Nigeria Health, Population, and Nutrition Multi-Activity Evaluation:
Baseline Health Facility Assessment Results Brief

Data for Impact (D4I) is conducting a prospective mixed-methods portfolio evaluation of four USAID/Nigeria Health, Population, and Nutrition (HPN) activities, with a focus on comparing an integrated health programming approach with a disease-focused approach (malaria). Evaluation results will inform adaptive program implementation and support USAID/Nigeria's investment strategy prioritization to improve health outcomes.

Intervention Models

- **Integrated approach:** The Integrated Health Project (IHP) implements a fully integrated set of reproductive, maternal, newborn, and child health plus nutrition and malaria (RMNCH+NM) and health system strengthening interventions.

- **Disease-focused approach:** The President's Malaria Initiative for States (PMI-S) focuses on malaria health programming and health system strengthening.

- Both models include **demand creation** (led by Breakthrough ACTION – Nigeria) and **commodity procurement and distribution** (led by Global Health Supply Chain Program – Procurement and Supply Management) interventions.

The evaluation is being implemented in three case study states (Table 1).

Evaluation Question

The evaluation seeks to answer the following broad evaluation question related to health programming effectiveness:

Did malaria and other health behavior and service delivery outcomes improve more from baseline to endline in Local Government Authorities (LGAs)/states where an integrated approach was implemented, a disease-focused approach was implemented, or a combination of the two?

The purpose of this brief is to summarize evaluation baseline health facility assessment (HFA) findings with a focus on service delivery outcomes related to facility readiness to provide services.

Table 1. Intervention components by evaluation case study state

State	Activity	Start date	End date
Ebonyi	IHP	April 2020	December 2024
	PMI-S	January 2020	January 2025
Kebbi	IHP	April 2019	March 2024
Zamfara	PMI-S	August 2020	June 2025
D4I Nigeria HPN Evaluation		October 2020	September 2025

For all states: BA-N September 2017–September 2026; GHSC-PSM July 2016–November 2023.

Nigeria HPN Evaluation HFA Resources

Additional information sources are available on the D4I Nigeria HPN Multi-Activity Evaluation website at https://www.data4impactproject.org/countries/nigeria/ and include the baseline HFA methodology note, the D4I Zamfara HFA data collection instrument, the HFA indicator matrix, complete baseline HFA results tables, and the baseline provider survey report.

Methods

HFA Sample and Data

In each state, 120 public, primary health care (PHC) facilities designated as ward-level 'functional' PHC facilities[1] were sampled. A representative sample of IHP-supported facilities was selected in Kebbi and Ebonyi states, and a comparable sample of PMI-S-supported facilities was selected in Zamfara.

Initial data collection was conducted by IHP in Kebbi August 2–22, 2020, and in Ebonyi June 10–July 6, 2021, using IHP-developed HFA tools based on the WHO's Service Availability and Readiness Assessment (SARA) tool (World Health Organization, 2015). D4I used selected modules from IHP's instruments to collect HFA data from Zamfara health facilities, as well as additional evaluation-specific data from facilities in all three states, July 5–August 12, 2021.

Analytical Approach

Facility service delivery outcomes were assessed using service availability and readiness tracer and summary index indicators defined per WHO Harmonized Health Facility Assessment (HHFA) guidelines (WHO, 2022). Service availability indicators were calculated among all health facilities, and service readiness indicators were calculated among those facilities providing a specific service.

Evaluation baseline HFA findings are summarized at the state level, with across-state tests of statistical significance.

Baseline Findings

Facility Characteristics

All sampled health facilities in Ebonyi were PHCs, compared to 88.3 percent in Kebbi and 85.8 percent in Zamfara (*p=0.002*). Non-PHCs in Kebbi and Zamfara included health posts/dispensaries (5.8% Kebbi, 10.8% Zamfara), community health centers (4.2% Kebbi, 2.5% Zamfara), and maternity homes (1.7% Kebbi, 0.8% Zamfara). Over three-fourths of Ebonyi facilities were rural, compared to over 85 percent of Kebbi and Zamfara facilities (*p=0.044*), and the government was the managing authority for nearly all facilities.

Facility Conditions

Facilities in Zamfara were in significantly worse condition than those in Ebonyi and Kebbi, with only 6.7 percent described as in good physical condition[2] and 35.0 percent described as requiring significant renovation. Over 70 percent of facilities in Ebonyi and Kebbi had power, compared to 55.0 percent in Zamfara (*p=0.000*).

