Universal Health Coverage for Rural Communities in Nigeria: How may patent medicine vendors be engaged?

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ABSTRACT

Universal health coverage has been touted as a key policy objective of most health systems the world over. However, to what extent it has been achieved across continents and countries varies widely, with sub-Saharan Africa faring the least while bearing the highest burden of disease. In these settings, much of the inhabitants are rural and access needed health care from untrained, often poorly regulated commercial drug shops with concerns over products and service quality frequently expressed. The study undertook to critically explore and understand retail drug market interactions in a rural context with a focus to identifying scope for potential regulatory interventions that aim to improve market performance.

Guided by the economic framework of Structure-Conduct-Performance Paradigm, data was collected from a sample of patent medicine vendor outlets and drug consumers in Katsina-Ala Local Government Area of Benue State, north central Nigeria, over 9 months in 2012. Data was generated from sampled participants through triangulation of semi-structured questionnaires, in-depth semi-interviews, structured observations, Key regulatory interviews and review of secondary documentary evidence. Thematic data analysis focusing on provider and consumer perceptions and knowledge of drugs and their appropriate use, as well as the role of regulation, its appropriateness, adequacy and effectiveness were undertaken. Regulatory staff perceptions of their mandate and challenges of regulation were also analysed.

The study established patent medicine vendor outlets to be important sources of essential medicines for inhabitants of the local government area for ambulatory primary health care. Although drug shop retailers were acknowledged as offering reliable sources for a broad range of drugs at relatively more affordable prices, a number of market failures exist: low quality of products and services, wide spread regulatory infractions, contextually inappropriate regulations and weak regulatory implementation and enforcement.

The study recommends a review of current stand-alone policies guiding the practice of patent medicine retailing in Nigeria to better align it with contextual realities, which require multi-component approaches incorporating provider training and financial incentives, community literacy interventions and a strengthened and better incentivized inspectorate strategies in its drive towards universal health coverage.

Key words: Universal Health Coverage, medicine vendor, consumer, regulation, Nigeria, rural areas

Introduction

Universal Health Coverage (UHC) is at the centre of current global healthcare delivery debates and agendas, having been recognized at the Alma-Ata Declaration over three decades ago, that "Health for All" was a requirement both for enhanced quality of life and global peace and security (WHO 2005). The concept conveys a notion that all people access needed health services without experiencing financial hardships (WHO 2010; WHO 2012). It implies people getting health care they need, where and when needed, delivered in user friendly ways (Waddington and Egger 2008), and embeds mobilization of sufficient resources for health, reduction in reliance on out-of-pocket payment for health services and enhanced efficiency and equity. Universal healthcare services can potentially ensure that peoples are healthier, productively engaged in their communities and offers financial cushion for ruinous healthcare outlays. It is therefore a crucially important component of sustainable economic and social development, poverty reduction and key to enshrining social equity. However, few health systems in the world have moved close to achieving universal health care for their peoples with the vast majority struggling with the provision of even minimal health care packages, a situation attributed to rigid focus and emphasis on high-tech curative medicine and insufficient resource allocation to equitably meet priority health care needs (Adhikari et al. 2010; Bennett 1992). These problems are particularly acute in sub-Saharan Africa where most public health systems are overwhelmed by disease burden (old, new and re-emerging) and unable to meet popular expectations. In Nigeria for instance, the government has adapted several health reform programmes since the 1980s to deal with the challenge with minimal success. Particularly, the adoption of the Primary Health Care (PHC) paradigm emphasizing prevention and management of health problems in their natural social settings, in ways that meet people's basic health care needs through comprehensive community based strategies rather than disease focused approaches was seen as an attractive alternative approach to the delivery of public health care in ways that engendered equity in access to quality and affordable health services. The model was however, riddled with a catalogue of weaknesses and flaws and it too failed to enthrone the pristine goal of full health coverage for Nigerians (FMOH 2011). The health system therefore, is unable to respond equitably and effectively to basic health demands of people, and incapable of providing needs based service coverage and mitigating health inequity.

Consequently, market relationships in the provision of healthcare services are a prominent feature of the African healthcare landscape (Goodman et al. 2004; Giustu et al. 1997; Mills et al. 2002; World Bank 1993; Zwi et al. 2001). Non state actors have been highly active in health and health care delivery in Nigeria right

from the beginning of orthodox medicine in Nigeria, as evidenced by the missionaries who first establish health clinics and dispensaries, before the then colonial government responded to the important challenge of health care provisioning. To date the private sector still looms large in the health arena of the country, providing about 70% of health services and accounting for 65% of total health expenditures, much of which is out-of-pocket expenses (NDHS 2009; SHOPS Project 2012; World Bank 2013). Private health markets are pluralistic, consisting of both for-profit and not-for-profit entities offering a wide and diverse range of products and services (Berman and Rose 1996). The structure of the for-profit healthcare providers is equally varied comprising institutional, group or individual based providers, with the latter rendering full range clinical services or limited to mainly pharmaceutical retailing.

