

Demand For and Supply of Public Health Services in Eastern Region of Afghanistan

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ABSTRACT

OBJECTIVE: To study the supply of and demand for and access to public health services in public clinics of three provinces.

STUDY DESIGN: A survey based observational study using cluster sampling.

PLACE AND DURATION: The study was conducted by Research and Development Department of Alfalah University Jalalabad Afghanistan and conducted in Nangarhar, Kunar and Laghman provinces during six months i.e. from 4th April, 2017 to 30th September, 2017.

METHODOLOGY: Data was collected from 30 health facilities in 15 districts of the three provinces using interviewer administered structured questionnaire containing questions about supply of and demand for public health services in BHCs, CHCs and DHs. Clinics located in districts with moderate and low security risk was included in the study. A total of 17 closed ended questions were used as proxy variables to assess the provision/supply of and use/demand for public health services.

RESULTS: The absolute majority of public health clinics at district level face deficiencies in the number of health staff, medicine, medical equipments and infrastructural resources. Among patients visiting public health facilities, the most vulnerable groups are children (73.3%) and women (23.3%). Although the clinics do not offer 24 hours services, the patients with wound or burn more than 5 percent of human body are referred to higher level of medical intervention. The quality of medicine prescribed and provided at health facilities does not comply with the expectations of doctors putting the reputation of doctors at risk. To finance the supply side of health services, majority of the health staff (86.7%) supported the idea of charging a reasonable amount of fees on patients.

CONCLUSIONS: There is a considerable gap between supply of public health services at district levels and the demand for these services. The number of daily visiting patients is disproportional to the extent of health services available. The quality of medicine prescribed is not effective and the health staff is not sufficient to reach and address the health needs of the public. Among the clinics, comprehensive health centers (CHCs) need X-ray and ultrasound machines.

KEY WORDS: Public Health, Health Facilities, Medical Equipment, Medicine, Health Staff

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INTRODUCTION

Stiglitz, a public sector economist postulates that the provision of health services -along with food, shelter and clothes- is considered one of the basic life sustaining goods in modern times¹. The necessary conditions for progress in health systems of fragile states point to factors that include sufficient financial resources, adequate technical assistance and political will². Afghanistan is a war stricken country and had been suffering

from political, economic and security instability since decades. Availability of financial, technical and infrastructural resources had seldom been sufficient for the public health sector in Afghanistan. As a result of continued war, the public health indicators have been very poor and show no prospects in the short run. Before 2002, the health sector of Afghanistan was one of the poorest health sectors in the world³. In general, the country lacked health coverage, parental care, and vaccine coverage and health facilities. Many of the public health indicators somehow improved post 2002. A prolonged conflict in the country indeed disrupted the Afghan government's ability to provide health services which left the population to rely on the funds of NGOs and international donor organizations to provide these services.

Public health services are provided in Afghanistan through two packages one being essential package for healthcare services (EPHS) and the other basic package for public health services (BPHS). EPHS is the delivery of public health services at levels of provincial hospitals. On the other hand, BPHS is the delivery of public health services at district levels through health post (HP), basic health center (BHC), comprehensive health center (CHC) and district hospital (DH). The medical interventions in BHC were related to maternal and newborn health, child health and

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immunization, public nutrition, communicable diseases and regular supply of drugs. Since 2004, all provincial and regional hospitals are financed and managed by the public sector where the district level clinics are financed and monitored by international donor organizations. These clinics are then monitored by ministry of public health (MoPH).

For the year 2004, ministry of public health Afghanistan developed a Balanced Scorecard (BSC) to monitor performance in Basic Package for Health Services (BPHS) delivery and manage contracts with service providers⁴. Although the BSC has been used previously in a range of healthcare settings⁵, the innovative use of the BSC in Afghanistan at the level of a national health system is the first of its kind for a developing country⁶. After seeing the results from the 2004 Balance Score Card (BSC), the ministry of public health identified eight priority areas in need of improvement, based on two main factors: the unsatisfactory level of performance for each indicator and its importance to the MOPH's strategy to improve people's health⁷. On the institutional development side, ministry of public health Afghanistan devised national health strategies 2005-2009 which aimed at, among others, financing health services, human resource development and quality assurance⁸. Indeed, developing, implementing and evaluating strategies to improve the quality of service provision will depend on the involvement of key stakeholders, including policy makers and private providers⁹.

