

H N P D I S C U S S I O N P A P E R

Reaching The Poor Program Paper No. 11

# Kenya: Reaching the Poor Through the Private Sector - A Network Model for Expanding Access to Reproductive Health Services

Dominic Montagu, Ndola Prata, Martha M. Campbell, Julia Walsh and Solomon Otero

May 2005





**KENYA: REACHING THE POOR THROUGH THE PRIVATE  
SECTOR - A NETWORK MODEL FOR EXPANDING ACCESS  
TO REPRODUCTIVE HEALTH SERVICES**

**Dominic Montagu, Ndola Prata, Martha M. Campbell, Julia Walsh and  
Solomon Orero**

**May 2005**

## Health, Nutrition and Population (HNP) Discussion Paper

This series is produced by the Health, Nutrition, and Population Family (HNP) of the World Bank's Human Development Network ([HNP Discussion Paper](#)). The papers in this series aim to provide a vehicle for publishing preliminary and unpolished results on HNP topics to encourage discussion and debate. The findings, interpretations, and conclusions expressed in this paper are entirely those of the author(s) and should not be attributed in any manner to the World Bank, to its affiliated organizations or to members of its Board of Executive Directors or the countries they represent. Citation and the use of material presented in this series should take into account this provisional character. For free copies of papers in this series please contact the individual authors whose name appears on the paper.

Enquiries about the series and submissions should be made directly to the Managing Editor, Rama Lakshminarayanan ([rlakshminarayan@worldbank.org](mailto:rlakshminarayan@worldbank.org)). Submissions should have been previously reviewed and cleared by the sponsoring department which will bear the cost of publication. No additional reviews will be undertaken after submission. The sponsoring department and authors bear full responsibility for the quality of the technical contents and presentation of material in the series.

Since the material will be published as presented, authors should submit an electronic copy in the predefined format. Rough drafts that do not meet minimum presentational standards may be returned to authors for more work before being accepted. Guidelines for authors and the template file in the standard format may be found at [www.worldbank.org/hnppublications](http://www.worldbank.org/hnppublications)

For information regarding this and other World Bank publications, please contact the [HNP Advisory Services](#) ([healthpop@worldbank.org](mailto:healthpop@worldbank.org)) at: Tel (202) 473-2256; and Fax (202) 522-3234.

© 2005 The International Bank for Reconstruction and Development / The World Bank  
1818 H Street, NW  
Washington, DC 20433

All rights reserved.

# Health, Nutrition and Population (HNP) Discussion Paper

## Kenya: Reaching the Poor through the Private Sector - A Network Model for Expanding Access to Reproductive Health Services

Dominic Montagu<sup>a</sup>, Ndola Prata<sup>b</sup>, Martha M. Campbell<sup>b</sup>, Julia Walsh<sup>b</sup> and Solomon Orero<sup>b</sup>

<sup>a</sup> Institute for Global Health, University of California, San Francisco, USA

<sup>b</sup> Berkely School of Public Health, University of California at Berkeley, Berkeley, USA

Paper prepared for the Program on Reaching the Poor with Effective Health, Nutrition, and Population Services, organized by the World Bank in cooperation with the William and Melinda Gates Foundation and the Governments of the Netherlands and Sweden.

**Abstract:** The K-MET private provider network was established to reduce the high rates of maternal mortality in Kenya, a large portion of which is due to unsafe abortions, as typical in all countries where safe services are not available. The network is composed of approximately 180 existing for-profit medical practices, the rural portion consisting primarily of mid-level providers (nurses, clinical officers). The nonprofit organization K-MET trains the providers in family planning, post-abortion care and safe early abortion services, and provides contraceptive supplies. By leveraging existing private mid-level providers organized by a non-profit, infrastructure development and recurrent costs are kept very low. Some health specialists fear that private for-profit services may reduce equity by serving primarily wealthier members of the community. The central question addressed in this study is whether it is possible to offer reproductive health services through a network of private sector, for-profit providers without exacerbating inequity in access to these services. **Methodology:** Interviews were conducted with 179 clients of K-MET providers and 66 of their nearby competitors. Clients were asked questions about their use of family planning, and about household characteristics to build proxy measures wealth using weighted asset scores. In addition, 212 household interviews were conducted in the nearby communities. **Results:** In rural areas, clients of K-MET providers were slightly poorer than the community. In urban areas, clients of K-MET members were slightly richer than the general urban community. The K-MET network does not exacerbate inequities in access to health services in rural communities. Policy implication: With respect to equity issues, the K-MET model is viable especially in rural areas, where government services are generally out of reach

**Keywords:** Kenya, K-MET, private providers, reproductive health services, maternal mortality

**Disclaimer:** The findings, interpretations and conclusions expressed in the paper are entirely those of the authors, and do not represent the views of the World Bank, its Executive Directors, or the countries they represent.

