



Impact of Covid-19 Pandemic on Primary Healthcare Services Delivery as Perceived by Rural Residents

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ABSTRACT: This study assessed the impact of the CoViD-19 pandemic on primary healthcare services in Barangay Mabua, Surigao City. Employing a quantitative research design, the study profiled participants and investigated the pandemic's effects on healthcare delivery. Purposive sampling was used, and data was collected through a validated questionnaire. The research objectives included examining variance based on participant profiles and deriving recommendations. The findings revealed a significant impact of the pandemic on primary healthcare services, with preventive and rehabilitative services showing variance across demographics. The study concluded that despite challenges, primary healthcare services continued to cater to the community. The implications of the research were far-reaching, offering insights for policymakers, healthcare providers, and the community. The recommendations encompassed health literacy campaigns, collaborative efforts, and financial assistance programs to address the identified challenges. The study not only contributes valuable insights to the field but also lays the groundwork for future research endeavors in healthcare service delivery during crises.

KEYWORDS: Covid-19 Pandemic, Primary Healthcare Services, Quantitative Research, Residents Perceptions, Surigao, Philippines.

INTRODUCTION

The concept of primary health care (PHC) is directed toward influencing the basic needs approach to social development. It represents people's initial interaction with the national health system as individuals, families, and communities. Thus, the main goal of this health care is to address the community's health problems and provide health promotion and preventive measures to obtain a healthy lifestyle.

During the CoViD-19 pandemic, access to health care became a constraint for the people and the health workers. While full attention is given at the community level in its effort to prevent the spread of the virus, the focus of clinical intervention has been directed toward urban and hospitals. The journal study by Li et al. (2022) mentioned that PHC service is the foundation of the healthcare system in most developing countries, and measures should be taken to make PHC help cope with the crisis and relieve the burden of hospital care. The pandemic profoundly altered the way people live and experience the world. The combined effects of the virus and the strategies to control its spread have caused increased social isolation, financial insecurity, and uncertainty about the future (Cucinotta & Vanelli, 2020). Thus after the lockdown, numerous adjustments have been made to lessen the virus's transmission. According to Duckette (2020), the response to CoViD-19 transformed primary care: new telehealth items were added to the Medicare Benefits Schedule, and their use quickly escalated. General practices and community health centers developed new working methods, and patients embraced the changes.

In Oman, due to several lockdowns, Oman has adopted a new way of consultation. According to Hasani (2020), in primary health care (PHC), telephone consultation (TC), a type of telemedicine, was introduced as a substitute for in-person consultation. In a country like Cameroon, telemedicine is not common practice in the country, especially for hard-to-reach and conflict-affected communities. Babaa et al. (2020) suggested the Primary Health Care Framework in the 'new normal' within the context of CoViD-19. In addition, Bangladesh's experience highlights the critical role of primary-level health facilities as a touchpoint for monitoring population access to services and as a staging point for implementing strategies and interventions that rebuild and strengthen health service delivery to achieve UHC (Wangmo, 2021).



Before the pandemic, the Philippines was afflicted by a fragmented healthcare system, financial insecurity, and poor health education. When experiencing signs and symptoms of disease, the typical Filipino patient bypasses primary care (Platando, 2021). The Philippines implemented significant reforms in the delivery and healthcare with the passage of the Universal Health Care Law in 2019, which is called the "Konsultasyong Sulit at Tama" ("Konsulta") (Amit, 2022); during the pandemic, online consultation is viewed as a safe and efficient way of continuing care to the public, Konsulta as a new program in the Philippines offers comprehensive outpatient health services such as initial and follow-up primary care consultations, health screening and assessment, and access to selected diagnostic services, and medicines. In addition, Konsulta uses telemedicine to provide delivery services to ensure that the population has access to all services.

According to the World Health Organization (WHO, 2021), Visayas and Mindanao have limited healthcare capacity, which is critical in ensuring adherence to the healthcare pathways leading to appropriate referral and back referral systems and efficient and rational utilization of facilities Hence Healthcare services in the community of Surigao City were also affected by this problem not only that medical professionals are also limited in this locality that providing the community the delivery of care is also constrained.

From a local perspective, Barangay Mabua is a distant area with a total household population of 889 who rely on their health clinic for immediate consultation. The health facility in Barangay Mabua comprises only one public health nurse and eight barangay health workers. The services provided by the health center encompass routine immunization, prenatal care, family planning, management of non-communicable diseases, tuberculosis care, deworming programs, eye care services, and Garantisadong Pambata initiatives. The health center was comprised of an isolation area and a breastfeeding area. When the CoViD-19 pandemic started, it became harder for people to seek health consultations because of the numerous lockdowns and quarantine isolation; thus, primary healthcare workers initiated different alternatives to mend the situation in order to still provide health services to its residents, such as scheduling consultation and proposed program for sanitation. Primary healthcare services should be mobilized in barangay sectors in order to establish the community's better health performance by promoting healthy lifestyles and preventing illnesses that can be avoided.

Considering all those facts and all that data, this research study aimed to determine the Impact of the CoViD-19 pandemic on primary healthcare service delivery in the community of Barangay Mabua, Surigao City, through a survey assessment of the resident's perception of the situation. It also aimed to know the delivery of care given to individuals, whether services were neglected during the pandemic, and helped the community in the said locality strengthen the healthcare system and provide the healthcare needs of residents through its continuous accessibility and availability in the community.

Framework

This research study aimed to determine the Impact CoViD-19 pandemic on primary healthcare services in Barangay Mabua, Surigao City. The foundation of this study was based on the World Health Organization's new declaration, which emphasized the critical role of primary health care around the world. The new primary health care declaration reaffirmed the commitment to the Alma-Ata core principles and stated "Adherence to the fundamental right of every human being to the enjoyment of the highest attainable standard of health without distinction of any kind." Furthermore, the Astana declaration aimed to guarantee the provision of high-quality services based on a defined population through proactive strategies that favored continuity of care and an explicit and affordable set of entitlements supported by evidence. Thus, this declaration focused on prioritizing disease prevention and health promotion and aimed to meet all people's health needs across the life course through comprehensive preventive, promotive, curative, and rehabilitative services.

The following were the major independent and dependent variables of the study:

Age is one of the fundamental demographic factors employed in research; it is also taken into account to understand respondents' opinions due to the respondents' varied levels of analytical capacity.

Sex refers to whether the respondent is male or female biologically. It is essential to classify the sex since the outcome can have various consequences depending on their sex because men and women handle situations differently.

