

The Level of Satisfaction of the Residents on the Public Healthcare Services in the Isolated Mountain Barangays of Cebu City: A Research as Basis for Crafting an Action Plan

Donna Mae E. Tulaytay

Cebu Technological University,
Moalboal Campus in Cebu, Philippines

Allain D. Fonte

Western Covenant University in Los Angeles, California

Ma. Leslie B. Basallo

Cebu Technological University in Barili Campus, Cebu, Philippines

ABSTRACT

This research study aims to investigate the level of satisfaction among residents of isolated mountain barangays in Cebu City regarding healthcare services. The identified barangays for this study are Bonbon, Sudlon 1, Sudlon 2, and Sinsin. By distributing survey questionnaires to randomly selected participants from each barangay, the study sought to assess residents' satisfaction levels with respect to healthcare services provided within their respective communities. The study employed a mixed-methods approach, incorporating both quantitative and qualitative data collection techniques. The questionnaires were designed to measure various aspects of healthcare services, including accessibility, quality of care, healthcare personnel, facilities, and overall satisfaction. Data analysis involved descriptive statistics to examine the quantitative data. Qualitative data were analyzed using thematic analysis to identify recurring themes and patterns in participants' responses. The preliminary findings of the study indicated that residents' satisfaction levels with healthcare services in these isolated mountain barangays varied across different aspects. While some residents expressed overall satisfaction, others identified specific areas that required improvement. Accessibility, availability of healthcare personnel, quality of care, and the adequacy of healthcare facilities emerged as critical factors influencing residents' satisfaction. The research findings have important implications for policymakers, healthcare providers, and local government units in improving healthcare services in isolated mountain barangays. The study provides valuable insights into residents' perceptions, allowing for targeted interventions and the development of strategies to address the identified areas of concern.

Keywords: healthcare, policies, services, satisfaction, remote communities

THE PROBLEM AND ITS SCOPE

INTRODUCTION

Rationale of the Study

The mountain barangays in the Philippines are remote, isolated, and difficult to reach, making it challenging to provide basic public health services (Collado, 2019; Cabello, 2018). The issues on the Philippines' public health services have been raised since the 1950's. From the lack of medical centers and facilities to the insufficient supply of healthcare products and services, these issues hindered the survival rate of Filipino suffering from medical conditions or health problems. From the 1950's to early 1990's, average life span of Filipinos is between 60-65 years old (O'Neill, 2022). However, significant improvements are visible from the mid-1990's to the present, as the survival rates have improved and there is a 0.180% growth rate on the life expectancy of most Filipinos, from 60-65 years old before to 73-75 years old at present (O'Neill, 2022). Yet, even with significant and continuous improvements, many Filipinos still find the public health services unsatisfactory (Collado, 2019; Mallari et. al., 2020).

One of the major factors that cause the inefficient and less effective delivery of public health services is funding. The average national budget allocation in most Southeast Asian countries is 4.5% with its gross domestic product; with Singapore ranking first by allocating 7.3% for public health, while the Philippines only allocates 4.1% (Dayrit et. al., 2018). World Health Organization (2014) even proposed that the ideal allocation of a state to health services should not be less than 5% of its gross domestic product. This explains that even if the Philippines has an excessive population of healthcare professionals and continuous improvements on medical centers, facilities, and services, there are still more developments needed to achieve efficient and effective public health services. If the major metropolitans in the Philippines have issues with the public health services, this research aims to study on the condition of the public health services in the isolated areas of the country like the mountain barangays or island barangays. This research also aims to identify the major issues raised by the people in the area so appropriate action plans can be developed, and solutions to repeating problems will be proposed. The mountain barangays in Cebu City, even though they are considered under the jurisdiction of the city, the accessibility of these mountain barangays is challenging because of narrow roads, harsh weather and environmental conditions, and limited transportation systems. Because of the challenges in accessibility in these areas, public services, including healthcare services, are limited and there is always a delay in the delivery of services (Collado, 2019; Estoque et. al., 2020). Using Dayrit et. al.'s (2018) report, this research identified four factor to measure the people's satisfaction rating on their barangay's health services: (a) Knowledgeability and Quality of Service of Local Health Workers, (b) Availability and Accessibility of Medicines and Health Supplements, (c) Availability and Quality of Healthcare Equipment, and (d) Programs for Healthcare Awareness and Education. By conducting a survey, and computing the weighted average means, this research paper shall identify which factor scores the highest and which one scores the least. Basin, from the scores, this research paper shall draft suggestions, recommendations, and proposals for the main actors (barangay officials, city

Theoretical Background

This research paper is anchored from theories of Dayrit et. al. (2018), Collado (2019), and Arroyo (1998). Their research papers identified the issues on the efficiency and effectiveness of the public health services as delivered by the local communities, locally known as *barangays*.

