

# Research and Recommendations on the Delivery of Injectable Contraceptive Services by Patent Medicine Vendors in Rural Nigeria

## Background

Patent medicine vendors (PMVs) are major providers of health care services in Nigeria. As frontline health workers, PMVs perform multiple tasks, including consultation, counseling, treatment and referral of sick clients in medically underserved communities. The Pharmacy Council of Nigeria issues licenses for opening PMV shops and most PMVs learn to sell and dispense drugs through apprenticeships with license holders. Other PMVs are retired health workers such as pharmacy assistants, nurses, community health workers, and civil servants who manage PMV shops for additional income. Most PMVs in Nigeria belong to local affiliates of the National Association of Patent and Proprietary Medicine Dealers (NAPMED).

PMVs also play an important role in the delivery of contraceptive services.<sup>1-3</sup> In recognition of this role, the Nigeria FMOH recommends that PMVs motivate and counsel clients and refer them for contraceptive services, supply nonprescription contraceptives and re-supply oral contraceptive pills.<sup>4</sup> However, the pharmacy laws in Nigeria restrict PMVs from selling and administering injectable contraceptives, which are the most popular contraceptive in Nigeria.<sup>5</sup> Despite the pharmacy laws, 11% of women who use injectable contraceptives report getting their injectables from PMVs.<sup>6</sup> In other countries, drug shop operators have been trained to sell injectables and even provide the injection.<sup>7</sup>

Although several studies have explored the role of PMVs in offering contraceptive

services in general,<sup>1-3</sup> few have specifically assessed the contribution of PMVs in delivering injectable contraceptives. In addition, little information is available on the experiences of Nigerian women who use injectable contraceptives. With funding from the World Health Organization, researchers from the University of Ibadan, Nigeria, conducted a study to help fill these gaps.

## Methods

A descriptive cross-sectional survey was conducted between June and July 2012 in four rural local government areas (LGAs) in Oyo state: Akinyele, Egbeda, Ido, and Ona-Ara. Twelve trained interviewers conducted face-to-face interviews with PMVs from PMV shops in each LGA. A 38-item validated questionnaire was used to collect information on PMVs' demographics, knowledge of contraceptives, delivery of contraceptives, and access to resources for providing safe contraceptive services. The data were analyzed using SPSS version 15.

Interviews were also conducted with previous or current users of injectable contraceptives who were randomly selected from households in the LGAs. A 35-item validated questionnaire was used to collect information on demographics, use of injectable contraceptives, and sources of supply for the method. A subgroup of the women participated in focus group discussions to explore their knowledge of and experience with injectable contraceptives and their level of satisfaction with injectable contraceptive services provided by PMVs. The discussions were transcribed and analyzed using a thematic approach.



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PMV restocking shelves.

## Findings

### PMVs' demographics

Most of the PMVs were females (84.8%) and the majority (82.3%) were married. The mean age of PMVs who participated in the study was 33 years and the mean amount of time spent working as a PMV was 8 years. The majority of PMVs had secondary school education (69%) and only one person had no formal education. More than a quarter (29.3%) had worked in a hospital setting before, and of these, 68.1% had worked as a nurse/midwife (i.e., 20% of all respondents) (Table 1). The majority (94.6%) of the PMVs interviewed were also shop owners. Most of the respondents (86.4%) acquired their skill as a PMV through apprentice training.

### PMVs' knowledge and practices

The majority (89.1%) of the PMVs were aware of injectable contraception. Only 39.0% had ever received any training on family planning provision, yet virtually all (95.9%) reported providing at least some type of contraceptive services. The most common contraceptives that the PMVs sold were male condoms, oral contraceptive pills and emergency contraceptive pills. However, 12.6% of PMVs said they had sold injectables (Table 2).

In addition to selling injectable contraceptives, 14.9% of the PMVs reported administering injectables and 43.9% reported referring clients for this contraceptive. These findings are further explained by qualitative interviews with women. Clients reported accessing injectable services in three ways: some purchase the product and receive the injection from the same PMV at the shop, some purchase the product from one PMV and have it administered by a different PMV, and others purchase the product and get the PMV to administer the product in the client's home.

