



A Review of Challenges of Delivering Healthcare Service in Rural Areas of the Philippines

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ABSTRACT

Problems concerning health in the Philippines have been prevalent for a long time. This review article aims to provide a summary of different studies that focuses on the health system in the remote places of the Philippines. The articles used for this article were gathered from National Library of Medicine (PubMed), Google Scholar, and ResearchGate by using “rural, health care services, and the Philippines” to look for related publications. The finding states that the problem is prevalent not only in the remote areas, but everywhere in the Philippines. Aside from the Philippines, finding shows that this problem is felt by both developing and developed countries worldwide, especially those who live in the rural areas. Finding also points out different factors that contribute to the problem of rural health centers.

INTRODUCTION

Human rights includes health care and that should be accessible to all Filipinos, even in the rural areas. However, there is still a lack of service given to other Filipinos particularly those who reside in the distant areas from the city. According to the World Health Organization (2010), despite the amount of healthcare workers, the problem for the scarcity of rural health service is that most of these healthcare providers work in cities. The lack of healthcare providers who want to work in rural areas makes it hard to achieve health equity, so the availability of health centers in rural areas does not entirely solve the existing problem in health services offered in rural areas. As stated in a study, the scarcity of healthcare workers in rural areas are seen in developing countries and developed countries (Mbemba et. al., 2016). This obstacle is experienced by all parts of the world which includes the Philippines and it has been an existing problem for a long time. Thus, this reflects the performance of the health centers in rural areas and the services available.

Aside from the lack of health care providers, one of the factors that makes this problem worse is the population in rural areas. A study done in Navotas shows the ratio of healthcare workers to its population is 12.1 per 10,000 (Lam, 2018). These values are alarming and explain the lack of availability of healthcare service in rural areas of the Philippines. Aside from this, many citizens do not get enough medical attention they need because of different factors. Another study conducted in Oregon states that youth who grew in remote areas have greater medical care needs that are not addressed in comparison to those who lived in cities (DeVoe et. al., 2008). Despite the availability of health centers, the amount of healthcare providers is still inadequate compared to the population that needs its service. This problem also affects the amount of mortality in rural areas due to lack of healthcare service available to them since early years.

A study stated that people who lived in the remote places are sicker, less wealthy and lack education compared to those who live in the city (Wilson et. al., 2009). This can explain the reason why they lack medical attention, aside from the fact that there is a lack of healthcare workers, is the lack of information disseminated to these areas. Although we cannot solely blame the citizens because oftentimes, information fails to reach those who live in remote areas hence lack of knowledge about the health services available and where they can have access to it.

After gathering different publications, this review aims to gather different publications about rural health care centers and provide a summary. This review also identifies the different problems existing in the remote places of the Philippines in connection with healthcare and the factors involved.

METHODS

The references utilized in this review article were found after a comprehensive search of the English-related literature through the online databases of the National Library of Medicine (PubMed), Google Scholar, and ResearchGate. Also, the keywords “rural,issue, delivering,health center services, and the Philippines” were used to find relevant publications. In addition, all titles and abstracts were evaluated and analyzed to provide a thorough summary of the related literature that reported the outcomes of actual intervention in a straightforward and user-friendly manner. A total of 36 related articles were gathered from October 01 to November 01, 2022.

RESULT AND DISCUSSION

Table 1. : Key findings of this research are divided into several categories: (A) Lack of Healthcare Professionals (B) Health Services (C) Geographic Location and Poor Infrastructure (D) Other factors affecting health status of the population in rural areas.[28]