The continuum of drug retailers reported in the literature encompasses a limited number of pharmacies, extensive network of specialised drug shops run by individuals with some health related qualifications or no medical training, numerous general shops and itinerant vendors both having no medical qualifications whatsoever (Goodman et al. 2004; Ndyomugyenyi et al. 1998; Molyneux et al. 1999). These retail outlets are widely used in sub-Saharan Africa for common health problems of public health importance as malaria, tuberculosis, respiratory infections and sexually transmitted disease (Brugha and Zwi 1999; McCombie 2002). For example, about 70-80% of childhood febrile illnesses in Africa have been reportedly treated in drug retail shops (Brieger et al. 2004; Goodman et al. 2004). Drug shops in Africa are highly patronized by care seekers owing to easy accessibility, quick services, availability of more reliable drugs, courtesy and affordability considerations (Igun 1987; William and Jones 2004;). There has therefore been a growing interest in engaging retail drug outlets to expand coverage of appropriate and essential care for common health ailments (Brieger et al. 2004; Tawfik et al. 2002). However, this interest is tempered by high predilection among retailers for frequent regulatory infractions and prioritization of profits over quality considerations with consequent poor treatment outcomes and associated behaviours that increase drug pressure on the society (Goodman et al. 2007). These socially undesirable practices have provided a basis for resistance from some government quarters against collaboration; prefer stricter regulation or outright ban of these medical entrepreneurs.

In Nigeria, retail drug outlets referred to as Patent Medicine Vendors have an established network of outlets in both urban and rural areas and in the latter, they may be the sole source of healthcare (Brieger et al. 2004). For example, in rural parts of eastern Nigeria, mothers used patent medicine vendors as point of first call for the treatment of childhood febrile illness (Okeke and Okeibunor 2010).Patent medicine vendors are licensed to distribute only over-the-counter drugs: drugs believed to be relatively safe and their use clearly understood by everyone (PCN 2003). However, their economic, cultural and spatial accessibility advantages have

been argued to be eclipsed by technical flaws and frequent regulatory abuses such stocking and sale of counterfeit drugs, all acting to compromise the will of regulatory agencies to continue to tolerate or even sustain formal engagements with them (Adikwu 1996; Alubo 2001).

The aim of this study is to explore the potential of improving patent medicine vendor practice and their use as channel for expanding coverage of essential healthcare services particularly in rural communities leveraging on their quantitative importance and geographical spread. It also purposes to examine potential policies and make recommendation of interventions for improved patent medicine performance that may leverage sustainable public-private partnership for universal health coverage.

Methods

The study was conducted in Katsina-Ala, Local Government Area (Council) in Benue State, north central Nigeria. It is located about 190 Kilometres north east of the state capital, Makurdi and has a total population of 249, 219, who are mostly yam and crop farmers. It is rural with few paved roads, no portable water and erratic power supply. The Council has a total of 48 government health facilities comprising a State general hospital and 47 local government clinics and dispensaries, complemented by a private pharmacy and 93 patent medicine vendor outlets.

Ethical approval for the study was obtained from the ethical clearance committee of Queen Margaret University, Edinburgh and the Benue State Government, Nigeria. Study participant freely gave informed consent to participate and given the legally sensitive nature of the information to be obtained, retailers were assured that the study was unconnected to neither drug regulatory authorities nor the findings be used for taxation. Further, they were assured of anonymity and confidentiality as strategies to encourage disclosure of information perceived to be commercially or legally sensitive, such as drugs they were not permitted to stock and practices beyond their remit and competencies.

Data were collected for this study using three tools that comprised questionnaires, in-depth interviews and observational studies. Firstly, an outlet census of all patent medicine vendors in the council was undertaken to provide a baseline data on the number and location of outlets as well as serve as sampling frame. 30 structured questionnaires were used to collective representative data related to retail characteristics, regulatory visits, compliance with regulations and perceived regulatory infringements from providers. In-depth interviews were conducted with 10 purposively selected retail outlet owners across the council area to explore further retailers' perceptions and behaviours in the market. Though the number of qualitative interviews is small, all communities in the local government area were segmentally covered and topics questioned encompassed structural, conduct and performance elements of the drug retail market. A similar way, 30 and 10

systematically selected patent medicine vendor clients were also surveyed and interviewed respectively. Additionally, 5 key informant interviews with government regulatory officials overseeing pharmaceutical supply at the state and national levels were undertaken to supplement the former data.