Civil status is a characteristic relating to whether an individual is in a relationship and, if so, what the legal status of that relationship is.

Family income refers to an individual's or a family's income, which would govern their ability to purchase different cost categories' products/services. It is also the total amount of money that comes into the household each month.



Educational attainment relates to the highest level of education that an individual has completed, including primary, secondary, tertiary, and postgraduate studies.

Exposure to CoViD-19 refers to an individual who has been categorized in order to know their health status during the pandemic. It is important to identify individual exposure to CoViD-19 to measure whether there is a difference in the delivery of service from residents who are exposed to CoViD, not exposed to CoViD positive, and are CoViD positive.

Prevention in healthcare encompasses measures taken to prevent the occurrence of diseases. This involves various actions that aim to eradicate, eliminate, or minimize the Impact of diseases and disabilities. In cases where complete eradication or elimination is not feasible, the focus shifts towards slowing down the progression of diseases and disabilities. (Wendimagegn, 2019).

Health Promotion is any combination of educational, organizational, economic, and environmental support systems with the aim of ensuring behavior and conditions of living conducive to health (Wendimagegn, 2019).

Curative health service is an activity and/or a series of treatment activities aimed at the healing of disease, the reduction of suffering from the disease, disease control, or disability control in order to control the quality of the patient that can be maintained as optimal as possible.

Rehabilitative health services involve a range of activities aimed at reintegrating former patients back into the community, enabling them to become productive members of society to the best of their abilities. The focus is on empowering individuals to actively participate in society and contribute positively to both their personal well-being and the community at large.

Research Objectives

This study determined the Impact of CoViD-19 pandemic on primary healthcare services in the residents of Barangay Mabua, Surigao City. Specifically, this study determined:

1 The demographic profile of the respondents in terms of:

- 1.1 age;
- 1.2 sex;
- 1.3 civil status;
- 1.4 family income;
- 1.5 educational attainment; and
- 1.6 Exposure to CoViD-19.

2. The level of Impact of CoViD-19 pandemic on primary healthcare services delivery as perceived by the residents under study, in terms of:

- 2.1 Preventive services;
- 2.2 Promotive services;
- 2.3 Curative services; and
- 2.4 Rehabilitative services.

3. The significant degree of difference in the Impact of CoViD-19 pandemic on primary healthcare service delivery as perceived by the residents of Barangay Mabua, Surigao City when they are grouped according to their profile.

4. The recommendations based on the findings of the study.

METHODS

This research applied the descriptive quantitative research design employing the survey approach. 277 respondents residing in Barangay Mabua, Surigao City were sampled using purposive sampling. The research study utilized a researcher-made questionnaire to gather data and was validated by experts and underwent a validity check with experts and reliability testing using Cronbach's alpha measuring method in Barangay Ipil, Surigao City, before the actual data collection. Mean and Standard Deviation were used to determine the respondents' responses to the impact of the CoViD-19 pandemic on primary healthcare service delivery. The Frequency Count & Percent Distribution were used to quantify the profile of the respondents. The Analysis of Variance was used to examine the significant degree of variance in the perceived impact of the CoViD-19 pandemic on primary healthcare service delivery among the residents of Barangay Mabua, Surigao City. Ethics in the conduct of this research were strongly considered for



the academic integrity of this study. Ethical research practices in educational institutions are strongly followed since it is always the goal of educational research to contribute to the general welfare of the academic community and to generally create measurable information or data that will eventually add to the increase of human knowledge (Ederio et al., 2023) such as the essence depicted by this study.

RESULTS AND DISCUSSION

I – Demographic Profile Distribution of the Respondents

Table 1. Demographic Profile Distribution of the Respondents

Profile	f (277)	%
Age		
17 - 31	78	28.20
32 - 46	98	35.40
47 - 61	71	25.60
62 - 76	26	9.40
77 - 91	4	1.40
Sex		
Male	27	9.70
Female	250	90.30
Civil Status		
Single	36	13.00
Married	228	82.30
Widowed	13	4.70
Family Income		
Less than Php 10,957	215	77.60
Php 10,957 – Php 21,914	51	18.40
Php 21,915 – Php 43,828	7	2.50
Php 43,829 - Php 76,669	2	0.70
Php 76,670 – Php 131,484	1	0.40
More than Php 219,140	1	0.40
Educational Attainment		
No Educational Attainment	1	0.40
Preschool Level	1	0.40
Elementary Level	28	10.10
Elementary Graduate	30	10.80
High School Level	54	19.50
High School Graduate	85	30.70
College Level	32	11.60
College Graduate	36	13.00
Post Graduate	1	0.40
Vocational	9	3.20
Exposure to CoViD-19		
I have close contact with CoVid positive patient	4	1.40
I have no close contact with CoVid positive patient	273	98.60



In terms of the socio-demographic profile of the respondents, the majority of respondents were aged 32-46 (35.40%) years old. Additionally, most of the participants were 250 female (90.30%), and the majority of individuals in the population were married accounting for 228 (82.30%) individuals. Moreover, the majority of individuals reported a family income below Php 10,957 with 215 (77.60%), and most participants had completed high school with 85 individuals (30.70%) as their highest educational attainment.

II – Impact of COVID-19 Pandemic on the Healthcare Services Delivery of Brgy. Mabua Health Center as Perceived by the Residents

Table 2.1 Impact of CoViD-19 Pandemic on Preventive Primary Healthcare Services Delivery as Perceived by the Respondents

Indicators	M	SD	VR	I
4. Health center provides immunization service for children	3.90	0.33	SA	VH
5. Health center has blood pressure monitoring and blood fasting sugar test for residents	3.84	0.41	SA	VH
10. Health center provide TB screening service.	3.32	0.76	SA	VH
13. Health Center has scheduled day for immunizations	3.82	0.40	SA	VH
20. During the CoViD -19 pandemic, Health center provides immunization service for children	3.71	0.49	SA	VH
21. During the CoViD -19 pandemic, health center provides blood pressure monitoring and blood fasting sugar test for residents	3.65	0.56	SA	VH
24. During the CoViD -19 pandemic, health center monitors number of underweight children	3.70	0.50	SA	VH
27. During the CoViD -19 pandemic, Health Center has scheduled day for immunizations	3.72	0.48	SA	VH
31. During the CoViD -19 pandemic, health workers uses mask, faceshield and gloves when facing residents during patient consultation	3.85	0.38	SA	VH
32. During the CoViD -19 pandemic, when there is a health consultation health center limits the numbers of clients.	3.73	0.53	SA	VH
33. During the CoViD -19 pandemic, health center provides schedule for CoViD vaccination	3.83	0.40	SA	VH
34. During the CoViD -19 pandemic, home quarantined patients are monitored by health workers	3.74	0.50	SA	VH
35. During the CoViD -19 pandemic, the contract tracing made by the health center was a huge help in controlling the spread of CoViD-19	3.58	0.61	SA	VH
36. During the CoViD -19 pandemic, health center continuously provides TB related services during CoVid pandemic	3.49	0.62	SA	VH
40. During the CoViD -19 pandemic, health center continuously provides TB related services during CoVid pandemic	3.82	0.45	SA	VH
41. During the CoViD -19 pandemic, there is an isolation area provided by the health center for patient who are CoVid positive	3.80	0.43	SA	VH
Average	3.72	0.49	SA	VH

