Abstract

Background: The Abuja Declaration committed African Union countries to allocate at least 15% of their budget to improving the health sector. Consequently, Deutsche Stiftung Weltbevoelkerung (DSW) has been undertaking annual budget studies in Kenya and Uganda to track financial allocation for health and family planning (FP).

Methods: This study, carried out between the months of May and October 2017, involved budget analysis of general health and FP funding at national and sub-national level. The study covered the fiscal year 2017/18. However, for comparison purposes, fiscal years 2015/16 and 2016/17 were included in the analysis.

Results: In Uganda, during the 2017/18 fiscal year, the government allocated 0.73% ($3.7 million) of its health sector budget ($506.7 million) to FP; of which 98.8% ($3.6 million) was allocated to National Medical Stores (NMS), mainly for the supply of reproductive health commodities. Analysis of four districts shows that only 0.5% ($7,966), 0.8% ($10,046), 0.9% ($9,663) and 1.9% ($35,395) of the health sector budget was allocated to FP in Kamuli, Mityana, Mukono and Tororo, respectively, during the 2017/18 fiscal year. In Kenya, the FP budget allocation at the national level reduced from $6.05 million in 2015/16 to $2.93 million in 2017/18. At the subnational level, there were combined increases in the estimated sub-national FP budget allocations in all eleven counties of 21.8% ($2.1 million), from $9.6 million (2016/17) to $11.7 million (2017/2018).

Conclusions: The findings indicate an overall increase in FP allocations over the last three years in the two countries of study. Advocacy personnel should be enlightened on the budget making process, as it provides an excellent platform for advocating for budgetary increases.
**Introduction**

The United Nations projects that the world population will grow exponentially and will reach 10 billion by the year 2055. It is estimated that more than 95% of this growth will happen in low- and middle-income countries (AFIDEP, 2018). A large increase in population will have adverse effects on society, including pressure on the environment and congestion in classrooms, resulting in poor quality of education and food scarcity (UNFPA, 2012). For this reason, there is global and national momentum to increase access to family planning (FP) services. The International Conference on Population and Development (ICPD) plan of action urged governments to make reproductive health (RH) services, including FP services, accessible and affordable to young people (UNFPA, 2014). Elsewhere, the Abuja Declaration committed African Union countries to allocating at least 15% of their budget ‘to improve the health sector’, as a way of translating commitments into results (WHO, 2011).

Uganda’s population was estimated to be 34.6 million in 2014. The annual population growth rate of 3% (UBOS, 2016a) implies that Uganda’s population increases by more than one million people every year. The Government of Uganda intends to lower unmet need for FP to 10% by 2020 and increase the contraceptive prevalence rate to 50%. To achieve this, Uganda developed a Family Planning Costed Implementation Plan (FP-CIP) for 2015–2020, which provides national guidance on increasing knowledge of and access to FP interventions (Ministry of Health, 2016). The decentralized system of governance in Uganda has ensured the transfer of powers, functions and services from central government to local councils. These actions have resulted in improved access to basic services and have increased citizen participation in decision-making processes. During the 2012 London summit, the Ugandan government committed to increasing its annual budget allocation for FP supplies from $3.3 million to $5 million and to mobilise an additional $5 million yearly from donors (FP2020, 2017). The Uganda FP-CIP 2015–2020 has projected financial resource needs of $234.6 million for FP until 2020.

Kenya’s population trends show a gradual increase in population size. In 2009, Kenya’s population size was 38.6 million, with 2016 figures showing a population of 47.7 million, and 2020 projections estimating a population of 52.2 million (Kenya National Bureau of Statistics, 2014). A large proportion of Kenya’s population is youthful, with over half (53.5%) aged 0–24 years (Ministry of Health, 2017). The devolved system of governance has ensured the transfer of functions, resources and power to counties. The constitution is explicit on the requirement for every citizen to enjoy economic and social rights, as well as the Government’s responsibility for ensuring that these rights are protected (The Government of Kenya, 2010). The Government of Kenya has committed to invest $30 million annually in Linda-Mama (a programme that provides a package of basic health services accessed by all in the targeted population on the basis of need and not ability to pay) and to maintain domestic financing for FP commodities at $7 million for two years from 2017 and then double it thereafter (FP2020, 2017).

