ORIGINAL ARTICLE

The quantitative and qualitative contributions of faith-based organizations to healthcare: The Kenya case

Alfredo L. Fort[a]

[a] MD, PhD, former Senior Monitoring and Evaluation Adviser with IMA World Health, currently with UNFPA Population and Development Branch

Abstract

Although faith based organizations (FBOs) have had a long presence teaching health personnel and delivering health services to many rural and remote populations in the developing world, their poor visibility for this work can be due to several factors. FBOs may keep a low profile, be confused with non-religious non-governmental organizations (NGOs), or be excluded from surveys because respondents may not know the affiliation of the healthcare facility from which they last received services. It has been argued that their large networks, logistics agreements with governments, and mission-driven stance bring them closer to the communities they serve and that their services have been a higher quality than average.

Kenya has had a long history of established FBOs but there has also been substantial recent health investment by the government. We aimed to find the quantitative and qualitative contributions of FBOs by analyzing two recent data sources: the live web-based nationwide Master Health Facility List and the 2010 nationwide Service Provision Assessment (SPA) survey. Using this information, we found that FBOs contribute to 11% of all health facilities' presence in the country, doubling to 23% of all available beds, indicating their relative strength in owning mid-level hospitals around the country.

We also constructed an index of "readiness" as a weighted average from services offered, good management practices, and availability of medicines and commodities for 17 items assessed during the SPA survey. We found that FBOs topped the list of managing authorities, with 69 percent of their health facilities achieving such readiness, followed closely by the government at 68 percent, NGOs at 60 percent and lastly a distant private for-profit sector at 51 percent.

These results seem to confirm that FBOs continue to contribute to an important proportion of health care coverage in Kenya and do so with a relatively high quality of care among all actors.

It would be of interest to replicate this analysis with similar databases for other countries in the developing world.

Key Message: Health facility-based government inventory list and nationwide survey in Kenya reveal high hospital faith based organizations' presence, wide range of service delivery, and better management practices and support mechanisms than public, NGO, and private sectors.

Introduction

As part of a current trend and initiatives advocating for the strengthening of health systems in the developing world, there is increasing interest in assessing the contribution of non-governmental sectors such as the private sector in the provision of health care.[1,2] In this trend, several publications have tried to estimate the contribution of faith based organizations (FBOs) to health service delivery in the developing world. For example, claims have surfaced in the last decade or so that "between 30% and 70% of the health infrastructure in Africa is currently owned by faith-based organizations . . . ,"[3] up to 50% of the market share on beds and health facilities are related to FBOs,[4] or they contribute to healthcare between 12% and 50% among ten assessed African Christian Health Association Member countries.[5]

Kagawa *et al*. conducted a systematic review of literature and meta-analysis of population-based surveys to arrive at some credible figures.[6] From an initial 3,645 sources, the authors could only utilize three studies plus nine references from personal contacts. An additional 47 DHS datasets were identified for meta-analysis. They found a range from 4.1 (Angola) to 44 percent (Rwanda) FBO contribution to healthcare with hospital shares being higher than other indicators. Another indicator is hospitalizations, for which they found a 36 percent contribution by FBOs in Benin. A couple of recent publications make a lengthy review of the inaccuracies of and difficulties with different estimates (e.g., from inventories of facilities, published routine data on health information systems, household and facility surveys, or from international agencies' reports) of the market share, facilities, beds, or simply "healthcare" of faith-inspired institutions compared to the universe.[7,8] Estimates of FBO contribution can be difficult due to the complexities of definitions, identification, politics, and modalities of healthcare beyond health infrastructure. They also find, through household surveys, that FBOs may contribute lower market shares than often believed, but find higher user satisfaction levels than with public facilities. Invariably, they note the large evidence gap and urge for the need to study further the quality, efficiency, and sustainability of their efforts.

Another study looked at the issue of relative contributions by using data on revenue and expenditure by different types of organizations through USAID's annual Report of Voluntary Agencies (VolAg). They found that between 1990 and 2013, FBOs (96% of which were US-based) made up 26-33% of all 1,369 private voluntary organizations (PVOs)/non-governmental organizations (NGOs), and their spending for development assistance in health (DAH) was, on average, 31% of all expenditure. The Global Fund has continuously increased its funding to FBOs from 2003 to 2011, reaching $80.9 million or 17% of all its disbursements to NGOs. For The Gates Foundation, this figure was a small but steady 1%. The study also found that the majority of the funds registered in the report were allocated for work in Latin America, and the Caribbean (LAC), and in Sub Saharan Africa (SSA).[9]

