

Preferred Facilities for Family Planning and HIV Testing:

**Findings from
DHS Surveys in Eastern and
Southern Africa**

Authors:

Thomas Pullum, University of Texas

John Cleland, London School of Hygiene
and Tropical Medicine

Iqbal Shah, World Health Organization

Goal

To use existing survey data to infer whether users do or will go to the same facility for different kinds of services.

“Existing survey data”

Individual-level data from two Demographic and Health Surveys:

DHS survey of Kenya, 2003

DHS survey of Malawi, 2000 (the 2004 survey is not yet available)

“Users” and “Services”

- Women age 15-49 (data on men is available in DHS African surveys but is not included here)
- Source of family planning supplies
(will include women who are not current users)
- Place of last childbirth (within the past 5 years)
- Place for an AIDS test
(including women who have not had a test)

“Facility”

Will use the categories in the surveys for type or kind of facility:

- Public (hospital, clinic, etc.)
- Private medical (private hospital or clinic, mission or church hospital or clinic, etc.)
- Other private (shop, country-specific option, etc.)

Table 1. Distribution of source of family planning supplies for current users. Kenya 2003 DHS Survey.

Source of family planning supplies (v326)	Freq.	Percent
Government hospital	382	20.60
Government health center	320	17.26
Government dispensary	268	14.46
Mission, church hospital/clinic	110	5.93
FPAK health centre/clinic	59	3.18
Private hospital/clinic	459	24.76
Pharmacy/chemist	125	6.74
Nursing/maternity home	9	0.49
Mobile clinic	6	0.32
Community based distributors	21	1.13
Shop	65	3.51
Friend/relative	27	1.46
Other	2	0.11
Missing	1	0.05
Total	1,854	100.00

Table 2. Place of last childbirth. Kenya 2003 DHS Survey.

Place of childbirth	Freq.	Percent
Respondent's home	1,995	50.23
Other home	193	4.86
Govt. hospital	862	21.70
Govt. health center	185	4.66
Govt. dispensary	45	1.13
Other public	5	0.13
Private hosp/clinic	384	9.67
Mission Hospital/clinic	235	5.92
Nursing/maternity home	30	0.76
Other private medical	2	0.05
OTHER	31	0.78
Missing	5	0.13
Total	3,972	100.00

Table 3. Place for AIDS test. Kenya 2003 DHS Survey.

Place for AIDS test	Freq.	Percent
Government hospital	2,573	49.95
Government health center	699	13.57
Government dispensary	191	3.71
Other public	6	0.12
Mission church/hospital	440	8.54
FPAK	23	0.45
Private hospital/clinic	513	9.96
VCT centre	638	12.39
Nursing/maternity home	13	0.25
Blood transfusion service	5	0.10
Other	40	0.78
Missing	10	0.19
Total	5,151	100.00

Modify the data

- Combine small categories, mostly into “Other private medical” and “Other private”
- Add in non-current users of family planning (many of whom are past users or plan to use in the future)

Place of AIDS test already includes women who have not actually had a test

Table 4. Frequency distribution of type of facility by type of service. Kenya 2003 DHS Survey.

Type of Facility	Type of Service		
	FP Supply	Childbirth	AIDS test
Government hospital	1,144	862	2,573
Government health center	1,042	185	699
Government dispensary/Other public	722	50	197
Mission, church hospital/clinic	238	235	440
Other private medical	1,061	416	1,187
Home	NA	2,188	NA
Other private	202	31	45
Total	4,409	3,967	5,141

Now look at PAIRS of services obtained at the same facility or type of facility

- Source of family planning supplies AND place of childbirth
- Source of family planning supplies AND place for an AIDS test
- Place of childbirth AND place for an AIDS test

Compare the observed number of women with the number expected under independence

- Ratios—observed number of women using the same type of facility for two services, divided by the expected number of women
- Kappa—overall measure of the excess of observed numbers, relative to expected:

kappa=0 if observed=expected for all facilities

kappa=1 if ALL women use the same facility for both services

Table 5. Type of facility named both as source of family planning supplies and place of childbirth. $\kappa=0.2591$. Kenya 2003 DHS Survey.

Type of Facility	Frequencies		
	Observed	Expected	Ratio
Government hospital	242	158.2	1.53
Government health center	78	28.2	2.77
Government dispensary/Other public	21	4.0	5.25
Mission, church hospital/clinic	29	6.2	4.68
Other private medical	154	85.3	1.81
Other private	0	0.5	--
Total	524		

Table 6. Type of facility named both as source of family planning supplies and place for AIDS test. kappa=0.2693.

Kenya 2003 DHS Survey.

Type of Facility	Frequencies		Ratio
	Observed	Expected	
Government hospital	660	425.1	1.55
Government health center	260	107.7	2.41
Government dispensary/Other public	74	18.9	3.92
Mission, church hospital/clinic	72	13.9	5.18
Other private medical	363	197.0	1.84
Other private	2	1.1	--
Total	1,431		

Table 7. Type of facility named both as place of childbirth and place for an AIDS test. $\kappa=0.2933$.

Kenya 2003 DHS Survey.

Type of Facility	Frequencies		Ratio
	Observed	Expected	
Government hospital	420	320.2	1.31
Government health center	58	19.9	2.91
Government dispensary/Other public	5	1.2	--
Mission, church hospital/clinic	73	19.8	3.69
Other private medical	150	72.6	2.07
Other private	0	0.1	--
Total	706		

We observe a high level of
correspondence in Kenya

FP supplies and childbirth: kappa=.26

FP supplies and AIDS test: kappa=.27

Childbirth and AIDS test: kappa=.29

High level of correspondence in Malawi too (details not given here)

FP supplies and childbirth: kappa=.38
(stronger association than in Kenya)

FP supplies and AIDS test: kappa=.21
(weaker association than in Kenya)

Childbirth and AIDS test: kappa=.22
(weaker association than in Kenya)

PART of this association is spurious!

- For many users, one facility (or very few) dominates the local service environment.
- Options are usually limited
- Doubling up then indicates a necessity, rather than a preference

We can control statistically for the local service environment

- DHS surveys are always multi-stage. The primary sampling units are clusters, which correspond to neighborhoods, villages or towns and represent a local context
- The Kenya 2003 survey has 400 clusters
- The Malawi 2000 survey has 559 clusters
- We can calculate a partial or adjusted kappa, a pooling of the within-cluster kappas

More than half of the doubling-up of services appears to be due to limited choices within clusters

- In Kenya, the correspondence drops by about 50% to 60% if the limitations of the local environment are taken into account.
- In Malawi, the correspondence drops even more, by about 60% to 70%.

Conclusions— limited to these surveys

- More women than expected (under a model of statistical independence) do, or would, use the same facility for two services.
- At least half of this correspondence is probably the result of limited local choices.
- Nevertheless, even after adjustment, there is a significant correspondence.

Conclusions (continued)

- In Kenya, the three pairwise comparisons are very similar before adjustment (.26 to .29) and they remain similar after adjustment (.11 to .14).
- In Malawi, there is more affinity between FP and childbirth (.38) than between AIDS testing and the other two services (.21 to .22).
- In Malawi, after adjustment, the adjusted correspondence is almost the same as in Kenya (.13) but only a small correspondence remains between AIDS testing and the other two services (.06 to .07).

Conclusions (continued)

In assessing the acceptability of, or preference for, the integration of services, from the user's perspective, it is important

- to disaggregate the data down to the local service environment and

- to anticipate differences between countries (and probably other subgroups) when combining AIDS-related services with other kinds of services