

Assessing the contributions of private health facilities in a pioneer private-public partnership in childhood immunization in Nigeria

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Abstract

The vision of Nigeria's immunization program is to reach and sustain routine immunization coverage of greater than 90% for all vaccines by 2020. In order to achieve this, Abia state embarked on a unique private-public partnership (PPP) between private health facilities and the Abia state ministry of health. The aim of this partnership was to collaborate with private health facilities to provide free childhood immunization services in the state - the first of its kind in Nigeria. This is a retrospective study of the 2011 Abia state, Nigeria monthly immunization data. In the 4 local governments operating the PPP, 45% (79/175) of the health facilities that offered immunization services in 2011 were private health facilities and 55% (96/175) were public health facilities. However, 21% of the immunization services took place in private health facilities while 79% took place in public health facilities.

Private health facilities were shown to have a modest contribution to immunization in the 4 local governments involved in the PPP. Efforts should be made to expand PPP in immunization nationally to improve immunization services in Nigeria.

Introduction

In order to achieve the national vision of reaching and sustaining routine immunization coverage of 90% for all vaccines by the year 2020,¹ there was need to involve both the private and public health facilities in providing immunization services. There is paucity of information on the success of private-public partnership in improving free immunization coverage in Africa.² However, in tuberculosis

(TB) management, private-public partnership has been shown to have contributed in detecting more than 25% of TB cases in China, India, Nigeria and Philistines and in maintaining a high treatment among TB patients.³

Utilization of private health facilities is common in Nigeria.⁴ In some towns; the private sector had outgrown the public sector in health care provision. A study in Nigeria showed that 78% of people treated their last case of diarrhea and 65% treated their last case of acute respiratory infection outside the public health sector.⁴ This preference for private health facilities might be due to proximity of private health facilities to the people, ability to have a flexible payment schedule, constant availability of a medical doctor in private health facilities and poor services in some government hospitals.⁵ This preference for health facilities informed the need to bring in the private sector into the immunization program while maintaining the high quality of services provided.

The realization of the importance of the private health facilities in meeting the immunization target while maintaining the quality of care led to the signing of a memorandum of understanding (MOU) in 2009 between the Abia state Ministry of Health (MOH) and private health facilities. The MOU sought to formally involve private health facilities in the provision of free immunization services in the state. The collaboration involves: i) supply of free vaccines to private health facilities; ii) provision of cold chain equipment to ensure vaccines are potent; iii) provision of data tools *e.g.* tally sheets, registers etc.; and iv) capacity building for the private service providers. On their part, the private health facilities are to: i) provide the vaccination free to clients; ii) record immunization data and render monthly data returns as required; iii) collect vaccines from local government areas (LGAs) cold store and account for all vaccines and materials collected; iv) provide weekly scheduled routine immunization services, and v) allow access to MOH officers or its agents to enter their facilities for purposes of supervision, surveillance, monitoring and evaluation.

The private-public partnership was open to all private health facilities in Abia state, but is mainly functional in four local governments areas of Aba South, Aba North, Osisioma and Umuahia North. These four local government areas are urban/semi-urban LGAs and have many private health facilities operating within them. This private-public partnership (PPP) is unique because the private facilities provide the services free without being paid any money by government or development partners. Our literature search did not reveal any documented evidence of this type of partnership in any other part of Africa. The PPP in childhood immunization being practiced in places like

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Senegal, Bangladesh etc. were those in which the government contracted out immunization services to private health facilities.⁶ This study seeks to assess the contribution of the private health facilities in providing immunization services in these four local government areas.

Materials and Methods

This is a retrospective study of data submitted monthly by the local government immunization officers to the Primary Health Department of Abia State Ministry of Health between January 1, 2011 and December 31, 2011.

The local government immunization officers collect vaccines from the state cold store and store them in the local government cold stores. The health facilities then collect their vaccines from the local government cold stores. However, some large tertiary hospitals collect their vaccines directly from the state cold store. The health facilities supply data monthly to the local government immunization offi-

cers (LIOs) on vaccines and consumables (syringes, injection water) used. The LIOs submit the data monthly to the Primary Health Department of MOH.

The data from the local government immunization officers contains the names of the different health facilities, the status of the health facility (whether private or public), and the number of children that received the different vaccines in each of the health facilities. The data also contains the number of children that received different doses of each of the vaccines in each health facility. For instance, for diphtheria-pertussis-tetanus (DPT) vaccine, the number of children that received the first dose, the second dose and the third dose of DPT vaccine are all indicated in separate columns. We used the third dose of DPT (DPT3) which is usually given at 14 weeks to measure the routine immunization coverage in the local government areas because unlike some other vaccines, DPT is not given during supplementary immunization activities and is a more accurate indicator of vaccines given through routine immunization.⁷

The estimated local government population is based on the 2006 population census with an annual growth rate of 2.7%.⁸ The number of births a year is estimated as 4% of the population. The estimated monthly birth cohort is the estimated yearly number of births divided by 12.⁹

Abia state, like other states in Nigeria, operates the expanded program on immunization with five prescribed visits to receive one dose of Bacille Calmette Guerin, four doses of oral polio virus vaccine, three doses of DPT, three doses of hepatitis B vaccine, one dose of measles and yellow fever vaccines.^{1,10}

Results

The result in Table 1 showed that in Aba North, 74% (28/38) of the health facilities that offered immunization services in 2011 were private health facilities and 26% (10/38) were public health facilities. However, 40% of the immunization services took place in private health facilities while 60% took place in public health facilities.