**Correspondence Details:** Dominic Montagu, Institute for Global Health, UCSF, 74 New Montgomery St. Suite 508, San Francisco, CA 94105. Tel: 415-597-8214, Fax: 415-597-8299, email: [dmontagu@berkeley.edu](mailto:dmontagu@berkeley.edu)



## Table of Contents

<b>FOREWORD</b> .....	<b>VII</b>
<b>ACKNOWLEDGEMENTS</b> .....	<b>IX</b>
<b>INTRODUCTION</b> .....	<b>1</b>
<b>BACKGROUND</b> .....	<b>1</b>
THE PRIVATE SECTOR AND EQUITY .....	2
<b>RESEARCH QUESTION</b> .....	<b>3</b>
METHODOLOGY.....	3
THE SAMPLE .....	3
DETERMINATION OF SOCIOECONOMIC STATUS .....	5
<b>FINDINGS</b> .....	<b>6</b>
OVERALL SERVICE USE.....	6
USE OF REPRODUCTIVE HEALTH SERVICES.....	8
<b>LIMITATIONS</b> .....	<b>10</b>
<b>IMPLICATIONS</b> .....	<b>10</b>
<b>REFERENCES</b> .....	<b>ERROR! BOOKMARK NOT DEFINED.</b>

## List of Tables

Table 1: Provider specialties.....	4
Table 2: Asset ownership statistics.....	6
Table 3: Clients and household respondent characteristics .....	7
Table 4: Educational attainment among clients and households .....	7
Table 5: Odds ratios examining the association between household respondents ever having visited K-MET for FP / RH among respondents who have visited a provider for FP/RH .....	9

## List of Figures

Figure 1: Wealth of residents in areas where KMET members are located .....	8
Figure 2: Wealth of KMET members and nonmember clients.....	8



## FOREWORD

This discussion paper is one in a series presenting the initial results of work undertaken through the Reaching the Poor Program, organized by the World Bank in cooperation with the Gates Foundation and the Governments of Sweden and the Netherlands.

The Program is an effort to begin finding ways to overcome social and economic disparities in the use of health, nutrition, and population (HNP) services. These disparities have become increasingly well documented in recent years. Thus far, however, there has been only limited effort to move beyond documentation to the action needed to alleviate the problem.

The Program seeks to start rectifying this, by taking stock of recent efforts to reach the poor with HNP services. The objective is to determine what has and has not worked in order to guide the design of future efforts. The approach taken has been quantitative, drawing upon and adapting techniques developed over the past thirty years to measure which economic groups benefit most from developing country government expenditures.

This discussion paper is one of eighteen case studies commissioned by the Program. The studies were selected by a professional peer review committee from among the approximately 150 applications received in response to an internationally-distributed request for proposals. An earlier version of the paper was presented in a February 2004 global conference organized by the Program; the present version will appear in a volume of Program papers scheduled for publication in 2005, *Reaching the Poor with Effective Health, Nutrition, and Population Services: What Works, What Doesn't, and Why*.

Further information about the Reaching the Poor Program is available through the “Reaching the Poor Program” section of the World Bank’s poverty and health website:

<http://www.worldbank.org/povertyandhealth>



## **ACKNOWLEDGEMENTS**

The authors are grateful to the World Bank for having published this report as an HNP Discussion Paper.



## INTRODUCTION

This study, carried out in the summer of 2003, measured the effectiveness of a Kenyan program dedicated to increasing the availability of reproductive health services to the poor through training and networking of private medical providers. The Kisumu Medical and Educational Trust (KMET) program focuses on family planning services and encourages providers to add these services to the normal range of consultations, commodity sales, and clinical care they already provide. This study looked at the pool of potential clients of KMET members to evaluate which wealth group benefits from the subsidy given to private providers through KMET. Analysis of actual KMET clients was used to better understand the program's success in providing quality reproductive health care.