Despite successful implementation of Basic Package of Health Services (BPHS) by ministry of public health in 2003, the program failed to cover basic surgical and anesthetic services because the available epidemiological information and experience support the conclusion that basic surgical and anesthetic services should be included into primary health-care services¹⁰.

Rebuilding the health care system in Afghanistan is currently being undertaken by a number of groups, including the Afghan government, several nongovernmental organizations (NGOs), and the US government. While some progress has been made many hurdles remain¹¹. The health-care system of Afghanistan is clearly underfunded, as shown by the WHO national health account estimates¹². Budget constraints increasingly determine the provision of health care services. One of the promises of cost-effectiveness analysis is that it can demonstrate how to maximize the health care benefits attainable within a specific budget. In fact, the basic assumption of cost-effectiveness analysis is that one should always prefer a health care intervention that provides a population with more benefit per dollar than another intervention¹¹.

To arrive at right policy decision and to allocate necessary resources for health care of Afghan citizens in eastern provinces, the gap between demand and supply is yet to be established. This research aims at measuring availability of health staff, necessary medical equipment, medicines and financial resources required for equitable provision of health services and responsive public health sector. These parameters of the study will yield supply side of public health services. The number of daily visiting patients will yield demand for public health services. The objective of this research project was to

study the supply of and demand for and access to public health services in public clinics of three provinces.

METHODOLOGY

This descriptive cross sectional study was conducted in 15 districts in Nangarhar, Kunar and Laghman provinces of Afghanistan from 4th April, 2017 to 30th September, 2017. This study was conducted on the health staff of the sampled clinics. For measuring availability of health staff, medical equipments, medicines, financial and infrastructural resources, a structured questionnaire was developed. Interviewer administered structured questionnaire containing questions about supply of and demand for public health services in BHCs, CHCs and DHs was used. The availability of medicine, human, infrastructure and financial resources coupled with the extent of daily visiting patients is studied. Clinics located in districts with moderate and low security risk was included in the study. A total of 17 closed ended questions were used as proxy variables to assess the provision/supply of and use/demand for public health services. Public health services are provided by Association for Assistance and Development Afghanistan (AADA), Première Urgence - Aide Médicale Internationale (PU-AMI), Swedish Committee in Nangarhar, Kunar and Laghman provinces respectively. The data was collected from 30 clinics in Nangarhar, Kunar and Laghman provinces. A single stage cluster sampling technique was used in the study. In Nangarhar province, data was collected from clinics in Kama, Rodat, Chaprahar, Momand dara, Surkh Rood, Khewa and Dara-e-Noor districts. In Kunar Province, data was collected from the clinics in Manogay, Wata poor, Nangalam, Chawkay, Narang, Chapa dara and Marawara districts. In Laghman province, data was collected from the clinics in Mehtarlam and Qarghae districts. All the data was entered into software packages for social sciences (SPSS) for finding descriptive statistics.

RESULTS

As shown in table-II, majority of the health facilities (46.7%, n=30) provide health services to population ranging from 1000 to 50000. The total operating rooms in 53.3 percent of the health facilities range from 1-4 while the average of daily visiting patients ranges from 51 to 150. Provided the number of daily visiting patients, the total number of operating rooms at the surveyed health facilities is not sufficient.

According to the survey data, the most vulnerable group of patients constitute children (73.3%, n=30) and women (23.3%, n=30). In terms of demand for medical equipments, the clinics are in immediate need for Ultrasound machine (73.3%, n=30) and X-ray machine (10%, n=30) followed by anesthesia machine (6.7%, n=30). Most of the time (73.3%, n=30), patients get medicine from the health facility. Sometimes, the clinics provide medicines that are available and patients purchase the remaining from the market. The irony is, the medicine provided at health facilities as well as purchased from the market does not comply with the expectations of the medical doctors. As much as 63.3% (n=30) of the health staff viewed the quality of

medicine to be not in accordance with what doctors expect to be. Further on the supply side of health services, the existing financial resources were not sufficient (73.3%, n=30) to fulfill operational needs of the health facilities. For instance, Swedish Committee has substantially reduced running cost for the clinics operated in Laghman Province.