In Umuahia North, 20% (10/50) of the health facilities that offered immunization services in 2011 were private health facilities and 80% (40/50) were public health facilities. A percentage of 13% of the immunization services took place in private health facilities while 87% took place in public health facilities (Table 1). Furthermore, in Aba South, 53% (26/49) of the health facilities that offered immunization services in 2011 were private health facilities and 47% (23/49) were public health facilities. However, 24% of the immunization services took place in private health facilities while 76% took place in public health facilities (Table 1).

In Osisioma, 39% (15/38) of the health facilities that offered immunization services in 2011 were private health facilities and 61% (23/38) were public health facilities. However, 15% of the immunization services took place in private health facilities while 85% took place in public health facilities (Table 1).

In summary, in the four local governments, 45% (79/175) of the health facilities that offered immunization services in 2011 were private health facilities and 55% (96/175) were public health facilities. However, 21% of the immunization services took place in private health facilities while 79% took place in public health facilities.

Discussion

The PPP has been beneficial in providing immunization services to most parts of these four local government areas involved in the PPP. Forty five percent of the health facilities offering immunization in these four local government areas are private facilities. This has helped to get the health facilities closer to the people and has also helped to provide improved access to immunization for families that prefer patronizing private health facilities. Distance from health facilities has been shown as a barrier to accessing routine immunization by caregivers.^{11,12}

Although 45% of the health facilities offering immunization are private facilities, only 21% of the immunization services occur in these facilities. This is compared to 22% of immunization delivered by non-profit private sector facilities in urban areas in Bangladesh.¹³ In Ghana, it is estimated that 40% of total immunization are delivered by non-profit civil society organizations and mission hospitals through their outreaches and community based outreaches.¹³ The large proportion of immunization in public health facilities in Abia state could be due to the fact that some of the public health facilities are large general hospitals, and teaching hospitals that have large clientele and serve as referral hospitals. In addition, many people might not yet be aware that some nearby private health facilities provide immunization services and so still travel far to public health facilities to immunize their children. Furthermore, public health facilities carry out immunization outreach activities to neighboring communities and immunize children at their homes and communities and this increases the number of

Table 1. Showing immunization services in different health facilities in Abia state, Nigeria.

Local government area	Estimated population	Estimated monthly birth cohort	Type of health facility	Number of health facilities offering immunization services	Total number immunized in 2011
Aba North	119,575	409	Private	28 (74%)	1362 (39.60%)
			Public	10 (26%)	2081 (60.40%)
			Total	38	3443
Umuahia North	245,474	840	Private	10 (20%)	832 (12.70%)
			Public	40 (80%)	5742 (87.30%)
			Total	50	6574
Aba South	471,516	1614	Private	26 (53%)	2718 (24.30%)
			Public	23 (47%)	8446 (75.70%)
			Total	49	11,164
Osisioma	244,330	836	Private	15 (39%)	1295 (15%)
			Public	23 (61%)	7361 (85%)
			Total	38	8656
Total			Private	79 (45%)	6207 (20.80%)
			Public	96 (55%)	23,630 (79.20%)
			Total	175	29,837

people that are immunized by the public health facilities unlike most of the private health facilities that only immunize at their facilities.

In 2010, the mean DPT3 coverage was 95% in the 4 PPP LGAs and 59% in the other 13 LGAs (target 80%). This is compared to the overall national coverage of 68% in Nigeria.⁷ This discrepancy in immunization coverage between PPP local governments and other local government areas might be due to the fact that health facilities offering immunization services might be more easily accessible to people in PPP local governments. Contracting services to non-profit non-governmental organizations has also been showed to improve access to immunization and other primary health care services in Bangladesh, Cambodia, Senegal etc.⁶ However, unlike the case of Abia state, these non-profit organizations were paid to carry out these services.

The data also showed wide variations in the proportion of facilities in each of the local government areas that offered immunization services which were privately owned. While 74% and 53% of facilities offering immunization in Aba North and Aba South local government areas respectively were privately owned, only 20% were privately owned in Umuahia North. This could be explained by the fact that Aba North and Aba South are commercial cities with a lot of private facilities and few public health facilities while Umuahia is the state capital with a lot of public health facilities.

One limitation of this public-private partnership is that all the local government areas actively involved in this partnership are urban or semi-urban. Thus the findings from this study cannot be generalized to rural local government areas which usually have fewer privately owned health facilities.

Conclusions

Private health facilities have been shown to have a modest contribution to immunization in the four local governments practicing the

PPP. In addition, they have also helped to make routine immunization accessible in most parts of the local governments involved in the PPP. Efforts should be made to expand this PPP in immunization nationally to improve immunization services in Nigeria. Similar partnership could also prove beneficial in other African countries.

However, there is need to ensure that the potency of vaccines are maintained by an effective monitoring of the cold chain system and that staff at the private health facilities are regularly trained. This is because private health facilities have been shown to lack knowledge on immunization schedule, waste and vaccine management and lack correct cold chain equipment.^{14,15}

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