Table 1: Demographic Characteristics of PMVs

Variable	Local Government Area				Total (N=396)
	Akinyele (n=96)	Egbeda (n=99)	Ido (n=102)	Ona-Ara (n=99)	
<b>Age (years)<sup>1</sup></b>					
Mean age	34.4	34.2	34.2	30.8	33.4
<b>Mean years of experience as a PMV<sup>2</sup></b>					
Mean years	8.27	8.34	8.16	7.94	8.2
<b>Had worked in a health facility</b>					
Yes	33.3%	34.3%	30.4%	19.2%	29.3%
No	66.7%	65.7%	69.6%	80.8%	70.7%
<b>Professional background</b>	(n=22)	(n=21)	(n=20)	(n=9)	(N=116)
Pharmacist	3.1%	0.0%	3.2%	3.2%	2.6%
CHEW <sup>3</sup>	3.1%	5.9%	3.2%	10.5%	5.2%
CHW <sup>4</sup>	3.1%	0.0%	0.0%	0.0%	0.9%
Nurse/midwife	65.6%	70.6%	74.2%	57.9%	68.1%
Pharmacy tech.	0.0%	0.0%	3.2%	0.0%	0.9%
Other	25.0%	23.5%	16.1%	26.3%	22.4%

<sup>1</sup> Three missing in Akinyele, 5 missing in Egbeda, 3 missing in Ido, 2 missing in Ona-Ara

<sup>2</sup> One missing in Egbeda, 5 missing in Ido, 5 missing in Ona-Ara

<sup>3</sup> Community health extension worker

<sup>4</sup> Community health worker

Among the 50 PMVs who had sold injectable contraceptives, most (88%) were women. More than half (58%) had experience working in a health facility. Among the 59 PMVs who had actually administered injections, almost all (94.9%) were women, and the majority (74.6%) had worked in a health facility at some point. To help ensure the confidentiality of services, 50.8% of the PMVs who administer injections said they have private rooms. Also, 10.2% of the PMVs who had administered injections said they offer counseling and 18.6% said they keep records of this service.

### *Injectable contraceptive user demographics*

The majority (51.9%) of the women interviewed were between 30 and 39 years old. Almost all (97%) of the women were married and the majority (74.5%) were in monogamous unions. More than half (56.3%) of the respondents had a high school diploma, called the West African School Certificate/General Certificate of Education (WASC/GCE); only 3.5% had no formal education (Table 3).

### *Injectable contraceptive user practices*

Table 4 shows information on the pattern of use of injectables among the women. Depo-Provera was the most popular injectable used, accounting for 82.3% of previous use and 77.6% of current use. Duration of current use varied; the largest proportion of women (60.5%) had used injectable contraceptives for the past 1–5 years.

A substantial proportion of the women interviewed (64.1%) had experienced side effects of injectable contraceptives. The most common side effects were irregular menstrual flow (92.5%), weight gain (25.5%), increased menses (15.4%), headaches (14.9%) and breast tenderness (14.1%). Among previous users, 68.9% had received services from a health facility, 19.6% from a PMV, and 11.5% from a community health worker. Data

Table 2: PMVs' Reports of Sale, Administration and Referral of Injectable Contraceptive Services

Injectable contraceptive service	Local Government Area				Total (N=396)
	Akinyele (n=96)	Egbeda (n=99)	Ido (n=102)	Ona-Ara (n=99)	
Sale	11.5%	17.2%	10.8%	11.1%	12.6%
Administration	12.5%	19.2%	14.7%	13.1%	14.9%
Referral	59.4%	52.5%	32.4%	32.3%	43.9%