AUTHOR & YEAR	METHOD	RESULT
LACK OF HEALTH WORKER		
(Coovadia H, et. al , 2009)	Key informant interviews (KIIs) have been conducted in the area with health professionals and rural health workers. In addition to the KIIs, the systematic review chose the WHO comprehensive implementation tracing list of requirements. The list of requirements was carried out using the format of an interview. The respondents were the area's public health workers.[22]	The situations of healthcare institutions, as well as the quality of medical professionals and workers, significantly affect the movements of healthcare outcomes. [22]
(Paul BK, Rumsey DJ, 2002)	Several health care workers were revealed to also be writing prescriptions amidst seeming to be untrained to do so, which can also result in serious medical risks among citizens. Simply put, healthcare establishments and services are dominated with various problems .[22]	
According to the senate of philippines (2009)	The interview of Senator Angara about rural areas suffer most from poor health care systems [11]	According to Senator Angara "Two perennial problems haunt and hurt the health-care system in the Philippines: its shortage of doctors, and the concentration of health professionals in urban areas. For a country that exports doctors and nurses, the Philippines suffers from a low 1:15,000 doctor-to-population ratio, more than double the ideal 1:6,000 and a far cry from the US ratio of 1:150," [11]
Luu K, et. al (2022)	This study was based on the PCAHC perspective, which verifies the dynamic points of view impact the factors that determine health care production, consumption, and availability.[22]	Access to high-quality healthcare services is also affected by the availability of health care personnel, resources, and infrastructure at the level of health systems. Participants in this study cited scheduling issues, prolonged waiting lists, and a lack of healthcare service and practitioners. Long wait times, in particular, can be seen as a sign of poorly distributed employees and resources since service demand can overwhelm availability. [22]
Okech, M. (2022)	Using a multistage sample technique, 9 regions with low health indicators in tb, family welfare, and women's care were identified. In the survey, 89 primary care health establishments (barangay health stations, rural health units, and city health offices) emphasized health care providers and workers .[16]	Only three of the Forty rural clinics and municipal health services had the necessary number of physicians, and 22 establishments had a physician deficiency due to high workload pressure. Other facilities had more employees than needed. Nurses in rural health units were overworked. There were no medical technologists in ten rural health care units.[16]

Tejero LMS, et. al (2022)	This descriptive, cross-sectional study used Depth interviews, participant observations, as well as surveys are among the approaches used in rural areas across the country. [1]	More workers were needed because of programs that improved facilities and services, like Basic Emergency Obstetric and Newborn Care (BEMONC). As a result, LGUs resorted to recruiting contract, casual, and job order health professionals, particularly midwives and nurses, to provide healthcare services. [1]
HEALTH SERVICE		
Lee, K., et al. (2015)	A wider, three-year participatory action research project included the study in its scope with the intention of improving the sexual and reproductive health of Filipino women with disabilities in the Philippines. Two focus groups discussions and fourteen in-depth interviews with a total of 32 sexual and reproductive health service professionals in Quezon City and Ligao were conducted. [25]	Disability-related requirements of women in terms of sexual and reproductive health and their rights are often not well understood by service providers. The training and resources available to service providers that would allow them to provide a service that accommodates individuals with disabilities are few. [25]
Silvano, A. M. (2018)	To assess for significant interactions between variables in this study's descriptive statistical analysis, Pearson's product-moment correlation coefficients (Pearson's r) and eta correlation are also used. Multiple linear regression models are also used to identify the variables that predict access, availability, and application. [12]	Research results demonstrate that gender, occupation, basic source of income, general health, health condition, and disabilities had low connections between access and availability and application. The strongest determinants of accessibility and utilization overall were health problems and general health. These findings have led to the healthcare services that are greater representative of older adults in rural portions of the Philippines. [12]
Lam HY, et al (2018)	It is an interaction parameter research undertaken in city and remote disadvantaged areas of the National Capital Region , correspondingly. A study of records, analytical procedure, and a survey methodology were used to determine residents' health requirements.[6]	Both areas' primary care facilities received the necessary level of health worker training in maternity care, vaccination, child health, and tb..All of the facilities lacked post-graduate training in non-communicable diseases. The provision of health services was significantly impacted by location and poverty.[6]
Calong Calong, K., & Comendador, J. (2019).	A sample population of 62 people participated in this descriptive-cross sectional research. The Measure of Perceived Access to Health Care was used. The data was examined using frequency, percentage, mean, standard deviation, and univariate linear regression.[27]	According to the survey, health care access is good in terms of approachability, availability, affordability, and acceptability. Accessibility and accommodation, on the other hand, were evaluated as fair. It was also discovered that none of the demographic categories predicted perceived access to health care. [27]

