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The effects of a family planning training on Community Pharmacists and Patent and Proprietary Medicine Vendors' knowledge in Nigeria: Preliminary pre and posttest results, the IntegratE Project

BACKGROUND

In Nigeria, Community Pharmacists (CPs) and Patent and Proprietary Medicine Vendors (PPMVs) are the first point of care for many communities. A CP is a trained pharmacist with full license to sell and buy prescription and non-prescription drugs and a PPMV is defined as “a person without formal training in pharmacy who sells orthodox pharmaceutical products on a retail basis for profit” [1]. Many women in Nigeria who use a modern contraceptive (41%) receive their method from the private sector [2]. Although CPs and PPMVs are not formally recognized as family planning (FP) service providers, they are a popular source for contraception among both public and private sources with 22% of modern contraceptive users receiving their last method from a PPMV and 12 percent receiving their method from a private pharmacy [2]. PPMVs are especially popular source for FP due to their widespread availability, consistent drug stocks, extended hours, personable interactions, and no separate fees for consultations [3, 4]. CPs and PPMV, however, have not received formal training to provide FP services and often do not have the necessary knowledge and skills to competently provide these services. Previous studies have shown that with training, PPMVs can provide injectable contraceptives [5]. As the Federal Ministry of Health (FMOH) explores expanding its task sharing policy to include CPs and PPMVs, evidence is needed on an effective regulatory system to support PPMVs and CPs to provide high quality FP services.

THE INTEGRATE PROJECT

The IntegratE Project is a 4-year initiative (2017-2021) funded by the Bill & Melinda Gates Foundation and MSD for Mothers¹ that seeks to increase access to contraceptive methods by involving the private sector (CPs and PPMVs) in FP service delivery in Lagos and

¹ This programme is co-funded by, developed and is being implemented in collaboration with MSD for Mothers, MSD's \$500 million initiative to help create a world where no woman dies giving life. MSD for Mothers is an initiative of Merck & Co., Inc., Kenilworth, NJ, U.S.A

Kaduna States. IntegratE is implemented by a consortium of partners, Marie Stopes International, Planned Parenthood Federation of Nigeria, Population Council, PharmAccess, and led by the Society for Family Health. The project seeks to establish a regulatory system with the Pharmacists Council of Nigeria (PCN) to ensure that CPs and PPMVs provide quality FP services, comply with FP regulations and report service statistics to the Health Information Management System (HMIS). To achieve this, the IntegratE Project in collaboration with PCN and the FMOH, is implementing three main activities: (1) a pilot 3-tiered accreditation system for PPMVs based on their healthcare qualifications; (2) a pilot a hub-and-spoke supervisory model to ensure standard drug stocking practices; and (3) building the capacity of CPs and PPMVs to provide expanded FP services and report service statistics to the HMIS. Under the pilot accreditation system, PPMVs are provided with a standardized FP training and would provide certain FP services based on their tier (**Table 1**). CPs would function outside of the accreditation system but would receive the same training and provide the same services as Tier 2 PPMVs. This brief focuses on knowledge results from before and after the FP training that is part of the pilot accreditation system. Additional information on IntegratE Project can be found on www.integrateproject.org.ng.

Provider type	Description	Training received
Tier 1 PPMVs	PPMVs without healthcare qualifications	<ul style="list-style-type: none"> • FP counseling and referral • Refill of oral contraceptives
Tier 2 PPMVs	PPMVs with healthcare qualifications	<ul style="list-style-type: none"> • FP counseling and referral • Injectable administration • Implant insertion and removal
Tier 3 PPMVs	PPMVs who are also pharmacy technicians	<ul style="list-style-type: none"> • FP counseling and referral • Injectable administration • Implant insertion and removal
CPs	Outside of accreditation system	<ul style="list-style-type: none"> • FP counseling and referral • Injectable administration • Implant insertion and removal

ASSESSING PPMV AND CP KNOWLEDGE TO PROVIDE FAMILY PLANNING SERVICES

The IntegratE project is conducting a mixed-methods on CPs and PPMVs' capacity to provide high quality FP services. Starting in January 2019, 430 CPs and PPMVs from Kaduna and Lagos states trained by the IntegratE project were enrolled into the study². As part of the study, enrolled CPs and PPMVs completed a self-administered questionnaire to assess their knowledge related to the provision of FP counseling, and injectable and implant contraceptive services immediately before and after the training. Additional knowledge assessments will be conducted 9-27 months after their initial training. Preliminary results from the pre and posttest questionnaires are presented in this brief.