## BACKGROUND

Kenya's population is estimated at 30.7 million, 80 percent living in rural areas. Total fertility rates for women between 15 and 49 years of age are 3.12 in urban areas and 5.16 in rural areas, and the contraceptive prevalence rate is 39 percent. The population growth rate is 1.9 percent a year, one of the lowest in Africa. The slow growth is a combined result of family planning and high mortality from HIV/AIDS (KDHS, 1999; UNFPA, 2002). Economic disparity is extreme: the Kibera district of Nairobi is the largest urban slum in Africa.

According to the Kenyan Ministry of Health, the country has an estimated 27,000 mid-level providers (2,300 clinical officers, and 24,600 nurses and nurse/midwives) and 3,300 physicians. The mid-level providers are found at all levels of the health system, in both rural and urban settings, while the doctors are concentrated in the larger towns and cities.

About 48 percent of health care outlets are outside of the government structure, operated privately for profit, by religious nonprofit organizations, or by humanitarian nongovernmental organizations (NGOs). Overall, 40 percent of all physicians in Kenya work in the private sector (Hanson and Berman, 1998). The private sector is used increasingly for outpatient care, particularly by public sector employees, due to the problems within the public sector and increases in National Hospital Insurance Fund (NHIF) rates. Private facilities, both for-profit and nonprofit, dominate certain types of medical institutions—94 percent of clinics, maternity, and nursing homes, and 86 percent of medical centers are private. The number of private health facilities has expanded greatly over the past 10 years, and such growth is expected to continue (*Kenya Health Sector 2003*).

According to national health data, in 1997/1998, 64 percent of total health care expenditure was private. Of that, 82 percent (53 percent of total expenditure) was out-of-pocket. In this context, this study looks at the effectiveness of an innovative NGO that supports the delivery of family planning and reproductive health services through private doctors and mid-level medical providers.

## THE PRIVATE SECTOR AND EQUITY

In the past decade, there has been a move to examine the need for a dual government role in health care, dividing the finance and delivery activities normal to national health systems. Much of this has been driven by a push to explore the potential for increased efficiency in service provision that might result from outsourcing some areas of health service delivery and support. Pressure upon governments to do more with less in the context of sectorwide reform has led to a greater integration of services provided by public, private, and nonprofit sectors, and a concentration on areas of core-competency and the services that government are expected to provide: safety net services for disenfranchised groups, public health interventions, outbreak and disease monitoring, and the setting and enforcement of standards for provider training, facility quality, and medical inputs such as drugs and equipment. Governments' growing recognition that the public sector cannot be the only, or even the principal, provider of direct health care for the poor is increasing dependence on private nonprofit and for-profit health services. The continuing concern about private sector involvement in the provision of essential health care services is that natural market dynamics will lead to a focus on the rich and that services critical for public health will not reach the most needy.

Despite the risk of inequity, there are good reasons for trying to include private providers in public health service delivery: the primary limitations to effective delivery of services for the poor are lack of infrastructure for close-to-client provision of care. The Commission on Macroeconomics and Health estimated that globally more than 23 percent of the cost of scaling up tuberculosis treatments and 25 percent of the cost of scaling up Highly Active Anti-Retroviral Therapy (HAART) treatment will be attributed to infrastructure (Kumaranayake, Kurowski, Conteh, and Watts, 2003; Mills, Brugha, Hanson, and McPake, 2002). The reason to consider the potential of private sector projects is that they can leverage existing infrastructure, personnel, and provider-client relationships. At the same time, private sector responsiveness to market forces and employment flexibility have the potential to increase service efficiency through more rapid adaptation to changing demand than could be possible within a government health system.

KMET is a nonprofit organization started in 1995 to increase access to maternal and child health services in and around the western Kenya city of Kisumu. The need was identified due to the high rates of maternal mortality in local hospitals, with mothers arriving after poor, nonexistent, or drastically delayed local care. The goal of the KMET network is to increase the accessibility of reproductive health and family planning services for the poor, using private providers as a means of establishing new and easy-to-access service delivery points.