Qualitative interviews were analysed based on an initial coding scheme, which was constantly refined throughout the analytical process focusing on aspects with potential for public-private collaboration and engender universal health coverage.

Results

Patent medicine vendors' perception of their roles are presented as verbatim quotes and analysed.

Perceived health system challenges and barriers

Patent medicine retailers identified multiple gaps in the public health system in terms of inadequately distributed service points, financial barriers and poor availability of drugs and thus viewed their role as providing cheaper alternatives for consumers and improved accessibility to products, provided at extended and flexible work hours. Retailers also felt they complemented the formal health systems by emphasizing referral of serious cases, and receiving prescriptions from them in turn.

"One good thing is this, the grassroots is where the population of the entire local government is based. The general hospital here is the only general hospital around this place, and it has no drugs, they are either on strike or not functional and that one alone cannot meet the needs of the entire people. So sometimes, we get the drugs to ease the pains of the masses." (R 03)

Another seller puts it more emphatically:

"I want to tell you that without patent medicine dealers in Nigeria, there is no way you can help the condition of patients in this country. Reason by yourself, in this local government area, how many of these pharmacies do we have? Can one pharmacy be able to attend to everybody in this local government area? And some local government areas do not have any pharmacy shop. It is we that are providing drugs where there is no pharmacy." (R 02)

The importance and hence relevance claimed by patent medicine vendors is explicitly corroborated by a regulatory official:

"Retail medicine vendors are supposed to fill a gap that is created because pharmacists are not in that community." PCN

Another said:

"Generally they serve the need of a certain class of people which is providing the immediate health need." NAFDAC

Whilst these drug sellers emphasised their role in complementing the public sector in attaining the overall health agenda of the country, they also conceded to regulatory infringements

"Actually, what you are saying is true, eh, some of the drugs we sell, our license did not cover it, but since we are in local area, where sometimes, we only find one pharmacy or not, we do have those essential drugs." (R 07)

This confessional statement agrees with some of the accusations made against patent retail providers by drug regulatory officials as one state regulator asserted:

"Some of them stock even more than a pharmacy shop. If you go out to their shops, you will be seeing it oh. They hide the prescription drugs in some places, and when you request, they will take it from the carton. If you want to buy ampiclox for example, they will bring it out from the carton. Some are even involved in wholesaling, when you want to do wholesale, you have to register as a pharmacy and you need a pharmacist as a partner. They are not trained to handle these drugs."

The analysis exemplify important role of patent medicine vendors as a vital source of essential health care in rural settings, a role tempered low training and by pervasive regulatory infringements by providers.

Aspirations and expectations

All interviewees and questionnaire respondents consistently expressed the desire for enhanced knowledge and practice improvement through continuing education and timely and relevant information dissemination from regulatory agencies. They perceived current regulatory interventions as inappropriate and ineffective and desired improved regulation that reflected contextual realities.

Consumer perceptions and expectations

Patent retailers were referred to variously as doctors, chemists, patent medicine vendors or simply as drug sellers, and generally described either as qualified or quack. A provider who was known to have acquired any form of medical or health related qualification such as nursing, nursing assistant, pharmacy technician, medical laboratory technician was seen as qualified provider, while one who understudied an experienced retailer and established a retail outlet was labelled as quack. Patent vendor outlets were therefore adjudged to offer services of varying standards, although overall, patent medicine vendors were perceived as playing crucially important roles in host communities. They were thought of as providing emergency services, temporary treatment before definitive treatment was sought at

more opportune time. These notions are encapsulated in several consumer responses as these:

"Well, I feel the medicine store sellers too are of help, because in emergency situations, they address immediate problems that may arise," (R 04)

"These people are important because they are helpful, especially in times of difficulties when you don't have enough money, like now." (R 06)

Utilization of drug vendors

Multiple reasons for the use of medicine stores were offered such as closeness of provider to home, proxy buying, quick services and suitable opening times, as reflected in some typical responses:

"I have so many children, so when they go ill, I usually consult the retailer on behalf of my ill child …, and he administer drugs that cures the child's health immediately" (R 02)

For other consumers, the appeal for patent medicine vendors was short waiting times, drug availability and convenience.

