocide.

What I witnessed in the interim – a mere 5 days – and what occurred over the next 100 days throughout this small, lush country was the stuff of horror. Study, discussion and reflection have helped me understand the historical, cultural, economic, geographic, demographic, political, geopolitical and otherwise relevant factors that ‘caused’ the genocide. But it is, to this day, beyond me to fathom how a regular person could pick up his machete and hack his next door neighbor to pieces. Perhaps it should be equally mysterious to me why so many risked their lives to save strangers and friends.

Prior to my coincidental presence in the country in April 1994, I had a long history in Rwanda. I was based in Abidjan, Côte d’Ivoire at the regional office of Columbia University’s Center for Population and Family Health from 1985-1990 working on an Africa-wide family planning operations research program. One of our projects was in Rwanda and I visited several times each year from 1986-1989 to work with the National Population Office (ONAPO) on an operations research project in Ruhengeri Préfecture in the northwest.

I returned to Rwanda again in 1991. I made a few visits between 1991 and 1994 as a staff member and then a consultant to CARE to assist on a large family planning and reproductive health services project in Byumba Préfecture in the northeast. I was in Rwanda working with a team on a participatory mid-term evaluation of this project when the genocide started.

Before, during and since these periods of work in Rwanda, I have worked in about 20 other African countries and in some 15 countries in other parts of the world. I knew from my first visit that Rwanda was different from other sub-Saharan African countries and I found, during my visits in the 1980s, that I liked working there. Rwanda ‘worked.’ Especially compared to other countries, there was little day-to-day corruption, routine services functioned, there was a sense that the government was truly interested in improving the lot of (most of) its people. The national family planning program on which I worked was well-run; staff and officials were committed. Everyone was so serious about their jobs. More than in most other countries in which I worked, I was treated by colleagues in Rwanda as an advisor; there was no question that the work was theirs. We most definitely worked together on the “ONAPO” project, not the “Columbia” project. I loved it.

I always had reservations though, even in the 1980s. No one talked about the Hutu-Tutsi divide but it was apparent, and I knew there were quotas for jobs, university slots and other benefits. There were good roads, health centers and schools in rural areas, but the only place I had seen rural people living in such poverty, up to that time, was in neighboring Burundi, where it was worse. The degree of social organization and control was astonishing. *Everyone* performed community service on the allotted day; dancing was frowned upon. People could hear only what the government wanted them to hear since it controlled all press, radio and television. In Kinyarwanda-speaking Rwanda, only those who understood French (a small educated class), Kiswahili (some urban traders) or English (very few people) had access to news from the region or the wider world. This degree of social control was more than a little eerie. There was the sense of, “..... but the trains run on time.” or its Third World equivalent, “.... but the electricity always works.” It was always a bit of a relief to get back to chaotic West Africa.

I did not visit Rwanda between 1989 and 1991. When I started visiting again in 1991 and in my few trips afterwards, I was amazed at the changes that had taken place. Utilities, such as water and power, were no longer consistent. *No one* performed community service in Kigali. People spoke openly against the president. Many seemed dispirited. Friends told me chilling stories of police harassment for being Tutsi, of women being arrested and raped by police for being present in (now operating) nightclubs. On the other hand, in the rural areas in Byumba, little seemed to have changed – people seemed as desperately poor as ever.

As I read and reflect on Rwanda before and since the genocide, I am torn. I have excellent memories of the good work and good times I had over many years with colleagues and friends. But I also recognize that the colleagues with whom I worked and socialized, the community health workers and interviewers I helped train, the family planning clients whose homes I visited, whose families I met – I know many were murdered and I have no doubt that some are murderers. No single person in Rwanda emerged from the genocide unscathed.

*“You cannot underestimate the difference between
the experience and the image of the experience.”*

*Charles B Strozier**

II. Fertility and Family Planning in Conflict-Affected Populations: A Literature Review

How does forced migration affect fertility? Those working with war-affected populations assert contradictory positions with equal vigor: that fertility rises because of the social pressure and desire to replace children and adults lost to war, and that it falls because the stress and uncertainties of refugee life are not conducive to childbearing. In fact, both responses are described in numerous demographic and economic analyses: high fertility has been observed in times of economic insecurity and where social or public support networks are unavailable or uncertain; declines in fertility have been observed in response to short or long term economic decline, political upheaval, war, famine and marital separation due to forced (or other) migration.^{1,2,3}

Published and unpublished studies on fertility, fertility desires and contraceptive use reveal a mixed response to childbearing among those affected by war.

Fertility

Lindstrom and Berhanu examined fertility trends in Ethiopia during the 1970s and 1980s, a period marked by social and political upheaval, violent conflict and large population movements, as well as by famine and economic decline.⁴ Using retrospective fertility data gathered in the 1990 National Family and Fertility Survey and

* Charles B Strozier, psychoanalyst, speaking of the effects of the September 11 2001 World Trade Center collapse, as quoted in the New York Times Metropolitan Diary, September 20, 2003.

measuring conflict by the number of military attacks, they note that fertility in the 1970s remained high and relatively stable, though marked by periodic declines and rebounds in response to specific violent, political and economic events. The authors conclude that couples intentionally delayed births during the bad periods, and waited for conditions to improve. In 1982, however, fertility began a gradual but steady decline with no rebounds to maintain the high fertility levels of earlier years. During this period, the authors explain, couples gave up on the notion that circumstances would improve, accepting brutal military attacks and poor economic conditions as standard elements of life in Ethiopia under the now-established military government of Mengistu Haile-Mariam. After assessing and rejecting alternative explanations, the authors state, “The continuation of civil wars and the deterioration of economic conditions after 1982 are key factors in the fertility decline.”

Holck and Cates compared fertility levels among two groups of Khmer refugees for six months after arrival in two holding centers in Thailand in November 1979 using data from health facility registries and population-based surveys.⁵ Actual and projected birth and pregnancy rates were found to differ by refugees’ socio-economic and education status. The birth rate among the urban, economically better-off refugees was found to be 55 per 1,000 population, a level similar to pre-war Kampuchea; this rate remained fairly constant through the six months of observation, and was not projected to change substantially in subsequent months. Birth rates among the rural, poorer refugees were markedly lower at 13 per 1,000, increased during the study period and were projected to continue to increase though not, at least in the short term, to the levels of the better-off women. The low fertility of the economically disadvantaged

refugees upon arrival was attributed to sub-fecundity due to severe malnutrition which, as would be expected, was reversed quickly with improved nutrition in the holding centers.

A follow-up study done by researchers at the Centers for Disease Control in the holding center in which the better-off refugees lived (named Khao I Dang) covered the period from December 1981 to November 1982, a period starting some 19 months after the end of the Holck and Cates study in April 1980.⁶ This study confirmed the fertility projection of the earlier study: the birth rate among this group of refugees remained stable at 55 births per 1,000 population.

In a study using data from Beirut hospital birth registers to indirectly estimate fertility levels, Khlaf *et al* found a small decline in total fertility between 1984 and 1991, a period during which a civil war was ongoing.⁷ They conclude that, ‘war did not lead to a more rapid fall in the population’s fertility.’”

A study in Belize by Moss *et al* used 1989 data to compare fertility among native-born Belizeans and three categories of refugees and immigrants from El Salvador and Guatemala: permanent residents, registered refugees and those without legal status.⁸ Their median time in Belize was 4.5 years; only mothers with at least one child under six were studied. The authors assert, “[S]ocio-demographic characteristics (age, education, acreage) have a stronger effect on current and desired numbers of live births than any aspect of migration.”

Data compiled by the Centre for Research on the Epidemiology of Disasters (CRED) on Sudanese refugees living in two camps in Ethiopia (Bonga and Fugnido) illustrate differing fertility patterns among migrants from the same country (though from

different ethnic groups) responding to a similar emergency.⁹ Monthly crude birth rates from February 1993 to July/August 1996 show an increase in Bonga (from about 1 to over 4 per 1000 population) and a decline in Fugnido (from over 3 to less than 1 per 1000). The researchers attribute the increase in Bonga to a desire to repopulate following a massacre as well as to better camp organization and patient compliance with health advice. They attribute the declining fertility in Fugnido to the harsh environment and poor facilities and health services.

The International Office of Migration reported a decline in the mean annual number of births in Sarajevo in the mid-1990s from 10,000 prior to the conflict to 2,000 during the war.¹⁰ They determined that marital separation and postponement of births due to insecurity contributed most to the decline and that population movement alone explained relatively little. Postponement was achieved through elective abortion (the average number of abortions per full term pregnancy increased from one prior to the war to two during most of the war) rather than contraceptive use, which remained low.¹¹

A study by Zakharia and Tabari among Palestinian refugees in Lebanon in 1995 showed continued patterns of high, early fertility and short birth intervals.¹² Fertility desires may be changing, however: while 50% of the 15-60 year old mothers had more than five children, only 22% chose this as the “preferred” number. Similarly, 58% of these women had had their first child at age 19 or younger but 78% considered 20-25 years the preferred age to begin childbearing.

In another study of Palestinian refugees, Fargues examines the effect of the longstanding ‘state of belligerence’ in Palestine and Israel on fertility levels and trends.¹³ He defines this term, used interchangeably with ‘conflict,’ to refer to the military and

political struggle in the region but also to the mistrust between the populations, including Jewish and Arab citizens within Israel. Fargues notes the extreme differences in fertility between, on the one hand, Europe-originating Jews and Christian Arabs (their total fertility rate of 2.1 in 1992-96 was close to replacement level) and, on the other hand, Palestinians (the TFR of 7.8 in 1991-95 among Palestinians in the Gaza Strip was among the highest recorded in the world). He also describes the downward and converging trends in fertility among Jews settling in Israel from different parts of the world since 1948, while Palestinians in different geographic areas show divergent patterns. Those in the Gaza Strip have the extremely high fertility noted above, those in the West Bank had a TFR of 5.4 in 1995, while Muslim Israeli Palestinians' TFR was 4.7 in 1995.

Fargues notes that the socio-demographic shifts usually associated with fertility decline, such as declining infant mortality and increasing women's education, have operated as expected to push down fertility levels in some sub-groups, particularly within the Jewish population. But they have been inadequate in other sub-groups, such as the ultra-orthodox Jews and most Palestinians. He argues that the 'state of belligerence' and the overt pronatalism that resulted – in both Jewish and Palestinian policy and culture – were key to maintaining high fertility.

The United Nations High Commissioner for Refugees (UNHCR) compiled reproductive health data from routine service statistics and special studies in eight refugee settings around the world in 1998 (Bonga, Ethiopia; Dadaab and Kakuma, Kenya; Nepal; Hangu, Pakistan; Kibondo, Tanzania; Uganda; Goma, Democratic Republic of the Congo).¹⁴ Crude birth rates varied from 13 to 38 per 1000 population

per year (in Bonga and Hangu, respectively). In seven of the eight sites, camp birth rates were considerably lower than those in both the home and host countries; in Hangu, the camp birth rate was about equal to Pakistan's and lower than Afghanistan's. The authors note that inaccuracies in population size estimates or in health reporting systems may affect the precision of the compiled data.

In a study that is most analogous to the present research on Rwanda, Agadjanian and Prata used the nationally representative, cross-sectional Multiple Indicators Cluster Survey carried out in late 1996 in Angola to examine the impact of war on the timing of recent births.¹⁵ They specified their analysis to reflect temporal differences in the intensity of conflict in the country, identifying periods of relative peace (June 1991-September 1992), high intensity conflict (October 1992-October 1994) and re-achieved calm (November 1994-November 1998). They recognized, however, that these fluctuations in conflict intensity varied by geographical region. To reflect these spatial disparities, the authors classified the degree of exposure to war for each time period by region of residence, using categorizations of 'more affected areas,' 'less affected areas' and a separate category for 'Luanda,' the capital, which did not experience direct fighting but which was distinguished in the analysis from the other less affected, rural, regions due to the different socioeconomic and cultural profile of its urban residents.

Agadjanian's and Prata's hypothesis was that, "differences in the type and degree of war-induced social distress are crucial in shaping demographic behavior and outcomes." They expected to find a lower probability of birth in the period of war compared with the earlier and later periods of peace; they also expected that those

living in more affected areas would experience greater fluctuations, i.e., deeper declines during war and higher rebounds during peace.

Their hypothesis was borne out by the data. The researchers found “a clear dip in the probability of birth as the war intensified and a subsequent rebound after the worst of the fighting was over.” This pattern only held in the most affected geographic areas; the least affected areas showed little fluctuation in the probability of birth in response to the ebb and flow of war. Luanda, though a ‘less affected’ area, illustrated the ‘more affected’ area pattern because, the authors suggest, the urbanized, better-off residents of capital cities are more sensitive to the effects of war, and more able to act on their intentions. Indeed, the authors also found that the socioeconomic variables usually associated with fertility played their usual influential role: the temporal changes in fertility were concentrated among the more affluent and more educated groups regardless of geographic area of residence.

In a multi-site study of reproductive health indicators and outcomes, Hynes *et al* from the US Centers for Disease Control and Prevention collected data from 52 refugee and internally displaced persons camps in Azerbaijan (7 camps), Ethiopia (11 camps), Myanmar (3 camps), Nepal (7 camps), Tanzania (8 camps), Thailand (5 camps) and Uganda (11 camps).¹⁶ Data were collected during site visits by the researchers over a 15-month period from November 1998 to March 2000. All of the camps were in the post-emergency phase, defined by a crude mortality rate of less than 1 death per 10,000 persons per day.

Crude birth rates were among the data collected. Results show that these rates had an extremely wide range (13 births per 1,000 persons among Somalis in Ethiopia

and 14 among internally displaced Azerbaijanis, to 40 among Congolese in Tanzania and 61 among Burundians in Tanzania). The researchers also compared these unadjusted birth rates to those in the host and home countries. Of the 11 distinct groups, as categorized by nationality and country of asylum (thus making Sudanese in Ethiopia and Sudanese in Uganda two distinct groups, for example), six groups had rates lower than their home country, four had rates higher than their home country and one showed no difference. Of the nine distinct groups that could be compared to host country populations (such a comparison was not relevant for internally displaced Azerbaijanis and Myanmar), five had rates lower than the host country, two had rates higher than the host country and two showed no difference. Thus, they found no consistent pattern of higher or lower rates although, on balance, most camp rates were lower than those in either of the comparison groups.

In a final stage of analysis, the researchers developed multiple regression models to explain the variability in adjusted crude birth rates. Two variables were significant: age of the camp and number of local health staff (per 1,000 persons). As the age of the camp increased, the crude birth rate decreased; the researchers suggest that access to family planning education and services and low mortality rates, both of which develop over time, may explain this finding. An inverse relationship was found for the second variable: as local staff numbers increased, birth rates increased. The researchers indicate that this finding is probably due to recording bias, i.e., more staff would record more events.

In sum, these studies suggest that no common fertility pattern is apparent among those affected by armed conflict. The immediacy and severity of an emergency may

affect short term response but in the long term, conflict-affected women's fertility appears to be influenced by the socio-demographic factors long associated with fertility change in populations in general, such as age, socio-economic status, education and urban/rural residence. Whether there is an independent effect of conflict, beyond the influences of these known variables, is not yet clear.

To further obscure the analysis, the studies that are available, such as those discussed here, have substantial methodological limitations. In many or most cases, denominators are uncertain; the populations are, by definition, mobile; the populations may have skewed sex or age compositions; and there may exist among forced migrants incentives or disincentives to give birth at health facilities or report accurate information, thereby distorting numerator data.

In a review of evidence on humanitarian crises and fertility, Hill cautions readers about the conclusions of several fertility studies, noting that the methods applied often require assumptions about demographic processes that may not apply in conflict situations.¹⁷ For example, Hill notes that the indirect estimate of fertility technique used by Khlal *et al* in the Lebanon study discussed above could be influenced by delayed marriage, a practice that may be prevalent in a population in which men are called as soldiers. Hill also reviews a problem common in surveys which request truncated, rather than full, retrospective birth histories of respondents. Such surveys tend to push recent events back in time and the resulting analysis thus appears to reveal a recent fertility decline. He suggests that this may be the case in the Lindstrom and Berhanu Ethiopia study, as well as the Agadjanian and Prata Angola study, both discussed above.

Hill also questions rates found in some studies, such as the CDC 52-camp study conducted by Hynes *et al* and the CRED study in the camps housing Sudanese refugees in Ethiopia, both discussed above. Hill suggests that exceedingly low or high rates (such as crude birth rates of 13 and 14 per 1000 population recorded among Somalis and Ethiopians, and 61 per 1000 among Burundians in the CDC study) are implausible and more likely to be the results of faulty recording of numerators or denominators. Making policy or program decisions on these bases is, of course, extremely worrisome.

While these methodological concerns trouble researchers working with any population, data analysts in most countries have decades of data and experience to help them interpret their findings. Circumstances in conflict areas differ from those in stable settings, however, and may affect the data in ways with which researchers are unfamiliar. Examining fertility and, as we will see, fertility desires and behaviors, in conflict-affected populations raises new questions which we are only now gathering the experience to answer.

Fertility Desires

Much of the research on fertility and conflict discussed here examines, almost without exception, fertility levels or birth rates; these studies do not investigate women's (or men's) fertility desires or intentions. This is in part explained by the methods typically used – reliance on birth registers or facility data, perhaps the only procedures feasible in conflict settings, precludes examination of intent. Actual fertility may be higher or lower than desired fertility, however, because it is dependent on a set of

biological and social conditions. The intermediate variables framework, developed by Davis and Blake in 1956 and a mainstay of demography ever since, states that a live birth is the result of three fundamental processes: intercourse, conception and successful delivery.¹⁸ All influences on birth rates – socio-demographic, cultural, psychological and economic – must operate through these intermediate variables. This framework can be usefully applied to assess the conditions in conflict settings which may influence the direction of fertility change.

In conflict settings, women's actual fertility may be *lower* than desired due to low exposure to intercourse, perhaps because of partners' deaths or absences or shortage of marriageable men; or their inability to become pregnant or maintain a pregnancy, due to malnutrition, for example. Alternatively, actual fertility may be *higher* than desired in conflict settings where exposure to intercourse is heightened, through forced marriage or coercive sex, for example; if breastfeeding is curtailed, perhaps because of high rates of infant death; if conception can not be prevented because of limited or poor contraceptive services; or where safe pregnancy termination is not available.

In a review of evidence on war and fertility, Hill states that the direction of the effect of the intermediate variables on fertility is likely to be determined by the stage of the humanitarian crisis as well as the pre-existing level of fertility control practiced by the population.¹⁹ So, for example, the severe starvation that might characterize a population in the crisis stage of a complex emergency would almost certainly result in low conception rates and thus reduce fertility, while the moderate malnutrition that might be present in later stages of the crisis is unlikely to affect conception. In a population accustomed to good access to contraceptives or safe abortion, the absence of these

services would result in increased fertility. Whether the fertility increase or decrease matches the population's fertility desires depends on the specific conditions in each conflict setting.

In an exception to the practice of examining only fertility levels and not fertility desires, the study by Agadjanian and Prata on Angola discussed above does, in fact, explore fertility preferences of Angolan women at the time of the survey, which took place some two years after the last round of hostilities.²⁰ They used two different but related measures of fertility desires: whether survey respondents wanted a child in the next 12 months and whether they ever wanted any additional children. Consistent with their notion that those in areas more affected by the conflict would be cautious about trusting in the apparent peace, they found that these women were significantly less likely to want to become pregnant in the next 12 months than women in less affected areas. The women of Luanda were also likely to want to avoid pregnancy in the upcoming 12 months, and were the only one of the three groups that expressed a desire to avoid all additional children. Thus, the data suggest that, outside of Luanda, women's desire to avoid pregnancy was short-term; their longer term desire to have additional children was unaffected by the level of intensity of the conflict.

Availability and Use of Family Planning Services

In order for sexually active individuals to act on their fertility preferences, once they are formed, they must have access to, and use, family planning or safe abortion services. While there are still very limited data on abortion prevalence among conflict-affected (or other) developing country populations, especially where it is not legal, there

has been a dramatic increase in information on the availability of family planning services in conflict-affected areas in the past five years. There is also substantially more information on use of these services by refugees and the displaced. These data have usually been collected as part of initial site assessments or as program reviews or evaluations, and thus have program relevance as their principal focus.

Three multi-site studies reviewed the availability of reproductive health, including family planning, services. In the earliest study, Goodyear and McGinn catalogued the family planning services available in the 14 conflict-affected countries in which the International Rescue Committee had reproductive health programs in 1998 (Azerbaijan, Bosnia, Georgia, Congo, Liberia, Côte d'Ivoire, Guinea, Kenya, Pakistan, South Sudan, North Sudan, Rwanda, Tanzania, Thailand).²¹ They found that basic family planning services were available in all but one country. Of particular interest in the study was the availability of emergency contraception; this method was offered in only four countries, usually as part of the gender-based violence, rather than family planning, program. Lack of familiarity among both providers and refugee women and supply shortages were cited as constraints to its greater availability.

The second study, conducted by Hynes *et al*, was discussed above as it pertained to the crude birth rates found in 52 refugee and displaced persons camps in seven countries using data collected from November 1998 to March 2000. As part of their on-site protocol, the researchers also collected data on family planning service availability.²² They found that services were available in 51 of the 52 camps. Condoms were offered in 51 camps (98% of the 52 camps), injectable contraception in 44 (85%), oral pills in 41 (79%), and intrauterine devices in 13 (25%).

The third multi-site study on service coverage was conducted by Purdin *et al* in 2003 as part of a global evaluation of reproductive health services for refugees and internally displaced persons coordinated by the Inter-Agency Working Group on Reproductive Health in Refugee Settings.²³ Researchers sent questionnaires to key informants in the 73 developing countries worldwide with at least 10,000 refugees or displaced persons. The key informants were asked to answer questions on availability of a range of reproductive health services for each refugee or displaced site or population concentration in their purview; most countries had multiple potential sites. One hundred eighty eight questionnaires were received from respondents in 33 countries in Africa, Asia and Latin America covering a total population of approximately 8.5 million, most of them refugees living in camp settings.

The results were similar to those found in the 52 camp study. Except for a few sites in Afghanistan and Pakistan, all sites reported offering at least one family planning method. Oral pills (offered in 96% of sites), condoms (95%) and injectables (89%) were the most common methods offered; IUDs (53%) and voluntary surgical contraception (36%) the least common.

There are several limitations to these studies, as the researchers make clear in their reports. One is that a simple 'available/unavailable' dichotomy may be a useful first stage measure, particularly for an appraisal that is large-scale or global in scope, but it offers limited information on consistency of service availability, and nothing on the quality of the care offered. Fortunately, a series of more in-depth country- or site-specific assessments of reproductive health services in conflict settings have been

carried out over the last several years, and these complement the large-scale studies well.

These in-depth assessments, most of them carried out by the RHRC Consortium or its member agencies,[†] typically use a mix of qualitative and quantitative data collection methods to analyze the situation of the refugees or displaced persons of interest with respect to reproductive health. Methods included interviews or focus group discussions with health program managers, service providers and community members; facility reviews, including inventory assessments; and review of service statistics. Most assessments used or adapted instruments from the RHRC Consortium's *Refugee Reproductive Health Needs Assessment Field Tools*,²⁴ or other rapid assessment instruments.

Since 1998, such in-depth assessments have been done in Guinea (among Liberian and Sierra Leonean refugees, 1998);²⁵ Somalia (1999);²⁶ Kakuma and Dadaab refugee camps in Kenya (2001);²⁷ Angola (2001);²⁸ Zambia (among Angolan refugees, 2001);²⁹ Colombia (2001);³⁰ the Democratic Republic of Congo (2002);³¹ Sri Lanka (2002);³² East Timor (2002);³³ and Pakistan (among Afghan refugees, 2002-2003).³⁴

While family planning services were available in some form in almost every site, the assessments identified many problems that effectively made it difficult or impossible for those wishing services to actually obtain them. These problems included frequent stockouts of contraceptives (Angola, Zambia, some areas of Sri Lanka and Congo); limited methods available (Somalia, Pakistan); long distances or high cost of services

[†] The member agencies of the Reproductive Health Response in Conflict Consortium are the American Refugee Committee, CARE, Columbia University's Heilbrunn Department of Population and Family Health, the International Rescue Committee, JSI Research and Training Institute, Marie Stopes International and the Women's Commission for Refugee Women and Children. This group was formerly known as the Reproductive Health for Refugees Consortium.

(Colombia, some areas of Sri Lanka and Congo); culturally inappropriate education and counseling (Kakuma and Dadaab, Zambia); staff unable to speak the refugees' language (Somalia, Guinea); total unavailability of services (large areas of Congo); and, in virtually all of the sites, inadequate training and skills of staff tasked with providing family planning services.

A compilation of earlier assessments, conducted between 1994 and 1998 by the RHRC Consortium, covered Afghans in Pakistan; refugees on the Thai-Myanmar border; refugees on the Mexico-Guatemala border; Palestinians in Lebanon; repatriated Rwandans; Somali refugees in Ethiopia; Tibetan refugees in South Asia; West Africa (Côte d'Ivoire, Guinea and Sierra Leone); and the former Yugoslavia.³⁵ Many of the same problems – of logistics, inadequately trained staff, culturally inappropriate care – were identified in these sites.

These problems are not unique to refugee sites; many of them also plague family planning and other health programs in non-conflict developing country settings. For example, the authors of the 1998 Guinea report note that the health system in Guinea, to which the Liberian and Sierra Leonean refugees were referred for much of their health care, had only introduced family planning services six years earlier. It was a weak program for all its users, not only for refugees. However, it is interesting to note that even in Sri Lanka and Colombia, countries with very good health systems, the care available to the displaced was sub-standard. This was attributed to the remote and, in some instances, insecure locations of displaced settlements, the extreme poverty of the displaced and discrimination in these two countries.

A growing number of population-based surveys indicate that women in conflict settings do indeed use family planning services, at varying rates, once they are made available. Chongvatana and Lavelly report on a 1983 survey among Lao and Hmong refugee women aged 15-49 who arrived in Thailand in the late 1970s and early 1980s.³⁶ The study showed high completed fertility: 7.3 among the 45-49 year old Lao women and 5.6 among the Hmong of the same age. Both groups arrived with low knowledge of family planning. Yet by 1983, desired fertility and contraceptive behavior were markedly different in the two groups. The Lao women's ideal number of children was 3.4 and only 30% expressed a desire for additional children. The corresponding figures among the Hmong were 6.2 and 66%. Current use of contraceptives was 42% among the Lao and 3% among the Hmong; almost all was modern method use. The authors attribute the differences to cultural and administrative variations, but also note the influence of the substantially higher education levels of the Lao women.

Lenart and St Clair report that Khmer refugees in Thailand in the late 1970s also responded quickly to available family planning services: in a matter of weeks, prevalence rose from 0 to 30%.³⁷ Another study of Cambodian women refugees carried out by Morrison in 1998 in Khao Phlu Refugee Camp in Thailand showed high interest in fertility control: 82% of the non-random sample of 102 women, 92% of whom were married and whose mean age was 33 years, said they wanted to stop or delay births.³⁸ Yet only 12% used modern contraceptives; their reasons for not using a method included fear of side effects (weight loss and bleeding were most often mentioned), lack of information and current illness. Barriers to care were another impediment. In another component of the study in which 10 midwives were interviewed, all or most

indicated that they would not provide contraception to unmarried women (9 of 10), women who had not had children (7), women who were unhealthy (7) or women older than 42 (6). Several said they would not give contraceptives to a woman who was a commercial sex worker (5) or who had had a recent birth (4) or a recent abortion (4). Surgical contraception required approval from each woman's husband, section leader and camp leader, and was also costly.

