

Original Research Article

Perception of quality of primary health care services in South-West Nigeria: a cross sectional study

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ABSTRACT

Background: Quality of health-care services has grown in importance in both developed and developing countries' health-care systems over the years. This study aims to assess patients' perception of quality of primary health care services in Osun State in order to improve healthcare outcomes

Methods: This study employed the descriptive cross-sectional design to assess patients' perception of quality of primary health care services in Osun State.

Results: A greater proportion of respondents were motivated to utilize primary health care facilities as a result of accessibility to services/good attitude of health service providers compared to availability of services, affordability of health care services and quality of services. Sixty-two percent of 13 items measuring perception of quality of care by health care providers had above average response, only 25% of items measuring perception of quality of health care service delivery had above average response and only 16% of items measuring perception of quality of health facility had more than average responses. Physical accessibility, adequacy of cost and respectfulness of health workers were very important predictors of patient satisfaction with care.

Conclusions: Overall quality of care is perceived to be of average quality. It is recommended that strategies be put in place to ensure sustenance of service areas with perceived good quality and continuous improvement of service areas with perceived poor quality especially recruitment of more health workers, provision of adequate medical equipment and improvement of payment arrangements at the facility.

Keywords: Quality of care, Health care provider, Service delivery, Person centredness, Patients' satisfaction

INTRODUCTION

The healthcare system in Nigeria has been found to be deficient in terms of human resources, infrastructure, equipment and pharmaceutical products. Especially, lack of medical equipment is a significant issue in the Nigerian health sector, as it means that many healthcare facilities are unable to measure patients' blood pressure and majority are unable to determine children's weight. Electric dry heat sterilizers, autoclaves, electric boilers and many important types of equipment are not available at the selected primary health care facilities.¹ Quality of

health-care services has grown in importance in both developed and developing countries' health-care systems over the years.² This is because a healthy population and workforce are essential tools for rapid socioeconomic and sustainable development all over the world.³ Health-care quality has been described as a factor that is closely related to effectiveness, efficiency, efficacy, comprehensiveness, timeliness, accessibility, equity, continuity, privacy, and confidentiality. It is also concerned with the extent to which health-care resources or health-care services correspond to specific standards.⁴ Following the 1978 International Conference on Primary health care at Alma Ata, a joint resolution urging all

governments and world communities in general to take responsibility for the promotion of their people's health was adopted and the concept of primary health care gained widespread attention.⁵ In rural communities with a high burden of disease morbidity and mortality, efficient health expenditure and service utilization are hampered by the absence of adequately functioning primary health centers (PHCs), ineffective or insufficient cost sharing schemes, and by corrupt health sector practices.⁶ In order to address these concerns, policy options such as restructuring the PHC and prioritizing the delivery of a basic minimum package of health care are worth considering. Additionally, taking strong action to combat corruption in the health sector improves access to care and health outcomes without requiring additional financial investment.⁷ Recognizing the health system's shortcomings, Nigeria's federal ministry of health unveiled a comprehensive health sector reform agenda. The reform agenda includes seven strategic thrusts, two of which directly address the issue of quality care.⁸ These thrusts include increasing access to high-quality health care and increasing consumer awareness. Several strategies have been proposed to actualize these care thrusts, including the establishment of a quality assurance system, the strengthening of regulatory mechanisms, including professional codes of conduct, and the development of strategies to increase consumers' knowledge and awareness of their responsibility to improve their health, their right to quality care, and health information.⁹ Acceptability of health services is defined as the provision of health services in a way or in a manner that satisfies the preconceived wishes and expectations of patients and family members. When the health care provider meets preconceived expectations, patients and family members view the services as acceptable. The opposite is true if these expectations are not met and a patient or family member describes the health care as unacceptable.¹⁰ A patient-centered healthcare service is increasingly recognized as a proxy for quality of care and patient satisfaction.¹¹ Adequate patient-centered care, therapeutic efficacy, cost-efficiency and equitable distribution of services all contribute to quality of care.¹²

Aim and objectives

The aim of this study is to assess patients' perception of quality of primary health care services in Osun State. The specific objectives are to determine the level of availability of primary health care services, level of utilization of primary health care services, patients' perception of quality of care by health service providers, patients' perception of quality of health care service delivery, patients' perception of quality of health care facility and association between patients' satisfaction with care and health services.