Although FBOs have been recognized for making substantial contributions to local health systems in low income countries through teaching, setting up clinics, and distributing medicines in remote areas among the most vulnerable people, there are a number of reasons why estimating their unique contribution is challenging:

- FBOs are often lumped together with the "private" or non-governmental sector, making the distinction impossible.
- Measures of their contribution varies by whether the variable is infrastructure (health facilities, hospitals), hospital beds (or hospital-

ization), healthcare provided, community programs or initiatives, or training/education of health personnel. Particularly, in this last category, there is no or little information about the education infrastructure (e.g., nursing schools) and numbers of health care students (e.g., nurses) trained by FBOs.

- Population-based data using clients recalling services used for maternal (e.g., child-birth) or child care (e.g., diarrhea treatment) may underestimate values from clients not knowing the name of facilities or not being able to identify a facility as being faith-based.

To these difficulties in assessing the quantitative contribution to health, one might add the even more daunting task of estimating the range and nature of services offered. It is said that FBOs work in more rural and remote areas, often complementing services not provided by the public sector.[8] They engage in sometimes difficult public health topics, such as HIV/Aids, neglected tropical diseases (NTDs), gender-based violence, outbreaks such as Ebola,[10] and other services such as reproductive health and family planning.[11]

Finally, there is ample speculation about its qualitative contribution. It is often stated that FBO staff are motivated by a mission, beliefs, and values that make them offer their services in a more holistic and humane way, hence increasing their quality, or that their services elicit an inherent trust by communities. They are also regarded as having increased capacity to purchase medicines at a discounted price and store and distribute them to remote locations. Finally, it is thought that they have a flexibility to try new methods and strategies and are able to more effectively influence health behaviors.[8,12] These are claims even more difficult to confirm.

Kenya, a relatively large country in East Africa, has had a long history of established FBOs assisting the national government in providing health care in remote areas. However, with the advent of health reform, devolution, and decentralization in recent years, international donors and the Kenyan government through its counties has reorganized and invested heavily in health, particularly on human resources and infrastructure, including remote and rural areas of the country.[13,14,15] These new investments by the government have brought renewed interest to the question of the current status of the FBO contribution to the country's healthcare. The fact that the country has a combination of independently run surveys, in addition to relatively well established national information systems, allowed us to review these data sources to answer the questions of the quantitative and qualitative contribution of FBOs in Kenya.

Materials and Methods

In this analysis, we used two main sources of data. For the quantitative analysis, we reviewed the Kenya Master Health Facility List (KMHFL), a live inventory of nearly ten thousand registered health facilities throughout the country publicly available online.[16]

For the qualitative portion, we used data from the Kenya Service Provision Assessment (KSPA) surveys, part of the internationally recognized Demographic and Health Surveys (DHS), a USAID-funded program. This nationwide facility survey conducted in 2010 looked into the availability of services and commodities and equipment at a range of facilities for the four main sectors or "managing authorities": the government, the private for profit, the non-governmental organization (NGO), and the FBO sectors.[17]

The KMHFL and KSPA were used to estimate the total number and proportion of registered health facilities by ownership/managing authority in order to calculate the fraction belonging to FBOs.

The KSPA was used to construct a composite variable representing the availability of services and their corresponding commodities and supplies, plus use of best practices for good management of facilities and human resources for health. We

constructed a weighted average of the percentage of facilities with readiness on 17 items (some comprised of weighted sub-items) assessed as whether the facilities offered certain common maternal, child, and infectious health services; whether they had the necessary equipment, medicines, diagnostic tests, or support for the services offered; and whether they employed common management practices such as good storage for commodities, equipment maintenance, and regular supervision of health workers. The specific breakdown of items assessed at each facility was whether it:

- Offered all basic services: Antenatal Care, Family Planning, Child Health, Growth monitoring, Immunization, and Sexually Transmitted Infections
- Had minimum client comfort amenities: latrine or bathroom, protected waiting area, general cleanliness (floors swept, no dirt/waste; clean counters, tables, and chairs; no broken equipment, papers, boxes lying around in clutter/dirtiness)
- Had supportive management practices: external supervision at least once every 6 months; routine training (at least half of providers received structured training in last 12 months); and personal supervision
- Had a mechanism for obtaining community input on services (through community representation at management meetings or a system for eliciting and receiving client opinion)
- Carried out preventive maintenance for major equipment (e.g., generator, sterilizer, electric autoclave, X-ray machines, ultrasound equipment, CT scans)
- Had good storage conditions: items stored in a well ventilated and dry location, off the ground, and protected from water, sun, pests, and rodents; the weighted average of storage conditions were assessed separately for each of three types of commodities: contraceptive methods, medicines in general, and ARVs
- Had equipment for quality sterilization or high-level disinfection (HLD)
- Had all items for infection control in any assessed service delivery areas: soap and running water (or hand disinfectant), sharps box, disinfectant, and latex gloves
- Had first-line medicines for child health services: ORS, antimalarials, plus at least one oral antibiotic
- Offered (provided, prescribed, or counseled clients on) any modern method of family planning: contraceptive pills (combined or progestin-only), injectables (combined or progestin-only), implants, intrauterine contraceptive devices (IUCDs), male condoms, and female condoms
- Offered antenatal care (ANC), postnatal care (PNC), and tetanus toxoid (TT) vaccination
- Had capacity for conducting basic tests for pregnancy - average for 5 tests: anemia (hemoglobinometer, calorimeter, centrifuge with capillary tubes, or filter paper methods); urine protein (dip sticks for urine protein or acetic acid for urine albumin and flame for heating acetic acid); urine glucose (dip sticks, Benedict's solution with stove for boiling the solution); blood grouping (Anti-A, anti-B, anti-AB, and anti-D reagents, an incubator, Coomb's reagent, and glass slides); and syphilis (venereal disease research laboratory-VDRL, polymerase chain reaction-PCR with functioning rotator/shaker, or rapid plasma regain-RPR)
- Had transportation support for maternity emergencies (an ambulance or provision of transportation to a referral site)
- Offered primary sexually transmitted infections (STI) services (counseling, testing, diagnosis, or treatment)
- Offered any tuberculosis (TB) diagnostic, treatment and/or follow-up services
- Had capacity to offer malaria diagnosis (blood smear) plus first-line medicines in the facility: average of the two
- Had an HIV testing system plus ART and medical follow-up: average of the three

(See details of indicators and their values in Annex 1)

Results

Quantitative contribution to health care

The 2010 KSPA report, Table 2.1 (page 18) reported on the number of health facilities at the time and broke them down by ownership. In this table, faith-based facilities amount to 834 out of 6,691 facilities registered in the system, making up 12% of all facilities (replicated as Table 1, below). This share is similarly reflected in the weighted number of facilities that the sample used for the survey, compared to the total. The number, 89, out of a total of 695 sampled, represents 12.8 percent of all facilities.

Table 1. Health facilities in Kenya by type and ownership

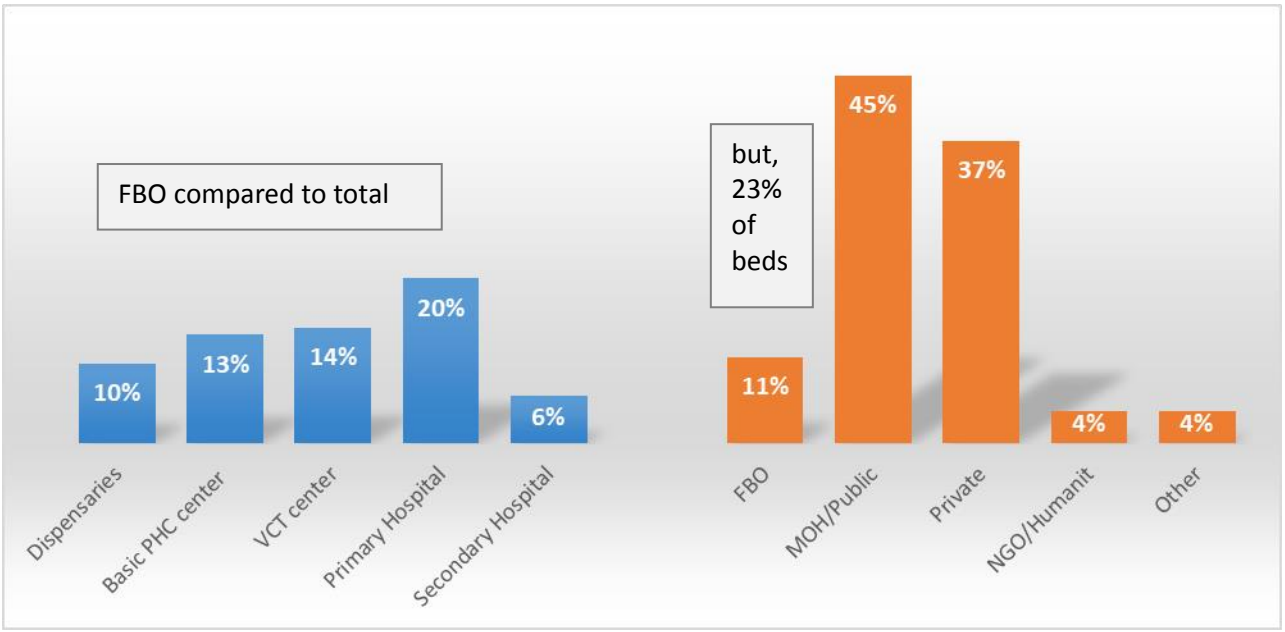
Type of service	MOH, Public	Private For profit	Private Not for profit	Faith-based	Total
All hospitals	261	53	64	75	453
Health centers (level 3)	473	21	88	139	721
Nursing homes (level 3)	3	89	54	9	155
Dispensaries (level 2)	2,393	74	380	509	3,356
Clinics (level 2)	20	1,126	693	102	1,941
Laboratory—stand-alone	-	52	2	-	54
Dental clinics	-	10	1	-	11
Total	3,150	1,425	1,282	**834**	6,691
Percentage	47%	21%	19%	**12%**	100%