In contrast to physical facility conditions, facility communications systems were strongest in Zamfara, where 80.0 percent of facilities had a communications system, compared to 12.5 percent in Ebonyi and 14.2 percent in Kebbi (*p=0.000*). Nearly 30 percent of Zamfara facilities had a dedicated functioning mobile phone with charger, and 74.2 percent had access to email or internet within the facility on the day of the survey.

Lastly, most facilities had a basic health care waste service (80.8–90.8%) and a basic water service (71.1–77.5 %). Over 60 percent of Kebbi and Zamfara facilities had a basic sanitation

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[1] Per Nigeria's Primary Health Care Under One Roof (PHCUOR) policy.

[2] Enumerators observed the current state of the building and indicated whether renovations would be required.

service, compared to only 22.5 percent of Ebonyi facilities (*p=0.000*). Half or fewer facilities had a basic environmental cleaning service, and only one in five facilities had a basic hygiene service.

Health Workforce

Facilities reported the number of staff who provide services at the facility by secondment and professional cadre. Most health workers were assigned to facilities in each state (90.3% Zamfara, 84.8% Ebonyi, and 76.0% Kebbi, *p=0.012*). The percentage of facilities with two or more seconded providers was 10 percentage points lower in Zamfara and Ebonyi than Kebbi (26.1%, *p=0.030*).

Most health workers were members of the non-professional cadre (65.5% Ebonyi, 84.2% Kebbi, and 89.4% Zamfara, *p=0.000*); the most frequently reported occupational category across all states was Community Health Extension Worker (CHEW). Over 70 percent of Zamfara facilities had no professional health worker, compared to 43.0 percent of Kebbi and 35.0 percent of Ebonyi facilities (*p=0.000*).

General Service Availability and Readiness

All sampled facilities offer outpatient services. Nearly all Ebonyi facilities also offer inpatient services, compared to half of Kebbi and Zamfara facilities (*p=0.000*).

**Figure 1. General service readiness index indicators, by state (N=360)**
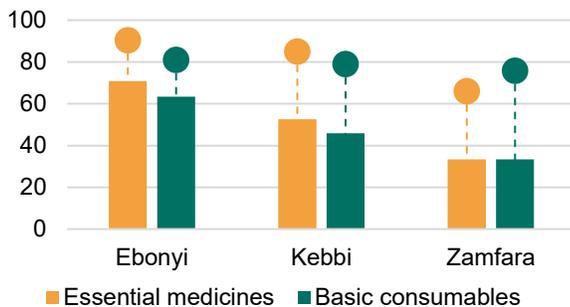
Note: graph columns represent the percentage of state facilities with all items, and the dot indicates the mean percentage of items for state facilities.

Availability of essential medicines and consumables was assessed to determine facility readiness to provide general services. Figure 1 shows the percent of facilities with all essential medicines and basic consumables, as well as the mean percentage of essential medicine items and basic consumable items per state.

Facilities in Ebonyi were most likely to have all essential medicines (70.8%) and basic consumables (63.3%); Ebonyi facilities also had the highest percentage of all essential medicine items (90.4%) and consumable items (81.0%). While only one-third of Zamfara facilities had all essential medicines and basic consumables, 66.0 percent of essential medicine items and 75.8 percent of basic consumable items were available on average.