Table 3: Demographic Characteristics of Injectable Contraceptive Users

Variable	Local Government Area				Total (N=393)
	Akinyele (n=97)	Egbeda (n=102)	Ido (n=96)	Ona-Ara (n=98)	
<b>Age (years)</b>					
Mean age	36.6	37.6	38.2	35.6	37.0
<b>Education</b>					
None	2.1%	2.0%	5.2%	5.0%	3.5%
Primary school	36.1%	28.4%	14.6%	28.7%	27.0%
WASC/GCE	49.5%	52.9%	63.5%	59.4%	56.3%
OND*/diploma/nursing	8.2%	11.8%	12.5%	5.9%	9.6%
HND*/First degree	4.1%	4.9%	4.2%	1.0%	3.5%
<b>Religion</b>					
Christianity	48.5%	59.8%	79.2%	36.6%	55.8%
Islam	51.5%	40.2%	20.8%	63.4%	44.2%

\* OND=Ordinary National Diploma; HND=Higher National Diploma

Table 4: Women's Previous and Current Use of Injectable Contraceptives

Variable	Local Government Area				Total (N=393)
	Akinyele (n=97)	Egbeda (n=102)	Ido (n=96)	Ona-Ara (n=98)	
<b>Type of injectable contraceptive ever used</b>					
Norigynon	1.0%	2.0%	1.0%	1.0%	1.3%
Noristerat	13.4%	20.6%	12.5%	18.8%	16.4%
Depo-Provera	85.6%	77.5%	86.5%	80.2%	82.3%
<b>Current use of injectable</b>					
Yes	32.0%	30.4%	33.3%	30.7%	31.6%
No	68.0%	69.6%	66.7%	69.3%	68.4%
<b>Type of injectable in current use</b>	(n=31)	(n=31)	(n=32)	(n=31)	(N=125)
Noristerat	19.4%	25.8%	15.5%	29.0%	22.4%
Depo-Provera	80.6%	74.2%	84.4%	71.0%	77.6%

were similar among current users, who obtained their services from PMVs (22.6%), health facilities (66.0%) and community health workers (11.4%). Among the women who had received any type of injectable contraceptive service from PMVs, 67.0% rated the services as “good,” 20.9% rated them as “average” and 12.1% rated them as “poor.”

### Recommendations

1. The FMOH, the Pharmacy Council of Nigeria and other stakeholders should convene a stakeholders meeting to discuss the current practices and potential roles that PMVs can play in selling and administering injectable contraception services in Nigeria, especially given that PMVs are the first point of contact for many people who practice self-care for reproductive health.
2. The NAPMED, with the support of governmental and relevant nongovernmental agencies, should support and organize continuing education programs for PMVs to improve their provision of family planning services.
3. Given the growing importance of family planning in Nigeria, contraceptives — including injectable contraceptives — should be added to the list of drugs that PMVs are expected to stock in their shops.
4. Despite the finding that some PMVs are administering injectable contraceptives, more evidence is needed to determine the safety and feasibility of this practice. A pilot study should be conducted to train PMVs to counsel women about injectables, screen women for eligibility, sell the method and administer injections with close supervision and monitoring by the NAPMED and the FMOH. The PMVs should also be trained to refer clients to health facilities for complications and for the provision of long-acting and permanent methods of contraception.

### Conclusion

Although pharmacy laws in Nigeria do not permit PMVs to offer injectable contraceptives, 12.6% of PMVs in this study reported selling and 14.9% reported administering injectable contraceptives in response to demand from clients. A sizable number of women also reported that they had received injectable services from PMVs. PMVs are likely to

continue these practices because they are often the nearest health providers to people living in medically underserved communities. However, fewer than half of the PMVs surveyed in this study had ever been formally trained to provide family planning services. Interventions and policy actions are needed to ensure that PMVs are a safe contact for clients with family planning needs.

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For more information, please contact:  
Professor Ademola J. Ajuwon  
Department of Health Promotion & Education,  
University of Ibadan, Nigeria  
Telephone: 234-0803-489-2561  
Email: [ajajuwon@comui.edu.ng](mailto:ajajuwon@comui.edu.ng) or [ajajuwon@yahoo.com](mailto:ajajuwon@yahoo.com)