<p>Gella, H. B., et. al (2021)</p>	<p>This study used a quantitative research design with a descriptive method. The extent of fundamental medical services implementation in community health stations was described using the descriptive approach. Using the variables maternal and child healthcare, treatment of communicable and non-communicable diseases, and health education. [17]</p>	<p>The results show that not all healthcare programs were implemented and utilized by beneficiaries due to a lack of funds, as indicated by the problems with insufficient medical/dental supplies and pharmaceuticals, facilities, and equipment. This is attributed to the decentralization of healthcare, where community health stations in cities will take the lead in implementing preventive care (Abrigo et al., 2017). [17,5]</p>
<p>(Rowe AK, et.al, 2011)</p>	<p>The researcher had the opportunity to interview the healthcare professionals (nurses and a midwife) that work at the local municipality's primary public facility, however in the other communities, health workers or Barangay Health Workers (BHWs) were interviewed.[3]</p>	<p>Aside from the infrastructural and training aspects, services[3][22].This results reflected the former analysis, which highlighted weak administration at the local and regional level were found to be contributory to low-quality service in these health facilities.[3][22]</p>
<p>Flores LJY, Tonato RR, dela Paz GA, Ulep VG (2021)</p>	<p>In order to determine where primary care facilities should be located, we introduced a variant of cooperative coverage maximal models in this work. Using open source data on a real city in the Philippines, we showed that creating such a model is feasible.[34]</p>	<p>Admission to primary medical care remains a major obstacle in the country of the Philippines. This is difficult to determine due to shortage and insufficient supply of health-care facilities throughout the country. Approximately half of the population does not have easy accessibility to primary care facilities (PCFs).[34]</p>
<p>John Grundy, V Healy, LP Gorgolon, E Sandig (2003)</p>	<p>On the subject of decentralization, international literature was reviewed. Both provinces rapidly evaluated their health management systems. Additional information was accessed from prior consultant reports and the field health information system. Gaps in the routine information system data were filled by the information from the rapid assessment, the subsequent local documenting, and the consultative workshop feedback. [14]</p>	<p>The line between service levels was fading as a result of understaffing (despite high personnel expenditure), a significant shortage of operating expenses, and decaying infrastructure. Although often located near to rural health units, primary and secondary hospitals were largely carrying out the same basic outpatient health center functions. There was no clear definition of referral systems. Due to inadequate funding and resources, the primary and secondary hospitals were no longer able to refer patients to the medical establishments in the study area[14]</p>
<p>Sanqui, R. et al(2020).</p>	<p>From March 2017 to June 2018, the study was carried out in the rural health units in Occidental Mindoro's San Jose, Magsaysay, Rizal, and Calintaan. The study included 51 health professionals who were purposefully chosen to actively be a part of the delivery of medical care at the research location. Health workers and nurses were among those employed assistants, and also the midwives and community nurses, nurses, clinical officers, and other employees. [30]</p>	<p>During interviews, the majority of the service providers exhibited favorable opinions toward using computers at work. However, some people—particularly senior nurses and midwives—were "technophobic" and expressed that they might not be able to handle using modern technologies at work. [30]</p>

Tumampus, J. P. R., et al (2019)	The systematic provision of medical care in the city of Nueva Ecija's at the Aliaga, Quezon and Licab was described using the descriptive technique.[33]	As a natural outcome of this literature review, all of the fundamental services needed by a rural health unit, including pharmacy, maternity, labor, and dentistry, are offered by municipalities, especially Aliaga's RHU. The pharmacies in the two local, do not exist.[33]
GEOGRAPHIC LOCATION AND POOR INFRASTRUCTURE		
(Collado, Z. C., 2019)	The checklist was carried out using the format of an interview. The respondents were the area's public health workers. The researcher had the opportunity to interview the healthcare professionals (nurses and a midwife) that work at the local municipality's primary public facility, interviews were conducted with members of the various communities and barrio medical workers. [8]	The distance to improved health centers has a serious influence on the population's general state of health. Intensive medical treatment and regular check-ups are the few aspects that are unable to be easily reached due to people's location to these facilities, their expense, and travel periods end up making healthcare needs extremely difficult to reach for the poor population. [7][8]
World health organization(2021)	This is the fact sheet of the WHO about climate change that was observed in many years.	Several aspects of environmental issues are already having a negative impact on health, such as the occurrence of extreme weather events like warm front, thunderstorms, and disasters, the instability of agricultural production, and mental health difficulties.[6]
Leonardia, et al. (2012)	A systematic procedure was in use, including identity checklists for the observed population of DTTBs and oral interviews with past DTTBs.	Levels of agreement are lower when it comes to distribution and the accessibility of commodities for individual requirements. Only 25% of those polled said there were sufficient opportunities for amusement as well as relaxation. Numerous former DTTBs ('Doctors to the Barrios') concurred that unfavorable living circumstances contributed to their decision to leave their remote station, while those who remained on acknowledged take joy in comfortable quarters. [19]
Tejero LMS, et al. (2022)	The methods utilized in this descriptive, cross-sectional study included participant observation, surveys, and key informant interviews in rural communities all over the nation. [32]	Another issue raised was the set ratio of health workers to population used to determine the number of HRH in LGUs. Respondents stated that area-specific factors including geography, growing population, and the number of programs being implemented were not taken into account by the current standard ratio. [32]
Liwanag, H.J., et al. (2020)	In this research, a mixed-methods approach was utilized. It was structured according to the Framework Method for qualitative health research, which involved the phases of transcribing, familiarization with the interviews, coding, creation and application of	Previous studies on devolution in the Philippines have already addressed the numerous conflicts between the local health official and the local politician, or how the politicians' decisions were motivated by their