Providers joining KMET are trained, supplied, and supported so they can offer services they would not have offered prior to membership. By grouping private, for-profit health providers into a network with NGOs and the public sector, KMET provides responsive training and support to many service delivery points that are theoretically accessible to the poor. Enrolled medical providers, limited to one per site, become part of the KMET network. Providers participating in KMET are required to meet set facility standards and, in exchange, they receive free training, a free initial manual vacuum aspiration (MVA) kit for early abortions and post-abortion care, regular delivery of contraceptive commodities to their clinic, and a limited number

of low-interest, one-year loans. Network members also have access to yearly medical updates and networking events.

KMET began by training both government and private sector doctors and consultants in safe abortion practices and post-abortion care. The training program quickly grew to include midwives, clinical officers and nurse practitioners. Since 2001 all new providers have come from these “mid-level” provider cadres. There is a total of 204 providers, in five provinces. Of these, 65 providers are exclusively private, and 139 work at least part-time in Missions or the public sector. About two thirds of the KMET members are nurses or clinical officers, and a third are physicians.

## **RESEARCH QUESTION**

Our research question, based on the goals set forth by the KMET network, is whether or not KMET provider programs for family planning access are benefiting the poor in Kenya? If so, can the KMET model be replicated or expanded to promote equity and increase access to basic reproductive health services at affordable prices for the poorest segments of the population in Kenya?

We attempt to answer these questions by examining the socioeconomic status of KMET providers’ current and potential clients.

## **METHODOLOGY**

We conducted a survey of KMET clients in May 2003, implemented by Steadman Research Incorporated, a private survey research group based in Nairobi. The survey had three major components: a provider survey; client exit interviews; and a household survey. The provider survey included both KMET members and matched nonmembers, and client exit interviews were conducted with clients of both members and nonmembers.

From the KMET member roster of 204 providers, a systematic sample was drawn, by selecting every second medical practitioner on the roster. For each selected provider, three exit interviews were conducted with female clients: the first female client of the day; the first arriving after noon; and the first arriving after 5 P.M. If no patients arrived after 5 P.M., replacement exit interviews were not conducted.

## **THE SAMPLE**

To compare services provided and type of clients between network members and nonnetwork members, all nonnetwork medical service providers within 2 kilometers (in urban areas) or 5 kilometers (in rural areas) of every second sampled network members were counted and

numbered, starting from a random first network provider.<sup>1</sup> From the nonnetwork providers at each locale, one was randomly selected for interview—50 in all, roughly a 2:1 ratio of members to nonmembers. When possible, selected nonmember providers were matched to member providers according to their level of training. Where equivalence was not possible, nonmembers were selected from the next lower level of training. As with network members, three female client exit interviews were conducted, with the same limitation on third interviews as at the member sites. Table 1 shows the level of providers by network membership status.

**Table 1: Provider specialties**

<b>Specialty</b>	<b>Nonmember</b>	<b>Member</b>
Obstetrics/gynecology, or other	12%	13%
MBBS doctor	14%	17%
Nurse	40%	36%
Nurse/midwife	4%	17%
Clinical officer	28%	14%
Pharmacist	2%	0%
Other	0%	4%
Number of providers	50	102

To explore characteristics of potential clients, 500 household interviews with women of reproductive age were conducted. Households were randomly selected within 2 kilometers of each network member provider. Given the challenges of counting every household within 2 kilometers of a member provider for subsequent random selection, we used the Expanded Program on Immunization (EPI) quasi-probability sampling methodology. This approach enabled us to reduce costs by avoiding the creation of a sampling frame. The procedures under the EPI method involve first identifying the geographical central point of the primary sampling unit (PSU) on a map—the starting point for the selection of households. Following that, a random direction from the starting point is chosen using a spinning object such as a bottle.

In our study we introduced a slight variation. From the selected provider location,<sup>2</sup> the starting point, the interviewer walked about 5 minutes in a specific cardinal point direction, for example, north. Once there, the interviewer would spin the bottle to point out the direction of the household to be interviewed. Once the household was identified, one women of reproductive age was randomly selected (all eligible women were listed and one selected using a random number table) from the household roster for interview. For each sampling point, five household interviews were conducted, one or two in each cardinal direction. Supervisors made random checks biweekly during the survey process to verify the implementation of household and interviewee selection.

---

<sup>1</sup> We limited ourselves to matching every second member provider because of budget constraints, and accepted this limitation because this is a comparison group and not the primary focus of the study.

<sup>2</sup> For the household survey, the selected provider location was considered a sampling point—the starting point.