In 2000, Donati, Hamam and Medda reported on a survey of 841 Palestinian women of reproductive age carried out in Burcij Refugee Camp in the Gaza Strip in June and July 1998.³⁹ The camp had been established in 1949 and, at the time of the survey, had 27,000 residents living in crowded and unhygienic conditions. Knowledge of the most popular family planning methods was almost universal (greater than 90%) and attitudes towards family planning were also largely positive. Nevertheless, only one quarter of the respondents reported using high-efficacy contraceptives (condom, IUD, pill, injections, sterilization) and 23% used low efficacy methods (primarily breastfeeding, but also withdrawal, calendar method or spermicides). Use of modern methods was associated with education, number of sons and not having a husband who wanted many children.

While desired family size among the Palestinian women was found to be high by western standards (the mode was 4-6 children), the authors note a generational downward trend, at least among women. Only 7% of survey respondents indicated that they would suggest to a friend that they have seven or more children, but 89% said their mothers had had seven or more children, and 31% said their husbands wanted that number.

A random sample survey of men and women was carried out by the International Rescue Committee in late September to early October 1998 in Kakuma Refugee Camp in northern Kenya as part of the needs assessment and baseline measurement for a planned reproductive health intervention.⁴⁰ At the time, Kakuma housed over 70,000 refugees from 10 countries, most from South Sudan (68%) and Somalia (26%). Only 35% of the 685 women and 57% of the 605 men interviewed could spontaneously name at least one family planning method (including condoms). Modern contraceptive prevalence was 8% among the women which, given the recency of service introduction and the virtual absence of any prior awareness of family planning, was not as low as the authors expected.

A similar situation was found in a study conducted by the US Centers for Disease Control and Prevention and the International Rescue Committee in the refugee camps that housed Afghan refugees in Hangu, in the Northwest Frontier Province of Pakistan, on the border with Afghanistan. A community-based random sample survey of women of reproductive age in the camps in 2000 showed that about 10% currently used contraception.⁴¹ Given the newness of the services – family planning had been introduced in the camp’s clinics after 1996 – and the traditional, conservative Pashtun population, this rate was higher than expected. These results were consistent with those of a qualitative participatory rapid appraisal of Afghan refugees in Haripur, also in Pakistan’s Northwest Frontier Province, done for Save the Children/US in 1997 which showed low use but strong interest in family planning.⁴²

A related study of Afghan women’s experiences with family planning use was subsequently carried out by a consortium of UN, Pakistan government and NGO

agencies among Afghan refugees in the Northwest Frontier Province, including those in the Hangu area.⁴³ A sample of 716 women was randomly selected from the 1,550 women who had accepted a contraceptive method at the 54 clinics participating in the study between January and June 1999; 62% (446 women) were successfully traced and interviewed in October and November 2000. Most women (71%) reported that this was the first time they had ever used family planning and they gave a range of reasons for choosing to do so: 43% wanted to space their children, 29% wanted to stop childbearing and 26% said they used family planning for health reasons.

Only about half of the respondents (48%) were still using a method 12 months after they started. Most of the reasons given by the women for stopping (67%) were related to the program or to a specific contraceptive method; the single largest reason was side effects of the method selected, accounting for 47% of all the reasons given. Only 27% of the reasons the women gave for stopping or switching their method were personal or social reasons, such as wanting to get pregnant or husband's or family's objections. Continuing use at 12 months was positively associated with age (greater than 30 years), parity (more than eight children), injectable contraceptive use, being informed of side effects, and home visits from clinic staff.

A cross-sectional population-based survey was carried out in 2002 by the US Centers for Disease Control and Prevention in three camps housing Burmese and Karen refugees on the Thailand-Myanmar border.⁴⁴ They found that 45% of the reproductive age women interviewed were current users of modern contraceptives, with injectable contraception being the most common method (45% of users), followed by female sterilization (21%) and oral pills (11%). Almost all users (95%) obtained care

from the camp health centers, and reported that they experienced no barriers to access. However, the researchers identified 13% of the sample as women with unmet need for family planning, primarily for limiting, rather than spacing, births.

In 2002, the American Refugee Committee evaluated its Reproductive Health Literacy Project that served Liberian and Sierra Leonean refugees in camps in the Kissidougou area of Guinea.⁴⁵ In this project, adult women learned to read and write using classroom materials with reproductive health content. The evaluation consisted of interviewing 549 refugee women who had taken the six-month course in the preceding three years regarding their reproductive health knowledge, attitudes and practices and also testing their literacy skills. The study found current use of modern contraceptives to be 50%, an extraordinarily high rate for the region,⁴⁶ and that 40% of current users were first-time users since taking the course.

A program to provide reproductive health services to Guatemalans who repatriated after spending many years in Mexico was carried out by Marie Stopes Mexico. Baseline and follow-up random sample surveys done in 2001 and 2003 showed contraceptive prevalence to have increased from 9% to 30% in that period, with the greatest increase among women who spoke Spanish and who were literate.⁴⁷

In contrast, a program run by Colombia's Profamilia for displaced adolescents in Cartagena and Barranquilla on the northern coast showed no change in contraceptive prevalence.⁴⁸ Project baseline and follow-up surveys in 2001 and 2003 showed current use of modern contraceptives to be 14% in both periods among random samples of 15-19 year-olds in city areas with concentrations of displaced populations.

Similarly, preliminary analysis of pre-project and follow-up survey data from an International Rescue Committee project in urban and rural areas of Kenema District in Sierra Leone suggest that the modern contraceptive prevalence rate remained fairly steady at between 8% and 9% of women of reproductive age between March-April 2001 and November-December 2002.⁴⁹ Given that the rate for women in union is likely to be higher than the 8-9% found for all women of reproductive age, it would appear that the figures for Kenema, where the IRC has had a presence for several years, were higher than the national modern contraceptive prevalence rate of 3.9% of married women of reproductive age found in the Multiple Indicator Cluster Survey in 2000.⁵⁰ In the 2000 survey, family planning use was positively associated with education (modern method prevalence was 2.5%, 7.1% and 13.3% among those with no, primary, and secondary or higher education, respectively) and rural/urban residence (2.2% among rural residents, 9.2% among urban residents).

The International Medical Corps in Angola also collected pre-project and follow-up measures as part of its efforts to improve reproductive health services in a rural area of Huambo Province, in the interior of the country.⁵¹ Analysis of data from random samples of 483 and 473 women in the baseline and follow-up surveys, respectively, showed spontaneous knowledge of at least two family planning methods to have increased from 5% to 22% and current use of modern contraceptives to have increased from 2.5% to 10.6%. Condoms accounted for most of this use, however, and the intent may have been disease prevention instead of, or in addition to, pregnancy prevention. Nevertheless, almost three-quarters (72%) of the women interviewed at follow-up expressed a desire to stop or delay childbearing; this constituted an increase from the

50% who expressed this desire in the baseline survey, suggesting that attitudes are shifting.

Discussion

As noted, we are not yet at a stage where we can make a conclusive determination as to the effects of conflict on fertility levels or trends. Such patterns may emerge more clearly as data continue to be collected. Furthermore, though the pace of research is increasing, it is still the case that most research (and program intervention) is focused on refugees in stable camp settings, as this review of the literature demonstrates. The situations may differ in the emergency phase; for those not living in camps; for the displaced who may be less accessible to the multilateral and international agencies that provide the bulk of health and other services; and for the repatriated, as in the case of Rwanda.

As we gain data and insight from research and program interventions, it appears that conflict-affected persons' fertility desires and interest in using family planning services vary widely, just as they do among settled populations. Socio-demographic factors, such as age and parity, socio-economic status, education and urban/rural residence influence fertility desires. Pre-existing levels of awareness and contraceptive use are also influential. There are now program experiences that indicate that when refugee or displaced women – even poor, uneducated, rural women with no prior exposure – are offered good quality, convenient, free family planning information and services, attitudes will shift and some women will choose to use modern contraceptives. Whether these changes will occur at the same rate as among their settled counterparts,

for the same reasons, for the same durations, is as yet unknown. That is, there is a question as to whether the conflict experience influences fertility desires and behavior beyond the recognized influence of key socio-demographic variables.

This is the research question at the core of this study.

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“Ah, but your land is beautiful”

Alan Paton, South African author*

III. Rwanda: The Country and the Conflict

Demographic, Social and Economic Profile

Rwanda is in many ways like the other developing countries in Africa and, indeed, in the rest of the world – it is yet another country with poor, rural, high fertility, high mortality, low production, poorly educated residents. On the other hand, Rwanda is different in many ways from its neighbors in its geographic, social, economic, historical and cultural characteristics. Some basic development indicators provide a profile of Rwanda as it compares to sub-Saharan Africa, the region in which it is located, already the least developed region in the world.

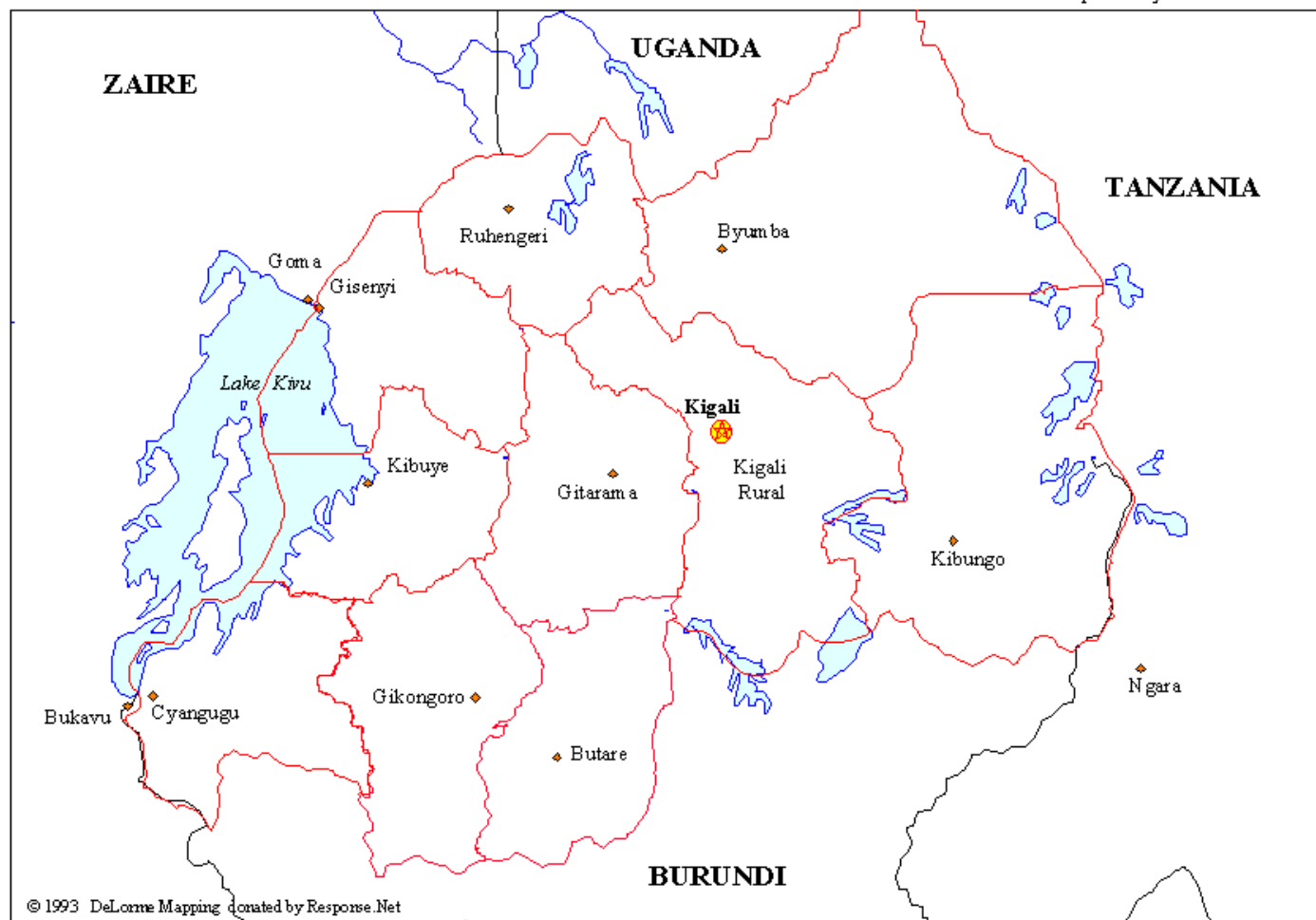
Rwanda, *the Land of a Thousand Hills*, is a landlocked country surrounded by Uganda, Tanzania, Burundi and the Democratic Republic of Congo, formerly Zaire. It is in what is known as the Great Lakes region of Africa, and is sometimes categorized as East Africa, along with Kenya, Tanzania and Uganda, and sometimes as Central Africa, along with Congo and Burundi. It sits just two degrees south of the Equator, but its mean elevation of almost 2,750 meters (9,000 feet) gives it a temperate climate.¹

At 26,340 square kilometers (10,170 square miles), Rwanda is the smallest country in continental Africa – slightly smaller than the state of Maryland – and, with a

* Paton A. *Ah But Your Land is Beautiful*. Simon & Schuster, New York. 1995.

RWANDAN PREFECTURES

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Note This map shows the 10 préfectures of Rwanda in 1994, at the time of the genocide and mass flight. In an administrative reform in 1996, the City of Kigali was separated from Kigali Rural to become its own préfecture, and some communes were reassigned from Byumba and Kibungo Préfectures to a new préfecture, Umutara. Thus, Rwanda now has 12 préfectures. The boundaries of communes remained intact.

population of 8.2 million as of the August 2002 national census, also the most densely populated, even after the 1994 genocide.^{†,2,3} (See Table 3.1) The population density in 2003 is 817 persons per square mile, more than ten times higher than the mean of 76 persons per square mile for sub-Saharan Africa. Rwandan demographers frequently joke that they have about the same population density as Belgium (881 persons per square mile), their former colonial power.⁴

But, of course, Rwanda is quite different in every other way from Belgium. In the late 1980s, its total fertility rate of 8.5 was the highest in the world.⁵ This may have been an overestimation, since the 1992 Demographic and Health Survey (DHS) measured fertility at 6.2, still a very high figure and higher than the average of 5.6 for Africa in that period.⁶ The 2000 DHS found a total fertility rate of 5.8, still higher than the average for Africa of 5.2.⁷

Rwanda is a rural country, with only 17% of its people living in urban areas in 2002 as measured in the 2002 census.⁸ The rural population lives in small, closely situated houses on the hillsides and is largely dependent on small-scale agriculture. Rwandans, like Burundians, do not live in villages as one finds in much of the rest of Africa; instead, the hill (*colline*) is the unit of home area identification. Even this relatively low rate of urban residence is a recent phenomenon; in the 1991 census, only 5.5% of the population was urban.⁹ These urban rates are lower than the average proportion of urban residents for sub-Saharan Africa, 33%.¹⁰ And although Rwandan land is fertile and fed by two annual rainy seasons, making a living from the land is difficult. Mean land access per household declined from 1.3 hectares in 1984, to 0.94 in

[†] The islands of Cap Vert, Comoros, Mauritius, Mayotte, Seychelles and Sao Tome and Principe are smaller, though only Mauritius and Mayotte are more densely populated.

Basic Indicators for Rwanda and the Sub-Saharan Africa Region

Indicator	Rwanda	Sub-Saharan Africa	Notes
Population (millions)	8.2 ^a	711 ^b	Aug 2002 Mid-2003 estimate
Total fertility rate	8.5 (1987, 1988) ^c 6.2 (1992) ^d 5.8 (2000) ^e	6.1 (1985-1990) 5.6 (1990-1995) 5.2 (1995-2000)	Comparison figures are for Africa ^f
Urban population	17% ^g	33% ^h	
Density (persons per sq mi) ⁱ	817	76	Rwanda figure based on mid-2003 population estimate of 8.3 million
Household land access/ per capita land access (hectares) ^j			Kenya figures, 1997: 2.65 / .41
1984	1.2 / .28		
1990	.94 / .17		
2000	.71 / .16		
Population with access to improved water source ^k	41%	58%	
Proportion with adequate sanitation ^l	8%	-	
Proportion literate ^m	69%	63%	
Proportion of school-age children in school ⁿ			
Boys	119%	92%	
Girls	118%	80%	
Total	119%	86%	
Proportion of children 12-23 months fully immunized		In 20 DHS surveys in other sub-Saharan African countries between 1998 and 2002, comparable figures ranged from 9% in Gabon to 56% in Tanzania ^q	
1992 ^o	87%		
2000 ^p	76%		
Infant mortality rate ^r	107	93	
Life expectancy at birth (years) ^s	40	48	
Maternal mortality ratio ^t	2,300	1,000	
Adult HIV prevalence	11.2% ^u	In 6 population-based surveys in other sub-Saharan African countries between 1997/98 and 2000, HIV prevalence rates ranged from approximately 6% (Yaoundé, Cameroun 1997-98) to approximately 27% (Ndola, Zambia 1997-98). All except Cameroun were higher than Rwanda's 11.2%. ^v	

For data sources, see pages 78-79

1990 and to 0.71 in 2000; the per capita figures for the same years were 0.28, 0.17 and 0.16 hectares.¹¹ Only 41% of the population has access to an improved water source, as compared to 58% in sub-Saharan Africa overall, and only 8% had adequate sanitation facilities.^{12,13}

Education and literacy are better than average for sub-Saharan Africa: 69% of the over-15 population is literate in the national language, Kinyarwanda, as compared to 63% for the rest of the region. The proportion of the school-age population in school actually exceeded 100% in 2003, probably as a result of families' efforts to make up for the years when schooling was irregular or unavailable. Equal proportions of girls and boys were in school, a promising development not apparent elsewhere in Africa.¹⁴

Another better-than-average accomplishment in Rwanda is childhood immunization. Coverage rates were among the highest in Africa; the 1992 Demographic and Health Survey found that 87% of children aged 12-23 months were fully immunized.^{‡,15} The 2000 DHS found that this had declined to 76%, a figure that is still very high for sub-Saharan Africa where rates for full immunization of children under five can be below 20%.¹⁶

Nevertheless, Rwanda's infant mortality rate (107 deaths to children under 1 year per 1,000 live births) is high for the sub-Saharan region (93), which itself has the highest rates in the world (IMRs are 65 in the less developed world excluding China; 7 in the more developed world, and 55 in the world overall). Life expectancy at birth, which is strongly affected by infant mortality, is consequently lower in Rwanda than elsewhere: 40 years in Rwanda, 48 in sub-Saharan Africa, 63 in the less developed world excluding

[‡] The Demographic and Health Survey defines "fully immunized" children as those who have received BCG, measles and three doses of DPT and polio (excluding polio 0). (Source: ORC Macro, 2004. Measure DHS+ STATcompiler, <http://www.measuredhs.com>.)

China, 76 in the more developed world and 67 in the world.¹⁷ Rwanda's maternal mortality ratios are also among the highest in the world, estimated at 2,300 maternal deaths per 100,000 live births in 2002 as compared to 1,000 in Africa overall, 400 in the world and 21 in the developing world.¹⁸

HIV rates increased in Rwanda in the 1990s, as they did almost everywhere in Africa, and also shifted its profile from an urban to a national epidemic. The HIV prevalence was estimated at 11.2% of adults in 1999, with similar rates in all préfectures.¹⁹ While lower than rates in some other countries in the region, this is still an extraordinarily high prevalence rate.²⁰

The current economic outlook for the country is positive, having largely improved since 1996, with annual growth rates of 3% to 9% in the gross domestic product. This is in part fed by exports (tea, coffee and pyrethrum, a natural insecticide) and tourism (the Virunga Mountains in northwestern Rwanda are home to half of the world's 600 mountain gorillas), but was mostly due to large amounts of foreign aid, averaging US\$200 to \$300 million per year. Per capita gross domestic product has also grown in the past several years, but per capita income is still very low at an estimated \$250 per year.²¹ The UN estimates that 36% of Rwandans live on less than \$1 per day, and that 85% live on less than \$2 per day. Of 94 developing countries rated for the Human Poverty Index, a composite measure of deprivation developed by the UN for 94 developing countries, Rwanda was close to the bottom at number 77 (1 is the highest ranking, 94 is the lowest).²²

Another composite measure developed by the UN illustrates the difficult lives of Rwandans, even compared to those in other poor countries. The UN's Human

Development Index measures a country's achievements in terms of life expectancy, educational attainment and adjusted real income. Of 162 countries rated, Rwanda ranks at number 152, with the 10 countries below it in the ranking also in sub-Saharan Africa.[§]

In sum, these demographic, health and social indicators depict a nation that is as poor and under-developed as virtually any place on earth, even before the genocide. The few bright spots – better than average education of girls and boys, relatively high childhood immunization coverage and positive economic growth – may serve to offset some of the more negative trends as Rwanda faces its future.

Rwandan History

Rwanda's genocide and its current efforts to move forward are rooted in its past. Rwanda's pre-colonial and colonial periods and its years of independence illuminate, to some degree, how the civil war and genocide came about. They do not explain it; indeed, explaining it will be a decades-long process, if the Holocaust is any guide, and perhaps impossible. Nevertheless, appreciating Rwanda's history is important for understanding the context in which people lived and interacted in the past, and do so today. The key events discussed below and in the following sections describing the prelude to genocide, the genocide itself and its aftermath are summarized in a table for quick reference at the end of this chapter.

[§] The countries ranking below Rwanda, which is number 152 in the UN Human Development Index, are 153 Mali, 154 Central African Republic, 155 Chad, 156 Guinea-Bissau, 157 Mozambique, 158 Ethiopia, 159 Burkina Faso, 160 Burundi, 161 Niger, 162 Sierra Leone.

- ***Rwandan Pre-colonial History***

The first people to settle in what is now Rwanda were probably the Twa, a pygmoid people who currently make up about 1% of the Rwandan population. It is likely that some time around the 15th century groups of cattle herders began to arrive, possibly from the Horn of Africa, and found a number of Bantu-speaking peoples already living in the region, practicing agriculture. Over time, the Tutsi – literally, ‘newcomers’ – conquered the Bantu groups, who became the Hutu – literally, ‘serfs’ or ‘subjects.’²³ The Tutsi were the minority – currently they are about 15% of the population – and Hutu the majority, at close to 85%. The Twa have always remained a small group, at under 1%.

The Tutsi brought or developed a monarchy, which was well-established by the late 18th century. The Tutsi *mwami*, or king, was very powerful and, ruling through multiple levels of appointed sub-chiefs, was able to collect taxes and profit from forced labor of the peasants. By this time, both Hutu and Tutsi spoke one language, Kinyarwanda, practiced the same religion and customs, and lived intermingled on Rwanda’s hillsides. Inter-marriage was common. Thus, the main distinguishing factors between the two ‘ethnic’ groups were wealth and status rather than any of the common cultural markers, such as language, religion or customs. Most anthropologists and other analysts do not consider the Hutu and Tutsi to be separate ethnic groups.^{24,25,26,27,28,29,30,31}

This fluidity between the two groups was further reinforced when, in the early 19th century, Mwami Gahindiro created a new system of ‘land chiefs’ and ‘cattle chiefs.’ The former were often wealthy Hutu, the latter usually wealthy Tutsi. Within this system,

Hutu families could gain political power and become Tutsi in a process called *kwihutura* (to shed Hutuness), which might take generations. Tutsi families could lose their cattle, wealth and status through *gucupira* and become Hutu. However, Mamdani notes that this change eventually led to a decline in the social position of the Hutu in general, since land ownership passed from control of the local lineage heads to the *Mwami* to grant as he wished. Mwami Rwabugiro, who ruled Rwanda from 1860-1895, established a new system of clientship, called *ubureetwa*, in which farmers who wanted access to land had to pay tribute, in crops or in labor, to local chiefs. *Ubureetwa* applied only to Hutu, however, and so was a major stroke in creating social and economic distinctions between the two groups.^{32,33} In the popular press and elsewhere, Rwanda is sometimes referred to as a traditional feudal state; the reference is to this system of *ubureetwa* imposed in the last half of the 19th century.

Mwami Rwabugiri is a major figure in Rwandan history. He built a strong military force which he used to expand the borders of the kingdom. He incorporated small, previously independent Bantu farming communities, whose residents became subject to the kingdom's social and economic systems and who were eventually folded into the 'Hutu.' He also centralized power, naming loyal chiefs, most of them Tutsi, to administer the newly conquered areas.³⁴

The emphasis on the monarchy in writings on Rwanda's pre-colonial history, and on the Tutsi dominance within it, tends to conceal the fundamental fact that most of the people – both Tutsi and Hutu – were poor peasants who owned neither land nor cattle. It is estimated that only 5% to 10% of Tutsi (and fewer Hutu) were politically powerful;

the remainder were the *'petits Tutsi'* who worked the land alongside, and in most ways were indistinguishable from, poor Hutu.^{35,36}

In the hundreds of years that the Hutu and Tutsi lived together before the colonial period, the society they created was a fluid, dynamic social order whose members shared most characteristics. There were distinctions within the society, as there are within all societies, but they came to be based more on wealth, status and power than on changeable 'ethnicity.' Newbury, among others, argues that ethnicity was not primordial, and that it was only one of many forms of social identity and usually not the most important one. He also notes that relations between the two groups were not confrontational; clashes were more likely to occur between competing elements within each group.³⁷

In addressing the question of 'Who are the Hutu and who are the Tutsi?,' Mamdani concludes that, together, the Hutu and Tutsi created a single cultural identity through centuries of living in one cohesive, complex society. He argues that Hutu-Tutsi distinctions can not be reduced to a simple socio-economic divide, as many observers have done, since there were rich Hutu, as well as rich Tutsi, and many, many poor Tutsi who could not be distinguished from poor Hutu. Nor can it be reduced to a pastoralist-agriculturalist division, since few peasants in either group owned cattle. He does argue, however, that by the end of the 19th century, the Hutu-Tutsi distinction had become one of access to political power or proximity to power, since even the *petits Tutsi* benefited from small privileges and were not subject to *uburetwa*. Mamdani notes, however, that this distinction was by no means absolute – Hutu still held positions of authority and social mobility between groups was still fluid.³⁸ Indeed, it is likely that this access to

power, however limited, and the strength of the monarchy kept ambitious Hutu working within the system rather than trying to overthrow it.

With the advent of the colonizers and their race theories, this was to change.

- ***Rwandan Colonial History***

When the first Europeans arrived in Rwanda in 1894 at the very end of the reign of Mwami Rwabugiri, they found a highly structured social, economic and political system, though one that was already suffering from internal power struggles. The apparent system, in which the Tutsi elite fully dominated the Hutu peasantry and Twa forest dwellers, pleased the Germans, who had been given Rwanda, along with Burundi and Tanganyika (today's Tanzania), when Africa was divided among the European powers at the 1884 Berlin Conference.³⁹ It also pleased the missionaries, the first of whom were the Roman Catholic "White Fathers," who arrived in 1900, and the Belgians, who administered Rwanda (and Burundi) from 1917, after Germany's defeat in World War II.