	<p>an analytical framework, as well as charting and data analysis.</p>	<p>desire to be re-elected in office while still keeping a significant degree of discretion in planning and budgeting for health services, and had a tendency to spend in concrete projects rather than assist capacity building and system reform. [20]</p>
<p>Lam HY, de Vera R, Rivera AS, Sy TR, Cheng KJG, Farrales DB, Lopez JCF, Miguel RTD. (2018)</p>	<p>This is a concurrent mixed-methods study conducted in the regions of Masbate and Navotas, which are both urban areas. Through record reviews, qualitative approaches, and a household survey, the health needs of the people were assessed. The Service Availability and Readiness Assessment (SARA) technique was used to evaluate the health facilities within the identified SDN. Additionally, information about HRH's training programs was obtained.[17]</p>	<p>In Naro, the provision of services, such as those carried out at night, had been hampered by a lack of adequate equipment and infrastructure. It was also claimed that the absence of computers made it difficult for them to carry out their reporting duties. The effective delivery of healthcare services in Navotas was also said to be hampered by inconsistent medication delivery schedules. PhilHealth reimbursement delays have affected the financial capabilities of healthcare facilities. [17]</p>
<p>Dayrit, M.M., Lagrada, L.P., Picazo, O.F., Pons, M.C. & Villaverde, M.C. (2018).</p>	<p>For the creation of HiTs, authors use a variety of data sources, including published literature, national statistics, and regional and national policy documents. National statistical offices and health ministries gather the data's information. International data sources, like the World Development Indicators world development indicators, may also be included. [16,9]</p>	<p>While baby and under-5 mortality rates have decreased in both urban and rural areas, according to Kraft et al. (2013), children living in urban areas fare better than those living in rural areas. Despite evidence suggesting that the disparity between urban and rural areas in under-5 mortality is gradually narrowing, infant and neonatal mortality rates appear to have widened as rates in urban areas declined more quickly while rates in rural areas stagnated due to a lack of access to neonatal and infant treatments. [16,9]</p>
<p>Calong Calong, K., & Comendador, J. (2019).</p>	<p>In this descriptive-cross sectional analysis, a convenience sample of 62 participants was used. A tool called Perceived Access to Health Care was utilized. The following metrics were utilized to evaluate the data: frequency, percentage, mean, standard deviation, and univariate linear regression.</p>	<p>Geographical considerations have been shown to affect access to healthcare (Arcury et al., 2005); healthcare facilities within a 30-minute drive of the community are regarded as accessible (Famorca, Nies, & McEwen, 2013). [4,2,11]</p>
<p>Flores LJY, Tonato RR, dela Paz GA, Ulep VG (2021)</p>	<p>In order to conduct the study, they used the open source datasets indicated in Table 2, as well as used the Google GeoTagging API to locate PCFs in the Philippine Department of Health's (DOH) National Health Facility Registry.</p>	<p>In Antipolo City, (1) densely populated areas are either close to or already have RHUs, however (2) these RHUs are likely not enough to meet the demand in those areas. This scenario provided a distinct perspective on the results. Instead of building new RHUs at the locations that the algorithm advised, local governments may consider enlarging existing facilities at the indicated sites to meet the</p>