Figure 2. Percentage of health facilities that have essential medicines and basic consumables available, by state (N=360)
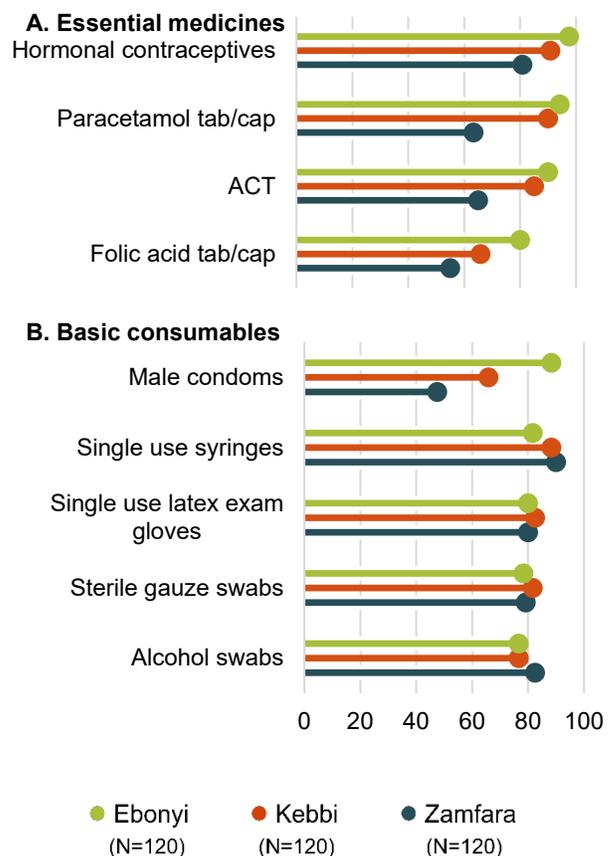
Facilities in all states were most likely to have hormonal contraceptives and least likely to have folic acid supplements. Male condoms were the consumable most likely to be missing in Kebbi and Zamfara (Figure 2).

Malaria Service Availability and Readiness

Malaria diagnosis and treatment are offered in virtually all facilities in every state (100% Ebonyi and Zamfara facilities, 99.2% Kebbi facilities, Figure 3). Over 98 percent of all facilities offered malaria diagnosis by RDT. Similarly, over 98 percent of facilities in Ebonyi and Kebbi offered any intermittent preventive treatment for malaria (IPT) services[3], compared to 87.5 percent of Zamfara facilities (*p=0.000*).

Figure 3. Percentage of health facilities that offer specific malaria services, by state (N=360)
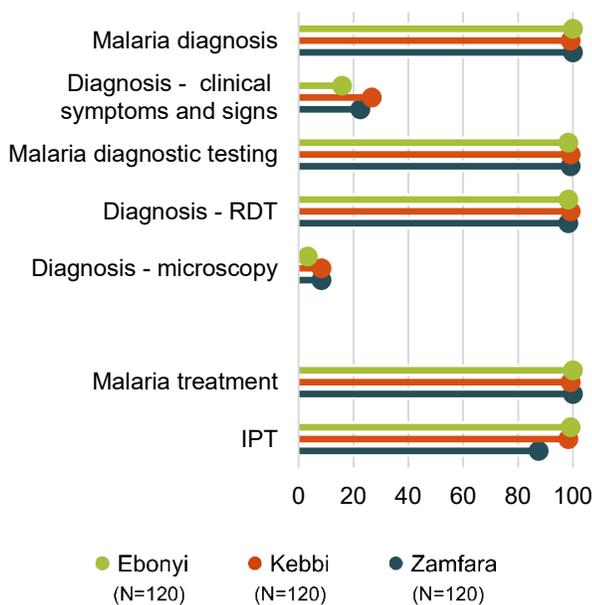
While malaria service availability is nearly universal, facility readiness to provide malaria

services on the day of assessment varies (Figures 4 and 5). Readiness to provide malaria services was highest in Ebonyi and Kebbi, where nearly 80 percent of all malaria items were available at facilities, compared to 69.5 percent of items available in Zamfara facilities (*p=0.000*). Facilities in all three states are well stocked with malaria diagnostic items, however, facility readiness is limited by low guideline availability in Ebonyi, and by the availability of some malaria medicines and commodities in all three states. Notably, all three states have low availability of insecticide-treated bed nets (ITNs) or ITN vouchers. Lastly, facilities in Zamfara are less likely to offer any IPT service, and facilities that offer IPT services are significantly less likely than Ebonyi or Kebbi facilities to have IPT drugs (sulphadoxine-pyrimethamine tab/cap, *p=0.000*).

Facilities in Zamfara struggled to stock essential malaria items, with an average of only 42.3 percent of malaria medicines and commodities available, compared to 71.7 percent in Ebonyi
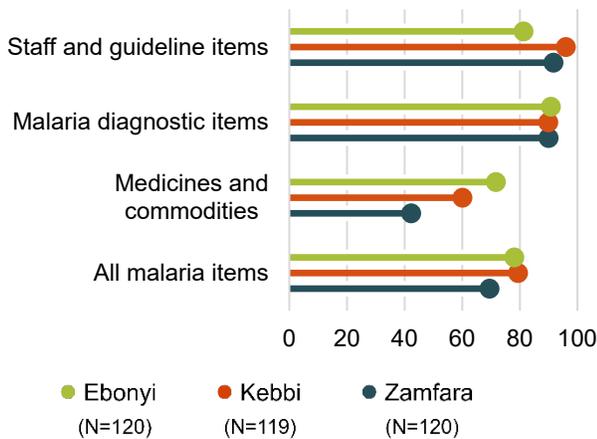
Figure 4. Percentage of health facilities that are ready to provide malaria services today, by state (N=359)