These newcomers were pleased because Rwanda's social order was consistent with the Hamitic hypothesis, a theory advanced by the explorer John Hanning Speke in the 1860s, and with the preoccupation with race in Europe in the ensuing decades. The Hamitic hypothesis held that superior races naturally conquered and ruled inferior ones, and that the 'advanced' groups in Africa were descendants of Ham, son of Noah, and so were actually Caucasian. The Hamitic hypothesis had been applied to reconcile 'the Egyptian problem' – how could Africa have produced so advanced a civilization? – and

was now applied to explain the highly complex social systems found in Ethiopia, the Buganda kingdom in Uganda, among the Maasai and in Rwanda and Burundi.⁴⁰

In this view, as expressed in two 1925 administrators' reports to Belgium, the Twa were "quite similar to the apes whom [they] chase in the forest," and not worthy of consideration. The Hutu were typical Bantus, who, "are extroverts who like to laugh and lead a simple life." The Tutsi, on the other hand, by virtue of their "high brow, thin nose and fine lips framing beautiful shining teeth," were highly admired. "Gifted with a vivacious intelligence, the Tutsi displays a refinement of feelings which is rare among primitive people. He is a natural-born leader, capable of extreme self-control and of calculated goodwill."⁴¹

Such a profoundly racist theory sounds ludicrous to modern sensibilities but it was not only accepted by the colonial powers, it became the foundation of Belgian colonial rule in Rwanda and Burundi. Belgium ruled Rwanda indirectly through the *Mwami* from 1917 until it was awarded the League of Nations mandate for Rwanda-Urundi in 1923. From that point, it took a much more active role, seeking to establish permanent colonial systems. On the basis of the Hamitic hypothesis, the Tutsi were defined as a separate *race* – not a separate ethnic group, clan, or tribe, but a separate *race* – than the Hutu from the start of the colonial period and all privilege accrued to them from both centers of colonial power, the civil authority and the Catholic Church.⁴²

Schools were initially run by the civil authorities for sons of chiefs, almost all Tutsi, and were taken over by the Catholic Church in the early 1930s. Two tiers of education prevailed, each reinforcing the intended superior or inferior group role. The Tutsi received schooling in French to prepare them to become administrators, the Hutu

received basic schooling in Kiswahili, the trade language widely spoken in Kenya and Tanzania, for manual labor.

Beginning in the 1920s, the state under the Belgians became even more powerful and centralized than it had been under the *Mwami*, a development that further favored the Tutsi. For example, civil authorities took responsibility for appointing chiefs, virtually all Tutsi, and redefining their roles. They condensed the power that had been shared by land, cattle and other sub-chiefs into one chieftaincy with far broader authority, including administering the local judicial system. Without the representation, however limited, and checks and balances inherent in the old system, corruption ensued, increasing the misery of the rural poor. In 1931, the Belgians forced the recalcitrant Mwami Musinga into exile; he was replaced by his son who later converted to Catholicism, encouraging masses of Rwandans to also convert.

The major reform instituted by the Belgians was the identity card, and it was to have lasting repercussions. Since 'race' was all-important in every aspect of colonial policy, every Rwandan had to be classified as Hutu, Tutsi or Twa. Identity cards showing these classifications were issued in 1935 based on the census of 1933-34. Most reports state that, in the absence of any objective cultural basis on which to determine ethnicity or race, such as language, religion or traditions, it was decided that anyone with ten or more cows at the time of the census was Tutsi and with fewer than ten cows was Hutu.^{43,44} Mamdani suggests that this was but one of at least three criteria for classification, the others being physical measurement and local knowledge of family lineages, mostly from elites in the Catholic Church.⁴⁵

As a result of the identify cards, 'race' or 'ethnicity' in Rwanda was now fixed, unchangeable. This was an important shift from the previously fluid state of affairs. 'Hutu' and 'Tutsi' had been imbued with real social meaning and over the next decades, these became internalized.⁴⁶ Prunier argues that these identities were insidious: the small group of powerful Tutsi, most of whose authority was usurped by the Belgians, exploited their local economic bases to the detriment of all; the *petits* Tutsi, who benefited very little from the system, took solace in believing that they were indeed superior; and the Hutu, who had nothing and were told by the colonials and the Tutsi that that was all they deserved, also began to believe it. And they began to hate the Tutsi. What is more, a revisionist narrative was promulgated and believed by Rwandans and foreigners alike (and repeated in popular press coverage during the genocide) describing 'the ancient hatreds' and 'centuries of massacres' between the two groups, a distortion of the true complex and interwoven history.⁴⁷ Whether or not the Hutu and Tutsi were distinct groups before colonialism – and most observers conclude they were not – they would become distinct as a result of it.

The post-World War II period brought social change to Rwanda and, ironically, much of it was fostered by the Catholic Church, the institution that had always been a mainstay of elite privilege. Post-war opportunities and attitudes about equality in Europe encouraged clergy from the Belgian middle and lower economic classes to come to the colonies, replacing the earlier elite clerics. These younger men sympathized with the Hutu downtrodden, not the Tutsi elite. Seminaries had always been the best route for the Hutu to get an education, and now the opportunities

increased. More Hutu were educated as priests, they worked in communities around the country and they wanted more say in their Church and their country.^{48,49}

However, the top positions in the Church were still dominated by European and, increasingly, Tutsi priests. While some of these highly educated Tutsi supported a more egalitarian structure within the Church, virtually all, along with those from the other colonial institutions of learning (which were still largely reserved for Tutsi), began to question colonial authority, a process that was of course occurring across the continent. Thus, as Mamdani points out, both Hutu and Tutsi wanted independence, but they had different images of the society that would ensue.⁵⁰

The Tutsi saw the main conflict as between black and white and wanted post-colonial Rwanda to return to the traditional monarchy under the current king, Mwami Rudahigwa. The Hutu also saw the problem as one of race, but the races to be dislodged were both the whites and the Tutsi. This Hutu position was published in 1957 by Grégoire Kayibanda, a leading Hutu intellectual who had been educated in a Catholic seminary. He wrote *Notes on the Social Aspect of the Racial Native Problem in Rwanda*, better known as *The Bahutu Manifesto*, the first explicit call for a Hutu Rwanda. The Rwandan Catholic Church, under its newly appointed head, Monseigneur Parraudin, supported this position. So did the Belgian colonial authority under its newly appointed head, JP Harroy, which had been struggling with an increasingly independence-minded Tutsi monarchy. In the *Bahutu Manifesto*, Kayibanda insisted that the identity cards with their Hutu/ Tutsi/ Twa classification be maintained, since 'race' identity was as important in the view of the Hutu extremists as it was to the Belgians. The extremists' identification of the Tutsi as a foreign race to be ousted was a

wholesale acceptance of the Hamitic hypothesis promulgated by the colonial authorities in schools and in society.**,⁵¹

Rwanda had become a UN Trustee Territory in 1946 and a series of elections at low administrative levels were carried out. Most of the political parties formed in preparation for the elections were overtly Hutu or Tutsi-based, though they varied in extremism. Some also had strong geographic bases. The political dialogue became more and more shrill until, on 1 November 1959, it spilled over into violence. A Hutu party activist was attacked, and Hutu responded by attacking Tutsi all around the country. The Tutsi began to retaliate as the Belgians intervened to stop the violence. Two to three hundred people were killed, most of them Tutsi, in two weeks of unrest.

This was the beginning of the “Social Revolution” of 1959 in which the Belgians finally put all their support behind the Hutu, a transition led by a Belgian military officer, Colonel Guy Logiest. The Belgians replaced thousands of local Tutsi chiefs with Hutu and formed a Hutu-dominated military force. The monarchy was formally abolished in a referendum in 1961. PARMEHUTU – *le Parti du Mouvement et de l’Emancipation Hutu* – was one of the new extremist Hutu parties, led by Kayibanda, the author of the *Bahutu Manifesto*. PARMEHUTU won 70% of the votes in the June 1960 commune-level elections and 78% in the September 1961 national legislative elections. Kayibanda became Prime Minister of the provisional government and, when Rwanda achieved full independence on 1 July 1962, he became President.

** Most Bantu languages of Africa form parts of speech with prefixes, infixes and suffixes. In Kinyarwanda, ‘ba’ or ‘aba’ are prefix markers for plural nouns defining humans; ‘mu’ or ‘umu’ are the singular noun markers. So ‘Bahutu’ and ‘Batutsi’ refer to the Hutu and Tutsi people, and ‘Banyarwanda’ refers to all Rwandans. ‘Muhutu’ and ‘Mututsi’ refers to one Hutu or Tutsi person. The ‘Ki’ prefix refers to the language – e.g., Kinyarwanda, Kiswahili, Kirundi.

The violence which began in 1959 continued sporadically through 1963, with attacks by Hutu on Tutsi in Rwanda and cross-border raids by *Inyenzi* – “cockroaches” – the name given to Tutsi who attacked from the neighboring countries where they had sought refuge from the violence in Rwanda. It culminated in large-scale *Inyenzi* attacks in November and December 1963, perhaps influenced by the massacres in May and June 1963 of Hutu by Tutsi in Burundi.⁵² The response of Kayibanda’s extremist Hutu government to the Tutsi cross-border *Inyenzi* attacks was quick and brutal. About 20,000 people were killed between 1959 and 1963, most of them Tutsi and most killed in the cross-border attacks in 1963.⁵³ During this same period, at least 150,000 Tutsi fled to Uganda, Congo, Tanzania and Burundi.⁵⁴

This was the first large-scale massacre in Rwanda; the 1994 genocide was the second.

- ***Independence***

The Kayibanda regime (1960-1973) was overtly anti-Tutsi. It followed the logic of the Hamitic hypothesis – since Tutsi were a foreign race, they were to be excluded from political participation but allowed limited participation in other spheres. Because of past privilege, they were fairly well represented in higher education and employment, even under strict government quotas and discrimination. The visibility of Tutsi in the economic sector caused popular Hutu unrest which, influenced by another massive round of massacres of Hutu by Tutsi in 1972 in Burundi, caused the downfall of the Kayibanda regime. Major General Juvénal Habyarimana, Minister of Defense in the Kayibanda government, carried out a bloodless coup on 5 July 1973, formed the

Second Republic and installed himself as President.⁵⁵ He ruled until his plane was shot down on 6 April 1994 in the attack that would spark the genocide.

Habyarimana's government initiated many changes in Rwanda, key among them a more moderate stance regarding the Tutsi and a focus on national development. The Tutsi identity was no longer perceived as a foreign 'race' but as an indigenous 'ethnic group.' A *minority* ethnic group, to be sure – Tutsi were about 15% of the country's population – but, as Rwandans, they were permitted a role in all spheres of civic and political life. Quotas were maintained in schools and employment, few Tutsi actually obtained high-level government or military positions and anti-Tutsi discrimination was still practiced, but conditions were considerably better than under Kayibanda. There were no ethnic clashes until 1990.

Contributing to the sense of well-being of Tutsi and Hutu alike was the country's brightening economic prospects in the 1980s. Habyarimana courted the global development industry, and they responded positively to this moderate, modern, moral leader. Donors were happy to provide assistance to a country and government that was politically stable, sincerely concerned for the plight of the rural poor, non-corrupt and efficient. Foreign aid ranged from approximately US\$250 million to almost \$400 million annually in the 1980s, substantial amounts in Rwanda. Aid accounted for less than 5% of Rwanda's gross national product in 1973, 11% in 1986 and 22% in 1991, and financed over 70% of public investment in the 1980s.⁵⁶ Uvin states that there were over 500 development projects operating in Rwanda in 1986, run by 200 bilateral, multilateral and NGO donors.^{57,58} Development agencies were everywhere; Prunier quotes an aid

worker: “Rwanda was not only the land of the 1,000 hills, it was also the land of the 1,000 aid workers.”^{59,††}

The government’s focus on development produced positive results. Mamdani summarized the accomplishments:

“[Rwanda] had come a long way from 1976, when it had a per capita income lower than any of its neighbors. By 1990, however, the World Bank estimated that the per capita income of Rwanda was higher than that of any of its neighbors. By 1987, Rwanda had the lowest debt, the lowest inflation rate, and the highest rate of growth of the Gross National Product (GNP) of any country in the region. The share of primary activities – mainly subsistence agriculture – in the GNP had declined from 80 percent in 1962 to 48 percent in 1986. At the same time, secondary activities had risen from 8 percent to 21 percent, and services from 12 percent to 31 percent. The rate of mortality was down. Hygiene and medical care indicators were improving. The proportion of children in school had gone up from 49.5 percent in 1978 to 61.8 percent in 1986. There had been no political executions since 1982, and there were fewer political prisoners than in most African countries. The record was impressive.”⁶⁰

Uvin, though he takes the development industry to task for willfully, in his view, ignoring the serious inequities in Rwanda and in effect contributing to them, states,

“Even for those development practitioners who like to think of themselves as more alternative, bottom-up people, who believe that development is a matter of civil society taking development into its own hands, Rwanda was a highly successful country. ... Hence, according to the different indicators used by different development theories and models, Rwanda was clearly on the path to development.”⁶¹

These advances were good for Rwandans, but they did not last. Dependence on foreign aid, growing budget deficits and external debt, rapid population growth and

†† “The land of 1,000 aid workers” – “Le pays de mille coopérants” – was a phrase I myself heard in Rwanda in the 1980s.

slowing agricultural productivity were eating away at progress by the late 1980s. Then a series of events occurred which provoked the ultimate failure of the state.

First, the price of coffee on the global market collapsed from a high of approximately US\$200 per 100 pounds in 1985 to about half that in 1986, and it continued its downward trend until the price in the early 1990s was about US\$50 per 100 pounds.⁶² Coffee was Rwanda's main cash crop and export, and earning from coffee exports fell from US\$144 million in 1985 to just US\$30 million in 1993. The government consequently reduced the price paid to farmers, creating discontent. Second, the International Monetary Fund (IMF) imposed a Structural Adjustment Program on Rwanda and the Rwandan franc was devalued by 67% in 1990. Third, the Structural Adjustment Program insisted that the government eliminate all subsidies to coffee farmers and reduce budget deficits. When the government complied with neither of these conditions to the satisfaction of the IMF, the IMF did not extend additional credit. Fourth, poor foodcrop production in the south was developing into a famine, the first in the country in almost 50 years. With fewer resources and ever increasing demands, the Rwandan government was facing serious problems and an increasingly restive population.

Two additional political events went even further in destabilizing the state. In Habyarimana's government, as in many countries in Africa, the political party was the state; the President was head of the one political party permitted in the country, the *Mouvement Révolutionnaire National pour le Développement* (MRND). Following increasingly insistent calls for political reform from western governments, especially France, human rights organizations and the Vatican, Habyarimana agreed to multi-

partyism in July 1990. In September 1990, he announced a two-year plan for the transition, a timetable that enraged those who wanted immediate democratization. It was in the midst of this political turmoil that the second political event occurred: the Rwandan Patriotic Front invaded Rwanda on 1 October 1990.

The Rwandan Patriotic Front was an army composed largely of the Rwandan Tutsi refugees who fled to Uganda during the 1959-1963 massacres, and their children. Most RPF leaders, such as Fred Rwigyema and Paul Kagame, and many of its soldiers had fought in Uganda's National Resistance Army and been instrumental in helping President Museveni win his rebel war against Milton Obote in 1986. The increasing political instability of the regime in Rwanda was an incentive for the RPF to make its military move when it did but, as both Mamdani and Prunier argue, anti-‘foreigner’ forces within Uganda were also an important ‘push’ factor. Indeed, the RPF was formed in 1987 in response to a series of policy decisions in Uganda that discriminated against resident Rwandans – even those who had been born in Uganda – in agriculture, ranching, employment and, significantly, the military. These policies in Uganda convinced resident Rwandans, even those who had lived their entire lives in Uganda, that going ‘home’ to Rwanda was the only viable option for achieving full political participation in a country to which they truly belonged.

Civil War and Prelude to Genocide

The 1 October 1990 invasion of Rwanda by the Rwandan Patriotic Front (RPF) did not go well for the invaders. The commander, Fred Rwigyema, whom accounts describe as a brilliant and compelling leader, was killed. The RPF was routed by the

Rwandan army with quickly mobilized support from France, Belgium and Zaire. More RPF attacks in October and November 1990 were also beaten back by the Rwandan army, and President Habyarimana's popularity in Rwanda rose. Another senior RPF leader, Paul Kagame, was called back to Uganda from military studies in the US. He reorganized the RPF, continued fighting and, by the end of 1991, the RPF controlled the Rwandan territory along the Ugandan border. With financial and manpower support from the Tutsi diaspora in Uganda, Zaire, Burundi and Europe, as well as from the Ugandan government, the RPF developed into an efficient force that gained ground throughout 1992 and 1993.

The ground they gained was largely devoid of people, however. Either because they feared the RPF or because the RPF forced them out as a security measure, hundreds of thousands of Rwandans fled south as the RPF advanced. Camps for the displaced were set up and then relocated as new areas came under RFP control. Massive camps were established as far south as Kigali, the capital, in the center of the country.⁶³

Meanwhile, Habyarimana's government was struggling to stay afloat. While it gained some sympathy at home and abroad through its portrayal of the RPF as an extremist faction intent on reestablishing the Tutsi domination of the past, the costs of the civil war, including caring for the large numbers of displaced, was an enormous strain on the sinking economy. Another challenge was multi-partyism. In June 1991, its timetable advanced because of the civil war, the Rwandan constitution was revamped to permit political parties to form. Many parties quickly did form, covering a wide political spectrum. Starting in November 1991, anti- and pro-government political

demonstrations of from 10,000 to 50,000 people took place in Kigali and other towns. No such thing had ever occurred in Rwanda before. The pace of change was feverish.

The government was reorganized in December 1991, April 1992 and again in July 1993 to include representatives of the new political parties. But shifting alliances, more new parties and constant change in the political environment ensured ongoing uncertainty and unrest.⁶⁴

One arena in which the parties seriously clashed was at the peace talks to end the civil war. These talks began in August 1992 in Arusha, Tanzania and delegates met periodically until August 1993, when a peace accord was signed. Participants included an RPF delegation and a Rwandan government delegation, which was itself composed of representatives of several political parties. The RPF negotiated from a position of strength – they were gaining ground, or at least not losing it, on the battlefield and causing enormous problems for Rwanda and its government. Negotiations focused on the degree to which, not whether, the RPF would participate in the Rwandan political process. Predictably, agreement was extremely difficult to reach; when it was eventually reached, it was not implemented.

The Arusha peace talk process provoked a number of developments within Rwanda. On the one hand, formal cease-fires between the RPF and the Rwandan army were periodically reached, providing some respite for the population. Some displaced people were able to return home. On the other hand, the prospect of power-sharing with the RPF, a certain outcome of the peace process if it succeeded, caused the extremist Hutu groups within Rwanda to actively organize against its success.

The most significant addition to the political scene in Rwanda was a Hutu extremist party, the *Coalition pour la Défense de la République* (CDR). The CDR was formed in March 1992 and was a direct philosophical descendent of the Hamitic hypothesis and PARMEHUTU. Like PARMEHUTU – the party led by Kayibanda, Rwanda’s first president and author of the *Bahutu Manifesto* – the CDR maintained a radical, racist, “Hutu Power” ideology.^{65,66}

The CDR was linked to two critically important outlets for promoting Hutu Power. These were the radio station, *Radio et Télévision Libre des Mille Collines* (RTLMC), and the newspaper, *Kangura* (‘Wake him up!’). The radio station, RTLMC, first transmitted in June 1993 and had a national following, while *Kangura* had existed for several years and had a limited but influential readership. An example of the cant dispensed by these media is the “Hutu Ten Commandments,” a call to action shocking in its vitriol, published by *Kangura* in December 1990. (See next page) The CDR, like many of the political parties, also formed and trained a youth wing, the *Impuzamugambi* (“those who have the same goal”); the youth wing of President Habyarimana’s party was called the *Interahamwe* (“those who attack or work together”).⁶⁷ The *Interahamwe*, like Radio RTLMC, became infamous during the genocide.

In short, in the early 1990s, the extremist groups prepared for genocide in Rwanda. Between 1990 and 1993, several assassinations and massacres took place with victims numbering in the hundreds. Victims were primarily Tutsi and killed indiscriminately, but politically moderate Hutu, including supporters of the president’s party, were targeted and killed as well.⁶⁸

The Hutu Ten Commandments

Published in the newspaper, *Kangura*, December 1990

1. Every Hutu should know that a Tutsi woman, wherever she is, works for the interest of her Tutsi ethnic group. As a result, we shall consider a traitor any Hutu who:
 - marries a Tutsi woman
 - befriends a Tutsi woman
 - employs a Tutsi woman as a secretary or a concubine
2. Every Hutu should know that our Hutu daughters are more suitable and conscientious in their role as woman, wife and mother of the family. Are they not beautiful, good secretaries and more honest?
3. Hutu women, be vigilant and try to bring your husbands, brothers and sons back to reason.
4. Every Hutu should know that every Tutsi is dishonest in business. His only aim is the supremacy of his ethnic group. As a result, any Hutu who does the following is a traitor:
 - makes a partnership with Tutsi in business
 - invests his money or the government's money in a Tutsi enterprise
 - lends or borrows money from a Tutsi
 - gives favours to Tutsi in business (obtaining import licenses, bank loans, construction sites, public markets, etc.)
5. All strategic positions, political, administrative, economic, military, and security should be entrusted only to Hutu.
6. The education sector (school pupils, students, teachers) must be majority Hutu.
7. The Rwandan Armed Forces should be exclusively Hutu. The experience of the October 1990 war has taught us a lesson. No member of the military shall marry a Tutsi.
8. The Hutu should stop having mercy on the Tutsi.
9. The Hutu, wherever they are, must have unity and solidarity and be concerned with the fate of their Hutu brothers.
 - The Hutu inside and outside Rwanda must constantly look for friends and allies for the Hutu cause, starting with their Bantu brothers.
 - They must constantly counteract Tutsi propaganda.
 - The Hutu must be firm and vigilant against their common Tutsi enemy.
10. The Social Revolution of 1959, the Referendum of 1961, and the Hutu Ideology, must be taught to every Hutu at every level. Every Hutu must spread the ideology widely. Any Hutu who persecutes his brother Hutu for having read, spread, and taught this ideology is a traitor.

Source: Power S. *"A Problem From Hell" America and the Age of Genocide*. Basic Books, New York. 2002. pp338-339.

In late 1993, four events occurred in Burundi and Rwanda to exacerbate the intense atmosphere of tension. In June 1993, Burundi elected its first-ever Hutu president, Melchior Ndadaye.^{††} He was assassinated in October 1993, and a Tutsi government installed. This provoked large-scale violence in Burundi and mass refugee movement, including the influx of 300,000 (enraged) Burundian Hutu into southern Rwanda.⁶⁹ Second, in accordance with the Arusha peace accords signed in August 1993, 2,500 UN peacekeepers would be stationed in Kigali and, in November 1993, the first contingent arrived. Third, also as agreed in the peace accords, a battalion of 600 RPF soldiers arrived in Kigali in December 1993 to protect RPF members of the transitional government that was to be instituted. Fourth, French military aid which had supported the Habyarimana government during its war with the RPF was withdrawn, since the war was ostensibly over.⁷⁰ In the face of this relentless movement toward power-sharing, those intent on denying the Tutsi a say in the political process in Rwanda were more intent on violence.

The August 1993 Arusha peace accord called for a transitional government to be installed on 30 December 1993, with Agathe Uwilingiyimana as Prime Minister. Although Uwilingiyimana was from the main opposition party, *le Mouvement Démocratique Républicain (MDR)*, she, like Habyarimana, was a proponent of Hutu Power. Both were nevertheless considered moderates by the extremists since they also supported “ethnic reconciliation” and, indeed, had signed on to the political power-sharing arrangements. Uwilingiyimana’s transitional government did not coalesce, however, and political assassinations and violence continued. By late March and early

^{††} I was in Rwanda when President Ndadaye was sworn in, and I watched it on television with Rwandan friends. They seemed so wistful – if Burundi could overcome its political problems, why couldn’t Rwanda? Their optimism about Burundi was too hasty, unfortunately.

April 1994, the pressure from the international community to form the transitional government became intense. All observers of the peace process appealed to the parties: the papal nuncio called for installation of the transitional government; Mobutu Sese Seko, the President of Zaire, called President Habyarimana and the President of Burundi to his residence; the European Union threatened a donor boycott; and the UN threatened to review its peacekeeping mandate.

The only way this stalemate would end peacefully was if the Arusha accords would be implemented, and a transition government, with RPF representation, installed. This was unacceptable to the Hutu extremist factions within Rwanda, and they scaled up their preparations for violence in the first months of 1994. Radio RTLMC's broadcasts became even more explicit and strident. According to most observers, the distribution of arms and weapons training for the *Interahamwe* and other militant groups were common knowledge in the UN and diplomatic community by early 1994, as was the notion that specific individuals were targeted for assassination.^{71,72,73,74,75,76,77,78}

On 6 April 1994, Habyarimana attended a meeting in Dar Es Salaam, Tanzania in which other regional leaders again pressed him to respect the Arusha accords for the sake of regional security. Burundian President Ntaryamira hitched a ride home in Habyarimana's plane, which was to land in Kigali first then continue on to Bujumbura. As it approached the Kigali airport on the evening of 6 April 1994, the plane was hit by the second of two ground-to-air missiles. Everyone aboard was killed.

Genocide

The president's plane was blown up at about 8:30 pm and by 9:15 pm, the *Interahamwe* had set up road blocks in Kigali. The radio station, RTLMC, appealed to the public to avenge the death of their president by killing Tutsi, calling them *Inyenzi* – cockroaches – the term used in the 1959-1963 clashes. The elite Presidential Guard military unit, led by Colonel Théoneste Bagosora, a senior Ministry of Defense officer and considered the principal architect of the genocide, had a more precise political agenda. This was to kill anyone and everyone – Hutu as well as Tutsi – who supported power-sharing to ensure that the extremists would control the transitional government and that there would be no opposition to its genocidal plan. The president had already been killed; the most prominent remaining moderate was Prime Minister Uwilingiyimana. She was hunted and killed on 7 April, along with the ten Belgian UN peacekeepers who were protecting her. An estimated 50,000 more moderate Hutu were executed in the following days and weeks including politicians, journalists, human rights advocates and anyone considered an intellectual.⁷⁹

The mass killings that began in Kigali on 6 April 1994 spread to other préfectures by the next day. With exhortations and instructions broadcast continuously by Radio RTLMC; with approval and leadership from local government administrators; and with guidance from local army and gendarme units as well as the trained militia such as the *Interahamwe*, ordinary Rwandan citizens began killing their Tutsi neighbors, friends, even family members. They did this with machetes, clubs, sticks, bows and arrows and a limited number of guns and grenades. They burned Tutsi's houses and looted their possessions. There have been many accounts of the killings, including some press

coverage during the genocide. The types of weapons used ensured a painful and slow death at best, and descriptions of unimaginable brutality are numerous.

In keeping with the misogynist tenor of the first three of the “Hutu Ten Commandments,” rape and other forms of gender-based violence were used systematically and on a massive scale by the military, militia and the ordinary people who did most of the killing. A 1996 Human Rights report found numerous accounts of rape by individuals or gangs, rape and mutilation by foreign objects and sexual slavery. Many victims were then killed, or left for dead. Tutsi women were the principal victims, but Hutu women married to or associated in any way with Tutsi were also targeted.⁸⁰ Taylor argues that the increasingly explicit and violent anti-woman sexual imagery in the Hutu extremist media beginning in the early 1990s was a reflection of the strong gender dimensions of the racial purity myth and also contributed directly to the mass rape during the genocide.⁸¹

Ultimately, 800,000 to one million Tutsi were murdered, one by one, in about one hundred days, a staggering number and a staggering feat. Most were killed in the first month, at a rate of tens of thousands per day.

RTLMC radio broadcasts incited people to genocide using broad propaganda as well as specific instructions. Harking directly back to the premise of the Hamitic hypothesis, a common encouragement was for Hutu to send Tutsi ‘back to Ethiopia, where they came from’ by way of the river – i.e., to dump dead bodies of Tutsi in the Akagera River, which flowed north into the Ethiopian branch of the Nile. Radio RTLMC also aired the names of individuals targeted for murder, Hutu and Tutsi, and announced where they had been last seen and where they might be hiding.