In all, 101 member providers were interviewed<sup>3</sup> and 50 nonmember providers. In 4 member sites, only 2 interviews were conducted, and in 2 member sites only 1 interview was conducted—for a total of 295 exit interviews with clients of members. Of the 50 nonmember sites selected, at one site only 2 interviews were conducted, at one site only 1 interview was conducted, and at 3 sites no interviews at all were conducted at the request of the provider: a total of 138 interviews with clients of nonmembers were conducted. In all, 500 household interviews were conducted.<sup>4</sup>

Socioeconomic status among respondents was compared using the T-test for comparing two proportions. Statistical significance is reported for p-values less than 5 percent.

Logistic regression analysis was used to test for association between socioeconomic status and the choice of a KMET member provider. For the model, we construct dummy variables for socioeconomic status. The model also controls for urban/rural residence, age, parity, and education.

### **DETERMINATION OF SOCIOECONOMIC STATUS**

Socioeconomic status was determined for all client respondents using the assets and factor scores methodology applied to the 1998 Kenya DHS (Gwatkin 2000). Asset ownership was determined through client and household reporting. Table 2 gives summary statistics on ownership of assets among clients in the survey, community households in the survey, and the overall population from the Kenya DHS.<sup>5</sup> For each respondent, asset factor scores from the 1998 Kenya DHS were applied to the reported assets owned, and summed to provide a total asset score. Individuals were assigned to wealth quintiles using the cut-off points published by Gwatkin et al. (2000) based on the 1998 DHS. Wealth data were supplemented by client and household survey data regarding educational attainment.

---

<sup>3</sup> Twenty were replacements for providers not located, dead, or no longer associated with K-MET. One provider refused.

<sup>4</sup> Survey instruments were based on private provider instruments used in other settings by the authors, with an additional asset survey section designed to match the questions on the 1998 Kenya Demographic and Health Survey (DHS). Anonymity was guaranteed to all respondents, with provider names coded and the codes held by the researchers. Client and household respondent names were not requested. All respondents participated voluntarily. A small number of providers refused to participate, but the refusal rate for clients and household women was close to zero, partially attributable to the careful selection of interviewer for each area. In each region of Kenya interviewers were selected based on their match with the local predominant tribal groups. No incentives were offered to any group for participation.

Data entry was done electronically using a scanning system and software in the Steadman Research offices in Nairobi, with 15 percent human entry verification. Because the instrument formats were standardized, language confusion was irrelevant for scanning entry. Data coding and cleaning was initially done in Nairobi using FoxPro software. All data were electronically transferred to the University of California at Berkeley for further cleaning and analysis using statistical software STATA 7.

<sup>5</sup> Questions about livestock ownership were asked as well for matching to an earlier World Bank study, but these are not used here because they do not form part of the asset measures used by DHS.

**Table 2: Asset ownership statistics**

	<b>Clients of members</b>	<b>Clients of non-members</b>	<b>Household</b>	<b>Kenya average (DHS 1998)</b>
Has electricity	23.1%	31.6%	45.8%	11.7%
Has radio	36.6%	36.2%	93.8%	66.4%
Has bicycle	10.1%	11.6%	36.2%	28.3%
Has car	8.8%	10.9%	7.2%	5.0%
Has telephone	48.4%	42.8%	21.6%	2.7%
Piped water in residents	16.6%	24.6%	31.8%	19.5%
Piped water in public tap	29.5%	25.4%	40.4%	9.4%
Inside well drinking water	17.6%	18.1%	8.2%	8.0%
Public well	6.4%	9.4%	4.2%	12.7%
River or surface water	30.2%	22.4%	14.2%	42.5%
Own flush toilet	19.0%	20.3%	18.8%	6.6%
Shard flush toilet	6.4%	2.2%	3.2%	3.2%
Pit latrine	72.9%	77.5%	77.2%	67.6%
Bush, field as latrine	2.0%	0.7%	0.4%	15.9%
Roof, natural material	8.2%	11.8%	2.8%	29.6%
Roof, corrugated iron	80.0%	79.7%	89.6%	66.4%
Roof, ceramic tile	9.4%	5.4%	5.6%	2.9%
N	138	295	500	

## FINDINGS

### OVERALL SERVICE USE

Table 3 presents selected characteristics of the household respondents and clients according to provider. The clients of member providers are similar, in many demographic and health characteristics, to the clients of nonmember providers, and to the populations of the communities. This is not surprising since the client base for clients of both members and nonmembers is the same nearby community.<sup>6</sup>

---

<sup>6</sup> Household respondents were exclusively married women, whereas no marriage entry screen was used in client exit interviews. When limited to married respondents only, there is no statistical difference ( $p = 0.277$ ) in the percent of respondents at different locations who report current use of family planning. The married-women-only rates for member exit interviews, nonmember exit interviews, and households are 56 percent, 53 percent, and 57 percent, respectively.