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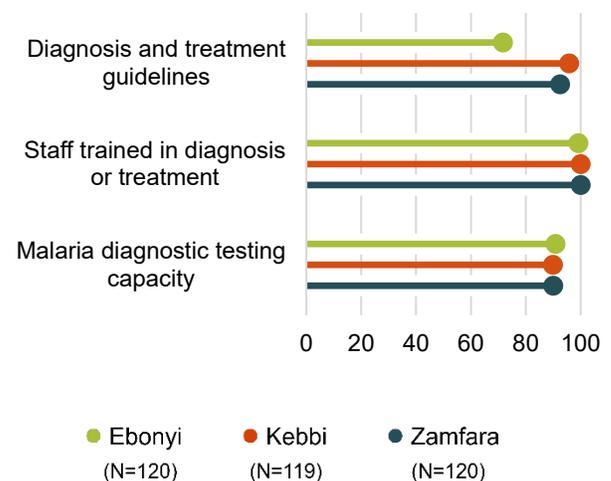
[3] Facility main respondents were asked if the facility provides IPT for malaria; note this refers to IPT in general, not specific to pregnancy.

Figure 5. Mean percentage of items available to provide malaria services today (N=359)
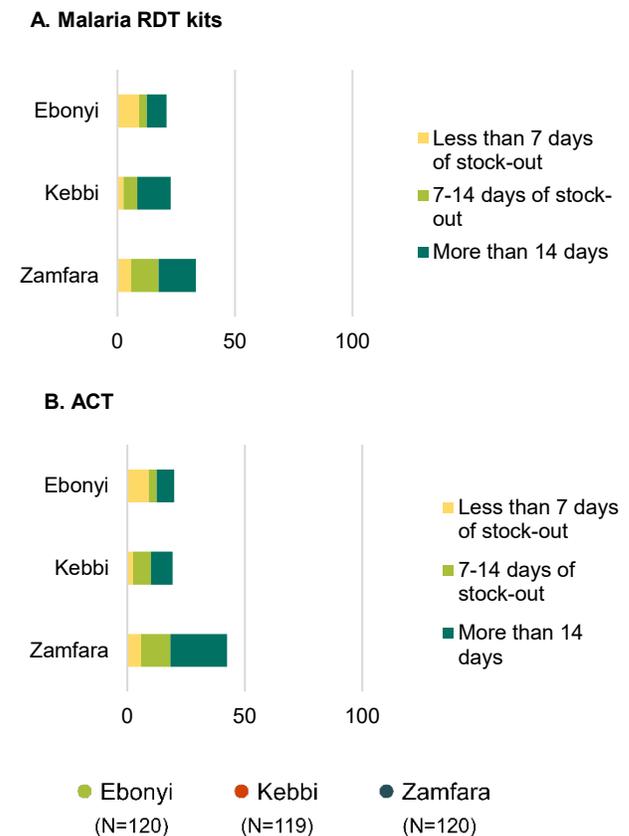

* Note: Availability of staff to provide malaria services includes formal training or supportive supervision within the past two years for malaria diagnosis with RDTs and/or training in malaria treatment and/or training in IPTp.

Figure 6. Percentage of health facilities that experience malaria stockouts during the last four weeks, by duration and state (N=359)

A. Malaria RDT kits

B. ACT

and 60.1 percent in Kebbi (*p=0.000*). Furthermore, Zamfara facilities were significantly more likely to have experienced a stockout of malaria RDT kits during the last four weeks (35.8%, compared to 20.8% Ebonyi and 26.1% Kebbi facilities, *p=0.031*), and were also significantly more likely to have ACT stockouts (42.5%, compared to 20.0% Ebonyi and 19.3% Kebbi facilities, *p=0.000*). Zamfara facilities struggled to quickly remedy these stockouts, with most lasting 14 or more days. By comparison, facilities in Ebonyi remedied most testing and treatment stockouts in a week or less (Figure 6).