RESULTS

PPMV and CP characteristics

In both states, over half of PPMVs and CPs were female (54% in Kaduna and 58% in Lagos) and 35 years old and older (56% in Kaduna and 71% in Lagos; see **Table 2**). The majority were married (79% in Kaduna and 83% in Lagos) and approximately three-quarters had attained two or more years of post-secondary education (71% in Kaduna and 75% in Lagos). In Kaduna, 51% were Tier 2 PPMVs, 39% were CPs, and 10% were Tier 1 PPMVs. In Lagos, two-thirds were CPs (67%), 24% were Tier 1 PPMVs and 9% were Tier 2 PPMVs.

98% OF RESPONDENTS IN BOTH STATES KNEW CONDOMS PREVENT PREGNANCY AND STI AT POSTTEST

PPMV and CP general FP counseling knowledge

All enrolled CPs and PPMVs, regardless of tier, were trained to provide quality FP counseling. The training included: (a) information on the different contraceptive methods available in Nigeria; (b) instruction and practice sessions on providing client-centered FP counseling using the Balance Counseling Strategy toolkit; and (c) instruction on how and when to refer clients to other sources of care based on the methods CPs and PPMVs are authorized to provide and the client's medical eligibility. **Figure 1** shows the proportion of respondents who correctly answered key FP questions at pretest and posttest. Knowledge was

higher at posttest than at pretest, although knowledge remained low for some questions. At posttest, almost all (97% in Kaduna and 99% in Lagos) correctly answered that condoms are the only method that prevents both pregnancy and HIV and a majority correctly answered that the client is the most appropriate person to choose which FP method to use rather than the provider or her husband (87% in Kaduna and 86% in Lagos). At posttest, fewer (59% in Kaduna and 66% in Lagos) answered that if a client experiences a sudden change in health (other than a normal side effect of the method), she should be advised to go to the nearest health facility and inform them of the method she is using. Less than half of respondents in Kaduna (47%) and two-thirds in Lagos (66%) correctly identified Copper IUD as a non-hormonal method at posttest.

At least 79% of CPs and Tier 2 PPMVs correctly answered Depo-Provera and Sayana Press questions at posttest.

CP and Tier 2 PPMV knowledge of injectable contraceptives

CPs and Tier 2 PPMVs (n=359) were given information on injectable contraceptives and practiced administering injectables, including Depo-Provera and