METHODS

This study utilized the descriptive cross-sectional design to investigate the respondent's perception of the quality

of health care services provided to them in their various communities. The study was carried out in primary healthcare centres (PHCs) located in six local government areas of Osun State in Nigeria, comprising of Ede South, Olorunda, Ilesa East, Egbedore, Ede North and Orolu LGAs. Osun State covers a total landmass of about 12,820km², lies within latitude 6.55⁰ and 8.10⁰ North and longitude 3.55⁰ and 5.05⁰ East and has a projected 2016 population of 4,705,600. There are a total of 1,095 health facilities in Osun State. About 94% (1,033) are primary health care facilities, 5.5% (60) are secondary health care facilities and two are tertiary health care facilities. Eligibility criteria comprise being a patient receiving care at PHCs in Osun State, male or female gender of age of 18 years and above.

The sample size was determined using the Cochran's formula for sample size determination;

$$N = Z^2 \times P (1 - P) / D^2$$

Where Z is level of significance put 1.96, P is proportion of population with the attribute put at 34.9% from prevalence of satisfaction with care reported by Egbewale et al then the desired level of precision was put at 5% to arrive at a minimum sample size of 350.¹³ The sample size was increased to 450 to account for anticipated non-response. A multistage sampling method was adopted for this study. In the first stage, six LGAs were conveniently selected from 30 LGAs culminating in the selection of Ede South, Olorunda, Ilesa East, Egbedore, Ede North and Orolu LGAs. In the second stage, 1-5 PHCs were selected randomly from each LGA. In the third stage, adult patients receiving treatment in each of the primary health centre were purposively selected for the study. A semi-structured questionnaire was developed with the validity and reliability tested by pre-testing before administration to respondents. The data collection instrument had four sections. The first section comprised of questions on socio-demographic variables, the second dealt with availability of services, the third section was on utilization of services while the fourth section was on perception of quality of care. The data were retrieved between January and February 2022 and entered and analysed using statistical package for social sciences (SPSS) version 25 and Microsoft Excel 2019. Descriptive Statistics and Frequency distribution of sociodemographic variables, service availability, service utilization and perception of quality were computed. Also, Chi-squared method was used to determine association between patients' satisfaction and health service variables. Informed consent was obtained from each respondent before administration of questionnaire to them for completion

RESULTS

The total number of respondents was 450. Most (24.4%) respondents visited PHC at Ede South, 18.9% (85) visited PHC at Ilesa East, 17.8% (80) visited PHC at Ede North,

15.6% (70) visited PHC at Orolu, 12.2% (55) visited PHC at Olorunda and 11.1% (50) visited PHC at Egbedore LGA. (Table 1).

Table 1: Distribution of respondents by LGA.

Local Government Area (LGA)	N	%
Olorunda	55	12.2
Orolu	70	15.6
Egbedore	50	11.1
Ede North	80	17.8
Ilesa East	85	18.9
Ede South	110	24.4
Total	450	100

More (44.7%) respondents were between 31-45 years of age, 38.4% (173) were under the age of 30 years while 16.9% (76) were over 46 years of age. A high proportion of respondents (71%) were females while only 29% (310) were males. Bulk (55.9%) of the respondents were Muslims, 41.6% (187) of the respondents were Christians while 2.5% (11) practiced traditional religion. Most (83.3%) of the respondents were Yoruba, 9.6% (43) were Hausa and 7.1% (32) were Igbo. Majority (76.4%) of the respondents was married, 15.7% (70) were single, 4.5% (20) were divorced and 3.4% (15) widowed. A moderate proportion (44.3%) of respondents had secondary education while 32.9% (147) had postsecondary education. About 12% (53) had no formal education and 10.9% (49) had primary education. More (54.7%) respondents earned less than 30,000 naira per month, 21.5% (94) earned between 31,000-50,000 naira per month, 12.5% (54) earned between 51,000-100,000 naira per month, 8.9% (39) earned 101,000-150,000 and 2.5% (11) earned above 150,000 naira per month. A high proportion (69.9%) of the respondents spent less than 10,000 naira monthly on health, 20.9% (93) spent between 11,000-20,000 naira monthly on health, 4.6% (20) spent between 21,000-30,000 naira monthly on health. About 3% (13) spent 41,000-50,000 naira monthly on health while 1.6% (7) spent between 31,000-40,000 naira monthly on health (Table 2).

