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Increasing Access to Government Primary Care Health Facilities: Quality Improvements Matter

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Abstract

Context – Government health facilities, which primarily cater to the poorer segments of a community, have a reputation for providing low-quality services. This results to low utilization of the facility, thereby exacerbating further inequities in healthcare. This paper reports on the results of a facility-level intervention to improve quality of care in a government primary care facility in a highly-urbanized city in the Philippines.
Objective – To determine if there is a significant difference in the mean number of patients seen before and after implementing an intervention in a local health facility in a highly-urbanized city in the Philippines.
Methodology – Facility N is a primary care facility owned and operated by a local government unit in a highly-urbanized city in the Philippines. Its catchment area is comprised of 11 *barangays* (villages) with an estimated population of 22,624. A three-pronged intervention to improve quality of service delivery was implemented consisting of a) staff demonstration of courtesy to patients, b) efficient case management, and c) consistency of service availability. Controlling for the day of the week, mean monthly patient case loads before the intervention (T_0), and at one (T_1), two (T_2), three (T_3), and four (T_4) months post-intervention were compared using analysis of variance to determine if there is a significant difference in the number of patients seen before and after implementing the intervention at the 0.05 level of significance. This was supplemented with focus groups conducted among community representatives. Data was collected from August to December 2012, and analyzed in February 2013.
Results – Mean (±standard deviation) patient case load increased over the study periods [$T_1 = 46\ (\pm 16)$, $T_2 = 45\ (\pm 20)$, $T_3 = 50\ (\pm 22)$, and $T_4 = 36\ (\pm 21)$] compared to pre-intervention levels [$T_0 = 34\ (\pm 17)$]. Two-way analysis of variance showed that there is a difference in the mean number of patients seen in at least one time periods ($p < 0.001$). Further analysis using Fisher-Hayter Pairwise comparison showed significant mean difference between T_0 and T_3 only. In the focus groups conducted among community representatives (government officials, housewives, lay health workers) before and at four months post-intervention, respondents noted the positive reception by community members of improvements being implemented in the health facility.
Conclusion – Quality improvements in service delivery, especially in government facilities, are essential in expanding access to the health system, bridging the gap in health status between the poor and non-poor, and achieving the goal of universal health care.
Keywords: Quality of health care, Community health center, Philippines.

1. Introduction

The attainment of the global goal of an acceptable level of health for all is premised on, among others, the delivery of quality healthcare services (Declaration of Alma Ata, 1978). More recently, this has been reaffirmed by the World Health Organization when it identified quality of care as an intermediate goal of the health system (WHO, 2007) (WHO, 2008). Quality of care is, to an extent, a determinant of healthcare access, i.e., a provider's failure to offer quality services results to clients turning to the health system only when they are in dire need of care (Brown, Franco, Rafeh, & Hatzell). Consequently, efforts directed at quality improvement have been adopted in the health sector more prominently by private hospitals through accreditation from third-party players, e.g. member-organizations of the International Society for Quality in Health Care (http://www.isqua.org) and the United Kingdom Accreditation Service (http://www.ukas.com).

The public sector's response to the call for quality improvement, particularly among community health centers, has been less than robust. The Philippine Department of Health, for instance, initiated the *Sentrong Sigla* Movement in the late 1990s to provide certification and public recognition for health facilities that meet certain set quality standards (Sentrong Sigla: Health ang Una). This was later merged with the accreditation requirements of the Philippine Health Insurance Corporation (DOH MC 2006-0038, 2006). Accrediting bodies of community-based care facilities elsewhere include the Community Health Accreditation Program in the United States of America (http://www.chapinc.org) and the Canadian Centre for Accreditation (http://www.canadiancentreforaccreditation.ca).

Government primary care facilities and community health centers play an integral gate-keeping function in the health system of most developing countries. They are the clients' first point of contact with the health sector, and provide most of the essential preventive, promotive and curative health services. On the other hand, government health facilities, which primarily cater to the poorer segments of a community, have a reputation for providing low-quality services brought about by neglect and inadequate resource support (DOH, 2012). This results to low utilization of the facility, thereby exacerbating further inequities in healthcare.

This paper reports on the results of a facility-level intervention to improve quality of care in a government primary care facility in a highly-urbanized city in the Philippines.

2. Methodology

2.1. Setting

Facility N is a primary care facility owned and operated by a local government unit in a highly-urbanized city in the Philippines. Its catchment area is comprised of 11 *barangays* (villages) with an estimated population of 22,624. Four of these villages, located along a creek, are considered urban poor, and are home to 75% of the total catchment population.

The facility provides an array of preventive and curative medical, dental, and laboratory services. Programs implemented by the facility include those focused on communicable and non-communicable disease control; maternal, newborn child health, and nutrition; and environmental sanitation. Because of resource limitations, not all facility services are available daily. Prenatal care is scheduled on Wednesdays and Fridays, while immunization is done on Mondays, Tuesdays and Thursdays. General laboratory services are available in the morning of Mondays, Wednesdays and Friday, while the afternoon of these same days is devoted to sputum microscopy for the tuberculosis control program.