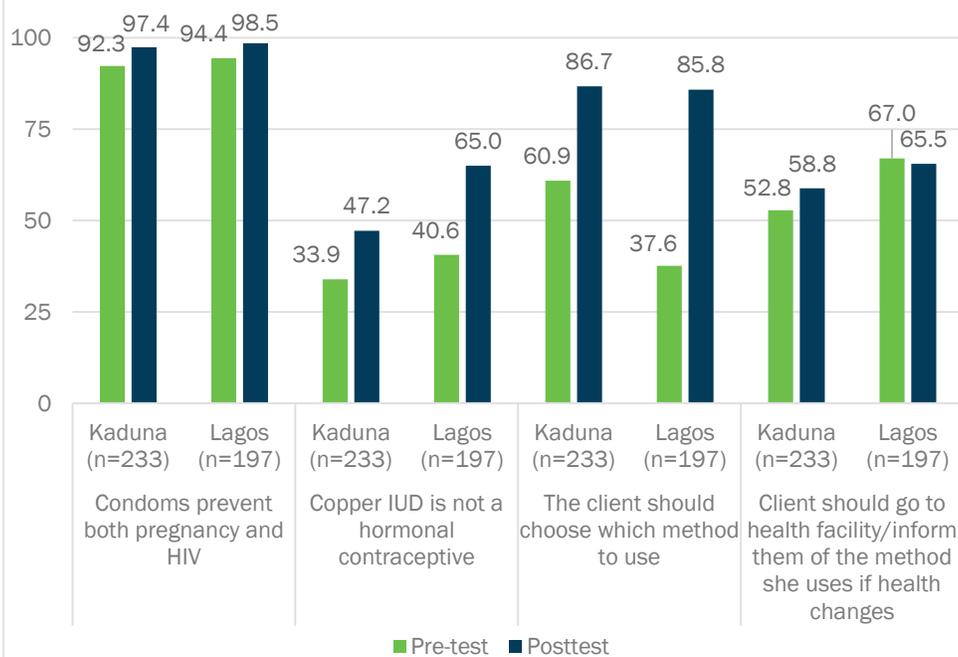
Table 2: PPMV and CP characteristics

	Kaduna (n=233)	Lagos (n=197)	Total (N=430)
Sex*			
Male	44.6	41.6	43.3
Female	54.1	58.4	56.1
Age*			
20-34	39.5	25.4	33.0
35+	56.2	71.2	63.0
Marital Status*			
Single	16.3	13.2	14.9
Married/ In-union	79.4	83.3	81.2
Widowed/divorced	3.4	3.1	3.3
Highest level of education achieved*			
Primary	0.9	0.5	0.7
Secondary	6.4	16.8	11.2
2+ years post-secondary	70.8	75.1	72.8
Other professional certificate	15.0	4.1	10.0
Cadre			
Tier 1 PPMV	10.3	23.9	16.5
Tier 2 PPMV	50.6	9.1	31.6
CP	39.1	67.0	51.9

*Totals do not equal 100 due to missing observations

² All participants enrolled in the study were given detailed information about the study before consenting to participate.

Figure 1: CP and PPMV knowledge of FP counseling on the self-administered pretest and posttest (n=430)



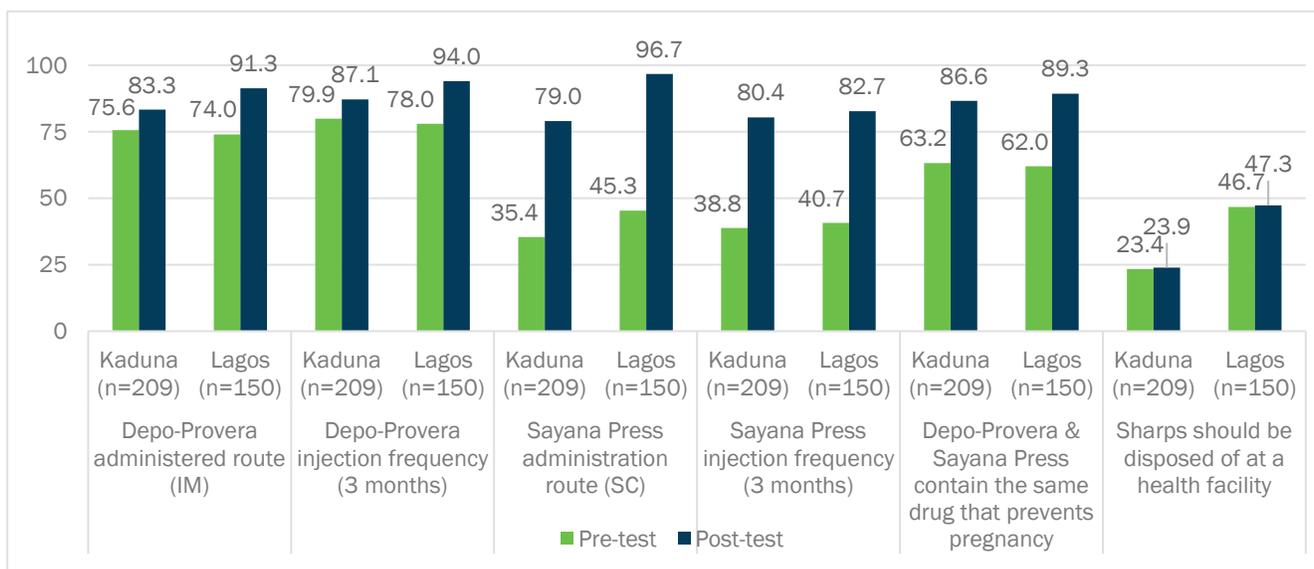
administered subcutaneously, and over 80% in each state knew that it is administered every three months (80% in Kaduna and 83% in Lagos). Many (87% in Kaduna and 89% in Lagos) correctly identified that Depo-Provera and Sayana Press have the same active drug and are equally effective at preventing pregnancy. Few, however, correctly answered that the content of sharps boxes should be disposed of at a health facility at posttest (Kaduna 24% and 47% in Lagos). The most common response at posttest was that sharps should be buried in the ground (approximately 51% of all respondents, data not shown).