Scale	Interval	Verbal Response	Code	Interpretation	Code
4	3.25-4.00	Strongly Agree	SA	Very High	VH
3	2.50-3.24	Agree	A	High	H
2	1.75-2.49	Disagree	D	Moderate	M
1	1.00-1.74	Strongly Disagree	SD	Low	L



Table 2.1 presents the impact of the CoViD-19 pandemic on primary healthcare services delivery as perceived by the residents in terms of preventive measures. Generally, the residents Strongly Agreed that there is a Very High Impact of CoViD-19 pandemic on primary healthcare services delivery particularly on Preventive Measures (M = 3.72, SD = 0.49). Since all sixteen indicators in the table pertain to the positive impact of the pandemic on the preventive measures of primary healthcare services delivery, this indicated that residents of Barangay Mabua had a positive perception of the effectiveness of these services and successfully raised awareness, delivered accurate information, and implemented necessary preventive measures during the pandemic. This emphasized the significance of continuous investment in preventive healthcare services, not only during pandemics but also in routine healthcare delivery. These results implied that the primary healthcare system had been extremely important in preventing the spread of the virus and safeguarding the community's health. As supported by Fowler et al. (2020), preventive care was linked to lower rates of morbidity and death, particularly in the areas of cancer, chronic illness, infectious disease (vaccinations), mental health, substance addiction, vision, and dental health. Moreover, shifting from illness treatment to disease prevention could lower chronic disease incidence and healthcare costs.

Among the 16 indicators, the residents greatly and Strongly Agreed that the Health center provides immunization services for children (M=3.90 SD=0.33) even during the pandemic era emphasizing a Very High and in fact the Highest positive impact of the pandemic on the health services delivery of the local health center especially for the children. Moreover, they believed the health center was actively involved in providing necessary vaccinations to children and fulfilling an important role in safeguarding children's health by offering immunization services. Overall, these findings reflected positively on the health center's commitment to child health and the community's trust in its immunization services. According to (Shukla & Shah, 2018), one of the most effective methods for increasing child survival and lowering morbidity was vaccination. Their study indicated that vaccination was one of the most effective and simple medical interventions aside from saving millions of lives and was considered a necessity. Additionally, immunization was the easiest and most affordable measure to take to safeguard against traumatic epidemics.

Meanwhile, the residents also Strongly Agreed, although the lowest among all indicators, that the Health center provides TB screening (M=3.32 SD=0.76) even during the Pandemic era, yet, still emphasizing a Very High positive impact of the pandemic on the health services delivery of the local health center especially for the TB patients. The health center was actively offering and providing comprehensive and accessible TB screening programs for the prevention of tuberculosis in the community. In the study by Zulu et al. (2022), through the use of tests, examinations, or other quick procedures, patients with suspected active TB were systematically identified in a predetermined target group during TB screening. They emphasized that this was carried out by symptomatic screening for symptoms like weight loss, fever, night sweats, nighttime coughing, and blood in the sputum. On the other hand, they concluded that the best possible patient care outcomes and results were shown when TB screening strategies were integrated into the health systems. TB patients during the pandemic became more careful and cautious about their sicknesses and symptoms leading to anxieties and also uncertainties especially since their sickness is a comorbid of CoViD-19.

Table 2.2 Impact of CoViD-19 Pandemic on Promotive Primary Healthcare Services Delivery as Perceived by the Respondents

Indicators	M	SD	VR	I
1. Health centers provide mother class activities for pregnant women.	3.71	0.49	SA	VH
2. Health center continuously provides discussion on breastfeeding and proper diet for pregnant women.	3.72	0.48	SA	VH
3. Health workers maintains the garantisadong pambata program giving vit. A.	3.81	0.42	SA	VH
7. Health center provides services regarding counseling on family planning and birth spacing for residents.	3.73	0.48	SA	VH
8. Health center provides service in weighing children in the community.	3.84	0.38	SA	VH
9. Health center provides deworming tablet for children in the community.	3.84	0.40	SA	VH
11. Health center has prenatal consultation service.	3.83	0.42	SA	VH
12. Health center provides vitamins such as ferrous with folic acid, calcium tablets and tetanus toxoid for pregnant women	3.86	0.36	SA	VH



17. During the CoViD -19 pandemic, health centers continuously provide mother class activities for pregnant women.	3.61	0.58	SA	VH
18. During the CoViD -19 pandemic, health center continuously provides discussion on breastfeeding and proper diet for pregnant women.	3.63	0.55	SA	VH
19. During the CoViD -19 pandemic, health workers maintains the garantisadong pambata program giving vit. A.	3.65	0.56	SA	VH
23. During the CoViD -19 pandemic, Health center provides services regarding counseling on family planning and birth spacing for residents.	3.68	0.53	SA	VH
24. During the CoViD -19 pandemic, health center maintains deworming activity in the community.	3.65	0.53	SA	VH
26. During the CoViD -19 pandemic, health center provides vitamins such as ferrous with folic acid, calcium tablets and tetanus toxoid for pregnant women.	3.70	0.50	SA	VH
37. During the CoViD -19 pandemic, online seminars, leaflets, and info-drives that the health center marketed helped provide information about CoViD	3.60	0.59	SA	VH
Average	3.72	0.49	SA	VH

Scale	Interval	Verbal Response	Code	Interpretation	Code
4	3.25-4.00	Strongly Agree	SA	Very High	VH
3	2.50-3.24	Agree	A	High	H
2	1.75-2.49	Disagree	D	Moderate	M
1	1.00-1.74	Strongly Disagree	SD	Low	L