A human resource complement of 10 staff the facility, comprised of one physician, one dentist, two nurses, three midwives, one medical technologist, one laboratory aide, and one general services staff. In addition, the health facility also has 22 volunteer lay health workers.

2.2. Intervention

A three-pronged intervention to improve quality of service delivery was implemented in Facility N, based on the problems identified through a participatory approach involving the facility staff, community leaders, and other stakeholders. Facility N was suffering from low utilization of its services: on the average, only 20 patients were being seen daily, despite the facility's accessibility to the catchment population (i.e., urban location, farthest household is located less than one kilometer from the health center, minimal to no charge for services rendered). Focus groups conducted among

stakeholders showed that, while services are generally available and accessible, patients were still not turning to Facility N for their healthcare needs because of a) adverse attitude of facility staff toward patients; b) long waiting times and difficulty in navigating the system; and c) inconsistent availability of health services.

To address these, several parallel interventions were implemented in the facility. Briefly, these were: a) staff demonstration of courtesy to patients (i.e., patients were acknowledged upon entering the facility, patients were addressed as *sir/ma'am* or *Mr. X*/*Ms. X*); b) efficient case management (i.e., prompt assessment of patient needs upon arrival at facility, reduction of redundant steps in service provision, streamlining of service processes); and c) consistency of service provision (i.e., publication of available services and corresponding schedule within facility and in community, identification of service assignment for facility staff).

2.3. Materials and Methods

The outcome considered in the analysis was the mean monthly patient case load, which refers to the total number of patients/clients who were provided services in the different areas of the facility for the given month, as reflected in the facility's daily service record. For purposes of analysis, one month was equated with 22 calendar days, which is the average number of working days per month.

Controlling for the day of the week, mean monthly patient case loads before the intervention (T_0), and at one (T_1), two (T_2), three (T_3), and four (T_4) months post-intervention were compared using two-way analysis of variance to determine if there is a significant difference in the number of patients seen before and after implementing the intervention at the 0.05 level of significance.

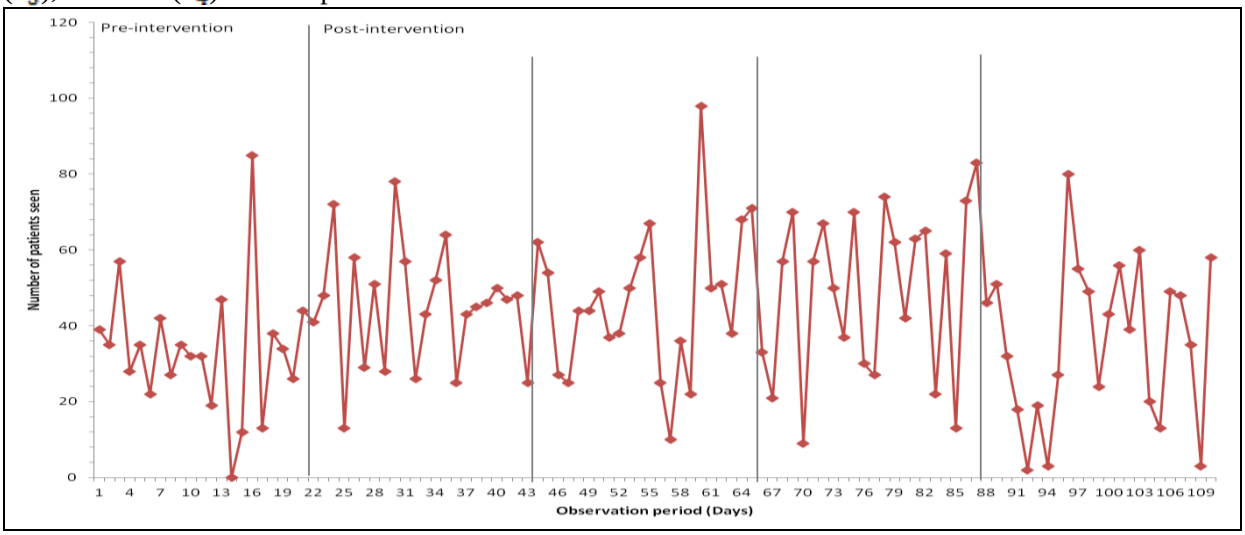
Information gathered from the service record was supplemented with focus group discussions conducted among health facility staff, community leaders, volunteer health workers, and mothers after the fourth intervention month.

Data was collected from August to December 2012, and analyzed in February 2013.

3. Results

Mean (±standard deviation) patient case load increased over the study periods [$T_1 = 46\ (\pm 16)$, $T_2 = 45\ (\pm 20)$, $T_3 = 50\ (\pm 22)$, and $T_4 = 36\ (\pm 21)$] compared to pre-intervention levels [$T_0 = 34\ (\pm 17)$], although the number of patients seen within each month was highly variable (Figure 1). Two-way analysis of variance[1] showed that there is a difference in the mean number of patients seen in at least one of these time periods ($p < 0.001$). Further analysis using Fisher-Hayter Pairwise comparison showed significant mean difference between T_0 and T_3 only.