Commodities and Logistics for Malaria

Approximately 90 percent of facilities in Ebonyi and Kebbi and over 80 percent in Zamfara had staff trained on the Malaria Commodities Logistics System (MCLS, *p=0.022*). More than 90 percent of facilities in all states reported submitting a Bi-monthly Facility Stock Report (BFSR) for malaria commodities logistics, and over 80 percent had Inventory Control Cards for malaria commodities available.

Antenatal Care Service Availability and Readiness

ANC services are broadly available in facilities in both Ebonyi and Kebbi (99.2% Ebonyi and 95.8% Kebbi), but are less common in Zamfara facilities (80.8%, *p=0.000*). Availability of specific ANC-related services varies between states. Facilities in Kebbi are most likely to offer each specific service, with service availability ranging from 78.3–100.0 percent. Zamfara facilities are significantly less likely to offer each of the six specific ANC services, with availability ranging from 52.5 to 78.3 percent. Roughly 90 percent of facilities in Ebonyi and Kebbi offer intermittent preventive treatment for malaria in pregnancy (IPTp), compared to 55.0 percent of facilities in Zamfara (*p=0.000)*. Routine checks

for urine protein are the least commonly offered ANC service in each of the three states. (Figure 7)

Figure 7. Percentage of health facilities that offer specific ANC services, by state (N=360)

Ebonyi (N=120) Kebbi (N=120) Zamfara (N=120)
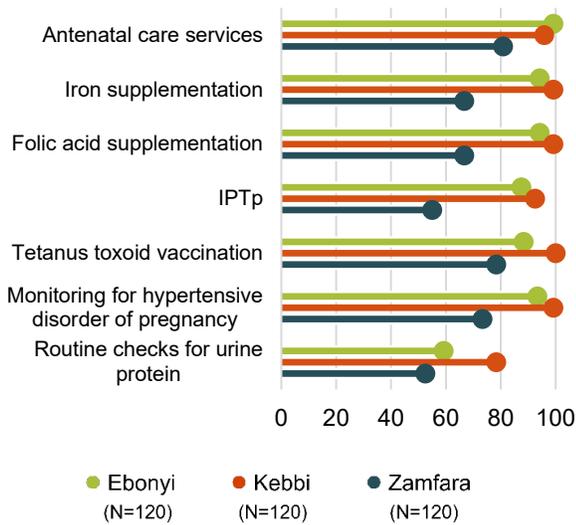
Despite having the highest availability of ANC services, facilities in Ebonyi are the least ready to provide ANC services. On average, Ebonyi facilities that provide ANC services have only 62.5 percent of ANC items, compared to 73.3 percent of items among Kebbi facilities and 70.2 percent in Zamfara ($p=0.000$, Figure 8). Low ANC service readiness in Ebonyi relative to the other states is driven by low prevalence of ANC guidelines and checklists/job aids (less than 40 percent of Ebonyi facilities).

Readiness to provide ANC services at facilities in all three states was limited by availability of ANC diagnostic items. Fewer than 25 percent of Ebonyi and Kebbi facilities and 12.4 percent of Zamfara facilities have hemoglobin testing capacity. Urine dipstick-protein tests were available in 60.9 percent of Kebbi facilities, 48.5 percent of Zamfara facilities, and 38.7 percent of Ebonyi facilities ($p=0.003$).

Family Planning Service Availability and Readiness

Family planning services are broadly available in Ebonyi and Kebbi facilities (98.3 and 100.0 percent of facilities, respectively) and less available in Zamfara (82.5% of facilities, $p=0.000$).

Figure 8. Mean percentage of items available to provide ANC services today among facilities providing ANC services

Ebonyi (N=119) Kebbi (N=115) Zamfara (N=97)
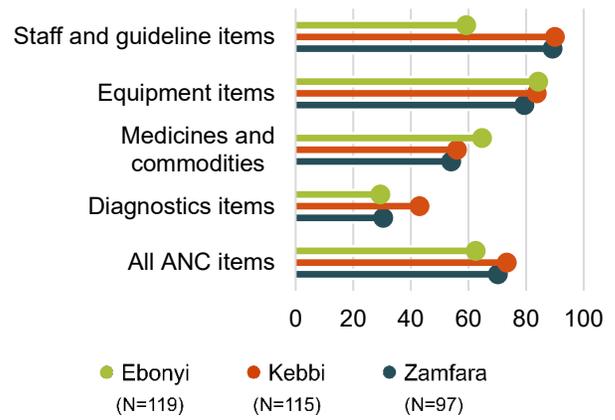
All facilities that offer family planning services offer at least one modern method of contraception. Progestin-only injectables, combined oral contraceptive pills, and implants are the three most commonly offered modern methods in all study states; three percent or fewer facilities in Ebonyi offer female or male sterilization, which are not offered by any Kebbi or Zamfara facilities (Figure 9).