**Table 3: Clients and household respondent characteristics**

Characteristics	Clients of non-members	Clients of members	Households
Age (years)	28.7	28.5	29.0
Visited site before today for family planning*	28%	41%	23%
Ever visited other site for family planning**	49%	34%	64%
Currently using family planning	45%	52%	57%
Currently using family planning (married respondents only)	56%	53%	57%
Believe abortion services are easily available	18%	21%	18%
Aware that current provider offers abortion services	7%	11%	Na
N	138	295	500

\*for households: ever visited reference K-MET site for family planning

\*\* for households: ever visited any non-KMET site for family planning

Regarding educational attainment, member providers and nonmember providers in rural areas both cater to slightly less educated populations than the communities surrounding them. In contrast, in urban areas both cater to slightly more educated populations than the communities surrounding them (Table 4).

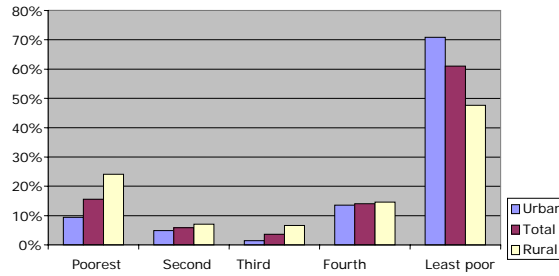
**Table 4: Educational attainment among clients and households**

	Clients non-member	Clients members - RURA	Household RURAL	Clients-non-member URBA	Clients members - URBA	Household URBA	RURAL average	URBAN average
No formal education	5	3	1	0	1	3	2	1
Some primary	18	27	26	7	3	13	26	10
Primary completed	51	41	37	30	32	32	41	31
Secondary completed	17	22	23	44	25	38	22	35
Technical/Vocational	9	6	12	14	33	13	9	18
University and beyond	0	0	0	6	5	2	0	4
N	66	179	212	72	116	288	1998DH	1998DH

Figure 1 shows all household respondents by national wealth quintile. Two features are noteworthy:

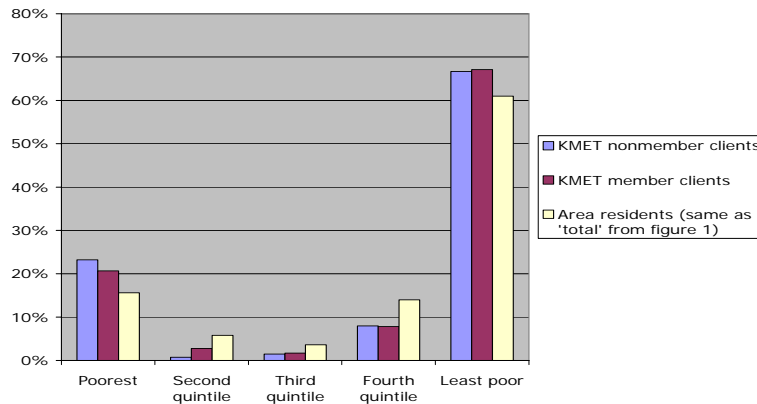
- First, the pattern of wealth in the areas where the KMET providers are located appears considerably more polarized than that of Kenya as a whole. Sixty-one percent of total respondents are in the highest quintile of the national population, 16 percent in the lowest quintile, and very few in the middle three quintiles.
- Second, unsurprisingly, the poorest quintile respondents are predominantly rural, and the richest quintile urban.

**Figure 1: Wealth of residents in areas where KMET members are located**



When the socioeconomic status of service users is examined, we see that clients of both KMET members and nonmembers have similar clientele wealth profiles. Clients of both groups are skewed toward low- and high-income quintiles, reflecting the household populations from which their respondents come (Figure 2). We found no statistically significant difference between proportions of poorest quintile clients going to members and nonmembers ( $p < .5$ ). In brief, nonmember and member providers in both urban and rural areas serve clients who are broadly reflective of the communities where they practice.