In both countries, Deutsche Stiftung Weltbevoelkerung (DSW) has empowered its youth champions1 to advocate for increased budgetary allocations to FP. Consequently, DSW has been undertaking annual budget studies in Kenya and Uganda to track financial allocation for FP. This paper presents the status of the budgetary allocations to FP programmes at the national and sub-national level in Kenya and Uganda.

**Methods**

**Data collection**

In Uganda, the study was carried out between the months of May and September 2017 and it involved budget analysis of general health and FP funding at national and sub-national level. The study covered the fiscal year (FY) 2017/18. However, for comparison purposes, FY 2015/16 and FY 2016/17 were included in the analysis. Research assistants collected copies of approved budgets and work-plans from the Ministry of Health, Regional Referral Hospitals and the four districts of study. At the national level, data was collected from institutional records from the Ministry of Health, National Medical Stores and Regional Referral Hospitals and recurrent (wage & non-wage) and development (domestic & external) approved, released and spent figures were retrieved. At the sub-national level, copies of approved budgets and work-plans from which FP data was extrapolated were collected from four districts: Kamuli, Tororo, Mityana and Mukono. These four districts were selected because they are the locations of focus for DSW’s budget advocacy work in Uganda. Only approved documents with FP-related information, domestic allocations and government loans were included in the analysis. Documents that were not approved and those without family planning specific information and grants from donors were excluded from the analysis. The variables for which data was sought include domestic allocations, service delivery, capacity building, community mobilization and outreach and percentages of reproductive, new-born, maternal and child health) allocations.

In Kenya, the study was carried out between the months of June and October 2017. The budget study was implemented at the national level and in eleven counties of Kilifi, Mombasa, Nyandarua, Meru, Laikipia, Nakuru, Uasin Gishu, Trans-Nzoia, West-Pokot, Bungoma and Nandi. These counties were selected because they are DSW’s counties of focus in Kenya for FP budget advocacy. The indirect allocation by County Governments was estimated for each county, based on workload statistics from the District Health Information System (DHIS-2) and subjected to county allocation to health.

**Data analysis**

In Uganda, the DSW FP budget analysis tool provided the basis for data extraction. The DSW budget analysis tool, which is in Microsoft Excel format, provided data analysis at the district level, regional referral hospitals and at the national level. It contains sections for entering sources of funding (domestic or grants/donor) and components e.g. service delivery, capacity building, community mobilization and outreach. The study covered the fiscal year (FY) 2017/18. However, for comparison purposes, FY 2015/16 and FY 2016/17 were included in the analysis. The variables for which data was sought include domestic allocations, service delivery, capacity building, community mobilization and outreach and percentages of reproductive, new-born, maternal and child health) allocations.

1Opinion leaders among peers, aged 15–24 years, with an interest in FP advocacy
capacity building, community mobilization and outreach and others. It also provides percentages that have been discussed and agreed with government officials for FP in situations where FP allocations are included in reproductive, maternal, newborn, child and adolescent health (RMNCAH) and exact FP allocations are not provided. The tool is programmed such that it updates itself once data has been inserted.

In Kenya, workload statistics obtained from the DHIS were subjected to the allocation for health for estimated allocation for family planning. This was done by calculating the percentage of FP service utilization from the total workload. All workloads were converted to the equivalent number of outpatient visits. For the conversion, one inpatient day or one bed-day was estimated to be equal to three outpatient visits. All the bed-days encompassing inpatient and maternity services were converted into outpatient visits and were added to all outpatient visits recorded to obtain the total workload equivalent. The FP percentage was then obtained by dividing total FP visits by total workload equivalent visits. This was done for every county for the FY 2015/16 and FY 2016/17. For FY 2017/18, an average budget increase/decrease over the previous two financial years (FY2015/16 & FY2016/17) were used to provide an estimate of the approximate increase/decrease in FY2017/2018, with the same assumption that the same trend would continue. This was used to generate the FP utilization proportions for every county, since no workload statistics were available for this period. The proportions were then used to derive the allocations to FP services in each county using the percentage of FP workload in the total workload in the county. The workload data for each county was obtained from the DHIS-2. The county allocation to health was obtained from approved county government programme-based budgets. The health allocation was multiplied by the percentage of FP visits against all visits to get an estimate of county government allocation to FP for all the financial years under study. Microsoft Excel was used to calculate the allocations for health.