Figure 9. Percentage of health facilities that offer specific family planning options, by state (N=360)

Ebonyi (N=120)   Kebbi (N=120)   Zamfara (N=120)
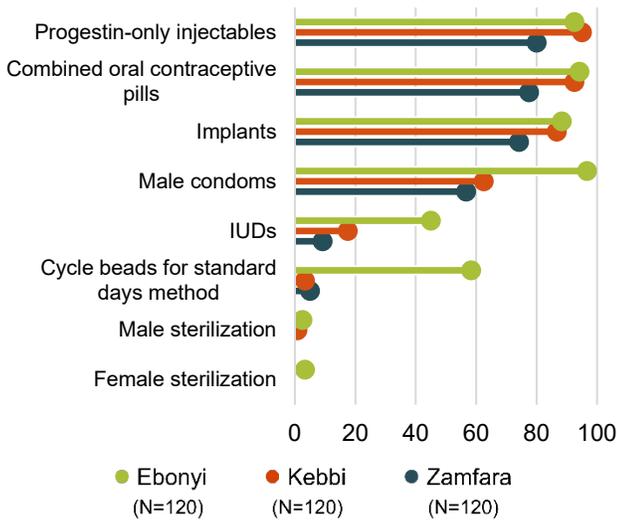
Facilities in Ebonyi were most likely to have at least three modern methods available (92.4%), compared to 79.0 percent of Kebbi facilities and 59.6 percent of Zamfara facilities (*p=0.000*).

Facilities reported all care points at which they offer family planning services. Figure 10 presents the distribution of family planning service points by state. Family planning services are most frequently offered during ANC, immunization, and immediate postnatal care.

Figure 10. Relative distribution of facility family planning service points, by state

Ebonyi (N=118)   Kebbi (N=114)   Zamfara (N=99)
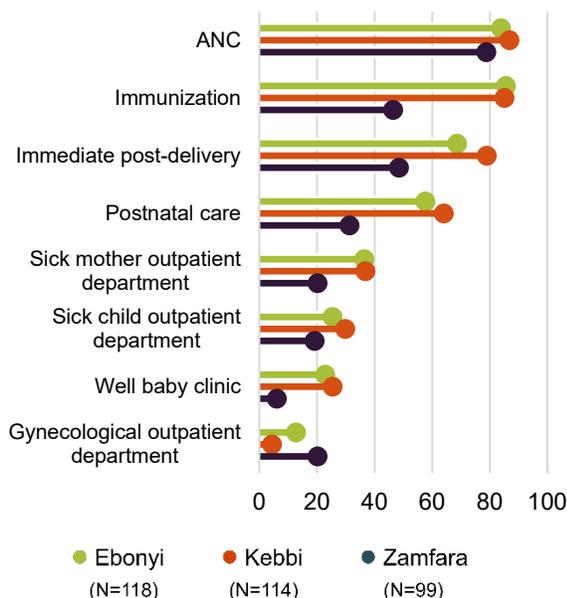
Readiness to provide family planning services was generally high across all states: on average, Ebonyi facilities had 87.8 percent of all family planning items, Kebbi facilities had 86.5 percent of items, and Zamfara facilities had 78.4 percent of items (*p=0.001*). Approximately half of facilities in Ebonyi and Kebbi and 38.4 percent in Zamfara (*p=0.046*) had all staff, equipment, and medicines and commodities for family planning (Figure 11).