"The retail shops are better because they respond quickly to people's problems, unlike the government hospitals that don't even have drugs, I remember, when I took my wife to the government hospital for treatment, they prescribe drugs for me which were not available in the hospital pharmacy, … so, the retail shop are more efficient in taking adequate care of patients." (R 10)

"Sometimes, it is very difficult to have access to a general hospital or a primary health care centre, so I decided to come to a convenient place whenever am feeling pains or have to buy drugs." (R 07)

These quotes of consumers explicitly reflect the important role of patent medicine vendors as key sources of healthcare and agree with the views of both drug vendors and drug regulators

Banning of patent medicine shops

At the moment in Nigeria, there seems to be a growing consensus among formal regulatory agencies and formal pharmacy operators about scrapping of drug retailing by vendors due to quality and regulatory concerns. Therefore, asked if patent medicine vendor outlets be banned, all consumers interviewed strongly opposed the notion. These are the thoughts of one respondent:

"Government should not scrap it, because they are helpful, especially in times of difficulties, like now I've no enough money to go to the hospital, so medicine stores should not be scrapped." (R 06)

Similarly, another buyer put it even more strongly this way:

"The government will kill us, because not all of us will be able to go to the town for hospital …" (R 08)

The many deficiencies identified in the market notwithstanding, it is unequivocal that consumers valued this group of medical entrepreneurs highly and want them retained, calling for better training and improved regulatory implementation and supervision.

Provider training and qualification

Retail outlet clients desired that providers improve their educational training and enhance their qualifications to boost their competences as revealed in consumer interviews:

"It is advisable that they further their education so that they will treat people well." (R 05)

Another patent medicine vendor client said:

"I will advise the federal, state and local governments to organize workshops that will further enlighten these practitioners, and also make a law that will mandate training for the retail shop practitioners like the health technology, health management institutions. That will help a lot, since most of them gained freedom from apprenticeship, this will improve rural services, which they offer." (R 09)

In this sense, both users and providers in patent medicine outlets jointly acknowledge the value of training opportunities to improve practice and outcomes in the market.

Regulation

Consumers also expressed the prospects of improved regulation of practitioners, to ensure that the right standard of health care is provided.

"There should be a regulatory body that should be seeing over their respective affairs, let them not take it as their own personal business, let them be checked." (R 01)

"Moreover, medicine stores are of great importance, so I feel, it should not be closed. If only the government wish to be fair, it should look for better means that will improve services, thereby ensuring that it is qualified personnel that should dispense." (R 09)

These expectations from drug shop consumers are borne out of their perceived inappropriate qualifications and practice, their poor regulatory compliance and weak regulatory enforcement. The imperatives for them may have arisen from their

poor technical knowledge of diseases and drugs, heightened by drug consumption by all individuals in the society, including the young and elderly.

Patent vendors in the eyes of regulators

Regulatory staff characterized patent medicine vendors as untrained pharmaceutical merchandizers, more appropriate for rural areas and licensed to provide only basic household remedies as first aiders. Patent medicine vendors were also framed as law breakers:

"In Nigeria first and foremost, we recognize pharmacist, the pharmacy technician and for the purpose of pharmaceutical care and services in the remote areas and basic household remedies, we recognize the patent medicine vendors."(PCN)

Furthermore, another regulator said:

"Retail medicine vendors are supposed to fill a gap that is created because pharmacists are not in that community and because the operators of patent medicine shops are not highly skilled in the art of medicine. Therefore the intricacy of what it takes to know what a particular drug can do, they are not as knowledgeable as expected. As a result of that, patent medicine vendors are limited to stock and dispense certain category of drugs which we call over-the-counter drugs." (NAFDAC)

Arguing further, he framed medicine vendors as unethical and often practiced in breach of the rules of healthcare.

"Some of them stock even more than a pharmacy shop, but they are not supposed to do wholesaling; certain vendors are involved in wholesaling."

Regulators have said patent medicine vendors are untrained and unskilled in the science and art of pharmacy and medicine. They flaunt the rules by engaging in unlawful practices as sale of prescription only medicines, wholesale and handling of cases beyond their competencies. These constitute real threats to any strategy to partner these entrepreneurs in the delivery of public health interventions.

To address the flaws and weakness highlighted in this market, regulatory officials said a wide range of regulatory strategies and interventions were developed and deployed under themes as standard setting and provider training, information dissemination and awareness creation and coercion and sanctioning. These have however been constrained by inadequate funding, weak institutional capacity and inter-regulatory agency conflicts.

Discussion

In much of the developing world, public paradigm of healthcare provisioning has been the channeling of products and services through public sector facilities and Non-governmental organization for free or at subsidized price. Inequalities in access arising from this model of distribution have been linked to resource constraint and selective provisioning of services.