Results
Uganda
In Uganda, during the 2017/18 FY, the government allocated 0.73% ($3.7 million) of its health sector budget ($506.7 million) to FP (Table 1), of which 98.8% ($3.6 million) was allocated to National Medical Stores (NMS), mainly for the supply of reproductive health commodities (Ongwae, 2019). Analysis of the four districts shows that only 0.5% ($7,966), 0.8% ($10,046), 0.9% ($9,663) and 1.9% ($35,395) of the health sector budget was allocated to FP in Kamuli, Mityana, Mukono and Tororo, respectively, during FY 2017/18. During FY 2016/17, Kamuli, Mityana, Mukono, and Tororo allocated $2,272, $3,175, $3,421 and $12,729, respectively, of their health sector budgets towards FP.

Kenya. In Kenya, the FP budget allocation at the national level reduced from $6.05 million 2015/16 to $2.93 million in 2017/18 (Table 2). The decrease in FP budget allocation at the national level is partly attributed to devolution, which has resulted in more resources being allocated to the counties. At the subnational level in Kenya, there was a combined increase in the estimated sub-national FP budget allocations in all eleven counties of 21.8% ($2.1 million), from $9.8 million (FY 2016/17) to $12 million (FY 2017/2018) (Ongwae, 2019).

Discussion
The findings indicate an overall increase in FP budget allocations over the last three years in the two countries of study. In Uganda, the 2015 gap analysis by Zlatunich & Couture (2015) identified a financial funding gap of $113 million US dollars for all six years of the FP-CIP. Therefore, the government needs to mobilise additional resources for FP to realize the full implementation of the FP-CIP. Funding for FP at the national and local government level remains very low, at less than 1% of the health sector budget in FY 2017/18. Due to advocacy efforts by DSW and partners, most health facilities have developed detailed work-plans that indicate the amount and FP thematic areas they will spend on FP. Moreover, the government allocation of more funds to health facilities would enable them to conduct a wide range of health promotion activities.

In Kenya, the health sector’s allocation has remained below the 15% committed to health under the Abuja declaration. In addition, despite the increases in FP budget allocations at the sub-national level, these funds are still short of the funds committed to fully implement the FP-CIP (2017 – 2020), which requires an estimated $305 million to be fully implemented. Additionally, it would be beneficial for counties to initiate and implement capacity building programmes targeting human resources, institutions, legal framework and technical support development, in order to improve budget preparation capabilities. The devolved system of government, which requires citizen participation, has provided advocacy groups with

| Study area     | 2016/17 (USD) | 2017/18 (USD) | 2017/18 (USD) |
|----------------|--------------|--------------|--------------|
|                | Health       | FP           | % FP allocation/ Health allocation | Health allocation | FP           | % FP allocation/ Health allocation |
| National level | 506,550,345  | 2,300,000    | 0.5%         | 506,550,345  | 3,700,000    | 0.7%         |
| Kamuli district| 1,473,583    | 2,272        | 0.2%         | 1,629,022    | 7,966        | 0.5%         |
| Mityana district| 1,234,227   | 3,175        | 0.3%         | 1,232,342    | 10,046       | 0.8%         |
| Mukono district| 1,116,573    | 3,421        | 0.3%         | 1,116,362    | 9,663        | 0.9%         |
| Tororo district| 2,027,869    | 12,729       | 0.6%         | 1,908,786    | 35,395       | 1.9%         |
| District Aggregated| 5,852,252 | 21,597       | 0.4%         | 5,886,512    | 63,070       | 1.1%         |
opportunities to advocate for improved allocation for FP programmes. One conclusion of this study is that budget tracking promotes transparency and provides evidence for advocacy. Furthermore, advocacy personnel should be educated about the budget making process, as it provides an excellent platform for advocating for budgetary increases. A separate study to track FP expenditure will provide more insights on the actual FP spending. That said, the benefits of increased budgetary allocations for health cannot be overstated. More budgetary allocations, if well-handled and accounted for, can lead to: greater availability of contraceptives and human resources for health at the health facility level; construction and equipping of youth friendly centres; and improved monitoring of FP service provision.