Table 2.2 shows the perceived impact of the CoViD-19 pandemic on the delivery of primary promotive healthcare services as assessed by the residents. In general, the local residents Strongly Agreed that the pandemic had a Very high positive impact on the promotive healthcare services delivery in Brgy. Mabua (M = 3.72, SD = 0.49). This finding implies that the primary healthcare system had effectively implemented measures to promote health and had garnered the trust and satisfaction of the residents in the locality even during the pandemic. This underscored the importance of a well-functioning primary healthcare system, particularly during the CoVid-19 pandemic, as it played a critical role in promoting and maintaining the health of the community. The positive feedback from the residents emphasized the significance of accessible and efficient healthcare services in ensuring the well-being of the population. According to Suksatan et al. (2022), the concept of health promotion suggests that individuals' adoption of behaviors that promote their health is influenced by the cognitive and emotional factors related to those behaviors. These factors interacted with their personal characteristics and past experiences.

Specifically, the residents Strongly Agreed and believed at the highest level among all indicators, that the Health center provides vitamins such as ferrous with folic acid, calcium tablets, and tetanus toxoid for pregnant women (M=3.86, SD=0.36) even during the pandemic signifying a Very High positive impact of the pandemic on the healthcare promotion and service delivery for pregnant women. Therefore, the respondents recognized and valued the health center's efforts in ensuring the availability and accessibility of essential vitamins and supplements for pregnant women even during the pandemic. This not only emphasizes a positive perception but also indicates a high level of awareness and acknowledgment among pregnant women regarding prenatal care activities during the pandemic, specifically related to the availability of crucial vitamins at health centers. Additionally, since the onset of the CoVid-19 pandemic, a significant issue has arisen regarding the interruption of maternal health services, as highlighted by Maharajan et al. (2022). This disruption posed challenges in providing continuous and uninterrupted maternal and neonatal healthcare. It was greatly observed during the pandemic era that the implementation of travel restrictions, imposition of lockdown measures, compromised functioning of healthcare facilities, and the fear of contracting the virus collectively contributed to pregnant women being unable to attend their scheduled antenatal care (ANC) visits. Hence, uninterrupted antenatal care services were crucial to prevent maternal and fetal morbidity and mortality, particularly during crises like CoVid-19 pandemic. The local



barangay health center indeed did a great job in continuing the promotion and delivery of healthcare services for pregnant women even during the pandemic with all the restrictions around.

Meanwhile, among all indicators in Table 2.2., the residents Strongly Agreed, although the least among all the very high rated indicators, that during the CoVid-19 pandemic, online seminars, leaflets, and info-drives that the health center marketed helped provide information about CoVid (M=3.60, SD=0.59) indicating a Very high positive impact of the pandemic on the promotion of healthcare services delivery all the more during the pandemic era. The residents, particularly the elderly, may not have been proficient in using technology to access online seminars and information drives. Instead, they relied primarily on traditional channels, such as announcements made by barangay health workers through "bandilyo," to stay informed about COVID-19-related information. This underscores the importance of considering diverse communication channels to ensure effective information dissemination, taking into account the varying technological capabilities within the community. Moreover, in the study conducted by R. Ahmed (2021), it was observed that digital healthcare services were increasingly favored by individuals due to their accessibility and affordability, offering specific services that facilitated the adoption of online platforms. This demonstrated an enhanced desire to improve patients' healthcare experiences, serving as a primary driver for the acceptance of social media in the healthcare domain. Not only did healthcare professionals, but patients themselves preferred utilizing social media platforms to access improved healthcare services. Consequently, primary healthcare services in Barangay Mabua should explore and adopt innovative technological approaches for information dissemination to stay abreast of changing preferences and trends in healthcare communication.

Table 2.3 Impact of CoViD-19 Pandemic on Curative Primary Healthcare Services Delivery as Perceived by the Respondents

Indicators	M	SD	VR	I
5. Health center provides wound treatment for injured residents	3.62	0.56	SA	VH
14. Health center offers injection services for prescribed medications.	3.59	0.58	SA	VH
15. Health center provides maintenance medication such as losartan and amlodipine.	3.79	0.48	SA	VH
16. Health Center provides medications such as amoxicillin, cephalixin, paracetamol, mefenamic and ambroxol.	3.70	0.55	SA	VH
21. During the CoViD -19 pandemic, health center continuously provides wound treatment for injured residents)	3.59	0.55	SA	VH
28. During the CoViD -19 pandemic, health center offers injection services for prescribed medications.	3.55	0.62	SA	VH
29. During the CoViD -19 pandemic, (Health center continuously provides maintenance medication such as losartan and amlodipine.	3.66	0.55	SA	VH
30. During the CoViD -19 pandemic, Health Center provides medications such as amoxicillin, cephalixin, paracetamol, mefenamic and ambroxol.	3.68	0.52	SA	VH
38. During the CoViD -19 pandemic, health center provides treatments for residents experiencing symptoms of CoVid-19 such cough, fever, headache and muscle pain.	3.69	0.54	SA	VH
39. During the CoViD -19 pandemic, health center provides health monitoring on quarantined patients for positive covid patient or exposed to CoViD-19.	3.73	0.52	SA	VH
Average	3.66	0.55	SA	VH

Scale	Interval	Verbal Response	Code	Interpretation	Code
4	3.25-4.00	Strongly Agree	SA	Very High	VH
3	2.50-3.24	Agree	A	High	H
2	1.75-2.49	Disagree	D	Moderate	M
1	1.00-1.74	Strongly Disagree	SD	Low	L



Table 2.3 shows the perceived impact of the CoViD-19 pandemic on the delivery of primary curative healthcare services as assessed by the residents. In general, the residents Strongly Agreed that the pandemic had a Very high positive impact on the curative healthcare services delivery in Brgy. Mabua (M = 3.66, SD = 0.55) even during the pandemic era. Specifically, the residents Strongly Agreed and believed at the highest level among all indicators, that the Health center provides maintenance medication such as losartan and amlodipine (M=3.79, SD=0.80) even during the pandemic signifying a Very High positive impact of the pandemic on the provision of health services for patients that need losartan and amlodipine medications. This suggests that the health center is perceived to be fulfilling the residents' needs in terms of providing these specific medications, indicating a high level of satisfaction in this aspect of the healthcare services even challenged by the pandemic restrictions. The medicines aforementioned are medications to address hypertension-related symptoms and illnesses which are comorbid to CoViD-19. This is the reason why the health centers strongly or increased in their health services provisions for patients with hypertension-related symptoms and illnesses during the pandemic time. The study of Kretchy, et. al. (2021), The evidence supports the idea that interventions in pharmaceutical care play a significant role in achieving positive health outcomes for individuals with chronic diseases. These interventions concentrate on optimizing the use of medications to enhance their therapeutic effectiveness. They have demonstrated the ability to save lives, enhance the quality of life for patients, and are especially relevant during the CoViD-19 pandemic as they complement the efforts of other healthcare professionals in safeguarding patient safety and overall well-being.