**Figure 2: Wealth of KMET members and nonmember clients**



## USE OF REPRODUCTIVE HEALTH SERVICES

Overall, the percentage of clients that reported visiting KMET for reproductive health<sup>7</sup> reasons does not differ significantly from the nonmember providers (39 percent, CI 33-44 vs. 32 percent, CI 24-40). While KMET members see a higher proportion of family planning and reproductive health (FP/RH) clients than nonmember providers, this difference is not statistically significant after adjusting for wealth ( $p < 0.25$ ).

<sup>7</sup> Includes: family planning, abortion, antenatal care, and STIs.

Table 5 presents results from the multiple logistic regression analysis of household respondents who have ever visited a provider for family planning or reproductive health services. It indicates that household respondents who have used KMET providers for FP/RH services were more likely to be rural (OR = 1.7;  $p < .03$ ) and less educated (OR for completing secondary school = 0.4,  $p < .00$ ) than FP/RH users who had sought services from non-KMET providers. On other aspects—wealth, age, parity—there is very little difference between household respondents who visit member providers and respondents who visit nonmember providers.

**Table 5: Odds ratios examining the association between household respondents ever having visited K-MET for FP/RH among respondents who have visited a provider for FP/RH**

<b>Dependent Variables*</b>	<b>Odds ratio</b>	<b>Robust S E</b>	<b>P&gt; z </b>
<b>Wealth (asset quintile)</b>			
Poorest	[Ref]		
2nd quintile	1.228	0.741	0.734
3rd quintile	0.734	0.555	0.683
4th quintile	2.055	0.972	0.128
Richest	1.988	0.770	0.076
<b>Residence</b>			
Urban	[Ref]		
Rural	1.714	0.427	0.030
<b>Age Group</b>			
< up to 24 years	[Ref]		
25 – 29	1.128	0.361	0.706
30 – 34	1.369	0.507	0.396
35 +	1.197	0.538	0.688
<b>Parity</b>			
< 2	[Ref]		
3 – 4	0.760	0.244	0.392
5 +	0.508	0.250	0.168
<b>Education</b>			
None/some primary	[Ref]		
Primary complete	0.543	0.213	0.120
Some secondary	0.684	0.263	0.323
secondary complete	0.415	0.149	0.014
Vocational	0.186	0.090	0.000
University	0.406	0.367	0.318
-2 Log Likelihood	216.300		
Number of observations	361		

\*Independent Variable: Report ever having visited K-MET provider for FP/RH services

## LIMITATIONS

This study suffers from a number of significant limitations. Most important, it uses cross-sectional data to examine SES correlation with the activities of an NGO. As such, only correlations can be concluded, and causality cannot be established. The measure of wealth—assets weighted according to eigen values calculated from national DHS data—is a measure of convenience, chosen to allow the broadest comparison of clients with national data. We use this in recognition of the limitations of this approach: asset ownership is not a true value of actual wealth or poverty, both of which are highly dependent upon income flows and consumption.

Definitions of “rural” and “urban” were used according to local political definitions, as was the case for the DHS, but the variation of rural areas in particular is much broader in national surveys than in the sample of sites. This stems naturally from the locations in which private medical practices are likely to exist: locales with sufficient population density and income level to provide clientele, biasing the sample sites towards a wealthier subset of rural populations than the national cross-section.

Clients and households were interviewed according to a set schedule, in our attempt to select a wide range of clients. However, it is possible that a different group of clients visits the clinics only in the evenings, when many of the targeted clinics are open, and these clients would have been excluded from our sample.

As with respondent reporting of income, some asset ownership variables were likely to have been altered due to response bias. Selection bias may have been a factor as well: 20 percent of our sampled providers had to be replaced. Fourteen providers could not be found, and clients of these providers may have had different characteristics from those of the other selected providers.

## IMPLICATIONS

In rural areas, the average clients of both KMET providers and nonmembers providers are somewhat poorer than the households in the nearby community. Both groups of providers serve a similar proportion of clients in the lowest socioeconomic status.

Because the KMET clients reflect an undifferentiated cross-section of SES from the catchment area in which the clinics are located, defined here by the households surveyed, the success or failure of the KMET network to continue reaching the poor is likely to be determined primarily by their ability to identify and enroll more providers in rural settings. Our findings indicate that KMET has succeeded so far in reaching rural clients, although we cannot draw a conclusion about whether this is due to provider differentiation or to program emphasis on rural placement.