Data availability

Underlying data

For the Ugandan budget analysis, all source documents used are indicated in the data file and can be downloaded from the Ugandan Ministry of Finance, Planning and Economic Development budget website. For the Kenyan budget analysis, source data comprised of Kenyan county allocations to health from county Programme Based Budgets (PBB), which are supposed to be publicly available on the counties’ websites. Unfortunately, not all counties have made this information available online. Website links to counties whose data are available online for financial years 2016/17 and 2017/18 have been provided in the summarized workload statistics data file. For the counties whose data are not currently available online, links are provided to the counties’ websites where contact information can be retrieved for the county finance department, who can facilitate access to the source documents.

Open Science Framework: Family planning financing: tracking domestic family planning budget allocations at national and sub-national level in Kenya and Uganda http://www.doi.org/10.17605/OSF.IO/DRN2H (Ongwae, 2019)

Table 2. Health budget allocated to family planning (FP) for fiscal years (FY) 2016/17 – 2017/18.

| National/ County | FY 2016/17 (USD) | FY 2017/18 (USD) |
|------------------|------------------|------------------|
|                  | Health Allocation | Health Allocation |
|                  | FP Allocation    | FP Allocation    |
|                  | %                | %                |
| National level   | 466,461,386      | 292,883,873      |
| Bungoma          | 22,929,167       | 22,428,404       |
|                  | 1,236,420        | 1,520,926        |
|                  | 5.4%             | 6.8%             |
| Kilifi           | 29,398,054       | 27,895,204       |
|                  | 559,008          | 1,179,750        |
|                  | 4.3%             | 4.2%             |
| Laikipia         | 13,105,000       | 22,812,009       |
|                  | 1,281,901        | 738,617          |
|                  | 6.3%             | 5.8%             |
| Meru             | 20,397,704       | 31,745,245       |
|                  | 908,083          | 1,184,970        |
|                  | 3.4%             | 3.6%             |
| Mombasa          | 13,198,310       | 13,208,732       |
|                  | 576,158          | 708,457          |
|                  | 3.9%             | 5.4%             |
| Nakuru           | 20,818,751       | 22,043,275       |
|                  | 1,279,881        | 1,354,559        |
|                  | 6.1%             | 6.1%             |
| Nyandarua        | 18,443,458       | 18,702,947       |
|                  | 828,428          | 1,041,117        |
|                  | 4.5%             | 5.6%             |
| Trans Nzoia      | 14,773,340       | 11,299,757       |
|                  | 357,042          | 367,124          |
|                  | 2.4%             | 3.2%             |

This project contains the following underlying data:

- Budget Analysis for Uganda_Oct 17 - final.xlsx (DSW FP budget analysis tool filled out with data for Uganda)
- DHIS Service workload by county MOH 09052019_EXAMPLE calculations.xlsx (workload statistics and FP allocations for Kenyan counties with example calculations)
- Summarised_workload_statistics_Kenya_28062019.xlsx (workload statistics and FP allocations for Kenyan counties with links to county websites and budgets)

Extended data

Open Science Framework: Family planning financing: tracking domestic family planning budget allocations at national and sub-national level in Kenya and Uganda http://www.doi.org/10.17605/OSF.IO/DRN2H (Ongwae, 2019)

This project contains the following extended data:

- FP Budget Methodology 2017 - Kenya & Tanzania.docx (guide to using the DSW FP budget analysis tool)

Data are available under the terms of the Creative Commons Zero “No rights reserved” data waiver (CC0 1.0 Public domain dedication).

Acknowledgements

I would like to acknowledge Mr. Lukwago Daniel and Ms. Diana Tibesigwa for supporting the execution (data collection and analysis) of the study in Uganda and Mr. Joblin Omari for supporting the undertaking of the study in Kenya.
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Nirmala Ravishankar
ThinkWell, Washington, DC, USA

Main Comments:
Overall goal is clear -- to analyze budget allocation for health and FP in Kenya and Uganda. As such, it is an important piece of work.

I struggled with the methods. I could not tell how you were handling vertical programs and other direct allocations to FP including for commodities. Those obviously don’t need to be estimated using DHIS workload data. So what part of the budget were you applying the workload estimation to?