On the other hand, the residents Strongly Agreed, although the least among all the very high rated indicators, that the local Health center offers injection services for prescribed medications (M=3.569, SD=0.58) indicating a Very High positive impact of the pandemic on the curative healthcare services delivery particularly on offering injection and prescription services. In other words, the said indicator still implied the residents' strong agreement that injection services for prescribed medications are provided to them despite being challenged by the pandemic restrictions. This highlights the importance of the health center's role in delivering necessary medical treatments to the community to provide primary healthcare services to its residents. In a similar study by Melendez, et. al. (2021), in relation to offering injection services to the community, they concluded that the CoViD-19 pandemic has had adverse effects on individuals who engage in drug injection (PWID). The availability of services for this group has decreased compared to the period before the pandemic.

Table 2.4 Impact of CoViD-19 Pandemic on Rehabilitative Primary Healthcare Services Delivery as Perceived by the Respondents

Indicators	M	SD	VR	I
42. During CoVid-19, health center refers patient on city health for reswab testing after 14 days of home quarantine	3.69	0.51	SA	VH
43. During CoVid-19, health center refers home-quarantined patients to city health for CoVid reassessment	3.71	0.51	SA	VH
Average	3.70	0.51	SA	VH

Scale	Interval	Verbal Response	Code	Interpretation	Code
4	3.25-4.00	Strongly Agree	SA	Very High	VH
3	2.50-3.24	Moderately Agree	A	High	H
2	1.75-2.49	Slightly Disagree	D	Moderate	M
1	1.00-1.74	Disagree	SD	Low	L

In the study of Lugo-Agudelo, et. al. (2021), they stated Healthcare systems worldwide are quickly learning from efforts dedicated to reorganizing rehabilitation services for patients recovering from both acute and chronic illnesses. They are also promptly adjusting their approaches to offer rehabilitation to individuals who have survived CoViD-19. Moreover, valuable lessons are being derived from initiatives aimed at preventing the spread of the virus among healthcare providers who are involved in delivering these essential services.

In Table 2.4, the respondents Strongly Agreed that during CoViD-19, the health center refers home-quarantined patients to city health for CoViD reassessment (M=3.71 SD=0.51) signifying a Very High Positive impact of the pandemic on the rehabilitative healthcare services delivery of the local health center in Brgy. Mabua, particularly on referring home-quarantined



patients to City Health Office for strict healthcare monitoring and rehabilitation. This information implies that health centers are taking proactive measures to ensure that home-quarantined patients receive appropriate CoViD reassessment. By referring these patients to the city health office, it indicates a coordinated effort to provide comprehensive care and evaluation for individuals who are isolating at home due to CoViD-19. This approach may help in monitoring the health status of these patients and providing necessary medical interventions as required. According to Talabis, et. al. (2021), The implementation of stringent border control measures, early enforcement of lockdowns, establishment of quarantine facilities, efficient public communication, and diligent monitoring were the key elements that enabled these Local Government Units (LGUs) to mitigate the adverse effects of the pandemic. Standardizing these policies would enhance the preparedness of any country to effectively respond to future health emergencies.

Meanwhile, the residents also Strongly Agreed that during CoViD-19, the health center refers patients to city health for re-swab testing after 14 days of home quarantine (M=3.69, SD=0.51) signifying the Very High commitment of the local health center to ensuring that CoViD-19 patients are re-swabbed after 14 days of home quarantine, hence completing its rehabilitative services for these patients. In the study of Gitl, et. al. (2021), Discharge decisions should be grounded on clinical and laboratory assessments. Authorities must require two consecutive negative throat swab results before discontinuing quarantine measures. Furthermore, even after the completion of quarantine, patients should be closely monitored for any potential reoccurrence of the disease or long-term complications.

Table 2.5 Summary of the Highest Rated Indicators Showing the Impact of CoViD-19 Pandemic on Primary Healthcare Services Delivery as Perceived by the Residents

Indicators	M	SD	VR	I
4. Health center provides immunization service for children	3.90	0.33	SA	VH
8. Health center provides service in weighing children in the community	3.84	0.38	SA	VH
15. Health center provides maintenance medication such as losartan and amlodipine	3.79	0.48	SA	VH
42. During CoViD-19, health center refers patient on city health for reswab testing after 14 days of home quarantine	3.69	0.51	SA	VH
Average	3.81	0.43	SA	VH

Scale	Interval	Verbal Response	Code	Interpretation	Code
4	3.25-4.00	Strongly Agree	SA	Very High	VH
3	2.50-3.24	Agree	A	High	H
2	1.75-2.49	Disagree	D	Moderate	M
1	1.00-1.74	Strongly Disagree	SD	Low	L

The table provides valuable insights into respondents' perceptions regarding various aspects related to the COVID-19 pandemic. Overall, the data revealed that respondents generally hold a high level of agreement and satisfaction with the health services offered to the residents of Barangay Mabua. Specifically, respondents expressed satisfaction with immunization services, Garantisadong Pambata services, the provision of maintenance medications, and the efficiency of re-swab testing. Furthermore, the high mean score for immunization services implies that the community places significant value on the health center's role in providing preventive healthcare, especially for children. This could have important public health implications, as immunizations are crucial for maintaining community immunity and preventing the spread of vaccine-preventable diseases. The strong agreement and level of satisfaction among residents suggest a high level of trust in the health center's ability to continue essential services, even during challenging times like the CoViD-19 pandemic. It also emphasizes the importance of maintaining and possibly enhancing immunization services during public health crises to ensure the well-being of the population.



