

SEAM Ghana

Regulatory Interventions Can Improve Geographical Access to Pharmaceutical Services in a Developing Country

R. K. Puni,¹ A. N. O. Dadoo,² J. Nyoagbe,¹ M. F. Awuku-Kwatia,¹ and K. Eghan³

¹Pharmacy Council, Ghana ²Centre for Tropical Clinical Pharmacology & Therapeutics, University of Ghana Medical School ³Management Sciences for Health

Background

Developing countries are saddled with problems related to inadequate pharmaceutical services, facilities, and personnel, especially in remote and rural areas. The problem of poor geographical access is acute generally in sub-Saharan Africa, with most medicine supply outlets located in busy urban shopping centers where profits are nearly guaranteed. Improving geographical access to pharmaceutical facilities is key to improving access to medicines and pharmaceutical services.

Prior legislation that regulated the pharmaceutical industry in Ghana did not address the location of pharmaceutical facilities. The effect was a skewed distribution of pharmacies throughout the country, with Accra, Kumasi, and Sekondi-Takoradi accounting for approximately 85 percent of pharmaceutical facilities. In addition, historical evidence supported the idea that unbridled competition in the pharmaceutical sector would lead to the deterioration of quality of services.

This political and historical background shaped the Pharmacy Council's decision to institute measures aimed at improving accessibility to pharmaceutical services in urban areas as well as rural districts. The Council introduced accessibility criteria for evaluation of new pharmacy applications. These criteria were based on the minimum distance allowed between pharmacies, population densities, risk to clients/patients, physical access to clients, and monitoring needs, among others. These new regulations were enacted in 1994.

Although the policy has now been in place for some time, poor distribution of pharmacies in Ghana is still a problem, with more than 88 percent of all pharmacies located in three cities—Accra, Kumasi, and Sekondi-Takoradi (see table). A need was identified to assess whether the regulations enacted regarding the geographical distribution of pharmaceutical facilities has actually improved access to the facilities.

Regional Distribution of Pharmacies in Ghana as of December 2004

Region	Number of Pharmacies	Percentage of Total Number of Pharmacies
Greater Accra	877	65.45
Ashanti	260	19.40
Western	44	3.28
Brong Ahafo	35	2.61
Central	38	2.83
Eastern	48	3.58
Volta	16	1.19
Northern	11	0.82
Upper East	8	0.60
Upper West	3	0.22
TOTAL	1,340	100

Objectives

To examine the effects of a regulatory intervention restricting the opening of new shops to a distance of not less than 400 meters from existing shops, and measure the impact of that intervention on the distribution of pharmaceutical services and access to medicines.

Specifically, the objectives of the assessment were to—

- ❖ Examine the intervention before and after implementation
- ❖ Inform policy makers about the extent of local evidence regarding this intervention
- ❖ Suggest further research and development that may be of value in this area

Methodology

Data analysis was based on existing primary records from the Pharmacy Council. Data were extracted from pharmacy application records and the 1990 and 2003 Pharmacy Council Gazettes. The Gazettes provided a record of those pharmacy facilities in good standing as of the end of December 1989 and December 2002. Data obtained from 1989 were considered to be pre-intervention, and data obtained in 2002 were considered to be post-intervention. The analysis was carried out by examining and calculating frequencies, or percentages where appropriate.

Results

- ❖ In 1989, there were 333 pharmacies in Ghana, of which 21 (6.31 percent) were located in non-urban areas. Following the intervention, there was a marked improvement in the number of pharmacies in non-urban areas. In 2002, there were 832 pharmacies in Ghana, 160 (19.23 percent) of which were located in non-urban areas.
- ❖ There was an increase in the number of pharmacies for both urban and non-urban areas; however, the percentage increase was greater in the case of pharmacies in non-urban areas.
- ❖ Pharmacies in this study excluded wholesale pharmacies.
- ❖ The disparity observed in the Volta region may be due to the brisk business nature frequently demonstrated in the Ho area in the 1970s and 1980s.
- ❖ In the Northern, Upper East, and Upper West regions, the spread is slow due to the nature of the settlements; therefore, most activity remains in the capital towns.
- ❖ The minimum distance rule is not the only regulation used by the Pharmacy Council; other accessibility criteria such as population densities, risk to clients/patients, physical access for clients, and monitoring needs, are also considered.
- ❖ Although there has been an improvement in access to pharmaceutical facilities, such access has not yet reached the very remote and rural areas—periurban areas continue to hold the majority of pharmaceutical facilities.

Comparing the Number of Pharmacies in Urban and Non-Urban Areas Pre- and Post-Intervention

Region	1989			2002		% Increase
	Urban/Non-Urban	No. of Facilities	% Non-Urban	No. of Facilities	% Non-Urban	
Ashanti	Kumasi Urban Non-urban	79 2		180 15		127.84 650
Greater Accra	Accra Urban Tema Urban Non-urban	189 8 1		391 29 89		106.87 262.5 8800
Eastern	Koforidua Urban Non-urban	6 6		12 21		100 250
Western	Takoradi Urban Non-urban	15 1		22 7		46.67 600
Brong Ahafo	Sunyani Urban Non-urban	3 3		13 9		333.33 200
Central	Cape Coast Urban Non-urban	7 3		9 10		28.57 233.33
Volta	Ho Urban Non-urban	0 5		4 8		400 60
Northern	Tamale Urban Non-urban	4 0		6 0		50 0
Upper East	Bolgatanga Urban Non-urban	0 0		4 1		400 100
Upper West	Wa Urban Non-urban	1 0		2 0		100 0
Totals	Urban Non-urban Total	312 21 333	6.31%	672 160 832	19.23%	115% 662% 150

Summary of Pharmacy Applications Considered by the Pharmacy Council from 1998–2002¹

Total applications considered	957
Total applications rejected	226
Number of applications rejected due to distance criteria	127
Number of applications subsequently approved with change of location	11
Number of applications subsequently approved with no change of location	34
Number of applications rejected due to other criteria	99

¹It must be noted that some applications do not reach the Pharmacy Council for consideration because of unofficial communication between applicants and officers of the Council, who advise applicants to change locations before submitting their applications. These applications, however, are not documented.

Complementary factors that could have caused an increase in the number of pharmacies include the following—

- ❖ Suburban development or growth
- ❖ Hospitals located in particular areas
- ❖ Anticipation by pharmacists of future business
- ❖ Additional support from the government in the form of incentives for pharmacies that intend to set up in non-urban areas
- ❖ Favorable conditions such as cultural, social, financial, educational, and career incentives that aid in the recruitment and retention of pharmacists in such areas.

Any area that displays an increase in the number of pharmaceutical facilities probably has many of these characteristics, most of which are more common in urban areas of developing countries.

Further research is necessary to determine the following—

- ❖ Cultural and social factors that influence pharmacists/proprietors to set up pharmacies in particular locations
- ❖ Impact of complementary factors on improving access to medicines
- ❖ Public perception of the Council's entry/accessibility criteria and its effect on potential applicants

Conclusion

Regulatory interventions can improve the geographical distribution of pharmacies and pharmaceutical services, and increase access to medicines.

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