Figure 11. Mean percentage of items available to provide family planning services today among facilities providing family planning services, by state

Ebonyi (N=118)   Kebbi (N=114)   Zamfara (N=99)
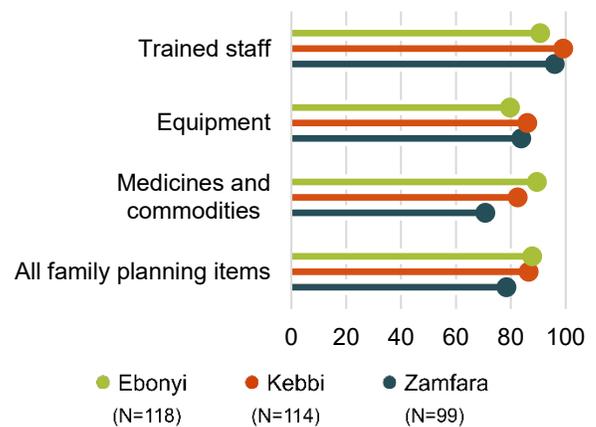
Commodities and Logistics for Family Planning

Nearly 90 percent of facilities offering family planning services across the three states reported submitting a Requisition, Issue, and Receipt Form (RIRF) for family planning commodities. Nearly all facilities submitted their RIRF through the LGA RBM/FP Coordinator. Facilities in Ebonyi were most likely to have an Inventory Control Card for family planning commodities (89.0%), compared to 80.7 percent of Kebbi facilities and 69.7 percent of Zamfara facilities (*p=0.002*).

Management and Finances

Lastly, systems to support continuous service availability and readiness were assessed. Facilities reported on sources of operational funds, governance and human resource

management support systems, and health management information system activities.

Operational Funds

Facilities in Zamfara were significantly more likely than facilities in Ebonyi and Kebbi to report charging user fees for outpatient services and significantly less likely to report receiving operational funding from the government (Table 2). State government supplied operational funding to over half of the facilities reporting receipt of government funds in each state. Among facilities reporting receipt of government operational funds, 18.2 percent of Ebonyi facilities reported funding from the National Health Insurance Scheme and 11.4 percent from the Drug Revolving fund, compared to less than 10 percent of Zamfara facilities and less than two percent of Kebbi facilities.

Table 2. Facility funding sources, by state

	Ebonyi (%)	Kebbi (%)	Zamfara (%)
Facility has user fees charged for any outpatient services ***	17.5	22.5	40.8
Facility receives any non-salary, operational funds from the government ***	36.7	63.0	9.2
State Government	54.6	52.6	54.6
Local Government ***	6.8	68.4	9.1
Health Insurance (NHIS) **	18.2	1.3	9.1
Drug Revolving Fund +	11.4	1.3	9.1
Other ***	81.8	2.6	18.2
Facility has alternative sources of funding ***	23.3	32.8	50.8
Registration *	67.9	65.0	42.6
Development partners/NGOs	25.0	15.0	8.2
User fees (Patient payments)	75.0	67.5	80.3
Philanthropy and Donations	3.6	15.0	4.9
Other *	7.1	12.5	0.0
N	120	120	120

Notes: + p<0.100, * p<0.05, ** p<0.01, *** p<0.001

Governance and Human Resource Management

Facility management structures were in place in the majority of facilities in the three study states. Over 80 percent of facilities in Ebonyi and Zamfara and over 90 percent in Kebbi had a core management team responsible for managing the day-to-day functioning of the facility (*p=0.058*).

Over 85 percent of Ebonyi facilities and over 90 percent in Kebbi and Zamfara had a routine system for including community representation for some aspects of the management teamwork (*p=0.014*).

Facilities in Zamfara were significantly more likely to report that staff experience delays in salary payments (63.3%) than facilities in Ebonyi (42.5%) and Kebbi (8.4%, *p=0.000*). Among facilities reporting staff salary delays, over half reported the delays once every three to six months, and between 17.1 percent (Zamfara) to 27.5 percent (Ebonyi) reported staff salary payments are always delayed.

Health Management Information Systems

National Health Management Information System (NHMIS) forms and registers were nearly universally available across facilities in each state, and over 95 percent of facilities reported submitting the previous month's monthly summary form to the LGA (Figure 12).

Nearly all facilities reported participation in LGA monthly M&E review meetings. However, facility-level HMIS data use is not universal: two-thirds of Ebonyi facilities, 83.8 percent of Kebbi facilities, and 87.5 percent of Zamfara facilities reported discussing HMIS information during facility management meetings (*p=0.000*) (Figure 12).