Source: Ministry of Medical Services and Ministry of Public Health and Sanitation, 2010

A more direct way of determining the number of facilities and their characteristics is by using the KMFL accessed via internet.[16] The database provides an up-to-date number of facilities in the system registered in the country (in the first search of October 2016, 9,493 facilities). Among faith-based providers, the category of "ownership" is sub-divided into "Christian Health Association of Kenya-CHAK," "Kenya Episcopal Conference-Catholic Secretariat," "Supreme Council for Kenya Muslims," and "Other Faith Based". The database reported 924 health facilities categorized under these four sub-categories, representing 11% of all registered facilities.

However, the proportions vary by type of facility; FBOs are only 10% of all dispensaries but rise to 20% of all primary hospitals, signaling that this is the most common type established in the country. Another category is "level" of care (i.e., level 2 being the lowest and level 6 the highest). FBO facilities comprise 10% of level 2 care, but rise to 13% at level 3 and 14% at level 4. At levels 5 and 6 the vast majority of facilities (82%) are of Ministry of Health (MOH) or public, while FBOs contribute only 5% of these facilities. Again, one can see the relatively high distribution of hospitals with FBOs, reflected in the participation of beds where FBOs comprise nearly one-fourth (23%) of all beds in the list. See Figure 1 for a full picture of these representations.

Figure 1 Relative Size of FBOs by Institution and Facility Type – Kenya 2016 Master Facility List



Notes: PHC:Primary Health Care; VCT: Voluntary Counseling and Testing for HIV. N = 9,493 Facilities

Still using the KMFL, we broke down the facilities by their presence in urban and rural areas. It is interesting to note that FBOs maintain the same proportion of their share of facilities (11%) in mostly urban counties as in rural ones. For this analysis, we have examined seven counties comprised of mostly urban populations (i.e., having at least 200,000 people): Kiambu (Ruiru-Kikuyu), Kisumu, Mombasa, Nairobi, Nakuru, Nyeri, and Uasin Gishu (Eldoret). In urban areas, the private sector has the highest share of facilities (53%), which reduces to only 29% of all facilities in the rural area. The MOH/public sector, has an inverse distribution, owning 29% of facilities in urban counties but over half (57%) of facilities among the rural counties (see Table 2). In this sense, the public sector's presence closely resembles the distribution of the urban population in the country, which is estimated by the World Bank at 26%.[18]

Table 2. Contribution of health facilities by main owner (Managing Authority), by main urban areas and all rural areas

County/Area	Kiambu (for Ruiru / Kikuyu)		Kisumu		Mombasa		Nairobi		Nakuru		Nyeri	
Authority	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
MOH, Public	100	24%	114	56%	44	17%	124	16%	128	36%	94	32%
Private for Profit	248	59%	52	26%	179	71%	441	58%	162	46%	159	54%
FBO	58	**14%**	**17**	**8%**	13	**5%**	79	**10%**	47	**13%**	29	**10%**
NGO	8	2%	15	7%	9	4%	95	13%	14	4%	5	2%
Others	4	1%	4	2%	7	3%	19	3%	2	1%	9	3%
Total	**418**	**100%**	**202**	**100%**	**252**	**100%**	**758**	**100%**	**353**	**100%**	**296**	**100%**