Along those lines, I wished there was some disaggregation of the FP allocation into, at a minimum, commodities versus other things. You provide some info on that for Uganda, but for Kenya I was really not sure if either level has spent any funds on commodities. I have seen other analysis suggesting that all FP commodities are being paid by donors in Kenya. Is that true?

I also found the discussion could be enhanced. What are the broader implications of these findings? What is the value of just looking at budgetary allocation without analysis of expenditure, specifically how much of what is allocated is actually spent and whether countries are spending on the right things for FP.

Intro
○ I would recommend positive framing of FP as being a good buy, and/or women’s choice. The Malthusian narrative seems a bit out of date. Also, Linda Mama is a scheme for free maternity for all pregnant women. I would not describe it as “basic health services” for “targeted population on the basis of need...”. There is no means testing.

Methods
○ DHIS data has tons of quality issues in both countries. I would mention this as a major limitation.

○ Was a bit unclear why you would be applying the workload proportions to the whole health
budget? Any direct FP spending for vertical programs, commodities etc could be directly allocated to FP, isn't it? Then the proportion would only be needed for allocating a share of service delivery spending.

**Findings**
- For Kenya -- How does your estimation of national level spending on FP square with CHAI's analysis showing that NG stopped funding commodities. All service delivery costs for FP are surely with counties now. So where is this NG spending for FP coming from?
- In Uganda -- what is the basis for saying that districts are underspending on FP given that MOH is allocating the funds for commodities?

**Discussion**
- Its one thing for sub-national govts of facilities to commit funds to FP. Its another thing to ensure its actually spent. Do any of the advocacy partners look at whether sub-national govts in Uganda and Kenya are actually spending the funds they allocate towards FP?

**Data Availability**
- You mention using PBB as the basis. My understanding of PBB is that all salaries and commodities are under general administrative costs as opposed to being classified under "preventive" or "curative." Which budget lines are you considering?
- No data limitations are discussed. From my understanding, DHIS systems in both countries have a lot of quality issues.

Is the work clearly and accurately presented and does it cite the current literature?
Partly

Is the study design appropriate and is the work technically sound?
Partly

Are sufficient details of methods and analysis provided to allow replication by others?
No

If applicable, is the statistical analysis and its interpretation appropriate?
Not applicable

Are all the source data underlying the results available to ensure full reproducibility?
Yes

Are the conclusions drawn adequately supported by the results?
Partly

**Competing Interests:** No competing interests were disclosed.

**Reviewer Expertise:** Health financing including national health accounts and other resource tracking methods.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have
significant reservations, as outlined above.

Reviewer Report 13 January 2020

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Peter B. Gichangi 1
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2 Technical University of Mombasa, Mombasa, Kenya

The authorship should be revised to include persons who made substantive contribution. Abstract - presentation of figures is in percent and actual amount for Uganda not for Kenya. Conclusion - there is reference to increase in FP allocation, yet for Kenya, there was a decrease as stated in the abstract.

Ethical considerations or administrative approvals are not mentioned in the methods section. Results -" ... (Ongwae, 2019)" This is reference the paper itself. This is not appropriate. There is scanty description of the data contained in the two tables. As the tables are, it is difficult to know whether the percentage allocation are sufficient to address the FP needs.

Discussion - there is only one reference. This is not sufficient. "...which requires an estimated $305 million to be fully implemented"- what is the source of figure $305 million? There is no discussion on limitations of the study which would allow the reader to make interpretations of the data presented.

One conclusion of this study is that budget tracking promotes transparency and provides evidence for advocacy' There is no data presented to show that by tracking, there was improvement in transparency. Furthermore, advocacy personnel should be educated about the budget making process, as it provides an excellent platform for advocating for budgetary increases" This conclusion seems to be misplaced since no data has been presented that the advocates lack knowledge on budgeting process.

Is the work clearly and accurately presented and does it cite the current literature?
Yes

Is the study design appropriate and is the work technically sound?
Yes

Are sufficient details of methods and analysis provided to allow replication by others?
No
If applicable, is the statistical analysis and its interpretation appropriate?
Not applicable

Are all the source data underlying the results available to ensure full reproducibility?
Yes

Are the conclusions drawn adequately supported by the results?
No

**Competing Interests:** No competing interests were disclosed.

**Reviewer Expertise:** Sexual and Reproductive Health; Family planning; HIV/AIDS; Gynaecological oncology.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.