Majority (86.4%) of respondents are aware of availability of communicable disease control service, 88% are aware of availability of child survival services, 92% are aware of availability of maternal & new born care services, 87.5% are aware of availability of nutrition services, 82.4% are aware of availability of non-communicable Disease, 90.8% are aware of availability of health education & community mobilization services and 91.1% are aware of availability of Immunization services at the Primary health Centres (Figure 1). A moderate proportion (44.2%) of respondents always visited the facility for health care, 18.2% visited the facility for health care very often for health care, 26.6% often visited the facility for health care, 8.2% seldom visited the facility for the health care while 2.2% have never visited the facility for health care in the past (Table 3).

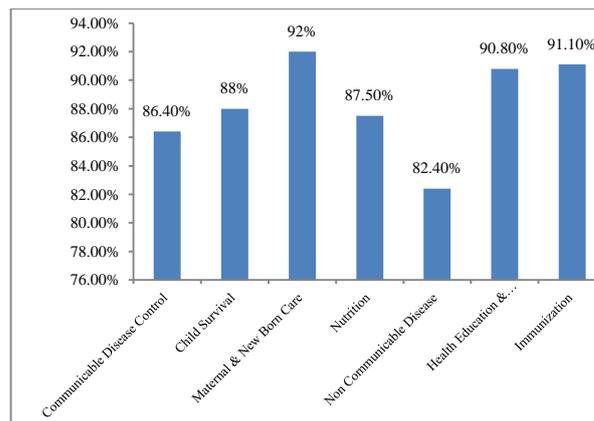


Figure 1: Distribution of respondents by level of awareness of services available in the PHCs.

Table 2: Distribution of respondents by sociodemographic characteristics.

Variable	Sub-category	N	%
Age (years)	<30	173	38.4
	31-45	201	44.7
	>46	76	16.9
Sex	Male	130	29
	Female	319	71
Religion	Christian	187	41.6
	Islam	251	55.9
	Traditional	11	2.5
Ethnicity	Yoruba	373	83.3
	Igbo	32	7.1
	Hausa	43	9.6
Marital status	Single	70	15.7
	Married	341	76.4
	Divorced	20	4.5
	Widow/ Widower	15	3.4
Highest education attained	No formal education	53	11.9
	Primary education	49	10.9
	Secondary education	198	44.3
	Post-secondary education	147	32.9
Monthly income	<30,000	239	54.7
	31,000-50,000	94	21.5
	51,000-100,000	54	12.5
	101,000-150,000	39	8.9
	>150,000	11	2.5
Monthly health expenditure	<10,000	310	69.9
	11,000-20,000	93	20.9
	21,000-30,000	20	4.6
	31,000-40,000	7	1.6
	41,000-50,000	13	2.9

Almost half (43.7%) of respondents were motivated to utilize the facility as a result of accessibility to services/good attitude of health service provider, 20.8% of respondents were motivated to utilize the facility as a result of affordability of health care services, 22% of respondents were motivated to utilize the facility as a

result of availability of services and 13.5% of respondents were motivated to utilize the facility as a result of quality of services provided (Figure 2).

Table 3: Distribution of respondents by service utilization.

Variable	Sub-category	N	%
Service utilization	Always	199	44.2
	Very often	82	18.2
	Often	120	26.6
	Seldom	37	8.2
	Never	10	2.2

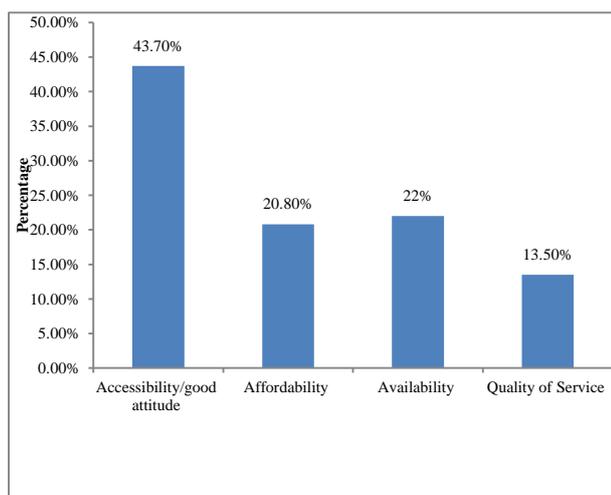


Figure 2: Distribution of respondents by factors that motivate them to utilize PHCs services.