Lumintao, J. (2021).	This study collected data using a qualitative approach. The chief of BPMC and the provincial health administration participated in open-ended interviews. The study incorporated extra data that was gathered from online news sources and official websites, like Facebook pages. Additionally, pertinent information gleaned from the literature research was compiled and arranged in the appropriate subsections. [20]	existing or unmet demand in the specified areas. [12] Due to the rising incidence of COVID-19 cases, the only COVID-19 facility in the province encountered overflowing emergency rooms around the beginning of May 2021. These results show that the limitations in healthcare facilities, one of the fundamental issues with the Philippine health devolution, are primarily felt during pandemic. This observation in the Province of Bukidnon showed that factors including the absence of facilities and infrastructure required for the effective and fast delivery of health care made it difficult to respond to the pandemic. As a result, the BPMC is unable to handle the rising COVID-19 infections in the Province of Bukidnon. [20]
OTHER FACTOR AFFECTING HEALTH STATUS OF POPULATION IN RURAL AREAS		
(Telles, Pathak, Singh, & Balkrishna, 2014).	The fieldwork was done in 2019 from August to December. A total of one hundred (100) practitioners of traditional medicine from the principal municipalities of Partido District, Camarines Sur - Tigaon, Sagnay, Goa, San Jose, and Lagonoy, omitting the north sector - were interrogated one-on-one on several periods.	Treatment based on the albularyo and other antiquated ideas and practices. Aside from formalized healthcare systems and related forms of health information, folk medicine or conventional healers is one of the three primary subcategories of traditional medicine (Telles, Pathak, Singh, & Balkrishna, 2014).[29]
(World Health Organization [WHO], 2020).	The selection criteria for selecting study informants were based on Del Fiero and Nolasco (2013)'s ethnobotanical study: (i) has been a folk healer (of any kind) for more than ten years, and (ii) was born and has lived and practiced in Partido District, Camarines Sur for at minimum twenty years. [29]	Traditional medicine is recognized by the World Health Organization (WHO) as "the experience and understanding, expertise, and procedures rooted in the theories, beliefs, and experiences indigenous to cultural differences, used in the maintaining of health and in the preventative measures, diagnosis, development, or treatment of both physical and mental illness" (World Health Organization [WHO], 2020)
Panti, M. (2020)	In order to find general trends and provide more specific information, this study used a descriptive-mixed model, which takes into account the characteristics of variables in particular occurrences or events. Documentary analysis and interviews were used as part of the data collection process. [9]	The main factors contributing to neonatal deaths and stillbirths include poor maternal health, insufficient prenatal care, inadequate management of pregnant women and delivery health problems, poor hygiene during labor and delivery and the first few crucial hours after birth, and a lack of newborn care. Behavior problems that are engrained in society's cultural fabric and interact in ways that aren't often fully understood include improper cord care, letting the baby be damp

H.A.L. Catublas (2016)	This study employed a descriptive research method, specifically a survey. This study mainly aimed to identify differences in participants' overall behaviors and attitudes according to demographic factors while controlling for geographic area. [4]	and chilly, rejecting colostrum, and feeding inappropriate foods. [9] A higher percentage of "strongly agree" responses to the scaled items on safety, attitude, and procedures was further indication that rural mothers responded more favorably to them. Because they were readily available, the respondents selected a particular herbal remedy from the list of herbal remedies that were most frequently utilized. [4]
Calong Calong, K., & Comendador, J. (2019).	In this descriptive-cross sectional analysis, a convenience sample of 62 participants was used. A tool called Perceived Access to Health Care was utilized. The following metrics were utilized to evaluate the data: frequency, percentage, mean, standard deviation, and univariate linear regression.	According to the literature, access to healthcare is more difficult for those who are poor and have lower levels of education in rural areas than it is for those who are wealthy and have greater levels of education (Borders, Aday & Xu, 2004; Moss, 2000) [4,3,24]

CONCLUSION

Establishing and sustaining a quality medical workforce, notably in low-resource countries, has long been a concern in rural communities, particularly with regards to health care, which is aggravated by a variety of factors. This paper provided a review and analysis of the literature and studies on the challenges of health care service provision in the remote and rural areas of the Philippines. In the table, the presented key issues were lack of healthcare professionals, health services, geographic location and poor infrastructure, and other factors affecting health status of the population. The issue of lack of healthcare professionals primarily emphasizes insufficient training and seminars for rural health workers and how the shortage of human resources greatly impacted the rural health care service, despite the Philippines being one of the top countries that supply health workers overseas. The concern on healthcare service in rural areas leaned more on the problem with people living in rural areas not being able to optimize their right to health due to constraints such as gender, disability, lack of funding, and the unavailability of the needed health care service. Meanwhile, the distance to healthcare facilities offering general, specialized, and intensive care, transportation, size of the facility, extreme weather phenomena, and the financial expenses that come with it are among the problems pointed out in issues of geographic location. Studies have shown that shortage of suitable resources and infrastructure, such as limited transportation, lack of hospital apparatus and beds, and computer systems for reporting and communication, considerably impedes the delivery of healthcare services in remote areas, particularly at night. In addition to that, other health service factors that impact the population in rural areas are the folk medicinal interventions, societal class, and level of education. These stressed concerns became more eminent during the recent pandemic crisis. Consequently, this area of interest should be given more attention and action as the human right to health is reputedly accessible and extensive to everybody.

CONFLICT OF INTEREST

There is no dispute or any conflicts among the authors.

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