The study has highlighted the important role played by patent medicine vendors in expanding coverage to essential health care services in a rural community. The finding of retail drug shops locating in remote areas and sometimes being the only source of health care has been widely reported in the literature from central and eastern Africa (Goel et al. 1996; Palmer et al. 2003; Mills et al. 2002; Zwi et al. 2001). The high acceptance and utilization reported in this study has also been reported in the literature documenting retail drug shop practices elsewhere in Nigeria, Tanzania and Cameroon. Consumers use them or even prefer drug shops above formal facilities for reasons as closeness to home, availability of reliable drugs, convenient opening hours, cheapness of services and scope for credit (Goel et al. 1996; Goodman et al.2007; Igun 1987). Also, the vexed issue of pervasive regulatory infractions by retailers and weak regulatory enforcement and supervision has been widely reported in sub-Saharan Africa and other low income countries (Ensor and Weinzierl 2007; Hongoro and Kumaranayake 2000; Kumaranayake et al. 2000; Patouillard et al. 2007; Wafula et al. 2013). In the Nigerian context, regulations that govern these vendors exist, but implementation has been ineffective for a number of reasons as location in remote and difficult to reach places, inadequate infrastructures and tacit permission of regulatory infringements (Usar 2014). Concerns regarding technical quality of services obtained at patent medicine vendor outlets as expressed by consumers and regulatory officials have also been reported previously in Nigeria (Adikwu 1996; Alubo 2001; Brieger et al. 2004; Oshiname and Brieger 1992).

The evidence has highlighted the potential of patent medicine vendors to expand access to essential drugs and potentially serve as a platform for the provisioning of community based public health programmes. However, the steep inclination for regulatory violations pose constraint for a possible public-private partnership. The key question therefore is how government may intervene in retail vendor market to leverage sustainable partnership with these solo providers.

Evidence has also shown that interventions to improve the quality of service delivery at retail drug outlets in sub-Saharan Africa have produced mixed outcomes and their long term impacts are not known (Patouillard et al. 2007; Wafula et al. 2010). This has partly been attributed to the stand-alone nature of these interventions among other factors as it also emerged in the Nigeria study. The

study has demonstrated the complex nature of challenges embedded in the market (low competence of providers, regulatory infringement and weak regulation) and therefore, argues for multifaceted approaches that integrates the elements that enhances provider knowledge, improves consumer and community health literacy and allows feasible mechanisms of regulatory implementation and supervision to improve overall performance of patent medicine vendors and position them for partnership with the public sector (Brugha and Zwi 1998; Goodman et al. 2007).

A mix intervention comprising accreditation, focused consumer information and enhanced inspectorate has successfully increased access to quality pharmaceutical products and practices among drug shops in rural and peri-urban areas of Tanzania (Goodman et al. 2007; Rutta 2009; Valimba et al. 2014). In this programme, a drug shop can become an Accredited Drugs Dispensing Outlet (ADDO) by undergoing a specified training, which entitled a retailer to also sell a limited range of prescription-only drugs, receive regular supervision, refresher trainings, business skills training and access to microfinance as incentives (Rutta et al. 2009).

The model has shown that drug vendors' profit maximization motives were tempered by desire for appropriate knowledge base related to rational drug use and took pride to be seen as custodians of powerful healing medicines. Tanzania represent a similar context to Nigeria in many respects and provides an appropriate template which Nigeria can adopt in its tenuous efforts to achieve an ethical retail drug shop market suitable for engagement in the provision of essential public health care interventions.

Conclusion

Market relationships occur in every health system, with more visible impact as the influence of the public sector weakens. The study has demonstrated the significant role and importance of the phenomenon of patent medicine vendors in widespread provision of health care commodities and services in rural areas, where they may be the first and only source of healthcare. Also, potential points of interventions have been highlighted. To creatively and sustainably engage patent medicine vendors to improve the quality of services as precondition for universal health coverage, multi-faceted strategies involving all key stakeholders, including policy makers, retail providers, inspectorate agencies and the final consumers must be developed.

Whilst health system goal may be improved and sustained universal coverage with healthcare, the means of achieving it remains the subject of debate, for example the potential role of markets as demonstrated may be encouraging, its undesirable impact on equity and universality has been observed (Hanson et al. 2001).In order to promote sustainability through the development of health markets, policy trade-offs between equity and universal health coverage and long term efficiency and sustainability need to be considered. This is of crucial policy importance in public-

private partnership that seeks to achieve the desirable public health goal of sustainable universal healthcare access.

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