Fifty-nine percent of respondents strongly agree that Health Workers exchanged greetings with them, 53% strongly agrees agreed that health workers were Respectful, 52% strongly agreed that health workers were friendly and 51% of respondents strongly agreed that health workers were competent. Also, 52% of respondents strongly agreed that health workers were honest, 45% strongly agreed that that there was lack of interruption during consultation, 49% of respondents strongly agreed that health workers offered seats and were made to feel relaxed/comfortable and 49% of respondents strongly agree that Health Workers showed empathy, compassion & support. In addition, 49% of respondents strongly agreed that they were given adequate information on how to manage their illness, 50.2% of respondents strongly agreed that they were given adequate information on drug usage, 51.2% of respondents strongly agreed that they were motivated to continue seeking health care and 51% of respondents strongly agree that they received good clinical examination from health workers (Figure 3). Fifty-three percent of respondents strongly agreed that they were satisfied with time spent with care provider, 49.7% of respondents strongly agreed that they were satisfied with treatment and care received, 47.8% of respondents strongly agreed that they were satisfied with the waiting

time and 52.2% of respondents strongly agreed that they were Satisfied with prescription of drugs.

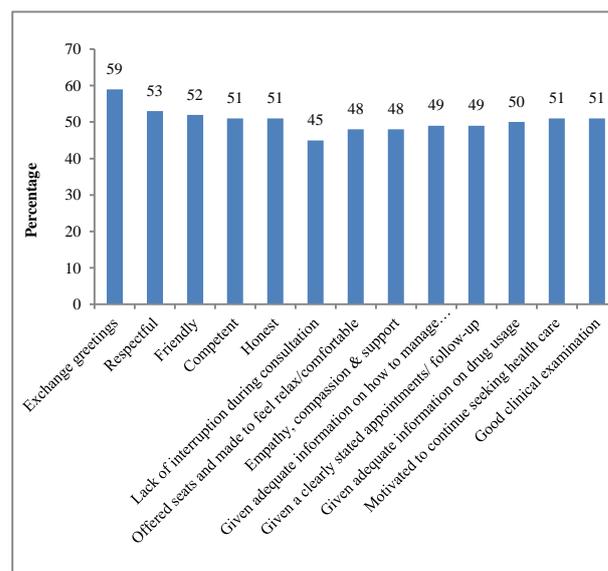


Figure 3: Distribution of respondents by perception of quality of care by provided by health care provider to them at the PHC.

Also, 48.5% of respondents strongly agreed that they received good diagnosis, 49% of respondents strongly agreed that drugs were availability, 48.3% of respondents strongly agreed that quality of drugs and 47.4% of respondents strongly agreed that health workers recovery/cure (Figure 4).

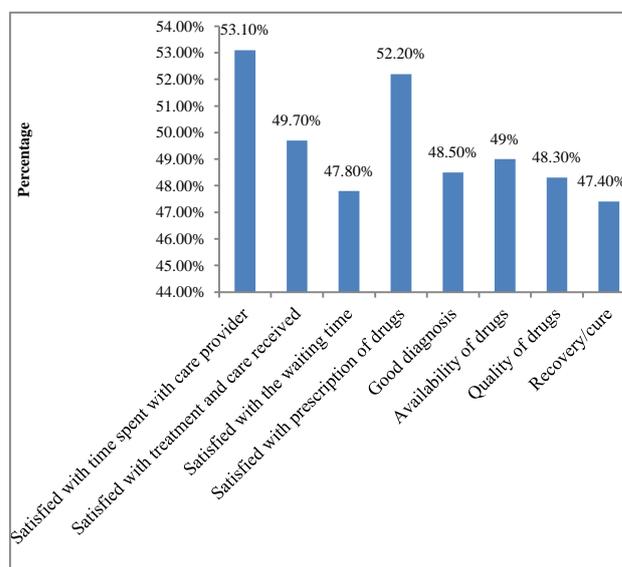


Figure 4: Distribution of respondents by perception of the quality of health care service delivery they received at the PHC.