Table 2. (continued) Contribution of health facilities by main owner (Managing Authority), by main urban areas and all rural areas

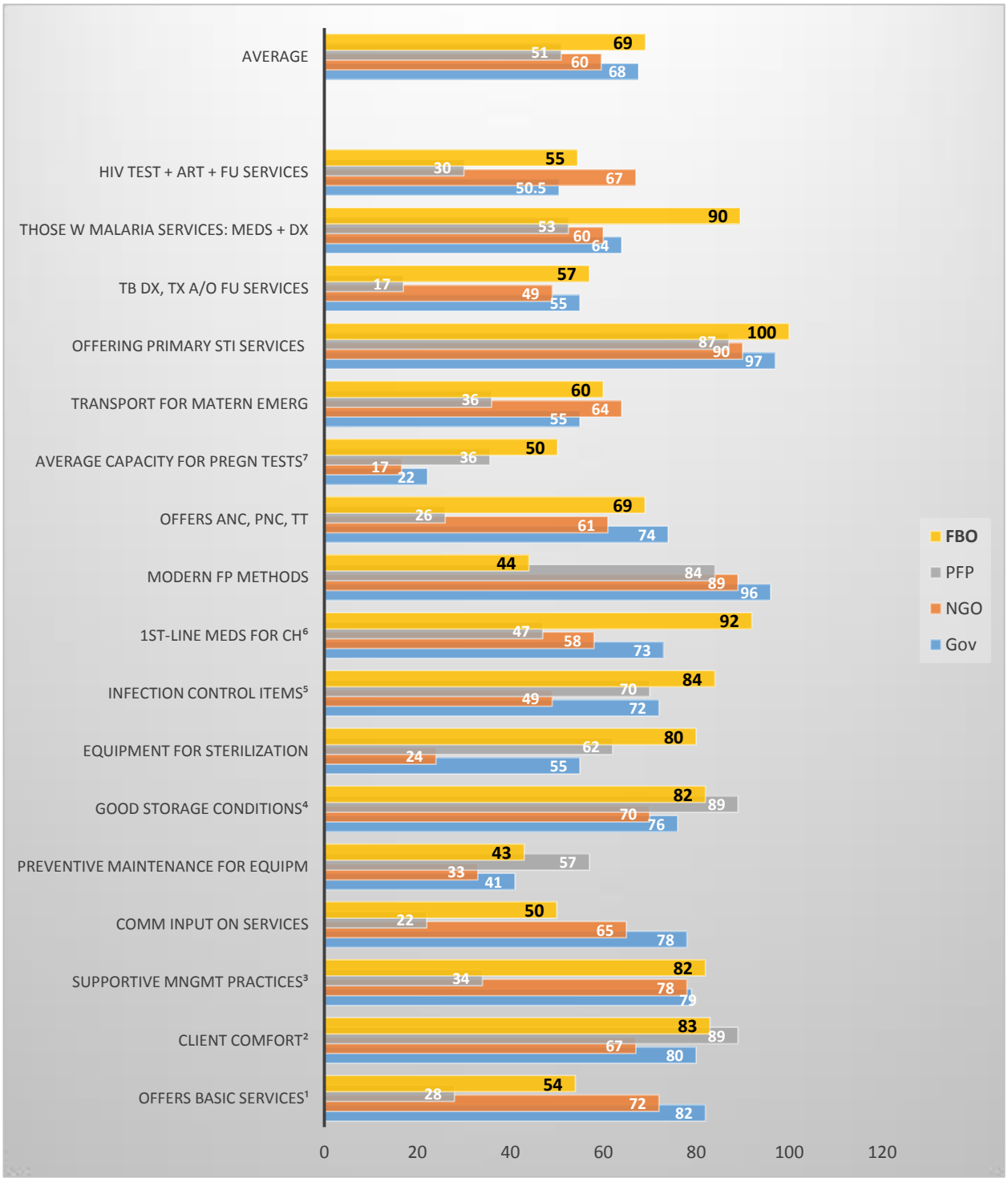
County/Area	Uasin Gishu (Eldoret)		Total 6 Urban areas		Urban over Total	Rural		Grand Total	
Authority	**N**	**%**	**N**	**%**	**%**	**N**	**%**	**N**	**%**
MOH, Public	90	63%	694	**29%**	16%	3,591	**57%**	4,285	**49%**
Private for Profit	35	24%	1,276	**53%**	41%	1,831	29%	3,107	36%
FBO	17	**12%**	260	**11%**	**28%**	664	**11%**	**924**	**11%**
NGO	2	1%	148	**6%**	53%	132	2%	280	3%
Others	0	0%	45	**2%**	59%	31	0%	76	1%
Total	**144**	**100%**	**2,423**	**100%**	**28%**	**6,249**	**100%**	**8,672**	**100%**

Source: Kenya Master Health Facility List. Data accessed 17 April 2017

Qualitative contribution to health care

Results with the composite variable showing the readiness of facilities from different institutions to offer key services are quite striking. The overall weighted average for FBOs is 69 percent (of health facilities with all assessed services and practices) compared to 68 percent for the government, 60 percent for NGOs and only 51 percent of the private for-profit sector. See Figure 2.