There was one notable exception to the immediate spread of violence. The killings did not start in Butare Préfecture in southern Rwanda until 20 April because the *préfet* or governor, Jean-Baptiste Habyarimana, the only Tutsi *préfet* in the country (and no relation to the president), refused to comply with the orders from Kigali. So, the interim president went to Butare on 20 April, the *préfet* was replaced, speeches were made and the killings began immediately. Butare had a higher than average proportion of Tutsi among its residents, it was the seat of the national university and it had a reputation for smooth Hutu-Tutsi relations. An estimated 100,000 were killed in Butare.⁸²

On 8 April 1994, the third day of the massacres, the RPF mounted an offensive from Uganda. They faced little opposition from the Rwandan army, most of whom fled. As the RPF advanced into each new area, they stopped the killing and often moved the local population into camps. Rather than go to these camps or stay behind, many Hutu fled to areas still controlled by government forces or to the refugee camps being established in Zaire and Tanzania. The RPF took Kigali on 4 July 1994 and the final stronghold, Gisenyi in the northwest, on 18 July 1994. The genocide was stopped. On 19 July 1994, the RPF formed a new government in Kigali with Pasteur Bizimungu, a Hutu and longtime RPF supporter as President and Paul Kagame, the RPF's military leader and a Tutsi, as Vice-President. Twelve of the 18 Ministers were Hutu. Their first order was a repeal of the compulsory identity cards.⁸³

The World's Non-response

Before moving on to the next phase of the crisis, i.e., the mass flight of primarily Hutu refugees to camps in neighboring countries as the RPF consolidated its control over the country, it is important to briefly review the reaction of the international community to the unfolding events in Rwanda. Foreign nations had been influential in Rwanda for 100 years at the time of the genocide, and are today, so their role during the genocide is relevant.

As part of the August 1993 Arusha peace accords, the UN placed a peacekeeping force in Rwanda, called UNAMIR, the UN Assistance Mission to Rwanda. It comprised 2,500 soldiers from Bangladesh, Ghana and Belgium and some 20 other countries and was led by Brigadier-General Roméo Dallaire, a Canadian. (France offered troops, but the RPF refused because of France's close relationship to the Habyarimana government.) Dallaire arrived in Rwanda in October 1993 and, from well-placed informants, learned details of arms caches, the lists of names that were being drawn up and distributed, assassination plans and militia training. Throughout early 1994, Dallaire warned UN headquarters in New York of an impending bloodbath. He wanted troop reinforcements, better arms and supplies and a change in the UNAMIR mandate so they could seize weapons. Kofi Annan, then head of the UN Department of Peacekeeping Operations at the UN headquarters in New York, and the UN Security Council would not grant the changes.⁸⁴

When the bloodbath foreseen by Dallaire began on 6 April and ten UN peacekeepers were tortured and killed on 7 April, the reaction of the UN was to pull the peacekeepers out of Rwanda. A force of 270 was left "to show the will of the

international community,” in the words of Madeline Albright, the US Ambassador to the UN.⁸⁵

France, Belgium and Italy sent troops to evacuate their nationals.^{86,87} Because it had the technical capacity, the US was asked to jam Radio RTLMC transmissions to stop its incessant exhortations and directives for genocide. Citing cost (US\$8,500 per hour for an airborne jamming mechanism), logistic difficulties and the American commitment to free speech, the US refused.

Hovering behind the UN's and the US's decisions to do nothing in Rwanda was the spectre of Somalia. The US's Somali operation ended appallingly in October 1993 – just a few months earlier – when 18 American soldiers were killed coming to the assistance of Pakistani UN peacekeepers. The image of an American soldier's body being dragged through the streets of Mogadishu was shown on global television. The US pulled out of Somalia immediately. The UN could not afford another failed peacekeeping operation and for the US, even one more casualty was too high. Under no circumstances would the US intervene in Rwanda; nor would it allow the UN to intervene.⁸⁸ Mamdani suggests that the US's support of Kofi Annan for UN Secretary-General in 1997 was payback for Annan's willingness, as director of UN peacekeeping operations in 1994, to downplay Dallaire's warnings about impending genocide in Rwanda.⁸⁹

The word “genocide” was never used in any official capacity by the US or UN Security Council since, under the 1948 Genocide Convention, had they recognized the events in Rwanda as genocide, they would have been legally bound to act to stop it.⁹⁰ Since there was never any intention of intervening, officials went to great lengths to

avoid saying the word even when it was quite clear that what was happening in Rwanda was, in fact, genocide.^{91,92}

The UN and foreign governments did press for a ceasefire in April, May and June 1994 but the RPF angrily refused, stating that a ceasefire on their part would simply permit the *génocidaires* to complete their work unhampered. The RPF was the only force working to stop the killers.

In mid-June 1994, President François Mitterrand of France offered to send troops to Rwanda to protect the population threatened with extermination. The UN welcomed France's humanitarian gesture, but others, including the RPF, were outraged. Given the timing – by mid-June most Tutsi had already been killed and the RPF controlled much of the country – the cynical interpretation was that France's action would provide safe haven to the Hutu, including architects of the genocide, fleeing the RPF. Or, as the very cynical believed, it would be France's means of actively supporting its former Hutu clients with additional arms and manpower, a belief reinforced by the heavy armaments supplied for this humanitarian endeavor, called *Opération Turquoise*.^{93,94} (A French parliamentary commission concluded in December 1998 that France bore no responsibility for the genocide.⁹⁵)

Long after the fact, some international bodies recognized their failure to act. On 25 March 1998, US President Clinton addressed survivors in Kigali and said,

“The international community, together with nations in Africa, must bear its share of responsibility for this tragedy, as well. We did not act quickly enough after the killing began. We did not immediately call these crimes by their rightful name: genocide.”⁹⁶

On 7 May 1998, UN Secretary-General Kofi Annan, also took responsibility on behalf of the world.

“We must and we do acknowledge that the world failed Rwanda at that time of evil. The international community and the United Nations could not muster the political will to confront it. The world must deeply repent this failure.

Looking back now, we see the signs which then were not recognized. Now we know that what we did was not nearly enough – not enough to save Rwanda from itself, not enough to honour the ideals for which the United Nations exists. We will not deny that, in their greatest hour of need, the world failed the people of Rwanda.

In the face of genocide, there can be no standing aside, no looking away, no neutrality – there are perpetrators and there are victims; there is evil and there is evil's harvest.”⁹⁷

Arguably, these are insincere apologies. We did not “not act quickly enough,” as President Clinton said – we did not act at all. And enough observers, Roméo Dallaire and UN headquarters officers among them, saw and recognized the signs of genocide, in contrast to what Secretary-General Annan said.⁹⁸ We have said “Never again” before but the world’s behavior during the Rwandan genocide, and other genocides in the 20th century, suggest that, in the words of David Rieff, “‘Never again’ might best be defined as ‘Never again would Germans kill Jews in Europe in the 1940s.’”⁹⁹

An international response that is currently ongoing is the International Criminal Tribunal for Rwanda, in Arusha, Tanzania. It was established in November 1994 by the UN Security Council to try the crimes of genocide, crimes against humanity and violations of the 1948 Geneva Convention and its Protocols.¹⁰⁰ To date, 17 Rwandans have been convicted including, in December 2003, three owners of *Radio et Télévision Libre des Mille Collines (RTLHC)*, and the newspaper, *Kangura*.¹⁰¹ Another notable conviction was of Jean-Paul Akayesu, a former *Bourgmaestre* (i.e., mayor) of a

commune, who in September 1998 was the first defendant to be found guilty of rape and sexual violence as a crime of war in any international tribunal.¹⁰² In fact, Akayesu, who was found guilty of nine counts of genocide, was the first defendant to be convicted and imprisoned under the Genocide Convention since it was passed in 1948.¹⁰³ Colonel Théoneste Bagosora, considered the mastermind of the genocide, and other senior military officers are still on trial as of late 2003.¹⁰⁴

The International Criminal Tribunal for Rwanda has been criticized for its slow pace and for not yet trying any cases related to RPF atrocities committed during its April to July 1994 military advances and in the post-war period. To try the tens of thousands of ordinary Hutu accused of murder and other genocide-related crimes in Rwanda, the government has re-instituted a traditional form of justice, called *Gacaca* (“flattened grass”¹⁰⁵), in 2002. Under *Gacaca*, 250,000 elected and trained judges try cases in communities throughout the country in order to achieve justice and promote reconciliation.¹⁰⁶

The Refugees

By mid-July 1994, the RPF had won control over the entire country and formed a new government. The genocide was stopped. Displacement, however, increased: as the RPF advanced, Hutu fled. In just one day, April 29, 1994, over 170,000 Rwandans crossed the border into Tanzania.¹⁰⁷ From July 14-17, when the RPF’s control over the country was imminent, 500,000-800,000 Hutu fled to Zaire¹⁰⁸ and 170,000 fled to Burundi.¹⁰⁹ In total, 2.1 million Rwandans – almost a third of the country’s surviving population – sought refuge in Zaire, Tanzania, Burundi, Uganda and further afield. This

unprecedented movement in a very short time was, in itself, traumatic for the millions of migrants.

The refugees, most in Zaire and Tanzania, were housed in camps set up by multilateral and non-governmental humanitarian organizations, coordinated by UNHCR, the office of the UN High Commissioner for Refugees. Death rates were extremely high as cholera and other infectious diseases spread. The US Centers for Disease Control and Prevention reported that the death rates in the early phases of the Zaire crisis were among the highest found in recent emergencies.¹¹⁰ In the Zaire refugee camps, crude mortality rates of 34-55 deaths per 10,000 population per day were documented in August 1994; in non-emergency situations in the developing world, a rate of 0.5 deaths per 10,000 population per day is normal.¹¹¹ At least 50,000 refugees died in Zaire from the epidemics.¹¹² As the situation stabilized, basic health, sanitation and social services were provided and death rates declined.

Refugee camps are intended to be temporary solutions, and voluntary repatriation the preferred means of phasing them out. From 1994 to 1996, few Hutu chose to leave the camps because of real fear of what awaited them in RPF-controlled Rwanda and because the Hutu extremists controlled the camps. The humanitarian staff providing services could not distinguish between *génocidaires* and true refugees. The camps thus provided the architects of the genocide, the 'government-in-exile,' a refuge, complete with adequate food, water, shelter, medical care and a base from which to attack Rwanda. If the refugees left, the government-in-exile would have no mass of humanity among whom to hide. The result was a standoff: the UN, Rwandan government, most of the host countries and the international community wanted the

refugees to go home; the government-in-exile had no intention of leaving the camps or permitting the refugees to leave.^{113,114}

The world provided hundreds of millions of dollars – over US\$1 million per day – immediately for the humanitarian tragedy unfolding in the refugee camps in Zaire and Tanzania. Within three days of the White House order, the US military were on the ground in Zaire providing fresh water and airdropping supplies.^{115,116} Journalists, largely absent from Rwanda during the genocide, were everywhere. The ‘second genocide’ occurring in the refugee camps – as the cholera epidemic and general wretched situation of the refugees was portrayed – made the world’s evening news, and the distinction between it and the true genocide was muddied. The world’s, and the donors,’ attention was now on the refugee crisis, not on the genocide.

The massive refugee presence in eastern Zaire and the UN and NGO resources linked to their presence further destabilized that already insecure area. Starting in late 1996, Zairean rebel forces attacked the refugee camps in Zaire and forced the refugees into Rwanda. In 1997, the Rwandan government admitted its role in these attacks, arguing that the camps were a security threat.¹¹⁷ By the end of 1996, Rwanda received 700,000 refugees from Zaire (500,000 of them in four days in mid-November); 470,000 from Tanzania, virtually all in December; and 100,000 from Burundi. Most of these refugees were forcibly returned to Rwanda by threatened or actual violence.¹¹⁸ Another 200,000 Rwandans repatriated in 1997 under similar circumstances.¹¹⁹ At the end of 2002, only 50,000 Rwandans remained as formal refugees or asylum-seekers in 10 central, southern and eastern African countries and in Europe.¹²⁰ Like their departure, the refugees’ return to Rwanda was difficult, dangerous and frightening.

Because the Rwandan genocide was carried out in large part by non-military community members, many victims and survivors knew the assailants personally. Tens of thousands of Rwandans were denounced, especially after the large scale return of refugees from Zaire, Tanzania and elsewhere. At the end of 1999, some 125,000 Rwandans were being held in civilian prisons and detention centers, most of them for suspected participation in the 1994 genocide.¹²¹ It is likely that thousands of others remain at large, living side by side with survivors and non-participants. The *Gacaca* justice system was implemented in 2002 to try these accused, as discussed above.

Development in post-conflict Rwanda – for those who stayed, for those who returned from the camps and for the approximately 700,000 "old caseload" Tutsi refugees who had fled during the 1959 to 1963 unrest and returned in late 1994 and 1995¹²² – has been assisted by the international community. But the development task is daunting. In addition to the usual difficulties of establishing and improving health, education, agriculture, justice, economic and other systems in extremely poor countries, Rwandans must contend with the personal, psychological, material and structural consequences of their genocide.

Responding to the reproductive health needs of the population is part of that development challenge. In the next chapter, Rwanda's past and present reproductive health policies and programs are described.

Key Events in Rwandan History

15 th Century	Twa, Hutu and Tutsi are already living in what would become Rwanda.
1884	Berlin Conference divides Africa among European nations. Rwanda is awarded to Germany.
1894	First Europeans arrive in Rwanda.
1900	First missionaries, Roman Catholic “White Fathers,” arrive in Rwanda.
1917	Belgium becomes colonial power in Rwanda and establishes indirect rule through the existing monarchy.
1923	Belgium wins League of Nations mandate to rule Rwanda-Urundi
1935	Belgians introduce identity cards with Hutu / Tutsi/ Twa classifications and gives preferential treatment to Tutsi.
1946	Rwanda becomes UN Trustee Territory.
1957	Grégoire Kayibanda, a leading Hutu intellectual, publishes the Hutu Manifesto, an explicit call for treating the Tutsi as a “foreign” race and for a Hutu-only Rwanda.
1960-1961	PARMEHUTU, an extremist Hutu political party, wins the 1960 communal elections and 1961 national legislative elections. Kayibanda, author of the Hutu Manifesto, becomes Prime Minister under the provisional government.
1961	Monarchy is abolished by referendum.
1 July 1962	Rwanda gains full independence from Belgium, Kayibanda becomes President.
1963	Many Tutsi flee Rwanda, a process that started in 1959, in response to massacres.
1972	Massive massacres of Hutu by Tutsi in neighboring Burundi.
1973	Juvénal Habyarimana, a Hutu military officer, carries out a bloodless coup and becomes President, initiating a period of relative moderation in Hutu-Tutsi relations and a policy of national economic development.
September 1990	A plan for introducing multi-partyism is introduced in response to pressure from the West.

Key Events in Rwandan History

1 October 1990	The Tutsi-led Rwandan Patriotic Front (RPF) invades Rwanda from Uganda starting the civil war and forcing hundreds of thousands of Rwandans to become displaced.
December 1990	The "Hutu Ten Commandments," an explicit call for anti-Tutsi policy and action, is published in the Hutu extremist newspaper, <i>Kangura</i> .
1990-1993	Sporadic assassinations of Tutsi and moderate Hutu leaders and communal violence occur.
April 1991	Multi-partyism is adopted in an accelerated constitutional change. Many parties form.
March 1992	Coalition pour la Défense de la République (CDR), a Hutu extremist party, is formed.
August 1992	Peace talks in Arusha begin.
July 1993	Radio et Télévision Libre des Mille Collines (RTLNC) airs explicit anti-Tutsi messages.
August 1993	Arusha peace accords are signed, calling for a transitional government to be installed on 31 December 1993 with representation from multiple political parties including the Tutsi-led Rwandan Patriotic Front.
21 October 1993	President Ndadaye, Burundi's first Hutu president, is assassinated.
November 1993	UN peacekeeping force, UNAMIR, arrives in Kigali in accordance with August 1993 Arusha peace accords.
January-April 1994	Transitional government agreed to under the August 1993 Arusha accords fails to be established.
6 April 1994	Plane carrying Presidents of Rwanda and Burundi is blown up as it approaches Kigali.
6 April-18 July 1994	Genocide of Tutsi and killings of political moderates take place. 2,000,000 refugees flee into Zaire, Tanzania and Burundi.
21 April 1994	UN Security Council reduces the UNAMIR force from 2,500 to 270.
4 July 1994	Tutsi-led Rwandan Patriotic Front take Kigali.
5 July 1994	French soldiers establish Opération Turquoise, a safe zone in western Rwanda.
18 July 1994	Rwandan Patriotic Front takes Gisenyi and the war is over.
19 July 1994	Rwandan Patriotic Front establishes Tutsi-led transitional government.

Data Sources for Table: Basic Indicators for Rwanda and the Sub-Saharan Africa Region, p41

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A personal perspective
New meanings for familiar images

Those few days – April 6-11, 1994, while I was in Rwanda and not quite sure what would happen to me or to anyone – are filled with stark moments that stand out in my memory. But in many cases, the significance of the events dawned on me only gradually over those several days or, in many cases, much later, when I had a context in which to place them. And, in a shift that has continually surprised me in the years that have since passed, the meanings I came to associate with events during those few days have endured to replace the previously benign meanings I knew to be true based on all my prior experience in Africa.

On Thursday, April 7, in the afternoon, my closest Rwandan colleague, S, another American, M, a driver and I went in search of a telephone to call Kigali. We had a short wave radio in the CARE office, but no phone. In Kigali, the person we needed to reach, the CARE Country Director (CD), had a phone but no radio in his home, and he could not get to the office radio because of the fighting. We were passing messages through the guard in the Kigali CARE office, who was literally running between the phone and the radio, but we couldn't get beyond basics ("Are you OK?" "Yeah, are you?") because the guard's French was weak and the CD did not speak Kinyarwanda.

(These days, we would have cell phones and maybe satellite phones, technology not routine in a project like ours in 1994.)

Anyway, that Thursday we drove to the next commune, Murambi, to find a phone. On the way, we stopped to speak to two young men emerging from the bush covered in sweat and dirt, carrying machetes. S spoke to them in Kinyarwanda. His tone was admonishing; they were sullen. When we left them, S snorted, "They said they were killing cows." I had no idea what he meant then. Later I realized they were covered in blood, not only sweat and dirt, and they were killing Tutsi, not cows.

As we reached Murambi Commune, we saw hundreds of men of all ages milling in the road. They held machetes and clubs. There was a buzz of energy, but it was not a 'riot' or a 'mob scene;' it was quite calm. Small groups would break off and climb up a hill, looking purposeful. I realized later that they had received instructions to attack a particular house and its Tutsi inhabitants, and that was where they were going.

As we drove into the town itself (commune headquarters in Rwanda are hardly towns as one would think of them; there are a few buildings and a small marketplace, nothing more), we saw another crowd of men. We stopped, and S asked them if there was a working phone anywhere. As they spoke, we saw a group of maybe five women and a few men sitting on the ground along the side of one of the buildings. I realized later that they were prisoners, and were surely killed. S must have asked about them; in any case, the crowd became menacing and started surrounding the vehicle. We decided that driving around was not a good idea – especially with us foreigners in the vehicle – and to go back to the CARE guest house.

We drove off, looking for a place to turn around. I saw a few people head-carrying chairs and tables and I remember thinking how odd that they would choose this day to pick up their new furniture from the carpenter. It later dawned on me that they were looters, taking goods from the people who were being killed.

Then we saw, as S put it later that evening, incredulously, “un cadavre à coté de la route” – a dead body on the side of the road. He was a man, about 45 perhaps, tall, wearing a button-down shirt with broad faded red and white stripes, brown pants and no shoes.

At that point, a pickup truck coming toward us on the road signaled for us to stop. There were perhaps 6 people, mostly women, in the back – prisoners again, as S told us later. A military officer got out and strutted over to sit in the front seat of our vehicle, which S had left. The other American, M, and I were sitting in the back.

We had a very chilling conversation with the officer, who turned out to be a lieutenant in charge of all the gendarmes (police) in the area. Our conversation was interspersed with shouted conversations in Kinyarwanda among the lieutenant and his gendarmes. The officer was drunk and went on about how the foreigners – specifically the rebel RPF soldiers and the Belgians – killed his President, and that they would pay. He bragged about the torture and murder of the 10 Belgian peacekeepers which had occurred just hours earlier; I don't recall if we had already heard that on the radio or not. He kept asking us if we were Belgian; we showed him our US passports but would not let him take them out of our hands. I tried having an actual conversation with him, to learn what was going on, where the armies were fighting, but it quickly became clear that that was not productive.

Ultimately, he let us go on our way but not before insisting that 2 gendarmes ride with us, ‘for protection.’ I remember their grenades rolling around the rear of the vehicle.

On the way back to the CARE guest house in Muhura Commune, we saw smoke rising from the hillsides in the distance. That meant, to me, that farmers were burning fields, a discouraged but widely applied practice. Very sadly, S said, “They're burning houses.” As soon as he said it, I knew it was true.

I marvel that those five days in Rwanda utterly replaced benign meanings of common events for me, even though, in 1994, I had developed these understandings over some 15 years of living and working in Africa. Even now, as I travel in Africa, my *first* thought when I see someone with a machete is that they are killing. My *first* thought when I see someone head-carrying furniture is that they are looting. My *first* thought when I see smoke rising in the distance is, “They're burning houses.” These first thoughts are fleeting and quickly replaced with the innocuous real meanings, but that these sinister interpretations have replaced the true, in these cases, benign explanations amazes me. How could five days trump 15 years?

As we drove back to the CARE house that day, I saw a scene that is among the most familiar in rural Africa, but somehow shocking in its common-ness that day. A woman was pounding her family dinner's in a mortar – *igitoke*, or banana, in this case – in front of her home while her toddler played nearby.

I guess even génocidaires have to eat.

A personal perspective

“All things considered, I’d rather be tap dancing”

On Friday, April 8, my American friend and colleague, M, walked into the bedroom we shared in the CARE guest house in Byumba, Rwanda. She was very surprised, even shocked, to see me tap dancing. I think she thought all the pressure had finally gotten to me.

But my reasons for dancing were perfectly logical. We all knew that the odds of us all being killed were fairly high, and I figured there was no harm in dieing a better tap dancer. If I survived, however, some part of me knew, even then, that I would go back to my life. And my life included performing an original tap solo in early May, just a few weeks later, a dance for which I had not yet finished the choreography. So there I was, flapping, shuffling, stomping.

We were trying to avoid being killed, to be sure. By the evening of April 7, 24 hours after the president’s plane had been brought down, all the CARE staff who lived and worked in Byumba had moved to the CARE guest houses with their families. There were two guest houses, side by side, for the visitors on temporary assignment. The visitors this time included the team I was leading to conduct a mid-term evaluation of CARE’s reproductive health project in Byumba Préfecture. We were six on the evaluation team, four Rwandans and two Americans: S from CARE; D from the Ministry of Health; J from the National Population Office (ONAPO); E, a sociologist who was an independent consultant; and M and I, two American public health specialists. I had known S since the mid-1980s when he worked at ONAPO, and was happy to be working with him again at CARE. I hadn’t known any of the others until this trip. We were about 25 people in the two guest houses.

Looking around at everyone at a house meeting that evening, it was clear that we had to be a prime target. We had Tutsis; we had foreigners, including one Belgian who was there consulting on an agricultural project, and one tall African-American, who was part of the evaluation team and who we feared would be taken for a Tutsi (and indeed was, later); we had at least one person who was a human rights activist. We had people from all geographic areas of the country. All of the staff members, and some of their spouses, were well-educated – in a country with a very small educated class, all of whom seem to know each other – and their political views were probably known to those who monitored such things. We were in an area between the two armies and now had the roving bands of killers to fear too. It seemed to us that every one of us would be a target for at least one of these groups.

Rumors picked up and explored over the next days confirmed the existence of “the list” – the Byumba list was reported to have 49 names of people to be searched out and killed – and some members of the CARE team were on it. These infamous lists became evidence of the organized nature of the genocide and the political cleansing that occurred from April to July.

At regular house meetings, we busied ourselves with logistics: scouting for enough food and water to last us – how long?; rationing food and water (and tea and beer); figuring out how to deal with sanitation (the toilets in the houses used water from the chateau d'eau but water could not be pumped up because we were short on fuel); deciding if and when it would be safe to use the CARE vehicles; trying to come up with weapons to defend ourselves if needed. We removed the solar panels from the CARE office building nearby and buried the office equipment to protect them from attack and looting.

We organized regular guard duty – two hour shifts of two people. We didn't have a clear idea of what the guards would do – we never did come up with much in the way of a defense strategy – but we would at least wake everyone if we were attacked. Since I had the 4-6 am shift the first night, I dutifully went to bed early. I woke up at about 5 am, panicked that I had missed my shift and worried that the 2-4 am guards had not woken me. I rushed to the living room. There I found a scene I had never seen in Rwanda: all the Rwandans sitting around having a party! They had been up all night, drank all the beer, and were laughing and having a great time. My Rwandan colleagues had always told me, 'If you want to have fun, go to Zaire. If you want to work, come to Rwanda.' I had always found this to be exactly true, but I guess extraordinary events called for extraordinary response.

Later that morning, there was a commotion behind the house. It turns out that a young man had attacked the family in the house up the hill from us. The neighbors intervened to protect the family and they beat the young man to death. This was classified as *good news* – this community was not going to stand for the kind of violence that we knew was occurring elsewhere. We also learned of other efforts to prevent local killing. Two individuals whom I knew met with groups of men who became known as the *Interahamwe* in the international press, a Kinyarwanda name that translates to 'those who attack or who work together.' These individuals were the Bourgmaestre, the civil leader of the commune, and P, a former CARE staff from Byumba who was studying at the University at Butare and was home visiting his family. They went from one small group of men to another to calm them and keep them from killing. They kept us at CARE informed of their activities; they were not optimistic about being able to hold off the violence for very long.

Meanwhile, we were continuously discussing what to do – do we stay, do we go? Who would go? Where? How? When? What was safe? There was a short wave radio at the CARE office, and I monitored it most of the time listening and trying to reach anyone who could tell us what was happening elsewhere. Because we were between the two armies – the Rwandan national army and the RPF 'rebels' – we did not know who was in control of any particular piece of territory at any given time. We also did not know which one we should fear more. Every now and then on the radio, I would pick up the armies' communications – the RPF speaking English or Kiswahili, the Rwandan army French or Kinyarwanda – and *quickly* leave that frequency. We were in spotty touch with the CARE office in Kigali, the capital, but they did not know much either, especially about military movements in the northeast. We also picked up other NGOs and we shared news about our positions and plans.

On the short wave radio and on the commercial stations, particularly the BBC and *Radio France Internationale*, we heard rumors that US Marines would come in a helicopter and rescue us. (!) We heard that safe passage was being organized for some categories of people. We heard about the 10 Belgian UN peacekeepers who were tortured and killed in Kigali. We heard more reports of massacres. We heard Tutsi were streaming into churches and schools for safety, and that they were being attacked there. We heard that Red Cross and NGO workers were being murdered. We heard they were killing priests and nuns, including foreigners; this was shocking in this Catholic country. All lines were being crossed; nothing was sacred. Nothing.

Our plans changed constantly, changed while they were still vague ideas rather than plans. In general, we wanted to leave Byumba. The CARE staff whose families were elsewhere, especially in Kigali, wanted to get to them. I believed the presence of us foreigners was putting the Rwandans in danger – we didn't blend in, we couldn't speak Kinyarwanda, foreigners and NGO workers were being targeted, we needed tending. S, among others, would not leave us to fend for ourselves and he was desperate to get to his family in Kigali; he had reason to believe he and they would be targeted.

We finally came up with a plan of sorts. The three foreigners – M and I and the Belgian, Y – would drive a CARE vehicle north toward the Ugandan border through what we thought was RPF territory. If we came up with a better plan along the way or if we were forced elsewhere, we would adapt. S and some of the other Rwandans would take another vehicle south to Kigali. Staying in Byumba and waiting didn't seem a viable option. We cleared the plan with the Bourgmaestre, and asked for his advice. He gave me the name of a friend in the Rwandan military, but cautioned me to ask for him only if our lives depended on it, literally, because appearing sympathetic to the cause of foreigners would get him killed.