Table 2.6 Overall Impact of the CoViD-19 Pandemic on Primary Healthcare Services Delivery as Perceived by the Residents in Brgy Mabua, Surigao City, Philippines

PRIMARY HEALTHCARE SERVICES DELIVERY	Mean	StDev	Verbal Response	Interpretation
Preventive Services	3.72	0.49	Strongly Agree	Very High (Positive Impact)
Promotive Services	3.72	0.49	Strongly Agree	Very High (Positive Impact)
Curative Services	3.66	0.55	Strongly Agree	Very High (Positive Impact)
Rehabilitative Services	3.70	0.51	Strongly Agree	Very High (Positive Impact)
GRAND MEAN	3.70	0.51	Strongly Agree	Very High (Positive Impact)

Scale	val	Verbal Interpretation	Code	Qualitative Description
4	4.00	Strongly Agree	SA	Very High
3	3.24	Agree	A	High
2	2.49	Disagree	D	Moderate
1	1.74	Strongly Disagree	SD	Low

The table presented the respondents’ overall assessments of the impact of CoViD-19 pandemic on primary healthcare service delivery in the locality. Among all the categories, the respondents Strongly Agreed, and assessed highest, that the local health center’s Preventive and Promotive Healthcare Services experienced the Very high or Highest positive impact during the pandemic era. The residents exhibit a positive attitude towards proactive health measures in maintaining health and preventing potential health issues amid the COVID-19 pandemic. The Rehabilitative Services of the local health center also receive substantial recognition and probable active involvement in services designed for rehabilitation amid the CoViD-19 era. This indicates a notable acceptance and engagement in initiatives geared towards recovery and restoration of health during the ongoing pandemic. Lastly, the local health center’s Curative Services indicate that while participants were generally inclined to seek curative measures, there may be a relatively lower likelihood of utilization compared to preventive, promotive, and rehabilitative services. Despite that, the local health center’s curative services did not fail to be greatly accessible or greatly emphasized during the CoViD-19 period.

III – Degree of Difference on the Impact of COVID-19 Pandemic on Primary Healthcare Services Delivery as Perceived by the Residents with Respect to the Profile Variables

Table 3.1 Significant Degree of Variance on the Impact of CoViD-19 Pandemic on Primary Healthcare Services Delivery as Perceived by the Residents with respect to Age

Profile	Primary Healthcare Services Delivery	H/U	p-value	Decision	Difference
Age	Preventive	4.469	0.346	Do not reject Ho	Not Significant
	Promotive	3.418	0.491	Do not reject Ho	Not Significant
	Curative	3.224	0.521	Do not reject Ho	Not Significant
	Rehabilitative Services	11.072	0.026	Reject Ho	Significant

Table 3.1 displays that there is no significant degree of variance in the impact of the CoVid-19 pandemic on Preventive, Promotive, and Curative primary healthcare services delivery as perceived by the respondents with respect to their age suggesting that regardless of their age, residents’ perceptions regarding the impact of the pandemic on promotive, preventive, and curative healthcare services do not vary. On the other hand, the respondents’ assessments on the impact of the pandemic on rehabilitative services vary with respect to their age. This lack of a uniform perception among respondents regarding rehabilitative services could stem from various factors, with a potential explanation being a lack of awareness about these services. It is crucial to carefully consider the implications of this finding, especially concerning healthcare planning and communication strategies. Campbell (2018)



suggested that older individuals were more likely to undergo regular physical checkups and utilize healthcare services for minor issues compared to younger individuals. However, there was little disparity between age groups when it came to seeking appropriate medical attention for more serious conditions. This emphasized how crucial it was for healthcare professionals and governments to take into account the particular requirements of various age groups while tackling the pandemic's effects. By being aware of these variances, healthcare systems could better customize their efforts to address the different requirements of people and offer efficient rehabilitative treatments both during and after the epidemic.

Table 3.2 Significant Degree of Variance on the Impact of CoViD-19 Pandemic on Primary Healthcare Services Delivery as Perceived by the Respondents with respect to Sex

Profile	Primary Healthcare Services Delivery	H/U	p-value	Decision	Difference
Sex	Preventive	3199.000	0.667	Do not reject Ho	Not Significant
	Promotive	2754.500	0.111	Do not reject Ho	Not Significant
	Curative	3293.500	0.832	Do not reject Ho	Not Significant
	Rehabilitative Services	3114.500	0.424	Do not reject Ho	Not Significant

Table 3.2 presents no significant degree of variance in the impact of CoViD-19 pandemic on all kinds of primary healthcare services delivery as perceived by the respondents when considering Sex variables. These findings did not suggest any gender-related disparities in the actual impact of the pandemic on healthcare outcomes or service accessibility. Instead, the findings indicated that residents' perceptions exhibited no significant differences based on gender, implying an equitable distribution of services, including preventive, promotive, curative, and rehabilitative services, regardless of their sex. According to Alcalde-Rubio et al. (2020), gender is a social construct that encompasses the relationships, roles, behaviors, activities, attributes, and opportunities associated with males and females, often characterized by unequal distributions of power. Gender inequality has significant repercussions on population health worldwide and necessitates comprehensive efforts to address gender equity in healthcare across all levels.

Table 3.3 Significant Degree of Variance on the Impact of CoViD-19 Pandemic on Primary Healthcare Services Delivery as Perceived by the Respondents with respect to Civil Status

Profile	Primary Healthcare Services Delivery	H/U	p-value	Decision	Difference
Civil Status	Preventive	7.227	0.027	Reject Ho	Significant
	Promotive	3.032	0.220	Do not reject Ho	Not Significant
	Curative	1.750	0.417	Do not reject Ho	Not Significant
	Rehabilitative Services	0.881	0.644	Do not reject Ho	Not Significant

Table 3.3 presents the significant degree of variance in the impact of CoViD-19 pandemic on primary healthcare services delivery as perceived by the respondents when grouped to Civil status, but only particularly with Preventive healthcare services. There is no significant variation in the aspects of promotive, curative, and rehabilitative services with respect to the residents' civil statuses. Marital status could influence the way health information is communicated within a household or social context. Married individuals may share health-related decisions, influencing their perception of preventive healthcare services during a pandemic. In the study of Rotarou et. al. (2018), The results showed that women, older people, married people, those with higher incomes, inactive people, and people with average or good self-assessed health had higher odds of undergoing preventive checks. On the other hand, people living in rural areas, single people, and people who were affiliated with a private health care provider or paid out-of-pocket had fewer odds of doing so.