The medical equipments available at health facilities were not sufficient either. 70%, of the surveyed health staff responded that the current medical equipments are not sufficient to serve the health needs of the catchment population. While the qualification of most of the medical staff 60%, who diagnose patients and prescribe medicine is MBBS/MD, but the number of these doctors is not sufficient 73.3%, to treat the number of patients getting in to the health facility for treatment. In most 76.7%, of the clinics, there is no specialist doctor at all. 23.3 percent of the respondents said that the number of doctors who had speciality was not more than one at a given health facility.

Most of the health facilities 73.3% do not provide 24 hours services making it riskier for patients with health emergencies. On the public health services provision list, most of the health facilities 90%, treat wound and burn if it was 5 or less than 5 percent of the human body. The number of beds available at health facilities ranged from 1-10 with majority 60%, of health facilities having 6-10 beds. To help finance the human, medical and other resources, the absolute majority 86.7%, of health staff at surveyed clinics supported the idea of charging some amount of fees on availing health services from public health clinics. Currently, there are no such charges. One of many challenges in the provision of public health services at district level is the execution of BPHS policy that is not updated according to the changing demographics and health indicators. When asked, the absolute majority 90%, of surveyed health staff suggested revision, improvements and/or modification in the current BPHS policy.

TABLE-I: PROFILE OF DATA COLLECTION POINTS (N=30)

Province	Frequency	Percentage	Type of Clinic	Frequency	Percentage
Nangarhar	14	46.7	BHC*	15	50
Kunar	12	40.0	CHC**	13	43.3
Laghman	4	13.3	DH***	2	6.7
Total	30	100	Total	30	100

* BHC: Basic Health center

**CHC: Comprehensive Health Center

*** DH: District Hospital

TABLE-II: CHARACTERISTICS OF SAMPLED CLINICS (N=30)

Catchment Population	Frequency	Percentage
1000-50000	14	46.7
50001-100000	10	33.3
100001-150000	5	16.7
150000<...	1	3.3
Number of total operation rooms		
1-4	16	53.3
5-9	9	30
10-14	3	10
15-20	2	6.7
Number of daily visiting patients		
1-50	5	16.7
51-100	15	50
101-150	4	13.3
151-200	2	6.7
201-250	2	6.7
251-300	2	6.7

TABLE-III: DESCRIPTIVE STATISTICS OF THE RESPONSES GIVEN BY THE STAFF OF HEALTH FACILITIES

Question	Response	Frequency	Percentage	Mean	Standard Deviation
The most Vulnerable group of patients	Children	22	73.3	2.90	0.97
	Women	7	23.3	2.85	1.06
Medical equipment Required	X-ray machine	3	10	4	0.00
	Ultrasound machine	22	73.3	2.68	0.94
	Anesthesia machine	2	6.7	3.50	0.70
Where does the patients get the prescribed medicine	From the health facility	22	73.3	2.72	0.93
	Some from health facility some from the market	8	26.7	3.50	0.92

Do the prescribed medicine comply with expectations of the doctors	Yes	11	36.7	3.00	1.00
	No	19	63.3	2.89	0.99
Is the existing financial resources sufficient to meet the prevailing demand for health services	Yes	8	26.7	3.00	1.06
	No	22	73.3	2.90	0.97
Is the current medical equipments sufficient for treating the catchment population	Yes	9	30	3.11	1.05
	No	21	70	2.85	0.96
Qualification of medical staff who diagnoses patients & prescribe medicines	MBBS/MD	18	60	3.22	0.94
	Medical Technicians	11	36.7	2.54	0.93
Number of doctors who has specialty	No specialist at all	23	76.7	2.86	1.01
	1-2	7	23.3	3.14	0.89
Is the existing health staff at health facility sufficient to effectively treat patients	Yes	8	26.7	2.87	0.99
	No	22	73.3	2.95	0.99
Does the health facility provide 24 hours services	Yes	8	26.7	3.25	0.88
	No	22	73.3	2.81	1.00
Does the health facility treat wound and burn	Yes (if the burn is less than 5% of human body)	27	90	3.03	0.97
	No	3	10	2.00	0.00
Total number of beds available at health facility	1-5	7	33.3	2.85	1.06
	6-10	18	60	2.77	1.00
	11-15	2	6.7	4.00	0.000
Do you support the idea of charging fees on the provision of public health services	Yes	26	86.7	2.84	0.96
	No	4	13.3	3.50	1.00
Do you believe the current BPHS policy needs revision, improvement and/or modification	Yes	27	90	2.88	0.97
	No	3	10	3.33	1.15