Figure 2. Facilities' readiness for quality health care services, by four main managing authorities (%) Kenya SPA 2010



Note: superscripts refer to references detailed in Annex 1.

When we examine management specific practices (items 2 and 3-8), FBOs have the highest weighted average at 72 percent compared to 69 percent for government (See Annex 1 for data). The offer of services with medicines and tests (items 1 and 9-17) comes out at a slightly lower level of 67

percent for FBOs, same to that of the government (See Annex 1 for data). The private for-profit sector scores particularly low on offer of services, at only 44 percent.

Discussion

Although there have been several claims of a high contribution of faith based organizations to the amount of healthcare provided in a country, with some estimates up to 50 percent, our findings suggest that the FBO contribution is more conservative, at least for Kenya. As reviewed, public investment by the government increasing steadily over time, especially in rural and remote areas that once were the predominant domain of FBOs, may have reduced this influence in current periods.

Still, there is debate on whether some of this imprecision is due to peculiar situations occurring both at the supply and demand side of the equation. On the supply side, some assessments may incorrectly assign FBO facilities or services to a broader "private" sector.[8] It is also said that FBOs may provide services that are not counted as "facilities" or not registered in the formal system of health care, such as with the free or subsidized distribution of medicines through community networks or remote warehouses.[7,8]

The situation of the contribution of personnel by sector makes this task more complicated. Known are the examples of religious personnel—either on voluntary basis or remunerated—working at public facilities or the community, as extension workers. Conversely, through memoranda of understanding (MOU) many state-funded staff are assigned to FBO institutions, and it is unclear in which sector their participation is counted.

On the demand side, there are multiple opportunities where FBOs may not be acknowledged, such as when mothers in a survey are asked for the name or characteristic of the facility or service they last attended and they are not able to identify or recognize it as a faith organization. Additionally, FBOs may be working on areas of demand generation, behavior change, or health education at the community level that may not be counted as healthcare participation. This may include advocacy for health care utilization by religious ministers at individual or mass opportunities (e.g., pulpit) and events. Some of this extended reach versus its recognition has been addressed at a recent consultation between PEPFAR and FBOs on the provision of HIV/Aids services.[19]

For Kenya, analyses using the web-based Kenya Master Facility Listing (KMFL) and the 2010 Kenya Service Provision Assessment (KSPA) nationwide facility survey indicate that FBOs contribute between 11 and 12 percent of all facilities registered in the country. However, because FBOs contribute relatively more with intermediate-level hospitals, their contribution rises to 23 percent of all available beds in the country.

Qualitatively, an index constructed from 17 separate items representing provision of maternal and child health services and good management practices reveals that, except for the provision of modern FP methods, the FBO sector consistently had similar or better capacity than the government or other sectors. Overall, FBOs contribute the highest levels of care, at 69 percent, closely followed by government facilities at 68 percent. What is surprising is to find that the private for-profit sector, except for physical characteristics such as having client amenities or equipment and its maintenance in facilities, scores low on management practices and does not offer a wide range of services. Overall, they offer the lowest contribution to the index, with only 51 percent of their facilities fulfilling all requirements. These results seem to indicate that in Kenya, FBOs not only contribute to a sizable proportion of the total healthcare of the country, but their facilities operate at very high levels of capacity, comparable or higher to that of the national government, and certainly at much higher levels than that of the private sector. We believe this new finding adds to our knowledge base and opens up prospects for

additional research on the contribution of FBOs to healthcare, especially in the developing world. It would be of great interest to ascertain whether these findings can be replicated in other countries in the world that possess similar databases.