We were making plans to leave when the CARE Country Director, W, appeared in the Byumba office. He had driven up from Kigali and was literally speechless at what he had seen on the way. I wanted to hug him and slap him; I couldn't believe he had put himself in such danger for us. But he simply could not leave the country when CARE staff – particularly foreign consultants – were still stuck. He had been rebuffed in his request for help from the US Embassy in Kigali but did get from them an enormous American flag which he draped over the vehicle. The idea was that identification as American was better than being perceived as Belgian (considered enemies by the Rwandan army and the *Interahamwe*) or French (considered enemies by the RPF).

Just as the four of us foreigners – W is American too – were preparing to head north, two vehicles of Dutch staff from Médecins sans Frontières arrived with news that a group of missionaries had negotiated safe passage with the Rwandan army and gendarmes for a convoy of vehicles south to Kigali, but only foreigners could be included. We decided this was the best option for us foreigners, but it left the Rwandans no better off than before.

The other three foreigners and I left Byumba to join the convoy. The Dutch MSF staff and we eventually broke off from the main convoy – which was going to wait for a lull in the intense fighting at the Kigali airport to be evacuated by air – to drive to the Tanzania border. We saw many more killing groups along the way, were stopped at innumerable gendarme and army checkpoints, and had a particularly hard time at one army stop close to the border. While we were still in Rwanda and not at all sure we would make it to the border, we heard the US Ambassador to Rwanda announce on the BBC from Burundi that all Americans had been safely evacuated.

On the night of April 11, we crossed into Tanzania at Ngara, traversing the Akagera River that appeared on the world's front pages dammed with dead bodies for weeks on end that summer. I felt relief upon arriving in Tanzania – a country I have always loved – but no joy.

It was then that we learned that our Dutch MSF traveling companions were actually Belgian – Flemish Belgians so they could convincingly pass as Dutch. I was glad they got out safely, but their dissembling put us all in far greater danger than we even knew. After a few days, I flew with my CARE colleagues to Nairobi where we caught up on what was happening to CARE staff and other friends; from there, we dispersed to our homes.

Leaving friends and colleagues behind in Byumba was terrible. I knew there was nothing I could do. While hewing generally to the Peace Corps philosophy of not taking advantage of the special status conferred on me as a foreigner, an elite and a white person, there are times in my life and work in Africa when I have actively or passively used my standing to get something I wanted. Sometimes it was a good seat in a bush taxi for the sake of comfort, sometimes it was an audience with a high-ranking official to garner support for a project. In Rwanda during the genocide, I didn't see any way I could pull rank to help. If European nuns and priests who had lived in Rwanda for decades and spoke Kinyarwanda could not protect their parishioners, there was no hope at all. Being a foreigner seemed like it was only inviting danger to everyone around us. The situation was hopeless.

I don't know if leaving was the right thing to do. I do know that the phrase of one colleague, D from the Ministry of Health, rings in my ears. "Vous nous quittez." "You are leaving us."

I also know some of the people I was with in Byumba were killed when the violence erupted. The Bourgmaestre, his wife and two adult children who were visiting their parents were murdered. P, the other man who was trying to quell the genocide, survived; I learned that he made it to a refugee camp in Tanzania. I never learned what happened to E, the sociologist on the evaluation team; my letters were never answered and friends reported no answer at his family's compound in Kigali. I heard that most of the CARE staff along with D and J from the evaluation team were sent to an internment camp by the RPF when they took over the Byumba area. Various reports suggest that

these camps were reasonably secure. However, I heard that D was killed by the RPF, apparently because she was considered a Hutu extremist sympathizer, and that J was killed because she was with D.

This passage appears in Human Rights Watch's *Leave None to Tell the Story: Genocide in Rwanda*.

“A group of Americans and Rwandans working for Care International in Byumba prefecture sought to return to Kigali after hearing that Habyarimana's plane had been shot down. When they encountered a group of RPF soldiers, Daphrose Nyirangaruye, who was unarmed and posed no threat to military forces, was killed while others in the delegation were permitted to continue on their way.”¹

While the details might be inaccurate, it does seem certain that Daphrose (D) and possibly Jeanne d'Arc (J) were killed.

S and his family were targeted, as they feared. They moved around Rwanda for over a month evading capture. Eventually he and his immediate family made it across the border to the Zaire camps, then to Uganda where it was safer. They survived, but lost many other family members. They now live in West Africa, far from the reach of the remnants of Hutu extremism in East Africa and the Great Lakes.

I returned to New York on April 15 and resumed my life, as I knew I would if I survived. I marvel when I look back at my date book – over the next several weeks, I attended meetings, had dinner with friends, went to see my nephew in *Peter Pan* at his school. I remember none of it. I did finish my choreography, though, and I did perform my solo tap dance on May 7. I remember that.

¹ Des Forges, Alison. *Leave None to Tell the Story: Genocide in Rwanda*. Human Rights Watch, New York, 1999. p711.

“Quant aux problèmes posés par l’accroissement démographique du peuple rwandais, nous en sommes conscients, et ils devront retenir constamment notre sérieuse attention.” [“We are conscious of the problems posed by the demographic growth of the Rwandan people, and they must constantly hold our serious attention.”]

Président Juvénal Habyarimana, 1974^{*}

“Au Rwanda, la politique de santé ... se base sur trois principes: l’équité, l’intégration des services, l’amélioration de l’accès aux services.” [“In Rwanda, health policy ... is based on three principles: equity, integration of services, improved access to services.”]

Politique Nationale de Santé de la Reproduction, 2003[†]

IV. Population Policy and Programs in Rwanda

It is rare to read anything about Rwanda that does not highlight its high population density; that it is the “most densely populated country in Africa” is often a key point of country descriptions. Population density and its implications are, in fact, important considerations for Rwandans who rely on subsistence agriculture to survive and for governments who are responsible for national development. Through the years, Rwanda’s governments have addressed these issues through a range of policy responses and programs promoting emigration, agricultural productivity, family planning and a multi-sectoral approach to lowering fertility desires.¹

In this chapter, Rwanda’s policy approaches to population issues are described as they have changed through the years from colonialism to the current time. Next, the objectives and activities of the national population program are discussed.

Demographic and health profiles of Rwandan women in 1992 and 2000 – pre- and post-genocide – are then presented based on the Demographic and Health Surveys done in those years. Finally, a profile of Rwanda’s family planning service delivery

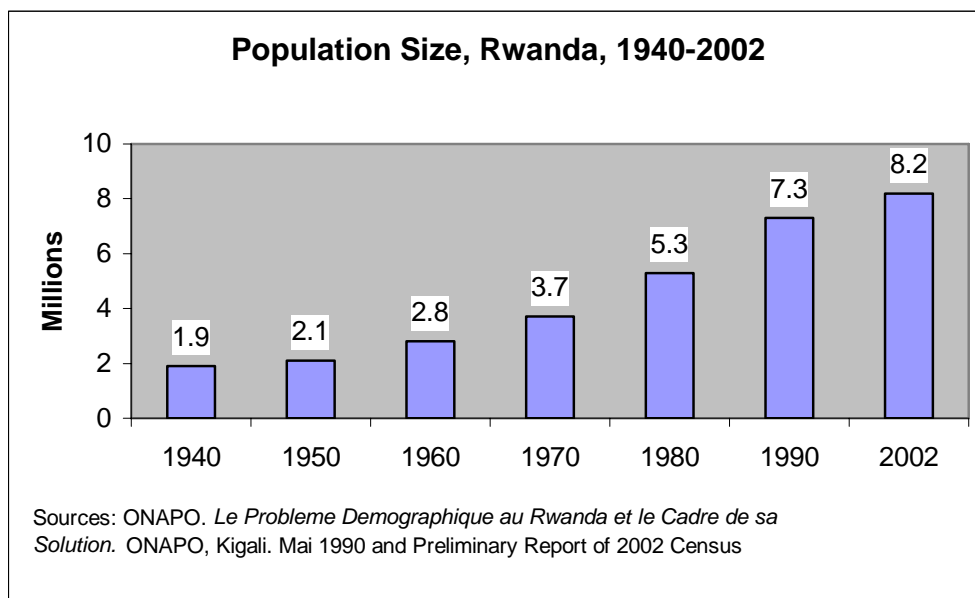
^{*} Office National de la Population. *ONAPO 1981-1991: L’ONAPO a Dix Ans*. ONAPO. Janvier 1991.

[†] Ministère de la Santé. *Politique Nationale de Santé de la Reproduction*. Kigali, Juillet 2003.

system in 2001 is presented based on the Service Provision Assessment conducted in that year.

National Population Policies

Rwanda's 'demographic problem' was recognized as far back as early colonial times, when administrators were concerned with the pressure on agricultural production. One method used by the Belgian colonial administration as early as 1926 to ease the problem was to authorize and encourage emigration to neighboring countries. By the mid- to late 1950s, the colonial response to the still severe pressure on the land was to promote internal migration to areas of relatively low density, including areas newly opened for settlement. They also promoted better rural production and storage through making improved seeds available, building irrigation and drainage channels, constructing silos and improving pastureland grasses for cattle.



The first government of independent Rwanda under President Kayibanda (1962-1973) pursued the same policies, with the major emphasis on increasing productivity as even the newly opened land for resettlement became crowded.²

On 1 August 1973, less than one month after he took office in a bloodless coup, President Habyarimana made a speech identifying soil quality and the “*explosion démographique*” as Rwanda’s main problems. While maintaining efforts to increase agricultural production, this government also pursued the other side of the equation, reducing population growth. In 1974, the government created a Scientific Consultative Council to study the high rate of population growth and propose solutions. Rwanda’s first census was carried out in 1978 and found a rate of natural growth of 3.7%, a rate that was among the highest in the world and which would result in a doubling of the population in under 20 years. This finding further spurred action. In January 1981, the National Population Office (*ONAPO, l’Office National de la Population*) was formed by presidential decree to replace the advisory Scientific Consultative Council.^{3,4} This marked the commitment to actively addressing high population growth.

Despite these clear intentions and actions, it was not until May 1990 that a formal National Population Policy was adopted.⁵ Progress was made by ONAPO in the 1980s, as described below, but it was still deemed insufficient. Thus, the 1990 policy contained ambitious targets. By the year 2000, it called for reducing the total fertility rate from 8.5 to 4, reducing the population growth rate from 3.1% to 2% and increasing contraceptive prevalence from under 15% to 48%.^{6,7}

By 1990, however, Rwanda was already facing political and economic strife, as discussed in previous chapters. In October 1990, just a few months after the May 1990

population policy was articulated, the civil war began, followed in 1994 by genocide and mass refugee migration. Development activities, including population, received little attention in the ensuing years.⁸ Nevertheless, some development occurred: in 1995, health districts were created; in 1998, the Maternal and Child Health/ Family Planning Division in the Ministry of Health became the Reproductive Health Division; in 2000, a process of reorienting reproductive health priorities was begun. These strategic shifts culminated in the next major policy strokes – when the post-genocide government under President Paul Kagame adopted its “National Population Policy for Sustainable Development”⁹ in January 2003 and its *Politique Nationale de Santé de la Reproduction* (National Reproductive Health Policy) in July 2003.¹⁰

While recognizing that social and economic development efforts were seriously constrained by rapid population growth, the 2003 “National Population Policy for Sustainable Development” also identified low levels of literacy and poor productivity as contributing factors. The policy overtly adopted the approach endorsed in the 1994 International Conference of Population and Development’s Programme of Action.¹¹ The 2003 National Population Policy states:

“During the International Conference of Population and Development (ICPD, Cairo 1994), countries present at the conference, Rwanda being one of them, adopted resolutions which recommended putting emphasis on quality of life and reproductive health issues rather than on quantitative demographic aspects only.

This approach is the focus of the new National Population Policy.

Whereas the first [1990] National Population Policy focused on reduction of rapid population growth (only quantitative demographic targets), the new population policy is wider in scope and focuses on the improvement of the quality of life of the population.”¹²

Indeed, the 2003 policy contains 28 specific objectives in the areas of health, education, urbanization and population distribution, food security and environment as part of its overall goal to “contribute to the improvement of the quality of life of the Rwandan Population while preserving the environment in order to attain sustainable development.” It also contained several demographic objectives including a reduction in the total fertility rate from 5.8 in 2000 to 5.0 in 2010 and 3.0 in 2020 and a reduction in the population growth rate from 2.8% in 2000 to 2.5% in 2010 and 2.2% in 2020.¹³

The 2003 policy called for active integration of virtually all technical development sectors, the public and private sectors and civil society in general. To coordinate this, a National Council for Population and Development was created. The National Council is a multi-sectoral advisory and consultative organ charged with coordinating the implementation of activities through the various ministries and other agencies.

The National Population Policy of January 2003 was followed by the National Reproductive Health Policy in July 2003, which articulated in greater detail the elements of the government’s plan. All areas of reproductive health were addressed – safe motherhood, family planning, prevention and management of HIV and sexually transmitted infections, sexual violence, adolescent reproductive health and women’s decision-making regarding reproductive health. With regard to family planning, the reproductive health policy called for an increase in contraceptive prevalence from 4% to 15% by 2010.

The reproductive health policy identified two ministries responsible for coordinating all activities. These were the Ministry of Health, responsible for clinical services, and the Ministry of Local Administration, Information and Social Affairs,

responsible for advocacy and behavior change communication. Other ministries and actors with roles in all or part of the reproductive health program included the Ministry of Education for school-based activities; Ministry of Youth, Sports and Culture for reaching adolescents; National Center for Treatment and Research on HIV/AIDS; National Program for the Fight Against AIDS; Ministry of Defense and National Sovereignty with regard to AIDS control and sexual violence; Ministry of Justice and Institutional Relations with regard to sexual violence; and Ministry of Gender and Promotion of Women for sexual violence and women's autonomy.¹⁴ ONAPO, the National Population Office, remains a major actor, particularly with regard to family planning activities.¹⁵

The reproductive health policy recognized the difficulties of coordinating an integrated program with multiple responsible agencies and acknowledged that its coordination plan was weak. It envisaged a more coherent coordination plan in the long term.¹⁶

Rwanda's Population Program: ONAPO

As the implementing body set up in 1981 to carry out the population-related elements of the national development plan in the Habyarimana government, the National Population Office's (ONAPO) objectives were to train health and social service civil servants in population matters, educate the public on Rwanda's socio-demographic problem, carry out socio-demographic research, promote maternal and child health and family planning and integrate population education into the schools.¹⁷

Although May argues that the government was slow to effectively address the fertility component of the agriculture-population growth problem,¹⁸ many of the decisions made by the Habyarimana government in establishing ONAPO suggest that they accorded the issue high priority. While officially under the Ministry of Health, ONAPO was in fact an independent body whose Director was named by the president and who answered directly to the national cabinet. The position of ONAPO Director was organizationally senior to that of the Minister of Health.¹⁹ The Directrice of ONAPO from 1981-1994 was Gaudence Habimana who was popularly considered to have excellent rapport with the president.²⁰ Moreover, the president regularly invoked Rwanda's demographic challenge and the importance of ONAPO's work for national development in speeches at, for example, Independence Day celebrations, public ceremonies and party congresses.²¹ This leadership from the very highest levels of government – indeed, from the president himself – gave ONAPO a very strong mandate and a strong identification with the government.

It is clear that Rwanda's main concern in establishing its population program was demographic. This was in contrast to most other sub-Saharan African countries whose population policies were based on health considerations and whose family planning programs were typically placed within the maternal and child health departments of Ministries of Health. By the late 1980s, the health benefits of family planning were being emphasized in both the rationale for ONAPO's programs and in the content of public education in the field.²² This was a practical reaction to the slow progress of the family planning program's early years and an attempt to better respond to Rwandans' needs.

During the 1980s, ONAPO was developing its research, statistics, public education, logistics and administrative capacity with substantial assistance from donors and technical assistance agencies. They were also developing mechanisms to coordinate with the Ministry of Health. Although ONAPO was an independent agency with its own administrative functions, family planning services were provided at Ministry of Health (MOH) clinical facilities by MOH and/or ONAPO staff to avoid creating a parallel service delivery structure.

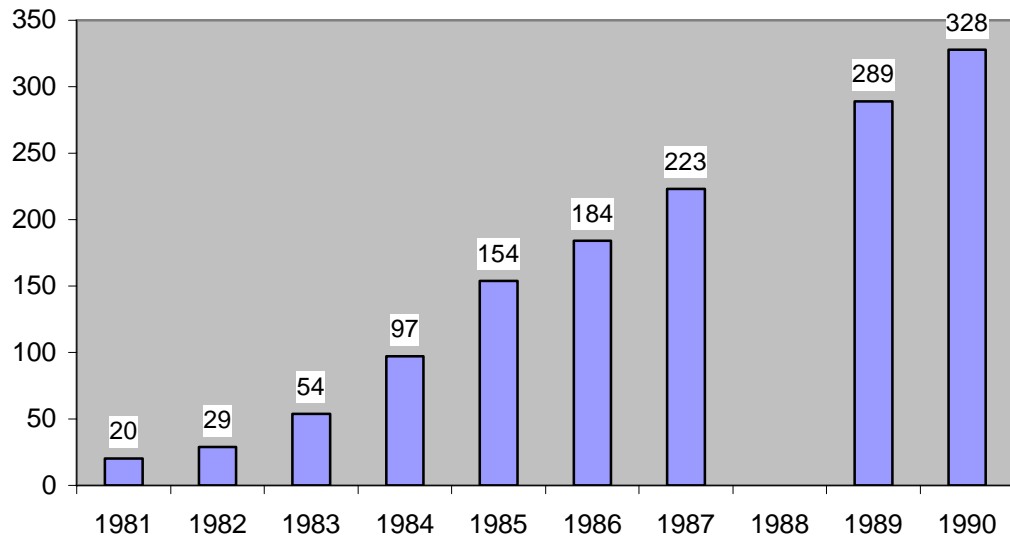
In the mid- to late 1980s, community-based education had been tested in a small operations research program, found to be successful and expanded to the entire country. In this program, local men and women were chosen by community members to be trained by ONAPO as community-based family planning educators. These unpaid volunteers were called *Abakangurambaga*, “wakers-up of the people.”^{‡,23}

By the late 1980s, ONAPO’s program showed impressive progress. Between 1981 and 1990, ONAPO trained over 3,200 staff including family planning clinicians and clinical aides, demographers, teachers, trainers and other cadres.²⁴ In 1988-1989, ONAPO also trained some 17,000 volunteer *Abakangurambaga* to provide information and referral in their communities.^{25,26} The number of facilities that provided family planning services increased from 20 in 1981 to 328 in 1990, as the first figure on the following page illustrates.^{27,28}

These improvements – an experienced and well-managed organization, trained staff and volunteers, available services – resulted in a dramatic increase in family planning acceptance in the 1980s, as the second figure below shows.

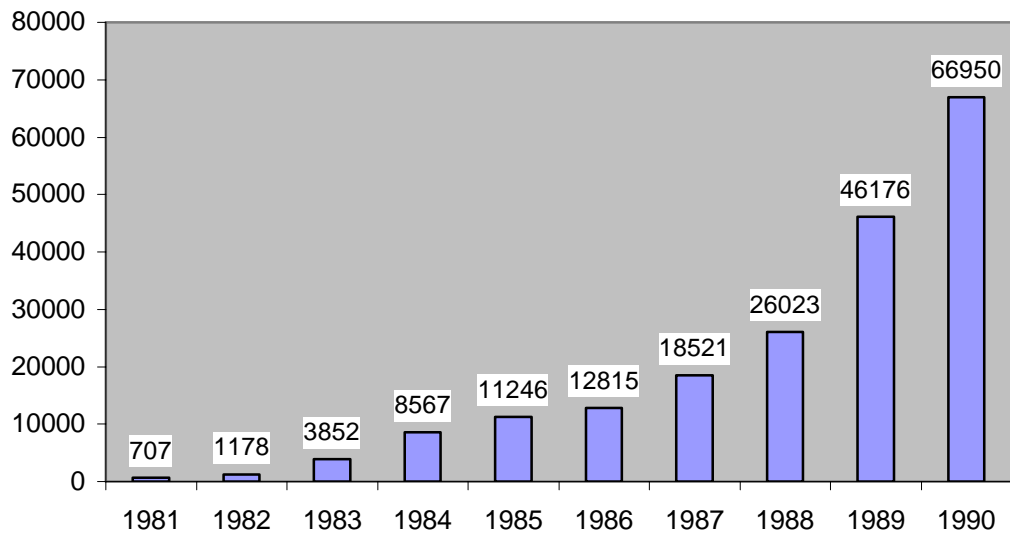
[‡] This word has the same root as the extremist Hutu newspaper, *Kangura*, which means ‘Wake him up!’

Number of Health Facilities Offering Family Planning Services, Rwanda, 1981-1990



Source: Hakizimana E, 1988 and ONAPO. *ONAPO 1981-1991: L'ONAPO a Dix Ans.* ONAPO. Janvier 1991.

Number of New Family Planning Acceptors Rwanda, 1981-1990



Source: ONAPO. *ONAPO 1981-1991: L'ONAPO a Dix Ans.* ONAPO. Janvier 1991.

An evaluation of the US Agency for International Development's (USAID) bilateral assistance project to ONAPO that focused on the funding cycle that began in 1989 was carried out in March-April 1994. USAID had been a major donor to ONAPO since 1981. The evaluators' conclusions are useful in understanding ONAPO's activities in the early 1990s, as the bulk of the (foreign) evaluators' work was completed before the genocide started and they were evacuated. They determined that ONAPO's positive trends were diluted in the early 1990s by the civil war and political disruption caused by the democratization process. ONAPO's close identification with the government was now a disadvantage. In 1994, the evaluators found ONAPO's management processes "no longer appropriate for the changing situation" and ONAPO's staff capabilities "gravely eroded." They described the *Abakangurambaga* program as "an apparently effective approach that has been weakened by the present political situation."²⁹

Rwandans' Demographic and Health Profiles, 1992 and 2000

Demographic and Health Surveys were carried out in 1992 and 2000 in Rwanda by ONAPO and ORC Macro.^{30,31} These data provide a means of understanding the fertility-related profile of Rwandan women of reproductive age at each point and also to understand the changes that occurred in the interim years. The results from both surveys are summarized here.

Of course, in the period between the two surveys, Rwanda experienced profound change – the genocide (1994), the massive movement of refugees out of (1994) and back into the country (1996-1997) and the installation of and governance by a new

government (July 1994 to the present). The destruction caused by the war – physical and systemic as well as social – directly affected the health delivery system, as it did all sectors within the country. Health facilities were destroyed, staff were killed or fled and the communications and transport systems necessary for management were weakened. Thus the 2000 Demographic and Health Survey describes a different environment than does the 1992 survey.

The Demographic and Health Survey (DHS) Project is the third round of comparative, global data collection on population, health and nutrition. It follows the World Fertility Surveys and the Contraceptive Prevalence Surveys of the 1970s and early 1980s. DHS surveys are conducted by ORC Macro, a US-based research company, with national counterpart organizations in each country and are funded by USAID and national sources. Since 1985, some 170 surveys have been carried out in 70 countries.³²

DHS surveys are nationally representative household surveys with large sample sizes, usually between 5,000 and 30,000 households. The standard format includes core household and women's questionnaires, and additional questions or modules may be added based on the specific needs of each country. For example, surveys of men have often been added and in recent years, some countries have added modules on topics such as gender-based violence.³³

The 1992 and 2000 DHS surveys in Rwanda were carried out by ONAPO, the National Population Office, and ORC Macro. Both were nationally representative samples of women of reproductive age (15-49 years), with sample sizes of 6,252 women in 1992 and 9,696 women in 2000, as the table below shows. Both surveys

included men's modules but they will not be summarized here and are not part of the present research. Women's response rates were excellent (98%) in both surveys.

Description of the Demographic and Health Surveys, Rwanda 1992 and 2000		
	1992 DHS	2000 DHS
Dates of data collection	June-October 1992	June-November 2000
Completed sample size		
Households	6,252	9,696
Women of reproductive age (15-49 yrs)	6,551	10,421
Men	598 (a subset of husbands of women interviewed)	2,717 (from a 1/3 subsample of the 9,696 selected households)
Response rate, women's sample	98.2%	98.1%

Both the 1992 and 2000 Rwanda DHS women's questionnaires followed the standard DHS format with sections on household characteristics; respondents' socio-demographic characteristics; reproductive history and intentions; family planning knowledge, attitudes and behavior; maternal and child health; breastfeeding and child nutritional status and child mortality. The 2000 DHS questionnaire added to those categories sections on maternal mortality and HIV/AIDS and sexually transmitted infection.

The table on the following pages presents background and fertility-related findings from women interviewed in the two surveys. The age distributions of respondents were similar in 1992 and 2000, but the 2000 sample was far more urban

**Profile of Women Respondents
Demographic and Health Surveys, Rwanda 1992 and 2000**

	1992 DHS (n=6,551)	2000 DHS (n=10,421)
Age in years		
15-24	41.3%	43.4%
25-34	31.7%	27.5%
35-49	26.9%	29.1%
Residence		
Rural	93.8%	82.8%
Urban	6.2%	17.2%
Marital status		
Never married	32.1%	34.1%
In union (married or cohabitating)	57.8%	48.5%
Widowed, divorced	10.2%	17.5%
Proportion of ever-sexually active women who had sex in 4 weeks preceding survey	74.3%	60.2%
Education		
Never attended school	38.0%	24.5%
Attended any primary school	54.1%	64.9%
Attended higher than primary school	7.9%	10.6%
Household socio-economic status		
Household owns radio	32.3%	35.1%
Household has covered floor (i.e., not dirt or cow dung)	11.0%	13.1%
Total fertility rate	6.2	5.8
Live births, women in union		
0 live births	6.3%	6.4%
1-2 live births	25.3%	29.2%
3-4 live births	22.2%	25.4%
5 or more live births	46.2%	39.0%
Mean children ever born	4.5	4.1
Mean surviving children	3.7	3.2
Mean child deaths	0.8	0.9
Know at least 1 modern contraceptive method ^a		
All women	97.9%	94.0%
Women in union	99.0%	96.5%
Current contraceptive use, all women ^b		
Modern methods	8.6%	2.7%
Any method	13.8%	7.4%
Current contraceptive use, women in union ^b		
Modern methods	12.9%	4.3%
Any method	21.2%	13.2%

**Profile of Women Respondents
Demographic and Health Surveys, Rwanda 1992 and 2000**

	1992 DHS (n=6,551)	2000 DHS (n=10,421)
Source of most recent contraceptive service by current contraceptive users		
Public sector	96.3%	69.0%
Private sector	1.8%	30.7%
Unknown	2.0%	0.4%
Desire for additional children, women in union		
Want no more children	36.0%	33.0%
Want another child within 2 years	15.6%	15.2%
Want another child after 2 years	42.4%	45.3%
Not sure, infertile, unknown	6.1%	6.6%

Notes

- a. Modern contraceptive methods comprise the oral contraceptive, injectable, male and female condom, IUD, male and female sterilization, implant, diaphragm, contraceptive foam or jelly.
- b. Any contraceptive methods comprise the above plus periodic abstinence, withdrawal and traditional methods and practices such as herbs or tree bark suppositories.

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Office National de la Population and ORC Macro. *Enquête Démographique et de Santé, Rwanda 1992*. Kigali, Rwanda and Calverton, Maryland, USA. Février 1994.

Office National de la Population and ORC Macro. *Enquête Démographique et de Santé, Rwanda 2000 (ESDR-II)*. Kigali, Rwanda and Calverton, Maryland, USA. Septembre 2001.