Forty-five percent of respondents agreed that there is adequacy of cost of healthcare at the facility, 39% of respondents agreed that payment arrangements at the

facility was good and 47.4% of respondents strongly agreed that the facility was accessible in terms of physical distance.

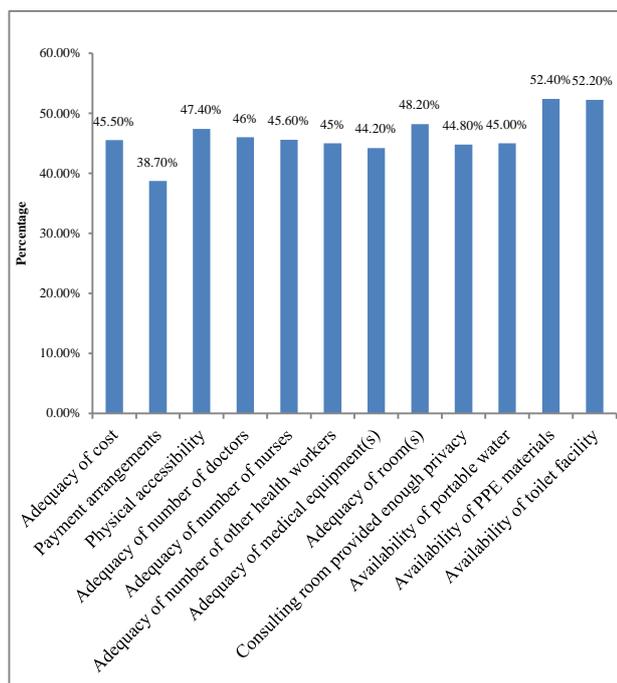


Figure 5: Distribution of respondents by perception of quality of health facility where they receive treatment.

Furthermore, 46% strongly agreed that the number of doctors in the facility was adequate, 45.6% of respondents agreed that the number of nurses in the facility was adequate and 45% of respondents strongly

agreed that the number of other health workers in the facility was adequate.

Also, 44.2% of respondents strongly agreed that the facility had adequate medical equipment, 48.2% strongly agreed that the number of rooms in the facility was adequate, 44.8% strongly agreed that the consulting room provided enough privacy, 45.0% of respondents strongly agreed that portable water was available in the facility, 52.4% strongly agreed that PPE materials were available in the facility and 52.2% of respondents strongly agreed that toilet facility was available in the facility (Figure 5). Physical accessibility ($p=0.00$), adequacy of cost ($p=0.00$) and respectfulness of health workers ($p=0.00$) were all significantly associated with patients' satisfaction with treatment and care (Table 4).

DISCUSSION

More than 90% of respondents were aware of availability of maternal & new born care services (92%), immunization services (91.1%) and health education and community mobilization services (90.8%) whereas less than 90% of respondents were aware of availability of child survival services (88%), Nutrition services (87.5%), communicable disease control (86.4%) and non-communicable disease (82.4%). The high level of awareness of maternal and new born care services, immunization services and health education and community mobilization services may be as a result of its preponderance at primary health care level. This could also be due to moderate literacy level with majority (71%) reported to have a minimum of secondary education in this study (Table 1).

Table 4: Association between patient satisfaction and services characteristics.

Service characteristics	Response	Strongly agree and agree there is satisfaction with treatment and care	Did not strongly agree & agree there is satisfaction with treatment and care	P value
Physically accessible	Strongly agree	201	0	0.00
	Agree	142	0	
	Undecided	36	0	
	Disagree	8	6	
	Strongly disagree	0	31	
Adequacy of cost	Strongly agree	202	0	0.00
	Agree	141	0	
	Undecided	39	39	
	Disagree	42	5	
	Strongly disagree	20	0	
Respectful	Strongly agree	154	6	0.00
	Agree	0	11	
	Undecided	0	11	
	Disagree	0	17	
	Strongly disagree	0	23	

A greater proportion (43.7%) of respondents were motivated to utilize primary health care facilities as a result of accessibility to services/good attitude of health

service provider compared to availability of services (22%), affordability of health care services (20.8%) and quality of services (13.5%). This shows that access to

care and person centred care are more important with respect to uptake of services ahead of availability, affordability and quality of care. Out of 13 items measuring perception of quality of care by health care providers, 8 of them had more than half (50%) of respondents strongly agreeing that health workers exchanged greetings with them (59%), health workers were respectful (53%), health workers were friendly (52%), health workers were competent (51%), health workers were honest (52%), they were motivated to continue seeking health care (51%), they received good clinical examination from Health Workers (51%) and they were given adequate information on drug usage (50.2%). The remaining 5 items measuring perception of quality of care by health care providers had less than 50% of respondents strongly agreeing that Health Workers offered seats and they were made to feel relaxed/comfortable (49%), Health Workers showed empathy, compassion and support (49%), they were given adequate information on how to manage their illness (49%) and there was lack of interruption during consultation (45%).