Limitations

There are a number of potential limitations to these analyses. The first one comes from the use of the KMFL. This is a government-hosted website that displays all health facilities registered in the country. Among the categories of classification is "Facility Owner," which breaks into 26 sub-categories. We used sub-categories representing faith based organizations, comparing them to others representing different sectors. Obviously, if there were misclassification (e.g., FBOs registered as "Public," "Private," or "Non-Governmental Organizations") this could affect estimates. Additionally, there may well be a number of FBO facilities, especially of smaller size or located in hard to reach areas that may not be registered in the list. Being a "live" website, numbers can change depending on revisions, through updating or correcting entries. This is reflected in differing totals found when accessing the site at different times. For example, when accessed 10/17/2016, the site gave a total of 9,493 facilities, while when accessed six months later, on 4/17/2017, the site reported only 8,672 facilities, an inexplicable 9 percent drop.

Other limitations may arise from problems inherent to the conduct of a national survey, such as the quality and completeness of observations and registries on items used for the analysis. However, these are standard surveys done by a reputed agency, and the consistency of their methods likely produced low levels of bias and errors.

References

1. World Health Organization (WHO). Everybody's Business: Strengthening Health Systems to Improve Health Outcomes, WHO's Framework for Action. Geneva: WHO. 2007. 45 p. Available from: http://www.who.int/healthsystems/strategy/everybodys_business.pdf.
2. United States Agency for International Development (USAID). USAID's Vision for Health Systems Strengthening 2015-2019. Washington, DC: USAID. 2015. 28 p. Available from: https://www.usaid.gov/sites/default/files/documents/1864/HSS-Vision.pdf.
3. The African Religious Health Assets Program (ARHAP). Appreciating assets: The Contribution of Religion to Universal Access in Africa. Mapping, understanding, translating and engaging religious health assets in Zambia and Lesotho. Report for the World Health Organization. Cape Town. October 2006. Available from: http://www.povertystudies.org/TeachingPages/EDS_PDFs4WEB/ARHAP-2006WHO%20Report.pdf.
4. Olivier J, Wodon Q, editors. The role of faith-inspired health care providers in Sub-Saharan Africa and public-private partnerships: Strengthening the evidence for faith-inspired health engagement in Africa. Volume 1 of 3. Health, Nutrition and Population (HNP) Discussion Paper. The World Bank. November 2012. Available from: http://documents.worldbank.org/curated/en/851911468203673017/pdf/762230v10WP0Fa0Box374365B000PUBLIC0.pdf.
5. Cited as anAssessment among 10 African Christian Health Association members. ACHAP. 2012 (see Citation [12]).
6. Kagawa RS, Anglemyer A, Montagu D. The Scale of Faith Based Organization Participation in Health Service Delivery in Developing Countries: Systemic Review and Meta-Analysis. PLOS ONE. 2012. *7*(11), 1-8. https://dx.doi:10.1371/journal.pone.0048457.
7. Olivier J, Wodon Q. Playing broken telephone: assessing faith-inspired health care provision in Africa. In: Rakodi EC, editor. Religion, Religious Organisations and Development: Scrutinising Religious Perceptions and Organisations. New York: Routledge. 2014. pp. 198-213.
8. Olivier J, Tsimpo C, Gemignani R, Shojo M, Coulombe H, Dimmock F, et al. Understanding the roles of faith-based health-care providers in Africa: review of the evidence with a focus on magnitude, reach, cost, and satisfaction. Lancet. 2015, 386:

1765-75. https://dx.doi.org/10.1016/S0140-6736(15)60251-3.
9. Haakenstad A J E. Estimating the Development Assistance for Health Provided to Faith-Based Organizations, 1990-2013. PLOS ONE. 2015. Pp. 1-16. https://dx.doi:10.1371/journal.pone.0128389.
10. IMA World Health. Faith-Based Organization Engagement [cited 2017 April 22]:[about 1 p.]. Available from: https://imaworldhealth.org/faith-based-organization-fbo-engagement/.
11. Barot S, editor. A Common Cause: Faith-Based Organizations and Promoting Access to Family Planning in the Developing World. Alan Guttmacher Institute – Policy Review [cited 2013 December 10]:[9 p.]. Available from https://www.guttmacher.org/gpr/2013/12/common-cause-faith-based-organizations-and-promoting-access-family-planning-developing.
12. Santos R. The Contribution of Indigenous Faith Based Organizations to African National Health Systems. Washington, Distric of Columbia, USA: (PowerPoint)[cited 2014 October 27]:[17 slides]. Available from https://www.capacityplus.org/files/resources/contribution-indigenous-faith-based-organizations.pdf.
13. Williamson T, Mulaki A. Devolution of Kenya's Health System: The Role of HPP. Brief. Policy[cited 2015 January]:[8 p.]. Available from: https://www.healthpolicyproject.com/pubs/719_KenyaDevolutionBrief.pdf.
14. Oxford Business Group. Kenyan government and private sector roll out plans to reform education sector. 4 p. Available from: https://www.oxfordbusinessgroup.com/overview/strengthening-health-government-and-private-sector-are-rolling-out-new-plans-offer-much-needed.
15. The Star. Kenya: What's the State of Health Under Counties? [cited September 9, 2015]:[about 3 p.]. Available from All Africa: http://allafrica.com/stories/201509090908.html.
16. Government of Kenya. Kenya Master Health Facility List. Available from: http://kmhfl.health.go.ke/#/facility_filter/results?owner=4560545a-67c7-4b2b-87be-b0babee4cb83. (Accessed October 17, 2016, and April 13, 2017).
17. National Coordinating Agency for Population and Development (NCAPD) [Kenya], Ministry of Medical Services (MOMS) [Kenya], Ministry of Public Health and Sanitation (MOPHS) [Kenya], Kenya National Bureau of Statistics (KNBS), ICF Macro. Kenya Service Provision Assessment Survey 2010. Nairobi: NCAPD, MOMS, MOPHS, KNBS, ICF Macro. 2010. Available from: https://dhsprogram.com/pubs/pdf/SPA17/SPA17.pdf.
18. Trading Economics. Urban population (%) in Kenya. Available from: http://www.tradingeconomics.com/kenya/urban-population-percent-of-total-wb-data.html
19. Building on Firm Foundations: The 2015 Consultation on Strengthening Partnerships Between Faith-based Organizations and PEPFAR to Build Capacity for Sustained Responses to HIV/AIDS. US President's Emergency Plan for AIDS Relief; Interfaith Health Program, Emory University, and Interfaith Program on HIV and Social Justice, St. Paul's University. 2015. 54 p. Available from https://www.pepfar.gov/documents/organization/247613.pdf.

Peer Reviewed Competing Interests: None declared.

Acknowledgments: The author wishes to acknowledge the support from senior management and officers at IMA World Health and for their encouragement to pursue this investigation.

Correspondence: Dr. Alfredo L. Fort, UNFPA, New York, USA fort@unfpa.org

Cite this article as: Fort AL. The quantitative and qualitative contributions of faith-based organizations to healthcare: The Kenya case. Christian Journal for Global Health. Nov 2017; 4(3):60-71. https://doi.org/10.15566/cjgh.v4i3.191

Annex 1

Facilities' readiness for quality health care services, by four main managing authorities (%) Kenya SPA 2010

#	Item assessed / Institution	Government	FBO	NGO	Private for Profit	Total
1	Offers all basic services[1]	82	54	72	28	59
2	Has client comfort amenities[2]	80	83	67	89	80
3	Supportive management practices[3]	79	82	78	34	68
4	Community input on services	78	50	65	22	54
5	Preventive maintenance for equipment	41	43	33	57	44
6	Good storage conditions[4] (weighted average)	76	82	70	89	79
7	Equipment for sterilization functioning	55	80	24	62	55
8	All infection control items[5]	72	84	49	70	69
9	First-line medicines for children[6]	73	92	58	47	68
10	Modern family planning methods	96	44	89	84	78
11	Offers antenatal care, postnatal care, tetanus toxoid	74	69	61	26	58
12	Has average capacity for pregnancy tests[7]	22	50	17	36	31
13	Transportation for maternity emergencies	55	60	64	36	54
14	Offers sexually transmitted infections (STI) services	97	100	90	87	94
15	Offers tuberculosis diagnostic, treatment and/or follow-up services	55	57	49	17	45
16	Malaria diagnosis and first-line medicines (average)	64	90	60	53	67
17	HIV testing system, ART, medical follow-up (average)	51	55	67	30	51
TOTAL (OVERALL AVERAGE)		**68**	**69**	**60**	**51**	**62**

[1] Outpatient CH, STI, FP, ANC, IMM, GM
[2] Latrine, protected waiting area, cleanliness
[3] External supervision at least every 6 months, routine training & personal supervision
[4] Dry location, off ground, protected from water, sun, rodents, well-ventilated (weighted average of percentages with good conditions assessed separately for each of three commodities: contraceptive methods, medicines and ARVs)
[5] Soap & running water/hand disinfectant, sharps box, disinfectant, and latex gloves
[6] Oral rehydration solution (ORS), an anti-malarial and at least one oral antibiotic
[7] Tests for anemia, proteinuria, glucosuria, blood group, and syphilis