(17% versus 6% in 1992) reflecting the country's rapid urbanization in the post-genocide period. The marital status of the respondents also changed. In 2000, a lower proportion of women was married or cohabitating (48.5%) and a higher proportion was widowed or divorced (17.5%) as compared to 1992. Women's sexual activity may also have been less frequent in 2000 than in 1992. Similar proportions of women reported having ever had sex in the two surveys (72% in 1992 and 71% in 2000), but the proportion reporting having had sex in the four weeks preceding the survey declined

from 74% in 1992 to 60% in 2000. It is not clear whether this reflects more women who are abstaining entirely (i.e., having no sex at all) or more women having irregular or infrequent sex.

The proportion of women who had been to school increased between the surveys. By 2000, three in four women had had some level of schooling as compared to fewer than two in three in 1992. As would be expected, younger women had higher rates of schooling than older women, although most schooling in all age groups was limited to the primary level. One in three (35%) households owned a radio in 2000, little changed from 1992. Radio ownership was more common in urban than in rural households. A rarer mark of economic status, present in only 13% of households, was having a cement or other modern floor covering (e.g., tile, carpet). Like radio ownership, this measure was also little changed from 1992 and was also more common in urban areas.

The total fertility rate declined between 1992 and 2000 from 6.2 to 5.8. These figures are supported by the data on live births: the proportion of women reporting four or more live births declined as did the mean number of children ever born. The data on surviving children indicates that women were still losing almost one child on average, however, a figure that appears not to have changed after the genocide. In a rapid analysis of 2000 DHS birth history data, Hill found no obvious effect on fertility at the national level as a result of the mass out-migration in 1994 or the similarly large-scale return migration in 1996-1997.³⁴ However, he hesitated to draw a firm conclusion, except to note that retrospective birth histories are prone to mis-timing of events, making his month-by-month analysis particularly troublesome.

Knowledge of modern contraception was almost universal in both surveys, and injectable, pill and condom were the most widely known methods. Use of modern contraceptives by women in union declined substantially between 1992 and 2000, however, from 12.9% to 4.3%. Of 38 developing countries in the world that had multiple DHS surveys between 1990 and 2003, Rwanda was the only country in which contraceptive prevalence fell. In fact, in all but seven of these 38 countries, prevalence increased by at least ten percentage points.³⁵

In 2000 as in 1992, the injectable, DepoProvera, was the most widely used method. It accounted for two-thirds of acceptors in 1992 and 44% of women in union users in 2000. In both periods, oral contraceptives were the second most popular method, accounting for an additional 23% of in-union users in 2000. In both surveys, contraceptive prevalence showed the expected association with area of residence (in 2000 – urban areas, 14%; rural areas, 2.6%) and education (no schooling, 1.6%; primary school, 3.5%; secondary or more, 16.6%). Prevalence also showed the usual ‘upside-down U shape’ for age and parity – contraceptive use peaked in the prime childbearing years of the late 20s and 30s – but the range was relatively small. For example, in the 2000 survey, the lowest prevalence rate was recorded for the 15-19 year-olds (0.8%) and the highest rate for the 35-39 year-olds (5.2%). With regard to parity, the highest prevalence rate (5.9%) was among women of parity three.

Another important change between the two periods was where contraceptive users obtained their services. In 1992, virtually all users (96%) used a public sector health center, hospital or health post. By 2000, only 69% used the public sector and 31% obtained services at private medical clinics (23%) or from kiosks, shops or friends

(8%). However, the choice of provider was method-specific: in 2000, 94% of tubal ligation clients, 80% of DepoProvera users and 70% of pill users still obtained their services at public facilities, while 83% of condom users relied on the private sector, principally pharmacies.

Fertility preferences did not change substantially for the overall sample between 1992 and 2000. Most women in union in both surveys wanted a, or another, child but most of them want to wait at least two years before becoming pregnant. Nevertheless, one in three women in union said they wanted no more children (36% in 1992, 33% in 2000). The desire for no more children increased strongly with age (70% of women 45-49 years old wanted no more children) and parity (78% of women with six or more children wanted no more). However, only relatively small differences were reported for urban/rural residence (in 2000, 35% of urban and 32% of rural women in union wanted no more children) and education (35% of women with no schooling and 28% of those with secondary or more wanted no more children). It is notable that these relationships are contrary to the expected association in which education and urban residence work against high fertility desires. Rwanda is not alone in this phenomenon. As the relationship between fertility, fertility desires and socio-demographic characteristics such as education and urban residence have become better understood, it has been shown that in very poor developing countries in the early stages of the demographic transition, traditional pronatalist attitudes and practices vie with the influences of modernization. Thus, limited education can work to enhance fertility desires in the short term. Eventually, as overall economic and social development advances, the expected negative association asserts itself.³⁶ Given Rwanda's low level of overall development

and women's limited educational attainment, it is not surprising that education and urban residence are not yet having their expected dampening effects on fertility desires.

Between 1992 and 2000, then, the DHS data show Rwanda to have experienced considerable urbanization, improvement in educational attainment for women of reproductive age and a shift in marriage patterns from marriage to widowhood or divorce. The total fertility rate declined but, although knowledge of contraception remained very high, use of modern contraception fell dramatically from 12.9% in 1992 to 4.3% in 2000. Users also came to rely more on the private sector for their family planning services in 2000, especially on private pharmacies for condoms. There was little change overall in the desire for additional children.

The decline in fertility *and* the decline in contraceptive use from 1992 to 2000 seem contradictory. However, the Davis and Blake intermediate variables framework discussed in Chapter 2 explains that a live birth is the result of three fundamental processes: intercourse, conception and successful delivery.³⁷ Thus, contraceptive use is just one variable influencing fertility. Exposure to intercourse, fecundity, miscarriage and voluntary pregnancy termination also play their parts. The contribution of each of these factors in the case of Rwanda is not clear from the DHS or other available data.

The Rwandan Family Planning Service Delivery System, 2001

The decline in contraceptive use between 1992 and 2000 can have many causes. There may have been lower demand in 2000. That is, more women may have wanted to become pregnant, although the DHS data do not suggest a large change in

the proportion of women who wanted additional children between 1992 and 2000 on a national scale. Or demand may have been lower because women were less at risk of pregnancy, i.e., they were less sexually active. The DHS data do suggest that sexual activity was less frequent in 2000 than in 1992, but contraceptive use declined among women in union as well as among the entire group of women of reproductive age, so it is likely that other factors are also at work.

Another set of factors that would influence contraceptive use is supply of family planning services. As a result of the civil war, genocide and refugee flight and return, all systems in Rwanda, including the health delivery system, were devastated.[§] In this environment, even women who wanted family planning care would be hard pressed to get it, either in the public or private sector.

To assess the state of reproductive health service availability and quality in Rwanda, the Ministry of Health, ONAPO and ORC Macro carried out the *Rwanda Service Provision Assessment Survey 2001 (SPA)*.³⁸ The SPA is a standardized study developed by ORC Macro, the group that developed and carries out Demographic and Health Surveys, to obtain information about primary health care, health and family planning services. It has so far been carried out in three countries, Kenya in 1999, Bangladesh in 2000 and Rwanda in 2001.

[§] In 1992 during the civil war, I visited a health center in northern Byumba Préfecture near the Uganda border, in an area that had experienced major fighting. The health center was within the project area of the CARE project I was assisting, and had had a grand re-opening after a major renovation by the project just a few months before. It was now in ruins. The building structure stood, but that was about all that remained. Every roofing sheet, door, window, window frame, hinge and item of furniture was either gone or in little pieces on the floor. CARE had provided solar panels to power the vaccine refrigerator, and they were gone too. So there was no health center, but no people either – virtually all local residents had fled to the southern end of the préfecture to displaced persons camps. CARE re-started the project in the camps.

In Rwanda, a sample of 223 public and non-profit health facilities (hospitals, health centers and dispensaries) in all préfectures of the country were assessed by on-site researchers from September to November 2001. The sample was selected to be representative at the national as well as préfectural levels.** In each site, researchers used observation, interview and record review to appraise the physical structure, staffing levels, equipment and supplies; assess inventory of commodities, including contraceptives; record number of clients served; observe antenatal and sick-child clinical visits; and conduct exit interviews with antenatal care clients and caretakers of sick children. The types of health services on which the assessment focused were child health, family planning, maternal health and STI/HIV services.

The bulk of the non-profit health facilities in Rwanda, which comprised 35% of the facilities sampled in the SPA study, are run by religious groups. These are fully approved facilities well integrated into the public system. For example, there is no distinction in reporting requirements, and staff of non-profit and public facilities are treated equally for selection into training programs. While there is theoretically no difference in services, standards and protocols, in fact ONAPO has clashed over the years with the Catholic Church over the Church's reticence to provide all methods of family planning in its health facilities. While the Catholic Church is one just one of the several religious groups operating health facilities in the country, it has been in the country the longest and has an impressive health care network.

** As of 1 January 2002, the nomenclature of Rwanda's administrative units changed. Préfectures became provinces and communes became districts or municipalities. The smaller units of cells and sectors were maintained. The June 2003 SPA report uses the terms 'provinces' and 'districts/municipalities' but, for consistency, they will be referred to here as préfectures and communes. The areas remained exactly the same; only the names changed. Note that this followed the administrative reforms of 1996, which re-organized the country's 10 préfectures into 12 by making the City of Kigali its own préfecture and reassigning some communes from Byumba and Kibungo Préfectures to a new préfecture, Umutara. The boundaries and names of communes remained intact.

The private health sector was not included in the SPA study. This sector has grown rapidly in recent years in Rwanda and, as the DHS showed, was an important source of contraceptives, particularly condoms. The SPA reports that the number of private pharmacies increased from 300 in 1999 to 405 in 2001, many of them located in or near Kigali.

The SPA assessed the degree to which each health facility surveyed delivered the Minimum Package of Activities defined by the government for its level. Health facilities, for example, are charged with providing a wide range of promotional activities, including outreach in the community; preventive care including antenatal and postpartum care, family planning and school health; and curative care including treatment of outpatient complaints, normal deliveries, minor surgical interventions and laboratory testing. The results of the 2001 Service Provision Assessment study in Rwanda for family planning service availability and quality are presented in the tables below and summarized here.

The study showed basic availability of family planning services to be poor. Of the 223 facilities surveyed, 71% provided at least one temporary contraceptive method (defined as injectables, combined or progesterone only contraceptive pills, male and female condoms, implants, IUD and spermicide) and 6% of facilities, all hospitals, provided permanent male or female surgical contraception. Since there was some overlap, a total 161 of the 223 facilities (72%) provided any family planning. Fewer than half of the facilities (43%) offered temporary methods at least five days per week, and 24% of facilities offered them only one or two days per week.

Poor availability of health services was also expressed by individual women in the 2000 DHS survey. In that study, 54% of women reported that distance to a health facility was a big (39%) or small (15%) problem for obtaining health care for herself.

Profile of Family Planning Service Availability and Quality Rwanda Service Provision Assessment 2001	
Measures of service availability	Proportion of all facilities (n=223)
Offered at least 1 temporary method of contraception ^a	71%
Offered male or female surgical contraception	6%
Offered at least 1 temporary method 5 or more days/week	43%
Offered at least 1 temporary method 1-2 days/week	24%
<i>From DHS survey of women:</i> Proportion of women who said distance to health facility was a problem for getting health care for herself	<i>Proportion of women reporting problem</i>
Big problem	39%
Small problem	15%
Total	54%
Note	
a. Temporary methods of contraception comprise injectables, contraceptive pills (combined or progesterone only), male and female condoms, implants, IUD and spermicide.	

Once women have access to services, the quality of those services becomes an important factor in whether she will use a service, and then continue to use it. Conceptualizing and measuring the quality of family planning care has advanced in recent years. An impetus for this was the 1990 publication of “the Bruce framework,” a conceptual guide developed by Judith Bruce of the Population Council that has received wide attention in the global reproductive health field.^{39,40} The Bruce framework identifies six elements of quality of care.⁴¹ These are introduced here with the findings

from the Service Provision Assessment that are relevant to each element. The findings are summarized in the table below.

- *Element 1: Choice of method*

Good quality services require a variety of contraceptive methods – hormonal, barrier, temporary, long-term and permanent – and also requires that supplies be in stock at all times. The Rwanda SPA showed choice of method to be poor on four counts. First, most facilities that offered family planning offered only temporary methods. Second, the temporary methods offered were most often only injectables, pills and male condoms. Hormonal implants were offered in only ten of the 223 facilities, IUDs offered in only seven, female condoms offered in only three. Thus, women were essentially limited to short-term hormonal methods and male condoms. Third, only 38% of the facilities actually had any supply of each of the methods they were supposed to offer in stock on the day of the survey. Fourth, only 32% of facilities had adequate systems for monitoring and storing contraceptive stock.

- *Element 2: Technical competence*

Good quality care requires that staff have the appropriate materials, training, support and supervision they need to do their jobs well. The SPA showed that only 26% of facilities had all the items needed for infection prevention (soap, water, clean gloves, disinfecting solution and sharps box) and only 13% had conditions for good quality pelvic examinations (visual privacy, examination bed, examination light, speculum). In only 55% of facilities had at least half of the staff

been supervised in the previous six months and in only 8% of facilities had at least half the staff received in-service training in the previous year.

Profile of Family Planning Service Availability and Quality Rwanda Service Provision Assessment 2001	
Measures of service quality	Proportion of all facilities (n=223)
<i>Choice of method</i>	
Had all methods offered available on day of survey	38%
Had adequate system for monitoring and storing contraceptive stock	32%
<i>Technical competence</i>	
Had all items for infection prevention ^a	26%
Had conditions for good quality pelvic examinations ^b	13%
At least half the interviewed staff received in-service education in previous 12 months	8%
At least half the interviewed staff were supervised in previous 6 months	55%
<i>Information given to clients</i>	
Had protocols and guidelines for family planning counseling	7%
Had visual aids for counseling	36%
<i>Interpersonal relations</i>	
Had privacy for physical examination	66%
Had client latrines	94%
<i>Mechanisms of follow-up</i>	
Showed documentation on management committee meeting held at least every six months a	54%
Had client feedback and review system	58%
<i>Appropriate constellation of services</i>	
STI treatment provided by family planning providers	32%
Notes	
a. Infection prevention items comprise soap, water, clean gloves, disinfecting solution, sharps box.	
b. Good quality pelvic examination conditions comprise visual privacy, examination bed, examination light, speculum.	

- *Element 3: Information given to clients*

Information must be accurate and relayed to the client. Only 8% of facilities surveyed by the SPA had family planning counseling protocols or guidelines and 36% had visual aids.

- *Element 4: Interpersonal relations*

Good quality requires that clients be treated respectfully by all staff and also that the environment enhance respect by allowing privacy and by being clean and comfortable. There are no measures of provider interpersonal treatment of family planning clients in the SPA, but privacy for the physical examination was available in 66% of facilities. Almost all facilities (94%) had client latrines, through the study did not indicate their degree of cleanliness.

- *Element 5: Mechanism of follow-up*

Good quality care requires that clients are followed up and that mechanisms exist to manage complaints and problems. Individual client follow-up was not assessed in the SPA, but 54% of facilities showed documentation on management committee meeting held at least every six months and 58% of facilities reported having client feedback and review systems.

- *Element 6: Appropriate constellation of services*

The ability for an individual client to address multiple concerns in a way that is most convenient to her is a mark of quality. The SPA found that treatment of sexually transmitted infections by the family planning provider – an important and convenient health service for women – was done in only 32% of facilities.

Measured against the Bruce framework's six elements of quality of care, the family planning services provided in Rwanda were of poor quality. In summary, then, the 2001 Service Provision Assessment in Rwanda showed family planning services to be seriously lacking in both availability and, where available, in quality.

In 2000, at the time of the Demographic and Health Survey in Rwanda, it had been six years since the genocide and large refugee movements of 1994 and three to four years since the large return migration from the refugee camps in 1996-1997. The government supported family planning and its policy was shifting from one based on demographic targets to one based on health and sustainable development. But the health system was struggling – family planning services were not universally available and, where available, were of poor quality. The population was more urban, fewer women were in union and they were better educated than before the genocide. Overall, women's desire to have additional children did not change substantially but use of modern contraception fell considerably from 12.9% in 1992 to 4.3% in 2000.

What role did each of these factors play in women's decisions about whether they wanted additional children and their subsequent behavior regarding contraceptive use? Was it women's own socio-demographic characteristics and their influence on desire for children that explain the decline in contraceptive use? Was it due to lack of good quality family planning services? Was it the experience of social upheaval inherent in the genocide and refugee years?

The next chapter describes the methods and measures used in the current research to address these questions.

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A personal perspective

“But, compared to other countries,”: Rwanda and Burundi

I often wonder how I would have reacted to Rwanda if I had not worked in Burundi first.

I was hired in 1983, immediately out of graduate school, by Columbia University’s Center for Population and Family Health to be a technical advisor in Burundi. The Center was collaborating with the Ministry of Health on a new primary health care/family planning project. I arrived before the project was formally approved, since the Columbia planners were assured it would be approved “as soon as the Minister returns from his travels.”

I stayed in Burundi for 4 months, and it was a surreal experience. While waiting for the project to be approved – though it never was – I found a range of things to do. I visited the proposed project site to get to know the Ministry of Health staff; traveled up-country with colleagues working on other projects; read whatever I could find about the region; just talked to people and observed.

It finally sunk in that Burundi was entirely different from anywhere else I knew. It had a minority-run government with no intention *whatsoever* of improving the lot of the majority. Burundi, like Rwanda, is about 85% Hutu, 14% Tutsi and 1% Twa, but had always been governed by Tutsi regimes. When I was there in 1983, only 11 years had passed since the 1972 massacre of up to 400,000 Hutu. This was a well-planned massacre that specifically targeted the Hutu elite, but ordinary Hutu were also massacred. Virtually every educated Hutu in the country was killed. I heard stories from Burundian friends and from expatriate missionaries about these massacres. They said that soldiers came into primary and secondary schools, selected students they identified as Hutu (‘You, you, and you, come with us.’) brought them into the school courtyard, and shot them. Every Hutu university student who stayed was killed. People told me of how they encouraged Hutu friends to flee but they stayed, reasoning that the massacres could not go so far as to target regular, law-abiding people.

And these events were still current, even 11 years later. Twice, while just walking down the street with friends in Bujumbura, the capital, they pointed out two different individuals to me. The first time, my friend said that the man, the very individual walking across the street, was one of the masterminds of the 1972 massacres – he had been in the military then but was now a prosperous civilian businessman – and had personally killed his mother and other family members at their home. Yet, there he was, just walking down the street, utterly free. The friend who pointed out the second man said he was also a senior military officer during the massacres. It left my head spinning.

And the poverty! I traveled up-country from time to time. It was shocking to see the masses of mothers who brought their children, bellies swollen from kwashiorkor, to feeding centers at the clinics. The women themselves were skinny and in rags, and expressionless. I began to despair about my project ever working. Not only would it never be approved – why in heaven’s name would this government approve an

intervention with the intent of improving the lives of the Hutu masses? – but even if it were approved, what Burundian woman in her right mind would trust a government health center for anything? They hadn't started sending their children back to school, so why would they use government health facilities? There were already rumors floating around that immunization and DepoProvera injections would sterilize the recipients. What chance did a family planning project, even if its quality could be assured, have to actually reach women?

During my stay in Burundi, I heard about Rwanda, the 'good twin.' It had the same demographic breakdown of Hutu, Tutsi and Twa people, but was markedly different from Burundi in that it was governed by a Hutu regime. And by a regime that, since 1972, had a pro-development agenda that was showing results.

So, when I finally started working in Rwanda some three years later, I could not help but see the differences with its 'evil twin,' Burundi. It was better-run; virtually everything functioned better – roads, utilities, schools, the health system. And if the minority Tutsi were oppressed, well, that was better than in Burundi where the majority Hutu were oppressed. Not to mention better than in so many other countries where masses of people were oppressed on the basis of something or other, or on the basis of nothing at all, simply as a by-product of greed, corruption and, mostly, excruciating poverty. Rwanda *worked*, and many, if not all, people were reaping the benefits of that progress.

So, on April 8, 1994, Day 3 of the Rwandan genocide, as colleagues and I sat in the CARE office in Byumba trying to get through to anybody at all on the short wave radio, a Rwandan colleague described the recent political events in Rwanda. I had not followed these changes closely. I remember the chill I felt when it dawned on me that the Rwandan Patriotic Front (RPF), the rebel army made up largely of Tutsi descendants of former refugees, would win the war and run the country. Rwanda under Tutsi control! I feared it would become just like Burundi.

I had a déjà vu sense of dread recently, reading reports of the Rwandan presidential election on August 25, 2003.¹ There were ultimately two serious candidates, Paul Kagame, the incumbent president, former RPF leader and a Tutsi, and Faustin Twagiramungu, former prime minister and a Hutu. The challenger was not allowed to campaign because he was reportedly promoting racial division. If Rwandans voted their ethnicity, Hutu would again run the country, a chilling prospect.

Mr Kagame won with 94% of the vote.

¹ Lacey, Mark. "Rwanda President Declares Election Victory." New York Times, Tuesday August 26, 2003.

A personal perspective

Changing the world, one Umukangurambaga at a time: The Ruhengeri Operations Research Project

When I worked in Rwanda from 1986 to 1989, the project on which I collaborated with ONAPO and the Ministry of Health was located in Ruhengeri Préfecture in the northwest, at the foot of the Virunga Volcanoes. ONAPO was interested in community-based education and distribution of contraceptives but, as in many sub-Saharan countries, was unsure whether this approach would be acceptable to the population. So the decision was made to test it using operations research. Columbia University's Center for Population and Family Health was asked to provide technical assistance. I was living in Abidjan, Côte d'Ivoire and working out of our regional office there, and became our main link to the project. Between 1986 and 1989, I visited Rwanda every few months to work with ONAPO colleagues on the project.^a

To test community-based family planning activities, we used a quasi-experimental design with three cells. We chose three non-contiguous communes in the préfecture. In Commune 1, community volunteers would provide education and counseling, distribute pills, condoms and vaginal foaming tablets and refer women to clinics for other methods. In Commune 2, the volunteers would provide only the education, counseling and referral. Commune 3 was the control area, and no intervention would be put in place. Each commune had a Ministry of Health health center that provided education and counseling and injectable contraceptives, pills, condoms and vaginal foaming tablets. To have an IUD inserted, women would be referred to the ONAPO clinic in the town of Ruhengeri.

Rwanda's communes are divided into *cellules*. To select the volunteers, the population of each *cellule* held a series of meetings facilitated by ONAPO staff to discuss the criteria for selection, how the volunteers would carry out their work and how they would be supervised. They decided to call them *Abakangurambaga*, "wakers-up of the people." (The singular is *Umukangurambaga*.) Through this process, 23 *Abakangurambaga* were chosen in Commune 1 and 23 in Commune 2. In general, the *Abakangurambaga* were in their early 30s, married with children and had some primary schooling. The total of 46 were evenly split between men and women. Most were Catholic, the dominant religion in Rwanda, and most were family planning users themselves.

The *Abakangurambaga* were trained by ONAPO, Ministry of Health and local administration trainers. Regular supervisory meetings and technical updates were held.

As soon as the *Abakangurambaga* started working in their communes, the number of family planning users rose in the two intervention areas. In Commune 2, the increase was dramatic: the number of users increased from about 200 to 600 within the first month and continued to increase sharply each month. A satellite clinic had to be opened to handle the overflow. The increase in Commune 1 was less dramatic, but regular. In the control area, Commune 3, the number of users increased but at lower rates than in the intervention communes.

A survey carried out after the *Abakangurambaga* had worked for 16 months showed that the contraceptive prevalence rate for modern methods in Commune 2 rose from under 4% to 29%, extraordinarily high for rural sub-Saharan Africa at the time. The rate in the other intervention area rose from under 2% to 6.4% and in the control area, from about 5% to 7.4%. Almost all women used DepoProvera, which was only available at the clinics. This explained why the distribution of contraceptives in the community – orals, condoms and vaginal foaming tablets – was not successful.

We, of course, wanted to know why Commune 2's results were so dramatic, and we identified two factors. First, a much higher proportion of women in Commune 2, even 'old' women aged 40 and over, had gone to school. This was because there had been a Catholic mission school there for decades, an irony that was not lost on us or the Catholic Church in Rwanda. Second, the commune and *cellule* civil authorities were far more involved in the project in Commune 2 than in the other two communes. They used the full power of their authority to publicly endorse ONAPO, family planning and the *Abakangurambaga*; they ensured that the *Abakangurambaga* carried out their community education sessions and home visits regularly; and they made sure they filed their reports with ONAPO. In one case, I heard that the commune leaders made a community member pay a monetary fine for spreading false rumors about the family planning program.

Within a few months of the initiation of the *Abakangurambaga* program, based on the dramatic and immediate results in Commune 2, Rwanda's governing council decided to expand it to the entire country. In 1988-1989, the pilot project with 46 *Abakangurambaga* became a national program with 17,000.

I remember a moment of dizzying realization, probably some time in 1989. I was visiting the project communes with an ONAPO staff member who was taping interviews for a radio program. We met one of the original 46 *Abakangurambaga* working on his farm and he agreed to be interviewed. He was a big man with enormous, stiff, farmers' hands. I couldn't understand what was being said, but then the interviewer gave the *Umukangurambaga* a packet of oral contraceptives and asked him to demonstrate how he explains to women how to use them. His fingers were so thick and calloused he could hardly manipulate the little packet to poke a pill out of its plastic bubble. His concentration was enormous, to get it just right, out there in his banana grove. Watching this man with his enormous hands, and the obvious pride he took in his work, made me reel. This was revolutionary!

I had a similar moment of awe when I was in Rwanda in April 1994. As part of the evaluation we were conducting of the CARE project in Byumba Préfecture, we interviewed all types of people including family planning users. On April 6 in the afternoon – as it turned out, this was my second-to-last interview since the president was killed that night – I visited the home of a man who had recently had a vasectomy with the project's help. This was not a regular project activity since tubal ligation and vasectomy services were not provided locally, but there was some interest, most of it from women. So periodically CARE would arrange for a doctor to come from Kigali to do the procedures in the Byumba hospital.

Vasectomies were very rarely requested so the project staff were determined for me to meet this man. We met him, his wife and children at his home. His house was typical of rural Rwanda – perched on a hillside, mud block, thatch roof, dirt floor, virtually no furniture. He and his wife explained to us that they wanted to stop at four children, so she started on DepoProvera. She didn't like it, so she stopped and became pregnant with child number five. She then went on the pill but didn't take it regularly – child number six. They tried natural family planning, based simply on counting days – child number seven. When she became pregnant an eighth time, they spoke to a CARE agent who told them about tubal ligation and vasectomy. The man immediately said he wanted a vasectomy. The CARE staff met with husband and wife, explained everything, explained all the options, explained again that it was permanent. They were sure – they wanted a vasectomy.

We drilled him too – why did they choose a vasectomy instead of tubal ligation, how did he find the procedure, how does it make him feel, what did his friends say, was it the right decision?

As the man recounted his story to us and answered our questions, I could see that he thought we were a bit dense. It was *obvious* that this was a great thing for him and his family, why wouldn't they choose the safer procedure, he didn't care what his friends thought, he felt great. His wife practically cried when she told us how relieved she was to never have to be pregnant again – if she made it through the current, eighth, pregnancy. The only problem was not having discovered this option three or four pregnancies ago.

I walked away from their home laughing, and amazed again at the power of family planning. This couple had plans, and they felt able to carry them out now that they did not have to worry about more pregnancies. And I realized yet again that we – the medical and public health 'experts' – so often undermine our own programs by underestimating people's capacity to make good decisions for their own lives once given full and accurate information and the option of good, respectful care.



^a Office National de la Population et Université de Columbia. *Rapport de l'Etude sur la Promotion et la Prestation des Services de Planification Familiale à Base Communautaire à Ruhengeri, Rwanda.* ONAPO, Kigali. Août 1989.