In other words, 62% of items measuring perception of quality of care by health care providers had above average responses. It can therefore be inferred from this finding that quality of care by provided health workers is perceived to be of moderately good quality. This result is similar to the findings reported in a study conducted in central Ethiopia, where 75% of respondents were satisfied with the attitude of health care providers especially in the areas of information.¹⁴ This is also in agreement with findings in a study carried out in North-Central Nigeria, where 83% of respondents were given adequate information about their drugs and 55% of staff were found to have above average attitude.¹⁵ Out of 8 items measuring perception of quality of health care service delivery, 2 of them had more than half (50%) of respondents strongly agreeing that they are satisfied with the time spent with care provider (53.1%) and they are satisfied with prescription of drugs (52.2%). The remaining 6 remaining items measuring perception of quality of health care service delivery, had less than 50% of respondents strongly agreeing that they were satisfied with treatment and care received (49.7%), drugs were available (49%), they received good diagnosis (48.5%), there is quality of drugs (48.3%), they are satisfied with the waiting time (47.8%) and they had good recovery/cure (47.4%). Therefore, only 25% of items measuring perception of quality of care by health care providers received above average responses. This means that quality of health care service delivery is perceived to be fair. These are in contrast to findings reported in a study in India, where 54% of respondents rated the effectiveness of the treatment offered at the health-care facility as excellent and another study in Nigeria where 64% of respondents confirmed drug availability.^{16,17}

Out of 12 items measuring perception of quality of health facility, 2 of them had more than half (50%) of

respondents strongly agreed that PPE materials were available in the facility (52.4%) and that toilet facility was available in the facility (52.2%). The remaining 10 items measuring perception of quality of health facility had less than 50% of respondents strongly agreeing that the number of rooms in the facility was adequate (48.2%), facility was accessible in terms of physical distance (47.4%), there is adequacy of cost of healthcare at the facility (45.5%), portable water was available in the facility (45.0%), number of doctors in the facility was adequate (46%), number of nurses in the facility was adequate (45.6%), number of other health workers in the facility was adequate (45%), consulting room provided enough privacy (44.8%), the facility had adequate medical equipment (44.2%) and payment arrangements at the facility was good (39%). Therefore, only 16% items measuring perception of quality of health facility had more than average responses. It can be deduced therefore from this finding that quality of health facility is perceived to be fair. These were in contrast to findings reported in a study, where 93% of respondents were very satisfied with distance to facility from home and 85% were very satisfied with availability of investigations and also similar to another study, where 71.2% of respondents agreed that the consulting room provided enough privacy.^{18,19}

Overall, the quality of care can be said to be of average quality based on the findings on the quality of care provided by health workers, quality of health care service delivery and quality of health facility. There is statistically significant association between patients' satisfaction with treatment and care and physical accessibility ($p=0.00$), adequacy of cost ($p=0.00$) and respectfulness of Health Workers ($p=0.00$). This means that physical accessibility, adequacy of cost and respectfulness of health workers are very important predictors of patient satisfaction with care.

Limitations

A major limitation of this study is the use of non-probability sampling which may affect generalizability. Therefore, generalizing the findings from this study beyond the target population should be done with caution.

CONCLUSION

This study showed that accessibility to health services and provision of person-centred care by health workers are more important with respect to uptake of services ahead of availability, affordability and quality of care. Overall primary health care service is perceived to be of average quality while physical accessibility, adequacy of cost and respectfulness of health workers are very important predictors of patient satisfaction with care. It is therefore recommended that strategies be put in place to ensure continuous improvement of service areas of perceived poor quality especially recruitment of more nurses and other categories of health workers in the

facility, provision of adequate medical equipment and improvement of payment arrangements at the facility.

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