Table 3.4 Significant Degree of Variance on the Impact of CoViD-19 Pandemic on Primary Healthcare Services Delivery as Perceived by the respondents with respect to Family Income

Profile	Primary Healthcare Services Delivery	H/U	p-value	Decision	Difference
Family Income	Preventive	25.629	0.000	Reject Ho	Significant
	Promotive	16.238	0.001	Reject Ho	Significant
	Curative	17.813	0.000	Reject Ho	Significant
	Rehabilitative Services	5.421	0.143	Do not reject Ho	Not Significant

With respect to the Family Income of the residents, it is shown that the responses on the impact of the pandemic on preventive, promotive, and curative healthcare services significantly vary. It implies that family income has a significant influence on how respondents perceive the impact of the pandemic on preventive services. On the other hand, the difference in the responses of the respondents on rehabilitative services is not statistically significant, meaning that family income does not significantly affect respondents' perception of the impact of the pandemic on rehabilitative services. To summarize, family income appears to play a significant role in how residents perceive the impact of the pandemic on preventive, promotive, and curative services, but not on rehabilitative services. According to the study of Wang et. al. (2018), Economies with higher levels of income display a greater demand for such services compared to economies with lower income levels. The relationship between income and the utilization of health care such as preventive services among others exhibit significant positive effects.

Table 3.5 Significant Degree of Variance on the Impact of CoViD-19 Pandemic on Primary Healthcare Services Delivery as Perceived by the Respondents with respect to Educational Attainment

Profile	Primary Healthcare Services Delivery	H/U	p-value	Decision	Difference
Educational Attainment	Preventive	17.625	0.014	Reject Ho	Significant
	Promotive	12.210	0.094	Do not reject Ho	Not Significant
	Curative	18.861	0.009	Reject Ho	Significant
	Rehabilitative Services	14.520	0.043	Reject Ho	Significant

Likewise, there is a significant degree of variance in the respondents' perceived impact of the pandemic on the preventive, curative, and rehabilitative services with respect to the residents' educational attainment. This suggested that individuals with higher educational levels were more likely to have engaged in preventive health measures, possibly due to better health awareness and understanding of risk factors. Opposite to people with lower education levels ranged from a lack of awareness about health issues to a limited understanding of risk factors. Similarly, this implied that those with higher education were more likely to have sought and utilized curative healthcare services, possibly due to a better understanding of the importance of medical interventions in managing health conditions while individuals with lower education levels were often correlated with lower socio-economic status, which could create barriers to accessing healthcare resources. In the aspect of rehabilitative services, it is also suggested that individuals with higher educational attainment had a better understanding or appreciation of the benefits of rehabilitative services in the recovery process. As for Individuals with lower educational attainment, they were characterized by less informed decision-making and limited engagement with resources that could have otherwise supported their recovery. On the other hand, regardless of the respondents' educational attainment, the respondents' perceived impact of the pandemic on promotive healthcare services does not vary. All these findings still indicated that Barangay Mabua was successful in promoting good health practices and enhancing general well-being across different education levels.



Table 3.6 Significant Degree of Variance on the Impact of CoViD-19 Pandemic on Primary Healthcare Services Delivery as Perceived by the Respondents with respect to Exposure to CoViD

Profile	Primary Healthcare Services Delivery	H/U	p-value	Decision	Difference
Exposure to CoViD-19	Preventive	320.000	0.140	Do not reject Ho	Not Significant
	Promotive	471.500	0.635	Do not reject Ho	Not Significant
	Curative	537.000	0.953	Do not reject Ho	Not Significant
	Rehabilitative Services	516.000	0.819	Do not reject Ho	Not Significant

Lastly, the data showed no significant degree of variance in the perceptions of residents on the impact of the pandemic on promotive, preventive, curative, and rehabilitative services with respect to their exposure to CoViD-19. This suggested that community awareness programs in Barangay Mabua Health Center particularly on the implementation of the local health center healthcare services delivery even during the pandemic were effectively implemented and made known to the residents, creating a common understanding and contributing to a more informed community response of the residents during the pandemic.

CONCLUSION AND RECOMMENDATIONS

Based on the analysis done from the gathered data, the socio-demographic profile indicated that the study population, primarily aged 32-46, was in their prime working and family-raising years, actively seeking primary healthcare for personal and family needs, including the management of maintenance medications. The higher proportion of females aligned with specific healthcare needs related to maternal and reproductive health. Married couples constituted the majority of accessing services, particularly in family planning and maternal and child health. The reported low family income levels underscored financial constraints. Additionally, high school education students were more likely to utilize the health center, indicating a better understanding of healthcare importance. Encouragingly, a significant portion of the population had not been in direct contact with CoViD-19-positive individuals, suggesting the effectiveness of preventive measures like social distancing and hygiene practices. Additionally, the residents of Barangay Mabua, Surigao City strongly agreed that the CoViD-19 pandemic had a very high positive impact on the delivery of primary healthcare services. This indicates that even amid the pandemic, primary healthcare services continued to provide healthcare to the community. Despite the challenges posed by the pandemic, primary healthcare services made efforts to maintain their provision of essential healthcare services to the residents. Moreover, patients perceived a much higher impact on preventive services compared to other healthcare services highlighting the importance of immunizations in maintaining community immunity and preventing vaccine-preventable diseases. The residents' unanimous agreement reflects a high level of trust in the health center's ability to deliver essential services, even during challenging times like the CoViD-19 pandemic. Lastly, there was a varying degree of differences in the respondents' assessments of the impact of the pandemic on rehabilitative services in terms of age due to individualized needs and responses to treatment, whereas preventive, promotive, and curative measures targeted broader age groups with more standardized approaches. The equal provision of healthcare services for all genders however did not vary and was influenced by community awareness campaigns adopting a gender-neutral approach. On the other hand, the variance in the utilization of preventive services based on civil status was due to individual health priorities, though promotive, curative, and rehabilitative services were sought more uniformly across civil statuses due to the immediate nature of addressing health issues when they arose. Furthermore, factors such as access to healthcare and education influenced the variation in promotive, preventive, and curative services in terms of family income. Still, rehabilitative services may have shown less income-related variance because they were often provided after a health event that made them more universally accessible once the need arose. The variance in preventive, curative, and rehabilitative services related to educational attainment was due to socioeconomic status and individual health behaviors. In contrast, promotive services might have shown less variance as they often targeted broader populations and emphasized general well-being. Additionally, factors contributing to limited variance in CoViD-19 exposure included the uniform influence of public health campaigns, similar preventive behaviors, and rapid dissemination of information fostering shared understanding. Overall, this contributed to the understanding of the relationship between different healthcare services and their effectiveness in managing the challenges posed by the CoViD-19 pandemic.