“Things whose existence is not morally comprehensible cannot exist.”
*Primo Levi**

V. Study Hypotheses, Methods and Measures

In this chapter, the study hypotheses and research approach are presented, followed by a description of the measures selected to effect the study. The chapter ends with a discussion of the conceptual and methodological limitations associated with the measures.

Hypotheses and Analytic Approach

The hypotheses to be tested in this research are, first, that women who lived in geographic areas of Rwanda which had a high proportion of the population who became refugees in 1994 were less likely to want a, or another, child in 2000 and, second, that women in these high-migration areas were therefore more likely to act on their wish to not have a(nother) child by using modern contraceptives than were women in low-migration areas.

Two dependent variables are identified in this study. The first, *desire to have a, or another, child*, is a dichotomous measure of fertility preference. The specific question posed on this topic in the 2000 Rwanda Demographic and Health Survey, the data source as described below, depended on the pregnancy status of the respondent. If the woman was not pregnant or not sure if she was pregnant, she was asked, *“Maintenant j’ai quelques questions au sujet de l’avenir. Voudriez-vous avoir un (un autre) enfant, ou*

* Primo Levi’s quote is about the Holocaust, as cited in Barnett M. *Eyewitness to a Genocide: The United Nations and Rwanda*. Cornell University Press, Ithaca. 2002.

préféreriez-vous ne pas avoir d'(autre) enfant?" ("Now I would like to ask you some questions about the future. Would you like to have a (another) child, or would you prefer not to have a (another) child?") For pregnant women, the wording was amended to, *"Maintenant j'ai quelques questions au sujet de l'avenir. Après l'enfant que vous attendez, voudriez-vous avoir un autre enfant, ou préféreriez-vous ne pas avoir d'autre enfant?"* ("Now I would like to ask you some questions about the future. After the child you are expecting, would you like to have a (another) child, or would you prefer not to have a (another) child?")

The second dependent variable, *current use of a modern contraceptive method*, is also dichotomous. The 2000 DHS survey question was, *"En ce moment, faites-vous quelque chose ou utilisez-vous une méthode pour éviter de tomber enceinte?"* ("Do you currently do something or do you use a method to avoid becoming pregnant?") If the response was "Yes," the respondent was asked, *"Quelle méthode utilisez-vous?"* ("Which method do you use?") Options, circled on the questionnaire by the interviewer upon the unprompted response from the respondent, comprised female sterilization, male sterilization, oral contraceptives, hormonal injection, hormonal implant, intrauterine device, (male) condom, female condom, diaphragm, contraceptive foam and jelly, lactational amenorrhea method, periodic abstinence (natural family planning), withdrawal and other. All but lactational amenorrhea, periodic abstinence and withdrawal (and other) were considered modern contraceptive methods.

Given the categorical nature of the outcome variables, logistic regression is used to test the hypotheses. The following schematics illustrate the hypotheses and analytic approach. The first logistic regression model has as its dependent variable the desire

for a(nother) child. This model tests the first hypothesis, namely that women who lived in localities which had a high proportion of the population who became refugees in 1994 were less likely to want a(nother) child in 2000. The inclusion of the extent of migration, i.e., the independent variable of interest, should improve the fit of the model beyond the covariates, a set of standard socio-demographic variables which are described below.

Logistic regression model for desire to have a(nother) child

$$\text{Desire to have a or another child} = \text{Socio-demographic status (covariates)} + \text{Extent of migration (independent variable of interest)} + \text{Error}$$

The regression model to test the second hypothesis, namely that women in high-migration areas were more likely to act on their wish to not have a(nother) child by using modern contraceptives than were women in low-migration areas, is illustrated by the following diagram.

Because women's use of modern contraceptives is in part dependent on service availability, the availability of family planning services is included as a covariate in the model.

Logistic regression model for modern contraceptive use

$$\text{Modern contraceptive use} = \text{Socio-demographic status (covariates)} + \text{FP availability} + \text{Extent of migration (independent variable of interest)} + \text{Error}$$

Measures and Sources of Data

In addition to the two dependent variables discussed above, three categories of independent variables are included in the logistic regression analysis: socio-demographic variables, family planning service availability and level of migration. These measures are described here along with the source for each set of variables and a discussion of the conceptual and methodological limitations associated with them.

- ***Dependent and socio-demographic independent variables***

The data source for all individual-level measures is the *Enquête Démographique et de Santé, Rwanda 2000* (Demographic and Health Survey (DHS), Rwanda 2000). As discussed in Chapter IV, the Rwanda DHS was a nationally representative sample survey carried out from June to November 2000 by the Office National de la Population (ONAPO, the National Population Office) and ORC Macro, Maryland, US. Also as noted earlier, the Rwanda survey questionnaire followed the standard DHS format with sections on household characteristics; respondents' socio-demographic characteristics; reproductive history and intentions; family planning knowledge, attitudes and behavior; maternal and child health; breastfeeding and child nutritional status; child mortality; maternal mortality; and HIV/AIDS and sexually transmitted infections. The survey sample was 10,421 women of reproductive age (15-49 years) and 2,717 men of reproductive age (15-59 years) in 9,696 households. Only the survey results for women were used in this analysis.

The sample for the logistic regression of contraceptive use was limited to women in union as a means of including only those women who were sexually

active and therefore potential contraception users. Since the concept of ‘desire for a(nother) child’ pertains to everyone including women not in union, all women were included in the logistic regression analysis for this dependent variable.

Dependent and independent individual-level measures <i>Source: Rwanda Demographic and Health Survey 2000</i>	
Measure	Variable type
Dependent variables	
Desire to ever have a, or another, child	Dichotomous (coded as 0 = No or undecided; 1 = Yes)
Current modern contraceptive use	Dichotomous (coded as 0 = No; 1 = Yes) Modern methods comprise male and female sterilization, oral contraceptives, hormonal injection, hormonal implant, IUD, male and female condoms, diaphragm and contraceptive foam and jelly.
Independent variables	
Age	In years, continuous (coded 15-49)
Number of living children	Continuous (coded 0-14; upward adjustment made if currently pregnant)
Rural/urban residence	Dichotomous (coded as 0 = Rural; 1 = Urban)
Education	Categorical (coded as 0 = None; 1 = Primary; 2 = Secondary or higher)
Economic status Proxy: household radio ownership	Dichotomous (coded as 0 = Household did not own radio; 1= Household owned radio)

The independent socio-demographic variables included in the analysis are those which have long been associated with fertility preferences and behavior: age, number of children, rural/urban residence, education and radio ownership (as a proxy for economic status).¹

The 2000 DHS data file was downloaded from the ORC Macro website² (with permission) and set up in SPSS. The variables used in the proposed research are listed here.

- ***Family planning service availability variable***

The source of the descriptive material on family planning service availability and quality in Rwanda presented in Chapter IV was the *Rwanda Service Provision Assessment (SPA)*, carried out by ONAPO and ORC Macro in 2001. In the planning stages of this research, it was expected that this data set would also be the source of the service availability measure(s) to be included in the present study. It was expected that a value based on the overall SPA assessment for each préfecture would be assigned to each individual woman resident in the préfecture. However, given concerns with the loss of detail inherent in summarizing facility data across each préfecture and assigning a single mean value to all residents, an alternative measure was sought.

The DHS survey of individual women provided the alternative. In the DHS interview, women were asked about barriers to obtaining health care for themselves. The specific question asked was,

“Maintenant, je voudrais vous poser des questions concernant des soins médicaux pour vous-même. Différentes raisons peuvent empêcher les femmes d'obtenir des conseils ou des traitements médicaux pour elles-mêmes. Quand vous êtes malade et que vous voulez un conseil ou un traitement médical, est-ce-que les questions suivantes constituent, pour vous, un gros problème, un problème mineur ou ne posent aucun problème?” (“Now I would like to ask you some questions about medical

care for you yourself. Different reasons prevent women from obtaining medical advice or treatment for themselves. When you are sick or want medical advice or treatment, do the following questions constitute, for you, a big problem, a small problem, or no problem.”

The barriers that respondents were asked to rate as big problems, small problems or no problem were (a) knowledge of where to go for health care, (b) getting permission to go, (c) obtaining money needed for treatment, (d) not wanting to go alone, (e) fear that there would be no female personnel, (f) distance and (g) having to take a means of transport.

Physical distance to a health facility is perhaps the most fundamental indicator of availability; indeed, it is the first measure listed for access in a widely used compendium of reproductive health indicators. According to the compendium’s authors, existing evidence confirms the importance of physical distance to family planning services as a determinant of contraceptive use.³

As noted in Chapter IV, 54% of DHS survey respondents reported that distance to a health facility was a barrier to care: 39% reported it as a big problem and 15% as a small problem. It should be noted that this question pertains to any “medical advice or treatment,” not to family planning services specifically. Since family planning services are not available in all facilities in Rwanda – the SPA showed that only 72% of facilities provided any contraceptive method – their availability would be even more limited than general medical advice or treatment. Moreover, since 86% of family planning users relied on clinical methods (among women in union who were current family planning users,

44% used DepoProvera, 23% used the pill and 19% had tubal ligation), contraceptive use for most women meant access to a health facility.

These DHS data, then, provide a useful individual-level self-reported measure of service availability that the SPA study of facilities did not provide. The DHS data do not, however, provide any indication of women's perceptions or experiences with the quality of family planning (or any health) services. Given the limited physical availability of services, as perceived by women respondents and as measured in the SPA study, the distance measure alone will be used in the regression model as the variable for family planning availability. It is treated as a dichotomous variable, coded as '0 = No problem reported with distance to a health facility (High availability); 1 = Big or small problem reported with distance to a health facility (Low availability).'

- ***Refugee migration variable***

The conceptual basis for including the level of refugee migration in the analysis is the notion that communities from which a high proportion of residents fled to the refugee camps in 1994 experienced greater levels of social distress than communities from which fewer people fled. Some two million Rwandans – almost a third of the surviving population – moved to the camps in 1994. These were primarily Hutu, as most Tutsi had been killed. The remaining two-thirds of the population stayed in Rwanda, either at home or displaced within the country.

I posit that a higher rate of refugee migration from a community is associated with a higher degree of social distress in that area because of the

experiences lived by the population in the ensuing years. These experiences can be divided into three phases.

First was the period of conflict itself, April to July 1994, when 800,000 Tutsi and politically moderate Hutu were murdered, most of them killed openly by local residents. During this time, the Rwandan Patriotic Front (RPF) 'rebel' force and the Rwandan army clashed in armed fighting. It is conjectured that residents of areas with more violence would have had greater exposure and participation, whether willing or forced to the genocide and armed conflict, greater unrest and greater fear of violence or retribution, and that this would result in relatively high rates of refugee flight.

The second phase, lasting 2.5 to three years from July 1994 to late-1996/mid-1997, was when Rwandans who left their homes lived in refugee camps in Zaire, Tanzania and Burundi. Here too, they suffered. Simply getting to the camps in the chaos of the mass movement and living through the epidemics was an ordeal. Moreover, refugee camps are depressing places in general – the refugees are cramped, idle, dependent – but these camps were worse than usual. Residents were terrorized and controlled by the 'government-in-exile' and murders of dissenters were common.⁴ The power of these authorities, especially in the Zaire camps where the majority of Rwandan refugees were housed, provoked some NGOs to make the highly unusual decision to leave on the grounds that their humanitarian assistance was being manipulated and not reaching those who needed it.⁵ A recommendation to the UN to separate the estimated 100,000 active Hutu extremists and their families

from the general population was not carried out.⁶ A plea from agencies working in the camps to deploy security forces was also dismissed by the UN.⁷ The terrible conditions in the camps for Rwandan refugees turned out to be a watershed event in the humanitarian field, provoking leading organizations to review what had gone wrong and to propose standards of care that have now been adopted.^{8,9}

It should be noted that living in Rwanda instead of in the camps during those years was by no means idyllic. However, it was largely peaceful and many Rwandans were able to live at home on their farms. It is likely that life in the camps was more traumatic than life at home. Thus, the traumatic experience of life in the refugee camps is the second contributing factor to the notion that residents of those areas with higher refugee migration would have experienced a higher degree of social distress.

The third phase began with the expulsion of the refugees from the camps (late-1996 to mid-1997) and ended, for the purpose of this research, with the time of the survey (June-November 2000), a period of three to four years as described in Chapter III. This phase too was difficult for the returning refugees and for their compatriots who had never left Rwanda. The refugees were again forced to flee sudden violence and again became part of a mass migration. Most walked the hundreds of miles to their homes, carrying what little they could. Upon arrival at home, some found their homes destroyed or occupied (by, for example, the 700,000 Tutsi who had come home to Rwanda after decades of exile in neighboring countries) and their land farmed by others. Returnees were given

starter kits of seeds and tools by UN agencies and NGOs to help them re-establish themselves¹⁰ causing resentment among those who had stayed behind, some of whom did not receive this concrete assistance.¹¹ Furthermore, those who had fled to the camps, virtually all Hutu, were considered by many to be guilty of participating in the genocide. Denunciations of suspected *génocidaires* increased.^{12,13} Thus, the post-return social environment was tense, and it was most tense in those areas which had the largest proportion of returning refugees who had to reintegrate their lives with those of local residents.

The decision to assess social distress based on refugee migration by local area of residence, therefore, is grounded in the negative experiences lived by the refugees at three stages: during the conflict; while they were residents of refugee camps in neighboring countries; and as they reintegrated themselves into their home *préfectures*. The social distress would be worse in those *préfectures* with more refugees relative to non-refugees as compared to those with fewer.

Data on refugee migration were obtained from the office of the UN High Commissioner for Refugees in Kigali, Rwanda. These data were compiled and published in a report by the European Community's Humanitarian Office (ECHO) in Kigali in November 1995.¹⁴ The ECHO report provided the number of Rwandan refugees in each country of asylum by *préfecture* and commune of origin; the population in each commune in 1991 based on the preliminary results of the August 1991 national census; and the estimated population of each commune in 1994 (pre-flight) calculated by adding a 3.01% natural growth rate

per year to the 1991 census figures. The sources for the numbers of refugees were censuses done in the refugee camps in Zaire, Tanzania and Burundi between February and September 1995. The Rwandan preliminary census figures were obtained by ECHO from the Rwandan Ministry of Social Relations.

With these data, I was able to calculate the 'refugee migration' variable, defined as the proportion of the 1994 population who were refugees in Zaire, Tanzania or Burundi in 1995. Because the number of refugees was listed by commune of origin in the ECHO report, this measure was calculated for each of the 154 communes in the country. Individual respondents (cases in the 2000 DHS survey) were then assigned a value for 'refugee migration' based on their commune of residence at the time of the survey in 2000.

A consideration in assigning individuals a 'refugee migration' value based on current residence in 2000 (i.e., at the time of the DHS) was that some proportion of respondents no longer lived where they had lived in 1994. The refugee migration value was premised on experiences in the commune of residence in 1994 (as reported in the 1995 refugee camp censuses). Therefore, current residents of a 'high migration' commune at the time of the DHS survey in 2000, for example, risked being mis-assigned if they had lived in a 'low migration' commune in 1994 and had only come to their current residence since then. Given the increase in urbanization and other movement within the country since the genocide in 1994, the potential mis-assigning of this important variable was a concern.

Thus, a limitation was set on the DHS sample. Since the DHS is a cross-sectional survey, there are no detailed data on prior residence or, in the case of Rwanda, experience during the genocide and post-genocide years. However, a question was asked in the DHS about duration of current residence, “*Depuis combien de temps habitez-vous (de façon continue) à (nom de la ville/village actuel de résidence)?*” (“How long have you (continuously) lived in (name of city or village of current residence)?”) Responses were recorded as number of years or ‘Always.’ For this study, the Rwanda DHS sample was limited to women who had lived in their current (2000) locality in 1994, i.e., those reporting in 2000 they had lived in their current locality for seven years or more or had always lived there. Women who had lived in the area in 1994 and earlier, even if they had lived in refugee camps temporarily, would be likely to report the current locality as their long-term residence.

The proportion of women who lived in their 2000 residence for seven or more years, and thus who were included in the present study, was 61% of the entire DHS sample (61% of the full sample of 10,421 is 6,250 women). The range across communes of the proportion of the population migrating was large: from 3% to 88% of the 154 communes’ populations fled to refugee camps. The median was 16%; i.e., half of all communes had fewer than 16% of their populations flee and half had 16% or more flee. Of the 6,250 women in this sample, almost all (91%) lived in communes from which half or fewer of the population fled. The median proportion who migrated for the sample of 6,250 women was 15.2% (i.e., half of the women lived in communes from which 15.2%

or fewer of the population fled, and half lived in communes from which more than that proportion fled). The mode was 10.9% (standard deviation .17), the median 15.3% and the mean, 19.8%. Given the skewed distribution (skewness = 1.95, standard error of skewness=.031), it was decided to establish the cut-off for 'high' versus 'low' refugee migration just below the mode, at 10%. I.e., communes with under 10% of their 1994 population living in refugee camps in 1995 were considered to have 'low' refugee migration, while those with 10% or more of their 1994 population living in camps in 1995 were considered to have 'high' refugee migration. The proportion of the sample population of 6,250 women who lived in 'low' migration communes was 29%, while those who lived in 'high' migration communes was 71%.

Limitations of Measures

There are conceptual and methodological limitations to two measures chosen for this study, the 'availability of family planning services' variable and the 'refugee migration' variable.

- ***Service availability variable***

With regard to the 'service availability' variable, the problems foreseen with the initial plan of assigning a single préfecture-wide value to each resident of the préfecture, based on the measurement of health facilities in the Service Provision Assessment (SPA), are obviated by using DHS data on women's individual determinations of whether distance was a problem for them to access health care. As noted, having physical access to a health facility is a fundamental

measure of access and, indeed, is a prerequisite for obtaining any care, good or bad. This is particularly true for family planning services in Rwanda, where most users rely on DepoProvera and pills, methods requiring regular visits to a health facility.

The problem with the ‘service availability’ variable, however, is that it measures only service availability and not service quality. To be sure, the two concepts are related. Some in the global reproductive health field argue that physical access should be considered a core component of quality.¹⁵ They ask, for example: if only 25% of a population has physical access to care in a health program, even if that care is good, can that program be thought to provide good quality care overall? The Bruce quality of care framework, however, explicitly argues for separating the concept of access – which determines if an individual reaches a service point – from the concept of quality – which describes her experience once she has reached the service.¹⁶ Bertrand notes that the differentiation of the two concepts is useful as the policy and program responses may differ.¹⁷ Moreover, while it is intuitively clear, and also documented, that utilization of health services is influenced by physical access,¹⁸ studies in the 1990s suggest that good quality of care exerts a separate and positive influence on adoption and maintenance of family planning.^{19,20,21,22,23,24,25,26}

A study by Speizer and Bollen in rural Tanzania addresses the association between access and quality directly.²⁷ These researchers and their colleagues had determined in earlier research that the most important facility characteristic associated with contraceptive use in rural Tanzania was community members’

perceptions of the quality of the facility.²⁸ In the later research, Speizer and Bollen identified the traits which women and men associated with quality. They found that the most important factor in both women's and men's perception of quality was travel time to the facility: facilities that took longer to travel to were perceived to be of lower quality than closer facilities, regardless of type of facility or their objective scores on the six elements of the Bruce quality framework.

I do not have a direct measure of quality of care in Rwanda at the individual respondent level, either from women's direct assessments or from linking women to specific facility results in the SPA facility survey. However, the Tanzania study suggests that women's individual assessments of distance to health facilities – the measure I will use in this study – may also be an indirect measure of their perceptions of quality.

▪ ***Refugee migration variable***

Assigning an area-wide value for the 'refugee migration' variable to all residents in an area is far from ideal. Individual-level values would be preferred but, unlike the case of the 'availability of services' variable, there is no alternative. No pertinent question was asked in the DHS survey; no such data are available from other sources.

There is some precedent for using region-wide variations to reflect the unevenness of the effects of war. In the previously-cited study by Agadjanian and Prata entitled, "War, Peace, and Fertility in Angola," published in *Demography* in 2002, the authors classified regions of Angola as heavier-impact

and lighter-impact based on the level of devastation resulting from the country's civil war.²⁹ Then, using individual-level data from the Angolan Multiple Indicators Cluster Survey, they compared differences in probabilities of birth and fertility preferences between heavier-impact and lighter-impact regions.

Another study that used region-wide measures of the effects of conflict was carried out by Colletta and Cullen. Here, the authors selected one high-intensity and one low-intensity conflict area in each of four countries, Cambodia, Guatemala, Somalia and Rwanda, to determine the interactions between violent conflict and social capital.³⁰ In the Rwanda case, they found widespread degradation of social capital in both the high- and low-conflict areas, but noted differences specific to the environmental, economic and historical characteristics of each site.

A second conceptual question to consider regarding the use of the 'refugee migration' variable in this study is whether, in fact, communities' different experiences of forced migration and repatriation are a useful means of differentiating among those communities. Here too, there is precedent. In all four of the case studies on conflict and its effect on social capital in the Colletta and Cullen study cited above, an indicator of violence used by the authors was the number of people relocated or the presence of refugees and displaced persons.

The literature on the "psychology of place" is also instructive here. This is an area of multi-disciplinary study that explores the relationship between individuals and their environments.³¹ Its premise is that disruption in individuals'

environments, whether due to natural disasters, urban development, conflict or other causes, is a threat to psychological and sometimes physical well-being. 'Place' is understood to be more than an individual's physical surroundings; it also includes the human interactions occurring in the locality and individuals' personal past and present life experiences associated with the locality.

As described by Fullilove, a person's healthful sense of place rests on his cognitive familiarity with the environment; a nurturing emotional attachment to the environment; and his sense of having, and belonging to, a place.³²

For Rwandans, every one of these psychological processes was violated. Those who left home for the refugee camps or for a haven within Rwanda were unfamiliar with their new surroundings. Even obtaining food, water and shelter in the camps required learning and maneuvering within new systems and processes. Since violence was also prevalent in the camps, as discussed earlier, familiarity could be crucial for survival.

Rwanda's administrative units are préfectures and communes, but individuals' attachment and identification is with the *colline*, or hill, on which they live in this very rural "Land of a Thousand Hills." Many people hardly ever travel beyond their *colline*. The longing for home would have been intense for those who had left but, even for those who stayed, past emotional connections were breached. The violence during the genocide was so massive and the mode of killing so slow and gruesome that virtually everyone was exposed to it. The violence occurred in houses, on the road, in churches, schools, health centers,

hospitals, shops, markets. It is hard to imagine an emotional connection to place that could remain untouched by individuals' experiences of 1994.

Since the return of the refugees in 1996/1997 when communities had to reconstitute themselves, new emotional challenges have had to be faced. Individuals commonly known or suspected of actively or passively taking part in the genocide live openly in the community. The Hutu Power ideology has not disappeared, though it has strategically moved underground. Trusting others, even those you thought you knew, could be dangerous if they were on a different side of a political divide. There has been little organized effort toward reconciliation.

The third conceptual question to consider regarding the use of the 'refugee migration' variable in this study is whether the experience of the genocide, mass displacement and mass return experienced from 1994 to 1996/1997, several years before the DHS survey interview in 2000, might reasonably be thought to still affect Rwandans' attitudes and behaviors in 2000. It is intuitively understandable that such effects would still be felt – we can point to genocide and other traumatic events that are still powerful social issues years and even decades later, such as the Holocaust, the genocide of Native Americans, apartheid in South Africa and slavery in the US. In Rwanda, there is also evidence that the psychological effects are still strong.

In a February 2003 survey carried out by ONAPO, the National Population Office, on behalf of the Johns Hopkins University Population Communication Services Program, a random sample of 1,756 Rwandan adult women and men

from six provinces (formerly *préfectures*) were interviewed regarding their views on *Gacaca*, the community-based judicial system that began operating in 2002.³³ As part of the study, respondents were asked about their personal genocide-related experience and emotions connected with the genocide. Among women respondents, 90% were present in Rwanda during at least part of the genocide, 50% lost a family member, 31% had a family member in prison on genocide-related charges, 8% experienced physical injury during the genocide and 42% lost material possessions during the period. Men's responses were similar (respectively, 90%, 45%, 25%, 9%, 42%). The responses to questions on emotional state were reported for women and men combined. More than half (55%) of the respondents reported experiencing negative emotions attributable to the genocide at the time of the survey in 2003. The most common was melancholy, cited by 23% of respondents. The authors note that these figures are considerably lower than those reported during the project's baseline survey in June to October 2000. At that time, almost everyone – 88% of respondents – reported negative emotions associated with the genocide. The most common one at that time was fear of repeated occurrence of genocide, cited by 40% of respondents.

Thus, while the 'refugee migration' variable that will be used in this study is imperfect, similar approaches have been used elsewhere with valuable results. Moreover, given the importance of place in individuals' and in communities' collective psychological well-being and the extent of negative emotions still felt by

Rwandans years after the traumatic events on the mid-1990s, differentiating places by the degree to which their residents migrated is an appropriate choice.

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VI. Data Analysis and Results

In this chapter, the results of the study are presented. The data file, which consisted of the DHS women's individual survey file with the refugee migration and recoded variables added, was analyzed with SPSS for Windows, release version 11.5.0 of 6 September 2002. Descriptive analyses of the consistency of univariate statistics on all dependent and independent variables were run for the total sample and then separately for women living in low- and high-migration communes. Bivariate analysis was then conducted to examine the relationships between each of the independent variables and each dependent variable. The last step of the analysis consisted of logistic regression of each of the dependent variables on the key independent variable (level of migration) and a set of covariates. The chapter concludes with an interpretation of the findings for Rwandan women's reproductive health and for future development of the country.

Characteristics of Respondents in Low- and High-Migration Communes

The table below presents descriptive statistics for the overall study sample of 6,250 women (those interviewed in the 2000 Rwanda Demographic and Health Survey who had lived in their current (2000) residence in 1994) and for the sub-groups of

* Miles W. After-Life: Rwanda endures nine years of slow trials, full prisons & bitter memorials to a national genocide. *Worldview*, pp23-26. Fall 2003.

residents of low- and high-migration communes. As noted in Chapter V, low-migration communes are defined in this study as those from which less than 10% of the 1994 population migrated to refugee camps in Zaire, Tanzania or Burundi, while high-migration communes are those from which 10% or more of the 1994 population traveled to those camps.

As the table below indicates, the women in low- and high-migration communes were similar in age (mean age 29.6 and 29.5 years, respectively); number of children (mean of 2.5 children in each group); education (mean 3.2 and 3.5 years); household radio ownership (35.9% and 37.8%); and perceived availability of services (39.5% of low-migration and 41.5% of high-migration women reported 'high' service availability). Mean values for age, number of children and years of education also showed similar standard deviations across the low- and high-impact communes, suggesting similar distribution patterns within their populations. The dependent variables were also similar in the two groups: 63.7% of low-migration women and 59% of high-migration women reported that they wanted a or another child, and very low proportions of both groups were current users of modern contraceptives (2.8% and 3.1%, respectively). The one variable on which the two groups differed was rural/urban residence: a higher proportion of women in high-migration communes were urban residents (18.7% of high-migration respondents were urban compared to 3.2% of low-migration respondents). Overall, this suggests that residents of low- and high-migration communes were not meaningfully different in their socio-demographic profiles, perceived access to services or in the study's outcome measures of desire for children and modern contraceptive use. The sole difference (in rural/urban residence) likely reflects the greater concentration of

violence in urban areas and the consequent greater likelihood of flight of urban residents.