Sayana Press, on dummy models and in a clinical setting during the training. Knowledge was generally higher at posttest, especially for questions about Sayana Press, than at pretest. At posttest, most respondents in Kaduna (83%) and Lagos (91%) identified that Depo-Provera is administered intramuscularly, and that it is administered every three months (87% in Kaduna and 94% in Lagos). Almost all respondents in Lagos (97%) and 79% in Kaduna knew that Sayana Press is

Tier 2 PPMV and CP knowledge of contraceptive implants

CPs and Tier 2 PPMVs were given information on, and practiced inserting, contraceptive implants during their training. They were also asked questions about knowledge before and after the training. Across both states and for all key indicators shown, implant knowledge was higher at posttest than at the pretest

Figure 2: CP and Tier 2 PPMV knowledge of injectable contraceptives, self-administered pretest and posttest (n=359)



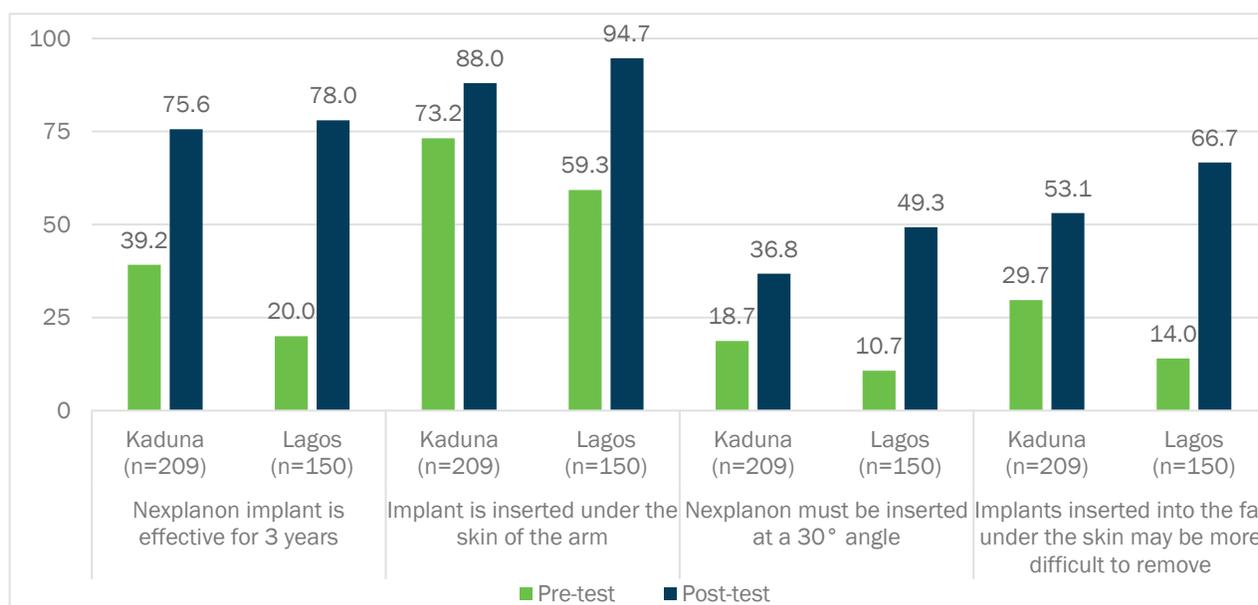
(Figure 3). For example, over three-quarters of CPs and Tier 2 PPMVs in each state knew that the Nexplanon implant is effective for three years at posttest (76% in Kaduna and 78% in Lagos). Most (88% in Kaduna and 95% in Lagos) knew that the implant is inserted under the skin of the arm. Fewer correctly identified the angle at which Nexplanon must be inserted: 37% in Kaduna and 49% in Lagos. At posttest, just over half of respondents in Kaduna (53%) and two-thirds in Lagos (67%) knew that implants inserted into the fat under the skin may be more difficult to remove.

The proportion of CPs and Tier 2 PPMVs who correctly answered these 4 implant questions was higher at posttest than pre-test

CONCLUSION

Preliminary results from the pretest and posttest are promising and suggest that PPMVs and CPs can be trained on general FP counseling using a standardized training curriculum. Additional attention is needed to improve knowledge of non-hormonal methods, such as the copper IUD, and how to counsel clients if they experience a sudden change in their health. Results also suggest that trainings should focus additional attention on how and where to dispose of sharps, and of the angle at which Nexplanon must be inserted. The role of job aids to reinforce knowledge will also be explored as demonstrated by a previous study [6]. Overall, results are promising for expanding the role of CPs and PPMVs service delivery in Nigeria.

Figure 3: CP and Tier 2 PPMV knowledge of contraceptive implants at the self-administered pre-test and posttest (n=359)



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