Figure 12. Facility NHMIS documentation, submission, and utilization, by state*
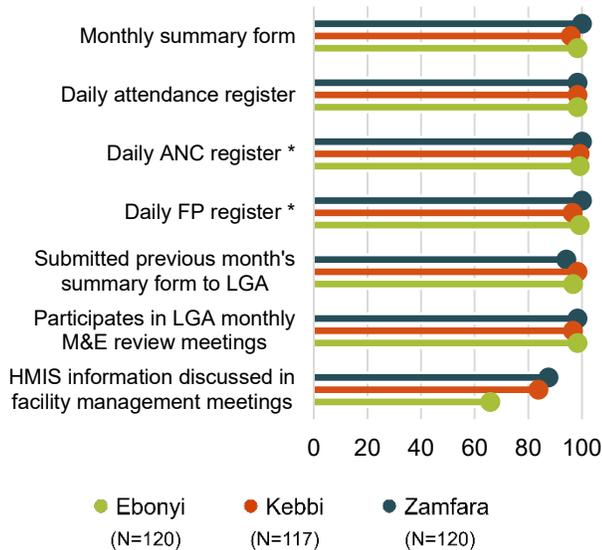
* Note: Among facilities providing ANC/FP services.

Conclusions and Recommendations

Availability of malaria diagnostic and treatment services is nearly universal in all three states. ANC, IPTp, and family planning services are also broadly available in facilities in Ebonyi and Kebbi but are somewhat less available in Zamfara. Ebonyi and Kebbi facilities are most ready to provide malaria and family planning services. While Ebonyi has the highest ANC service availability, it is the least ready to provide services.

Medicines and commodities. Gaps exist in the availability of medicines and commodities in all three states for all services examined but particularly so in Zamfara. Zamfara had the lowest percentage of essential, malaria, ANC, and family planning medicines and commodities items and was most likely to experience mRDT kit and ACT stockouts. Stockouts affect—and are affected by—demand and supply factors, making them a common concern across Activities. Further work is required to diagnose and address the causes of stockout issues, particularly in Zamfara, where the Drug

Management Agency is considered strong, yet stockouts remain relatively common. More advocacy is needed for procurement of SP. Different data systems use different metrics for stockouts collected at different intervals, which can hinder timely identification and rectification of stockout issues; coordination in collection and review of stockout data is recommended.

Diagnostics. Malaria diagnostic items were broadly available across the three states. ANC diagnostic items were much less available across all three states, particularly in Ebonyi and Zamfara. More attention is needed to improve the availability of ANC diagnostic items, although this is outside of the scope of Activities in Zamfara.

Staffing and guidelines. Ebonyi facilities had the lowest percentage of staff and guideline items across all service areas. Addressing the lack of availability of clinical guidelines in Ebonyi would improve this aspect of service readiness in the state.

Data availability and use. Virtually all facilities had completed NHMIS data collection forms and nearly all facilities reported participating in LGA monthly M&E review meetings. However, fewer facilities reported discussing HMIS information in facility management meetings, particularly in Ebonyi. More attention to data use at this level could strengthen data-informed decision making at the facility level and strengthen data quality.

Evaluation Implications

The availability of malaria, ANC, IPTp, and family planning services is high at baseline in Ebonyi and Kebbi, the two integrated states, so there is little scope to improve service availability over the course of the evaluation. The availability of malaria services is also high in Zamfara but there is scope to increase the availability of IPTp services there.

There is no evidence that the two integrated states (Ebonyi and Kebbi) perform less well on malaria service readiness indicators than the disease-focused state (Zamfara) at baseline and they often perform better, especially on drug and commodity readiness indicators. The largest potential area for malaria service readiness improvements is medicines and commodities given low availability and frequent stockouts at evaluation baseline.

Zamfara generally performs less well at baseline on availability and readiness indicators for ANC and FP than the two integrated states. The malaria-focused programming in Zamfara is not designed to address these issues. This is a limitation of a disease-focused approach.

Acknowledgements

Suggested Citation

Brugh, K., Walsh, S., Curtis, S., Adegbe, E., Fehringer, J, and Markiewicz, M. December 2022. *Nigeria Health, Population, and Nutrition Multi-Activity Evaluation: Baseline Health Facility Assessment Results Brief.* Chapel Hill, NC, USA: Data for Impact.

References

World Health Organization. (2015). *Service Availability and Readiness Assessment (SARA)*. Geneva, Switzerland: World Health Organization. Retrieved from Service availability and readiness assessment (SARA)

World Health Organization. (2022). *Harmonized Health Facility Assessment (HHFA) Indicator Inventory*. Retrieved from https://indicator-inventory.hhfa.online/

For more information

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