Characteristics of respondents in total sample, low-migration communes and high-migration communes Rwanda Demographic and Health Survey 2000			
Characteristic	Total study sample (n=6,250)	Low-migration communes^a (n=1,776)	High-migration communes^b (n= 4,413)
Age			
15-29	51.0%	50.6%	51.1%
30-49	49.0%	49.4%	48.9%
Mean age	29.5 years	29.6 years	29.5 years
Standard deviation	10.5	10.6	10.4
Number of children (including current pregnancy if pregnant)			
None	37.4%	39.6%	36.7%
1-4 children	38.0%	35.2%	39.1%
5 or more children	24.5%	25.2%	24.2%
Mean number of children	2.5 children	2.5 children	2.5 children
Standard deviation	2.6	2.6	2.6
Residence			
Rural	85.9%	96.8%	81.3%
Urban	14.1%	3.2%	18.7%
Education			
None	33.3%	34.6%	32.7%
Any primary	51.1%	52.8%	50.4%
Any secondary or more	15.6%	12.6%	16.9%
Mean years of education	3.4 years	3.2 years	3.5 years
Standard deviation	3.1	3.0	3.2
Household economic status			
Does not have radio	62.8%	64.1%	62.2%
Has radio	37.2%	35.9%	37.8%
Service availability			
Low	59.3%	60.5%	58.5%
High	40.7%	39.5%	41.5%
Desires a(nother) child			
No	39.6%	36.3%	41.0%
Yes	60.4%	63.7%	59.0%
Currently uses modern contraception			
No	96.9%	97.2%	96.9%
Yes	3.1%	2.8%	3.1%
a. Low-migration communes are defined as those from which less than 10% of the 1994 population migrated to refugee camps in Zaire, Tanzania or Burundi b. High-migration communes are defined as those from which 10% or more of the 1994 population migrated to refugee camps in Zaire, Tanzania or Burundi			

Analysis of Bivariate Associations

As noted in Chapter V, the socio-demographic variables included in the analysis (age, number of children, rural/urban residence, education and radio ownership as a proxy for economic status) are those which have long been associated with fertility preferences and behavior. The bivariate relationships of these variables with the dependent variables, desire for a(nother) child and use of modern contraceptives, are presented in the table below.

In the Rwandan context, the bivariate associations between these predictor variables and desire for a(nother) child are largely as expected. Age and number of children show the usual strong inverse relationship: 87% of 15-29 year-olds but only 32% of 30-49 year-olds want another child (chi square, $p < .001$). Of those with no children, 93% want a child, while only 17% of those with 5 or more children want another (chi square, $p < .001$). Urban residence is not significantly associated with the desire for a(nother) child as would be expected, although a significant relationship emerges when age is controlled (chi square, $p < .05$), since urban residence is significantly and negatively associated with age ($r = -.04$, $p < .01$).

The significant effect of education on fertility desire is in the opposite direction of what would be expected, a relationship also found in the overall DHS analysis of the women's and men's samples. As noted in Chapter IV, Rwanda fits the profile of very poor developing countries for which limited education and other features of modernization may work to enhance fertility desires in the short term. In this sample, those with either primary or secondary education are significantly more likely to want a(nother) child (69% and 68%, respectively) than those with no education (43%). Radio

ownership follows the same pattern as education – women with a radio (i.e., those with higher economic status) are more likely than those without to want a(nother) child (chi square, $p < .001$).

Characteristics of women who desire a(nother) child and who use modern contraceptives Rwanda Demographic and Health Survey 2000				
Characteristic	Desire a(nother) child n = 6,250 women aged 15-49 who lived in area of current residence (in 2000) in 1994		Use modern contraceptives n = 2,642 women aged 15-49 who lived in area of current residence (in 2000) in 1994 AND who were currently in union	
	Proportion	Chi square sig level	Proportion	Chi square sig level
Age				
15-29	87.3%	$p < .001$	5.4%	ns
30-49	31.5%		5.8%	
Number of children (including current pregnancy if pregnant)				
None	93.0%	$p < .001$	0	ns
1-4 children	55.1%		5.8%	
5 or more children	17.4%		5.9%	
Residence				
Rural	60.6%	ns	4.0%	$p < .001$
Urban	59.1%		18.6%	
Education				
None	43.4%	$p < .001$	3.5%	$p < .001$
Any primary	69.0%		4.8%	
Any secondary or more	68.3%		13.7%	
Household economic status				
Does not have radio	57.8%	$p < .001$	2.9%	$p < .001$
Has radio	64.3%		9.6%	
Service availability				
Low	60.2%	ns	3.9%	$p < .001$
High	60.6%		8.5%	
Total	60.4%	-	5.7%	-

The bivariate associations of the predictor variables with use of modern contraceptives are also in the expected direction. Here, urban residence, education and radio ownership are positively and significantly associated with contraceptive use.

Older women and higher parity women were no more likely to use contraceptives than younger or lower parity women.

Not surprisingly, women's perception of the availability of health services does not affect their desire for a(nother) child. However, their perceptions are significantly associated with use of modern contraceptives. That is, women who reported high availability ('no problem' with distance to a health center) were twice as likely to use modern contraceptives as those who reported low availability ('big or small problems' with distance to a health center; 8.5% versus 3.9%, respectively; chi square, $p < .001$)

Logistic Regression of Fertility Desire

The first hypothesis to be tested in this research is that women who lived in Rwandan communes which had a high proportion of the population who became refugees were less likely to want a, or another, child than those who live in communes from which a low proportion migrated. In this analysis, the independent variable of interest is refugee migration, while the socio-demographic variables are entered as covariates.

This logistic regression model, from Chapter V, is illustrated as follows.

Logistic regression model for desire to have a(nother) child

$$\begin{array}{l} \text{Desire to have a} \\ \text{or another child} \end{array} = \begin{array}{l} \text{Socio-demographic} \\ \text{status} \\ \text{(covariates)} \end{array} + \begin{array}{l} \text{Extent of migration} \\ \text{(independent} \\ \text{variable of interest)} \end{array} + \text{Error}$$

Correlation matrices of the independent variables were run prior to performing the logistic regression. Two of the socio-demographic variables – age and number of

children – were highly correlated ($r=.805$, $p<.01$) and therefore present a problem of multicollinearity. According to standard statistical procedure, in cases of multicollinearity, only one of the highly correlated independent variables may be included in the regression analysis at a time. I therefore estimated the model first with age but not number of children and then with number of children but not age as covariate. As the results were similar, the model selected included age, rural/urban residence, radio ownership, education and the migration variable. (See *Note a* in the following table for a description of the results using number of children instead of age as covariate.)

The following table presents the results of the logistic regression for women's desire to have a(nother) child. The results support the hypothesis that residents of high-migration communes (from which 10% or more of the population migrated) were significantly less likely to want a(nother) child than residents of low-migration communes, when controlling for the socio-demographic variables included in the analysis (logit coefficient = $-.301$, $p<.001$). This result and the odds ratio of 0.74 are consistent with the previously observed bivariate relationship between level of migration and desire for a(nother) child. Thus, the level of migration has an independent, negative effect on women's desire for children.

Logistic Regression Analysis of Desire for A/Another Child Rwanda 2000

Wants a/another child n = 6,250 women aged 15-49 who lived in area of current residence (in 2000) in 1994			
Predictor	Logit coefficient	SE	Odds ratio
Age	-.173***	.004	.84
Number of children (including current pregnancy if pregnant) ^a	-	-	-
Residence [Rural] ^b Urban	- -.586***	- .109	.56
Household economic status [Does not have radio] Has radio	. .414***	. .077	1.51
Education None v primary None v secondary Primary v secondary	. .049 (ns) .152 (ns) -.103 (ns)	. .080 .109 .101	1.05 1.17 0.90
Refugee migration from commune of residence ^c [Low] High	- -.301***	- .079	.74

*** p<.001 ns = not significant

- a. The 'number of children' variable is excluded from the analysis because it is highly correlated with age ($r = .805$). When the alternative model is run – excluding age and keeping number of children in the regression – the specific coefficients of the included variables change but the pattern is consistent. Migration remains significant – women living in high-migration communes remain significantly less likely to want a(nother) child. In the regression model excluding age and keeping number of children, rural/urban residence, radio ownership, education and migration, the coefficient for the migration variable is $-.200$, SE $.078$, odds ratio $.82$.
- b. Reference categories are in brackets.
- c. Low migration is defined as less than 10% of the commune's 1994 population having migrated to refugee camps. High migration is defined as 10% or more of the commune's 1994 population having migrated to refugee camps.

Logistic Regression of Modern Contraceptive Use

The second hypothesis of this study is that women living in high-migration communes were more likely to act on their wish to not have a(nother) child by using modern contraceptives than were women in low-migration areas. As the earlier analysis showed, women living in high-migration communes were less likely to want a(nother) child than were those in low-migration communes, so the hypothesis suggests that they would use modern contraceptives at higher rates than women in low-migration communes. In this analysis, the independent variable of interest remains the level of refugee migration, and covariates include the same set of socio-demographic variables already discussed. Because women's use of modern contraceptives is in part dependent on whether they can obtain services, the availability of family planning services is included as another covariate in this model.

Two main regression models were run to test the second hypothesis. In Model 1, the covariates alone are included: these are the socio-demographic variables (age, number of children, rural/urban residence, education and radio ownership (as a proxy for economic status) and family planning service availability. In Model 2, the independent variable of interest, level of migration, was added. The models, also presented in Chapter V, may be depicted as follows.

Logistic regression model for modern contraceptive use: Model 1

$$\text{Modern contraceptive use} = \text{Socio-demographic status} + \text{FP availability} + \text{Error}$$

(covariates)

Logistic Regression Analysis of Current Use of Modern Contraceptives Rwanda, 2000

Predictor	Currently uses modern contraceptives n = 2,642 women aged 15-49 who lived in area of current residence (in 2000) in 1994 AND who were currently in union						
	Model 1		Model 2			Model 3	
	Logit coeff	SE	Logit coeff	SE	Odds ratio	Logit coeff	SE
Age	.003 (ns)	.015	.003 (ns)	.016	1.00	.003 (ns)	.016
Number of children (including current pregnancy if pregnant) ^a	.066***	.051	.066 (ns)	.052	1.07	.065 (ns)	.052
Residence [Rural] ^a Urban	.995***	.215	1.21***	.231	3.36	1.19***	.234
Household economic status [Does not have radio] Has radio	.757***	.202	.728***	.205	2.07	.733***	.205
Education							
None v primary	.166 (ns)	.221	.149 (ns)	.224	1.16	.155 (ns)	.224
None v secondary	.867**	.249	.841**	.252	2.32	.843**	.253
Primary v secondary	-.701**	.223	-.691**	.226	0.50	-.688**	.226
Service availability [Low] High	.420*	.187	.440*	.190	1.55	.284 (ns)	.316
Refugee migration from commune of residence ^b [Low] High	-	-	-.563**	.207	.57	-.682*	.281
Interaction: Service availability x refugee migration	-	-	-	-	-	.240 (ns)	.389

* p<.05 ** p>.01 *** p<.001 ns = not significant

a. Reference categories are in brackets.

b. Low migration is defined as less than 10% of the commune's 1994 population having migrated to refugee camps. High migration is defined as 10% or more of the commune's 1994 population having migrated to refugee camps.

As shown in the table, the interaction term was not significant, suggesting that the effect of refugee migration on contraceptive use did not significantly vary according to whether women lived in communes with high or low access to health services.

Discussion

The first hypothesis of this study, namely that residents of high-migration communes (from which 10% or more of the population migrated) were significantly less likely to want a(nother) child than residents of low-migration communes, was borne out by the data. Women living in communes from which a high proportion of the population migrated to the refugee camps in 1994 were significantly less likely to want a, or another, child than women living in communes from which a low proportion migrated (odds ratio = 0.74).

The data do not explain why this is so, but we may speculate. We have seen that Rwanda at the time of the DHS survey in 2000 – six years after the genocide and mass refugee migration, three to four years after the mass return – was a physically and psychologically scarred country. The job of re-establishing familial, friendship and community relationships in a home very different from the one remembered from the past had to be unimaginably difficult. Just making a daily living, in a country already one of the poorest and least developed on earth, was an enormous challenge. In 2000, many believed the genocide would reoccur. In this context, women's preference for no additional children may be understandable.

It is important to note that the assumption among many relief professionals is that 'everybody wants kids' in a post-conflict environment. This was in part the rationale for

not providing family planning services for so many years. The implications of these results, and those of many other studies discussed in Chapter II, are that women are indeed influenced by their conflict environment and their conditions of life and that these may influence them to want to avoid pregnancy. They must be given that option.

The second hypothesis of this study, namely that women living in high-migration communes were more likely to act on their wish to not have a(nother) child by using modern contraceptives than were women in low-migration areas, was not borne out by the data. Women living in high-migration communes were about half as likely to use a modern contraceptive as women in low-migration communes (odds ratio = .57) even though these women were less likely to want another child. As expected, the availability of services did affect use: women who perceived 'no problem' of distance to a health facility were 1.5 times as likely to use modern contraceptives as women who perceived either a 'small problem' or a 'big problem.' Nevertheless, the negative relationship between refugee migration and modern contraceptive use held even when controlling for the availability of services. Additional exploration of the 'availability of services' variable further indicated that the effect of refugee migration on contraceptive use did not significantly vary according to availability of health services.

What would make the contraceptive behavior of these women inconsistent with their fertility desires? There are several potential explanations.

First, it has been established that many women in the developing world do not act on their fertility desires. Indeed, the concept of "unmet need" was developed to identify women who report that they want to limit or space births but who are not using

an effective contraceptive method. In a review of 55 countries with DHS surveys carried out from 1991-2000, Westoff found rates of unmet need ranging from 7% to 36%, with by far the highest rates in Africa.¹ The highest rate, 36%, was found in the Rwanda 2000 DHS.

Nevertheless, that women in general may not act on their fertility desires does not explain the finding that women in high-migration communes in Rwanda were less likely to use modern family planning than women in low-migration communes, even though they were less likely to want another child. For that, other possible explanations must be examined.

One potential reason for women's inaction may be that they were still feeling the numbing effects of trauma which, according to the premises of this study, would be more likely in communes that experienced more migration. The same environmental and social factors that might persuade a woman to not desire a child might also work to diminish her ability to act on that desire.

Another potential reason is social pressure. Though women expressed a desire for no more children, they may receive pressure from their partners, family or society to bear children, making action on their parts all the more difficult. Such pressure may be directly associated with the conflict – Tutsi women might be pressured to replace those killed and Hutu women pressured to produce warriors for future retribution against the Tutsi victors. Or, such pressure may be the result of a reversion to traditional pronatalism – in times of social stress and uncertainty, children may be perceived as the guarantors of future security. In either case, the pressure would have been more prevalent in areas of high migration since more people would have been directly

affected by the social disruptions and horrors of the conflict itself and refugee camp life. Women's actions to limit pregnancy in the face of such pressure could provoke conflict with their partners and intense stigma within their social networks.

Yet another possible cause of the women's inaction is that, in Rwanda, using modern contraception meant using DepoProvera or pills obtained at a health facility. Facilities are run by or, in the case of the non-profit centers, fully approved by the government. In pre-civil war Rwanda, this was an asset to ONAPO's family planning program, as the government was trusted by the majority of Rwandans. The current government, however, is dominated by Tutsi. The majority Hutu may have reservations about trusting their well-being to the health system – indeed, to any system – in post-genocide Rwanda. Residents of communes from which more people fled the Tutsi army might be more likely to harbor these feelings of distrust.

This would suggest, however, that other development programs in Rwanda would also suffer from the public's misgivings about the government. Yet, as we saw in Chapter III, primary schools have 119% enrolment and immunization rates are high, especially for sub-Saharan Africa, so there appears to be no reticence in subscribing to these government-run programs. This suggests a final explanation as to why Rwanda's family planning program has reverted to a stage not seen since its earliest days 20 years ago and so far from its promising future in the late 1980s.

I propose that, in short, sex and gender matter: they matter in general and they mattered in the Rwandan genocide. They matter because adoption of reproductive health behaviors has always incited more social stigma and constraints than changes recommended in other development sectors such as schooling, agriculture or child

health, so family planning's slow re-start and re-acceptance in Rwanda are not surprising. Sex and gender matter because gender-based violence has always been a weapon of war. The numbers of women who were raped and otherwise sexually abused in the Rwandan conflict are unknown. Many of them were killed, but those who survived are in Rwanda today living with their scars. The effects on women's mental and physical health, sexual activity, desire for children and contraceptive use can only be conjectured. Sex and gender matter because the misogynist tenor of the violence in Rwanda – as epitomized in the first three of the “Hutu Ten Commandments” – had to have affected women, whether they were victims, perpetrators or standers-by, Hutu or Tutsi.* Women living in communes which were more highly affected by the violence, fear, the subsequent migration and later tension would experience these sentiments more intensely.

Thus, while it may be counterintuitive that Rwandan women who wanted to avoid additional children were found to be less likely to use modern contraceptives, their behavior may be understandable in their very complex personal, social, physical and political contexts.

This suggests, as a practical program design issue, that women in conflict and post-conflict situations may need differing levels of attention, counseling, discussion and

* The first three “Hutu Ten Commandments” are listed here. The full list is reprinted in Chapter III, from the extremist newspaper, *Kangura*, December 1990.

1. Every Hutu should know that a Tutsi woman, wherever she is, works for the interest of her Tutsi ethnic group. As a result, we shall consider a traitor any Hutu who:
 - marries a Tutsi woman
 - befriends a Tutsi woman
 - employs a Tutsi woman as a secretary or a concubine
2. Every Hutu should know that our Hutu daughters are more suitable and conscientious in their role as woman, wife and mother of the family. Are they not beautiful, good secretaries and more honest?
3. Hutu women, be vigilant and try to bring your husbands, brothers and sons back to reason.

support in order to attain their reproductive health desires. Staff must be conscious of the potential effects of conflict on women's physical and mental health, and also recognize that women's different experiences may stimulate different fears, desires and actions, even years after the original traumatic events.

No aspect of public health can be addressed today in sub-Saharan Africa without considering HIV. The HIV pandemic is large and growing larger, and Rwanda is strongly affected. HIV prevalence among adults in Rwanda was estimated at 8.9% at the end of 2001, down from the 11.1% found in a 1997 national sero-survey.² The 1997 figures showed a surprisingly small difference between urban and rural rates, 12.5% and 10.8%,³ respectively, and it has also been found that there is little variation across préfectures.⁴ This was very different from the pre-genocide pattern of high urban and very low rural rates. It has been suggested that post-genocide migration and subsequent mixing of urban and rural populations caused the change.⁵

Is it plausible that HIV, rather than refugee migration, is the factor causing the results observed in this study? This question can not be definitely answered because of inadequate data, but it can be explored.

A qualitative study in Zambia in 1997 found that, in the absence of signs or symptoms of illness, women's and men's childbearing and contraceptive use decisions were only weakly influenced by HIV.⁶ In the presence of signs or symptoms, however, both women and men strongly opposed additional childbearing. An HIV-related factor that did influence decisions on childbearing was caring for AIDS orphans. Few of the

Zambia study participants actually knew their HIV status, the same situation as in Rwanda.

The Rwanda 2000 DHS survey included a module on HIV/AIDS with questions on knowledge, attitudes and behaviors.⁷ The results show that women were knowledgeable about basic AIDS information such as means of transmission and prevention but less so about more specific information. For example, only 20% of women believed a person who appeared healthy could have HIV. Attitudes regarding HIV were largely positive. Virtually all respondents agreed that HIV should be discussed in the media and most agreed that 12 to 14 year-olds should be educated about condom use. Most women in union had discussed HIV with their partners and agreed that they would take care of a family member with AIDS. Only 4.8% of women and 7.1% of men had been tested for HIV.

One of the variables included in the DHS survey was whether respondents knew someone with AIDS or who died of AIDS. While this is far from an ideal indicator of what might influence individuals to change their fertility desires or contraceptive behavior, it is the closest available variable to an individual being touched personally by the epidemic. The Zambia study suggests that HIV might influence fertility desires when it affects one's life personally, through raising AIDS orphans in that case. In the Rwanda DHS survey, 62% of women respondents knew someone with AIDS or who had died of AIDS.

Bivariate and multivariate analyses were carried out. Among the 6,250 women who lived in their 2000 residence in 1994, women who knew someone with AIDS or had died of AIDS were less likely to want another child (61%) than women who did not know

someone in that category (58%, chi square $p < .001$). However, knowing someone with AIDS was correlated with all of the socio-demographic variables, including urban residence ($r = .205$, $p < .01$), education ($r = .178$, $p < .01$) and radio ownership ($r = .115$, $p < .01$). It was also correlated with residence in a high-migration commune ($r = .026$, $p < .05$). When the variable, 'knowing someone with AIDS or who had died of AIDS' was included in the logistic regression with the socio-demographic covariates, the logit coefficient was non-significant. When the migration variable was added to this logistic regression model, the AIDS variable remained non-significant while the migration variable was significant (logit coefficient = $-.284$, $p < .01$), as in the original models.

The same pattern holds for the relationship between knowing someone with AIDS and contraceptive use. Among the 2,642 women in union who lived in their 2000 residence in 1994, those who knew someone with AIDS or who had died of AIDS were significantly more likely to use a modern contraceptive method (6.9%) than those who did not (3.6%, chi square $p > .001$). This knowledge was correlated with the modernization variables (urban residence: $r = .195$, $p < .001$; education, $r = .181$, $p < .01$; radio ownership, $r = .109$, $p < .001$). It was not, however, significantly correlated with residence in a high-migration commune. In a logistic regression with the socio-demographic variables, the AIDS variable was non-significant. It remained non-significant in models adding (a) the 'distance to health facilities' variable, (b) the migration variable, and (c) both the distance and migration variables. In each case, the logit coefficients of the distance and migration variables were significant.

While this analysis suggests that, using these variables, AIDS was not a significant factor in Rwandan women's preference for a(nother) child or in her use of

contraceptives in 2000, it is hardly definitive. What is clear is that AIDS is a substantial and growing problem in Rwanda, it is an enormous burden in its own right and its effects on virtually every other sphere of Rwandans' lives will manifest themselves, if they have not already. Given the relatively small variations in HIV prevalence rates throughout the country and between urban and rural areas, it is certain that migration has already influenced the epidemic through the fundamental mechanism of mixing high and low prevalence populations. Other attributes of Rwanda's forced migration such as the high levels of rape and sexual exploitation, coercive sex and commercial sex may have also contributed to HIV's spread.^{8,9} The genocide, forced migration, their aftermath and HIV/AIDS may be so interrelated in Rwanda, at least for the present, that it may be impossible to identify the effects of one entirely independent of the others.

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VII. Conclusion

It is a natural inclination to ask how the Rwandan genocide could have happened. While it is important to be aware of the full historic, social, economic and political context in which the genocide occurred, which I have tried to describe in this dissertation, it still reduces to an individual picking up a machete and murdering his neighbors and family members because they are labeled 'Tutsi.' This is difficult to assimilate, particularly in light of the lack of import ascribed to Tutsi and Hutu identities during the centuries they lived together prior to colonial times. What is clear is that, whatever the original meanings of these labels, they came to have historic, social, economic and political import since at least the 1930s. These meanings were clear and important enough to induce ordinary people to murder and, moreover, to murder their neighbors, friends and family, in large numbers, over an extended period of time.

Observers of Rwanda have noted two traits that the leaders of the genocide used to their own ends. One was the strong tradition of unquestioning obedience to authority going back to the times of the *Mwami*, or king, and reinforced by the German and Belgian colonial authorities as well as by the Rwandan leaders under independence.¹ Indeed, the success of development programs in the 1970s and 1980s may be

attributable in part to Rwandans' willingness to 'do what they're told' – whether that meant altering farming practices, using family planning or participating in *umuganda*, the communal work scheme. As Prunier remarks, "Mass killers tend to be men of the herd, and Rwanda was no exception."²

The second characteristic on which the genocide's leaders preyed was fear – fear of a return to past injustices and a fear of death. 'Kill or be killed' was a motivation for many murderers. For some, that meant 'Kill, or be killed by the *inyenzi*,' the dehumanizing name (meaning 'cockroaches') the Hutu extremists gave to the rebel Rwandan Patriotic Front army. For others, it meant, 'Kill, or be killed by the genocide's local bosses,' who needed mass participation to accomplish their genocide and to implicate as many as possible in the deed.

Surely, the masterminds of the genocide and those who led it at every level deserve the greatest portion of blame. Without their manipulation, the genocide would not have occurred. This was a well-planned exercise of *genocide* – "an act committed with intent to destroy, in whole or in part, a national, ethnical, racial, or religious group"³ – for political and ideological purposes. The local institutions that supported these leaders and their social system – the political parties and also, according to Mamdani, the Catholic Church⁴ and, according to Uvin, the development industry⁵ – are also complicit.

The Rwandan genocide, though, was not only an affair of Rwandans. For over one hundred years, foreign powers have had their say in Rwandan social, economic and political life. Yet, at the crucial moment, the world turned away and let the genocide run its course. History, international conventions, declarations of 'Never again!' and

good intentions – these were not enough for the world to act in a place as globally insignificant as Rwanda. Apologies for inaction, such as those made by Kofi Annan, Bill Clinton and other world leaders after the fact, however heartfelt, can be scant comfort for Rwandans who still suffer.

This study has shown that the genocide, mass migration and their aftermath affected Rwandan women's fertility desires and contraceptive behavior in expected and unexpected ways. It indicates that these experiences diminished women's fertility desires, as hypothesized, but also diminished their ability to act on those desires, a result contrary to what was expected. The intricate personal, social and political situations in which Rwandans live, coupled with a poor material environment and the hardships of rebuilding the country's systems, may make this inaction understandable. The extensive rape, other forms of gender-based violence and anti-woman propaganda perpetrated in the Rwandan genocide – and in virtually every conflict – play their own complex parts in women's attitudes and intentions with regard to fertility desires, contraceptive use and their overall reproductive health.

The professional field of reproductive health among conflict-affected people has made profound progress in the last decade. Indeed, the field did not exist ten years ago: prior to the Rwandan genocide and its aftermath (and the conflict in the former Yugoslavia, which occurred during the same period), reproductive health concerns of women and men in war were considered irrelevant, when they were considered at all. Yet, as was illustrated in the literature review presented in Chapter II, important findings on fertility preferences and behavior have emerged from applied and academic research carried out in conflict and post-conflict settings around the world. As was also

clear from Chapter II, however, we have only just begun to understand these issues. Thus, this newly established field must continue carrying out both quantitative and qualitative research to further our fundamental understanding of the ways in which armed conflict influences reproductive health concerns and choices among women and men. Though we still have much to learn, there is already adequate evidence of a demand for family planning services among those affected by armed conflict. It is the job of the humanitarian community to deliver these services and, given the complexity in women's attitudes and intentions discussed above, it is a challenge for providers to do this well. Applied research can help us address this challenge; we can use it to learn how best to deliver good quality family planning and other reproductive health services in difficult conflict and post-conflict settings.

As new findings emerge, it is the job of public health programs and public health practitioners to apply them in programs designed to provide good quality care to women and men affected by armed conflict. This will make it possible for them to effect the choices they want, not the choices they have to settle for. We are warned, however, that this may pose even a greater challenge than we yet know, as reproductive health programs for women and men affected by armed conflict will require more than the standard quality of care public health practitioners endeavor to deliver.

That the events of the 1990s affected Rwandan women's reproductive health desires and behavior, as this study has shown, is not surprising. It is likely that, as we continue to explore the effects of conflict on reproductive health, child health, chronic health – indeed, on virtually every aspect of people's lives – we will continue to uncover

its effects. As we gain understanding, we may become better at responding to the health and social needs of those affected by armed conflict.

As a practical matter, a better response may be all we can aspire to. Conflicts fester around the world, and feed on themselves. The poet, WH Auden, a volunteer in the Spanish Civil War and a witness to the rise of fascism in Berlin in the 1930s, wrote, "Those to whom evil is done/ Do evil in return."⁶ Auden also wrote, "Suffering is inextricably embedded in a social world where nonsufferers always find their own lives more immediate and absorbing."⁷ So, as conflicts fester, the world tends to look away, as we did in Rwanda.

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