DISCUSSION

The provision of public health services is one of the primary functions of a responsive and functional state. In most of the developing countries, the provision of quality, cost effective and equitable public health services is a challenge. Besides poor infrastructure, the quality of medicine and qualification of the health staff is at the center of this challenge. Due to the tireless efforts made by well-funded NGOs, health related issues of developing countries and more particularly the issue of acceptability to essential medicine have granted much worldwide attention in recent years^{12,13}. Jean found that in low income countries, public health workers are available less than 75% of the expected working time and for 15% the public sector employment is, in practice, less than a half time job¹⁴. In Afghanistan, health facilities are under staffed, with few female staff, including night duty workers, vaccinators and nurses to provide maternal and newborn health. In addition; Waldman postulates that among other issues in the public health sector, the rapid turn-over of the health staff is an issue that makes the public health management difficult¹⁵. Along with adequate infrastructure and medical equipments, the number and

qualification of health staff directly affect the supply of health services. Afghanistan has a severely under-resourced health system; while there have been improvements, the geographic distribution of health centers in the country is uneven and many families and pregnant women live in remote areas from the health facilities. According to Joseph only approximately 50% of all pregnant women in Afghanistan deliver their babies in health facility with a skilled attendant in contrast to the 70-80% rates reported on many low income countries¹⁶. Moreover; much of Afghanistan is mountainous and conflict in many areas of the country is increasing, additionally hampering access of vulnerable children and women to life-saving health. The public health clinics in eastern region are clearly underfunded. The health staff available in the clinics was neither sufficient nor qualified for treating patients with complex health problems. To fix this problem, the health staff therefore needs ultrasound, X-ray and anesthesia machines in comprehensive health centers (CHCs). Although it is the priority of government that the medicine will be provided in clinics free of cost and is part of the national health policy⁸, the study found that the patients do not always get the prescribed medicine from the clinics. Moreover; neither the doctor nor the patients were satisfied from the

quality of the medicine provided in the clinics. Demand for availing public health services—as shown by the number of daily visiting patients—is so high that the available health staff cannot reach to the needs of patients. The groups that needs high attention are women and children. It was found that there is an immediate need for recruitment of doctors with specialty in gynecology and pediatrics.

On the supply side of the public health services, it is found that Public clinics at district level have deficiencies in terms of human, financial and medical technology. The clinics lack specialist doctors specially Gynecologists/Obstetrician and pediatricians. The number of operating rooms and beds available are not sufficient for the catchment population of the respective clinics. The study found that children and women were the most vulnerable groups of patients. There is a considerable gap between supply of public health services at district levels and the demand for these services. The number of daily visiting patients is disproportional to the extent of health services available. Among the clinics, comprehensive health centers (CHCs) need X-ray and ultrasound machines. During this study, the surveyed health staff recommended that human, technological and infrastructural resources can be financed though charging a reasonable amount of fees.

CONCLUSION

There is a considerable gap between supply of public health services at district levels and the demand for these services. The number of daily visiting patients is disproportional to the extent of health services available. The quality of medicine prescribed is not effective and the health staff is not sufficient to reach and address the health needs of the public. Among the clinics, comprehensive health centers (CHCs) need X-ray and ultrasound machines.

RECOMMENDATIONS

- a) The central statistics organization did not conduct a countrywide census since 2003. There is an exponential increase in population in eastern region of Afghanistan post 2016 -due to refugee voluntary repatriation from Pakistan. This is very important for allocating resources to the public health services.
- b) Ministry of public health should invoke revenue generation framework developed in 2014. The health staff in clinics at district level will support and help in the right execution of this policy.
- c) There is an immediate need for keeping tough quality control on the medicine prescribed at the target clinics.
- d) Donor organizations has to budget for recruiting at least one additional MD doctor in CHCs and one MD doctor in BHC clinics in three provinces of the eastern region of Afghanistan.
- e) In order to decrease child and women mortalities and filling the identified gap found in this research, MoPH should ensure availability of at least one pediatrician and one gynecologist in CHCs of all districts.

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Conflict of Interest: None

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