Based on the major findings and the conclusions drawn from this research, researchers recommend that the Department of Health promote more seminars and orientations on CoViD-19 with health professionals using different platforms easily accessible to the residents. They should prioritize multilingual leaflets and pamphlets distributed at health centers and online. Additionally, they may explore the potential role of telehealth and digital platforms in delivering rehabilitative services to individuals who face difficulties accessing in-person care. They may also promote integrated healthcare systems that seamlessly connect preventive, promotive, curative, and rehabilitative services to ensure a holistic and timely approach to health management for individuals of all backgrounds.

The Local Government Unit should also look into the effectiveness of current health literacy programs and initiatives within the community, conduct regular social media live sessions, and collaborate with educational institutions for COVID-19 education. They may also advocate for increased financial support for the health center to enhance TB screening capabilities, ensuring they have the necessary resources and equipment. Likewise, the Rural Health Units should enhance the provision of prescribed medication via injection services during the COVID-19 pandemic. They should broaden their service scope by introducing injection services to the community. They may also implement regular training programs for healthcare staff, focusing on updated TB screening protocols, detection methods, and patient communication skills. Furthermore, they can employ strategies such as verbal advertisement or creating a chart listing the services offered which aims to ensure that residents are informed about the available healthcare options, empowering them to make decisions that will benefit the overall well-being of the community. Focus on grassroots efforts with community events, health check-ups, and informational material distribution. Collaborate with local influencers, establish a feedback mechanism, and adapt strategies based on community needs. In addition, the RHU should actively inform residents about the need for post-quarantine re-swab testing to ensure community adherence to Department of Health (DOH) protocols. Utilizing clear communication channels and collaborating with community leaders, the health center can effectively convey the importance of testing. Incorporating testing information in signage and establishing a community hotline further contributes to fostering collective understanding and compliance with DOH guidelines. The health workers may also conduct in-depth interviews or focus groups with individuals from different demographic groups to understand their experiences, perceptions, and barriers to accessing rehabilitative services and preventive services during the pandemic.

Ultimately, the community should strengthen health literacy initiatives and ensure that healthcare services remain accessible and affordable for all individuals, and they may also consider implementing policies and programs that ensure equal access to promotive, preventive, curative, and rehabilitative services for all individuals, irrespective of their demographic characteristics. Moreover, they may also develop public awareness initiatives to reduce the stigma associated with TB, encouraging individuals to seek screening without fear of discrimination. Additionally, the community may develop health literacy initiatives that educate residents about health-related topics, improve their understanding of healthcare information, and empower them to make informed decisions about their health. The residents should seek out available options to alleviate financial constraints and they may explore available financial assistance programs that can help cover healthcare costs such as government-funded healthcare subsidies, low-income medical assistance, or community-based initiatives. Residents may also consider educational opportunities to enhance career prospects, increase earning potential, and provide better access to employer-sponsored healthcare plans and educational institutions or vocational training programs that offer flexible schedules and financial aid options and regular involvement in community events organized by health centers ensures direct access to information, health check-ups, and resources, fostering an informed and health-conscious community.

Lastly, future researchers should carry out further research on the effects of the CoViD-19 pandemic on the provision of basic healthcare services. The future researchers may conduct further studies to assess the extent of health literacy within the community through evaluating the community's understanding of health information, including their ability to comprehend and apply it to their health decisions and behaviors. They may consider exploring interventions or programs that can mitigate the impact of socio-economic challenges and limited health literacy on the community's access to healthcare. And, they may also investigate the relationship between health literacy and health outcomes, including the impact on healthcare decision-making, understanding of medical information, and adherence to treatment plans.



ACKNOWLEDGMENT

We, the researchers, would like to express our deepest gratitude and appreciation to all those who have contributed to the successful completion of this research study.

First and foremost, praises and thanks to our Almighty God for His divine guidance and blessings that we have been able to embark on this journey, overcome challenges, and reach this significant milestone.

We would like to express our sincere appreciation and gratitude to our research instructor, **Professor Nikko Ederio** for his invaluable guidance, support, mentorship, expertise, patience, and dedication that have been instrumental in shaping our research study and helping us navigate the various challenges along the way.

We would also like to express our deepest gratitude and appreciation to our research adviser, **Professor Judith E. Almonguera** for her unwavering support, availability, patience, insightful suggestions, and critical feedback that helped shape our research study.

Moreover, we would like to express our sincere appreciation and heartfelt thanks to our statistician, **Ms. Bernah Galvez** for her expertise, meticulous analysis, and profound understanding of statistical methods that were helpful in shaping the outcomes of our study and ensuring the reliability and accuracy of our findings.

Our deepest gratitude and appreciation to the Barangay Captain of Mabua, **Hon. Leo G. Palero** for granting us permission to conduct our research study within the community. We are truly grateful for his willingness to facilitate our research and for entrusting us with the opportunity to gather data and insights from the residents of Mabua. We would also like to extend our thanks to the residents of Barangay Mabua for their cooperation and participation that have significantly enriched the findings and the overall quality of this research study.

We would like to express our sincere appreciation to the esteemed panelists, **Sr. Marie Rosanne Mallillin, SPC, Prof. Vincent Louis Duncano** and **Dr. Manuel Tan Jr.** who have dedicated their time, expertise, and valuable insights during this research defense. Their thoughtful questions and constructive feedback have significantly enriched the quality of this presentation and helped shape our research into a more impactful work.

We extend our heartfelt appreciation to the invaluable contribution of our dedicated validators who generously offered their time and expertise to review and validate the research findings.

We would also like to extend our sincere gratitude to the authors whose insightful research studies have contributed significantly to the development and enhancement of our own work. Their valuable findings and perspectives have been instrumental in shaping the direction and content of this study.

Finally, we would like to express our deepest and heartfelt gratitude to our parents for their continuous encouragement, understanding, and unwavering support especially in meeting our financial needs. This has given us the confidence to pursue this research study with unwavering dedication.

We, the researchers, are sincerely grateful to everyone who has contributed because without their support, guidance, and collaboration, our research study would not have been possible.

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Cite this Article: Claire Mae R. Silvosa, Cyril R. Cabanado, Dulce Marie J. Noble, Judith E. Almonguera, Nikko T. Ederio (2024). Impact of Covid-19 Pandemic on Primary Healthcare Services Delivery as Perceived by Rural Residents. International Journal of Current Science Research and Review, 7(5), 3303-3322