Figure-1. Daily patient case load seen in Facility N pre-intervention, and at one (T_1), two (T_2), three (T_3), and four (T_4) months post-intervention.



[1] The assumptions of the two-way analysis of variance, i.e., normal distribution of data and constancy of variance, were satisfied by the data set.

In the focus groups conducted among community representatives before and at four months post-intervention, respondents noted the positive reception by community members of improvements implemented in the health facility. Focus group participants related that community members, comparing the period prior to and during intervention, noted that the health center appeared more organized ("*higit na maayos*"), and services were more promptly delivered ("*mabilis magpatingin*", "*maaga ng nakauuwi*", "*hindi kailangang mag-hintay ng matagal*"). Furthermore, staff, formerly described as fierce or unapproachable ("*mabagsik*") were reported to be more cordial and courteous ("*mabait*", "*palangiti*", "*mabilis mag-asikaso*"). Thus, the patients were more willing to go to the facility, as well as refer their friends and neighbors to obtain services in Facility N ("*sabi ko sa mga kapitbahay ko, sa* center *na magpa-tingin at maayos na ang serbisyo doon*").

4. Discussion and Conclusion

Discussions on access to care, while mainly focused on financial and physical access issues, should also take into consideration quality concerns with regard health care delivery. Results of the intervention described in this paper showed a marked increase in the number of patients accessing services offered in a community health center after implementation of reforms directed toward ensuring greater efficiency and client responsiveness.

The increase also implies that patients would rather ***not*** seek care (or at least obtain it elsewhere) if faced with the prospect of unacceptable treatment or slow-paced systems (Brown, Franco, Rafeh, & Hatzell). The repercussions of this last statement are far-reaching: in places where a community health center may be the only point of contact between a patient and the health system, low quality of care provision may force patients to delay (if not outright forego) seeking treatment. In turn, this may result to exacerbation and worsening of a patient's condition, and/or, for communicable conditions, the continued spread of diseases to household and other contacts.

From a governance perspective, low health service utilization due to poor quality care provision can also be viewed as an unnecessary waste of limited government funds. The operations cost of one health facility staffed with 10 personnel servicing, on the average, only about three primary care patients every hour is an inefficient allocation of scarce resources.

Notably, there was a decrease in the average case load on the fourth post-intervention month, and this could be explained by the long Christmas holiday which happened at this time. Around this period, most of the families in the community served by Facility N travel to their home provinces to celebrate the holidays with their relatives.While this paper counts as strengths the minimal change in the milieu of Facility N aside from the implemented intervention[2], which helps eliminate other intervening variables that may explain the improvement in patient case load, as well as the use of both quantitative and qualitative approaches in data analysis, it is hampered by several limitations. First, there was no direct attempt at controlling external variables that may affect the observed outcome, such as the seasonal pattern of disease occurrence. Second, since the outcome of interest was the average monthly patient case load, all patients seen at the facility for a month were counted for every visit they made to the facility for that period. Hence, it is difficult to identify whether the increase in the number of clients accessing Facility N was attributable to new or returning clients. Finally, the four-month observation period may be insufficient to demonstrate the sustainability or continuity of the effects of the intervention.

The current thrust of the Philippine government with respect to health, aligned with the global call of the World Health Organization, is ensuring greater access to the health system, especially of the more vulnerable and disadvantaged segments of society, and this includes ensuring that health facilities are responsive to client needs (DOH AO 2010-0036, 2010) (DOH, 2012). This paper has shown that quality improvements in service delivery, especially in government facilities, are essential in expanding access to the health system, bridging the gap in health status between the poor and non-poor, and achieving the goal of universal health care.

[2] A new physician was assigned in Facility N at the time of intervention, following the demise of the incumbent.

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ANNEX: Daily patient case load seen in Facility N pre-intervention, and at one (T_1), two (T_2), three (T_3), and four (T_4) months post-intervention.

Day of the week	**Time from intervention**				
	Before	**One month after**	**Two months after**	**Three months after**	**Four months after**
Monday	57	78	54	70	18
	27	64	49	67	80
	47	50	67	27	56
	38		98	65	
			71	83	
Tuesday	28	58	27	9	2
	35	57	37	50	55
	0	25	25	74	39
	34	47	50	22	
			33	46	
Wednesday	35	29	25	57	51
	32	26	38	37	19
	12	43	10	62	49
	26	48	51	59	60
		48			49
					3
Thursday	22	72	44	57	32
	32	51	50	70	3
	85	43	36	42	24
	44	45	38	13	20
	39	25			48
					58
Friday	35	13	44	30	27
	42	28	58	63	43
	19	52	22	73	13
	13	46	68		35
	41	62			