Clients and households surveyed indicate large differences between rich and poor in the areas studied. The goal of KMET then, must be to focus on the poor end of this dichotomous client population. The recent shift in enrollment priorities to mid-level providers is an important first step in achieving this because few doctors practice outside of urban areas. Our research suggests

that this shift in focus should be accelerated and that the KMET organization should place increasing emphasis on rural towns.

Concern about a potential decrease in equity with a shift in focus from public to private sector health services may be mitigated by the design of this KMET network. If KMET continues to expand in rural areas using mid-level providers as planned, equity in access to care may be enhanced by increasing availability of services equivalent to those already available in cities and larger towns. Our research does not provide strong evidence that this is now occurring but does support the contention that this shift is likely.

Our central research question—does KMET benefit the poor?—was answered positively but weakly. From our analysis we can say that the KMET private provider program is “nondiscriminatory” with respect to the wealth of clients benefiting from improved access to FP/RH services, in the communities where the clients live. Thus, the poor benefit as part of overall gains equally shared across all wealth quintiles. There is no evidence of a pro-rich bias through use of private providers in this program, but there is evidence that further effort is necessary to target programmatic investments to the more needy and marginalized.

We take these results as an indication that empowering the private, for-profit health sector in rural settings may provide an opportunity for government to expand health care without the high infrastructure costs implied by direct governmental provision of care. This potential should continue to be evaluated and programs that work through private for-profit providers considered for integration into national health planning when their missions are aligned with public health goals.



## REFERENCES

- Gwatkin, D., Shea Rutstein, Kirsten Johnson, et al. (2000). *Socioeconomic Differences in Health, Nutrition, and Population in Kenya*: HNP/ Poverty Thematic Group of The World Bank.
- Hanson, K., and Berman, P. (1998). Private health care provision in developing countries: a preliminary analysis of levels and composition. *Health Policy Plan*, 13(3), 195-211.
- KDHS. (1999). *Kenya Facility Survey, Demographic and Health Survey*. Calverton, Maryland: Macro International Inc.
- Kenya Health Sector* (2003). World Market Resource Center. Retrieved May 28, 2003, from the World Wide Web: [www.wmrc.com](http://www.wmrc.com)
- Kumaranayake, L., Kurowski, C., Conteh, L., and Watts, C. (2003). *Thinking long-term: The costs of expanding and sustaining priority health interventions in low and middle-income countries*. (Paper Presentation). San Francisco: iHEA Bi-annual meeting.
- Mills, A., Brugha, R., Hanson, K., and McPake, B. (2002). What can be done about the private health sector in low-income countries? *Bull World Health Organ*, 80(4), 325-330.
- UNFPA. (2002). *Annual Report*: UNFPA.







HEALTH, NUTRITION,  
AND POPULATION



HUMAN DEVELOPMENT NETWORK

THE WORLD BANK

---

#### About this series...

This series is produced by the Health, Nutrition, and Population Family (HNP) of the World Bank's Human Development Network. The papers in this series aim to provide a vehicle for publishing preliminary and unpolished results on HNP topics to encourage discussion and debate. The findings, interpretations, and conclusions expressed in this paper are entirely those of the author(s) and should not be attributed in any manner to the World Bank, to its affiliated organizations or to members of its Board of Executive Directors or the countries they represent. Citation and the use of material presented in this series should take into account this provisional character. For free copies of papers in this series please contact the individual authors whose name appears on the paper.

Enquiries about the series and submissions should be made directly to the Managing Editor Rama Lakshminarayanan ([rlakshminarayanan@worldbank.org](mailto:rlakshminarayanan@worldbank.org)) or HNP Advisory Service ([healthpop@worldbank.org](mailto:healthpop@worldbank.org), tel 202 473-2256, fax 202 522-3234). For more information, see also [www.worldbank.org/hnppublications](http://www.worldbank.org/hnppublications).



**THE WORLD BANK**

1818 H Street, NW  
Washington, DC USA 20433  
Telephone: 202 473 1000  
Facsimile: 202 477 6391  
Internet: [www.worldbank.org](http://www.worldbank.org)  
E-mail: [feedback@worldbank.org](mailto:feedback@worldbank.org)