Arroyo (1998) discusses that the initial plan of establishing barangay health workers is to extend social services instead of health services. Their main duties are to brief the local households of family planning and one of their main concerns is to assist the women in the barangays in handling domestic issues. However, because of the absence of a community doctor/nurse/other healthcare professional, the people in the barangays seek the assistance of barangay health workers (Arroyo, 1998). This has elevated the duties and function of barangay health workers to bridge the needs of the people to the city health offices. Plus, due to the lack of manpower in the city health offices, and the lack of volunteers to live in the remote areas, the city health offices endorsed their health services to the barangay health workers (1998). By this research paper, Arroyo theorized that health services in the mountain barangays or island barangays will never improve, regardless of an increase in funding or an improvement of facilities and supplies, because the people providing the healthcare services are not professionally trained healthcare workers. Hence, this research paper will anchor from this theory of Arroyo (1998).

Another theory that this research paper uses is the theory of Collado (2019) on Geographically Isolated and Disadvantaged Areas (GIDA). By conducting a case study on the GIDA areas in the province of Quezon, Collado (2019) concluded that the deficiency of health services is neither caused by the inefficiency of the local government nor the lack of accountability but by the challenging means of transportation systems and harsh weather conditions that limit the delivery of services in the area; plus, the lack of access to clean water and electricity that makes it more difficult to carry out healthcare services. This means that setting up better medical centers and providing medical facilities are useless because there is no electricity to run the technologies and no easy access to clean water, which is highly necessary to improve a person's health. This theory is considered by the researcher because the identified mountain barangays in this research also share similar issues as transportation, access to clean water, and stability of electricity.

Lastly, the theory Dayrit et. al. (2018) is considered because the researcher uses the identified factors of Dayrit et. al.'s theory in developing the research questions and in drafting the survey questionnaire. Dayrit et. al. (2018) submitted "The Philippines Health System Review" report to the Asia Pacific Observatory on Health Systems and Policies – World Health Organization, where they discuss (2018, p. xix),

Philippines adopted decentralized health governance in 1991, introduced a social health insurance programme – PhilHealth – in 1995, and has actively pursued universal health coverage since 2010. As a consequence of its focus on the health sector and general socioeconomic development, Philippines has achieved significant improvements in life expectancy and immunization coverage, as well as a twofold reduction in infant and under- 5 mortality.

Although much has been achieved to date, there are still many concerns in the health sector that need to be tackled. These include a reduction in the prevalence of tuberculosis and childhood pneumonia, as well as managing the rising tide of noncommunicable diseases and further strengthening the preparation and response capacity to natural and human- induced disasters.

The decentralization of health services established city health offices, and the delegation of their tasks and services with the barangay health workers because of the lack of manpower, and the lack of volunteers to go to the geographically isolated and disadvantaged areas. Because of the arising problems even if the health services are already being localized, Dayrit et. al. (2018) assessed the local health services using the four factors: (a) Knowledgeability and Quality of Service of Local Health Workers, (b) Availability and Accessibility of Medicines and Health Supplements, (c) Availability and Quality of Healthcare Equipment, and (d) Programs for Healthcare Awareness and Education. Their report is based on these four criteria. Hence, the researcher shall use the same criteria to assess the satisfaction level of the people in their respective barangay health services.

Theoretical Framework

The theoretical framework for this research study on exploring the level of satisfaction among residents of isolated mountain barangays in Cebu City revolves around three key theoretical perspectives: the Service Quality Model, the Access to Healthcare Model, and the Socioeconomic Factors Model.

Service Quality Model

The Service Quality Model, proposed by Parasuraman, Zeithaml, and Berry (1988), serves as the foundation for assessing residents' satisfaction with healthcare services. This model identifies five dimensions of service quality: tangibles, reliability, responsiveness, assurance, and empathy. These dimensions provide a comprehensive framework for evaluating the quality of healthcare services and understanding residents' satisfaction levels.

Access to Healthcare Model

The Access to Healthcare Model, discussed by Andersen and Newman (1973), is relevant for examining residents' satisfaction levels in relation to the accessibility of healthcare services. This model highlights three dimensions of healthcare access: availability, affordability, and acceptability. It acknowledges that residents' satisfaction is influenced by their ability to obtain healthcare services in a timely, affordable, and culturally appropriate manner.

Socioeconomic Factors Model

The Socioeconomic Factors Model recognizes that residents' satisfaction levels can be influenced by various socioeconomic factors. This model encompasses variables such as income, education level, employment status, and social support networks. These factors can shape residents' perceptions and experiences of healthcare services, affecting their satisfaction levels.

By integrating these theoretical perspectives, the research study aims to gain a holistic understanding of the factors contributing to residents' satisfaction with healthcare services in isolated mountain barangays. The Service Quality Model helps assess the quality of healthcare services provided, the Access to Healthcare Model provides insights into the accessibility of these services, and the Socioeconomic Factors Model allows for the examination of socio-demographic variables that may impact satisfaction levels.

The study's survey questionnaires will be designed based on the dimensions of the Service Quality Model, incorporating items related to tangibles, reliability, responsiveness, assurance,

and empathy. Additionally, questions related to the Access to Healthcare Model will be included to explore residents' perceptions of availability, affordability, and acceptability of healthcare services. Finally, socio-demographic information will be collected to analyze the influence of socioeconomic factors on satisfaction levels. By utilizing this theoretical framework, the study aims to provide a comprehensive understanding of the factors influencing residents' satisfaction with healthcare services in isolated mountain barangays, thereby contributing to the development of targeted interventions and strategies for improving healthcare delivery in these communities.

Theoretical Framework

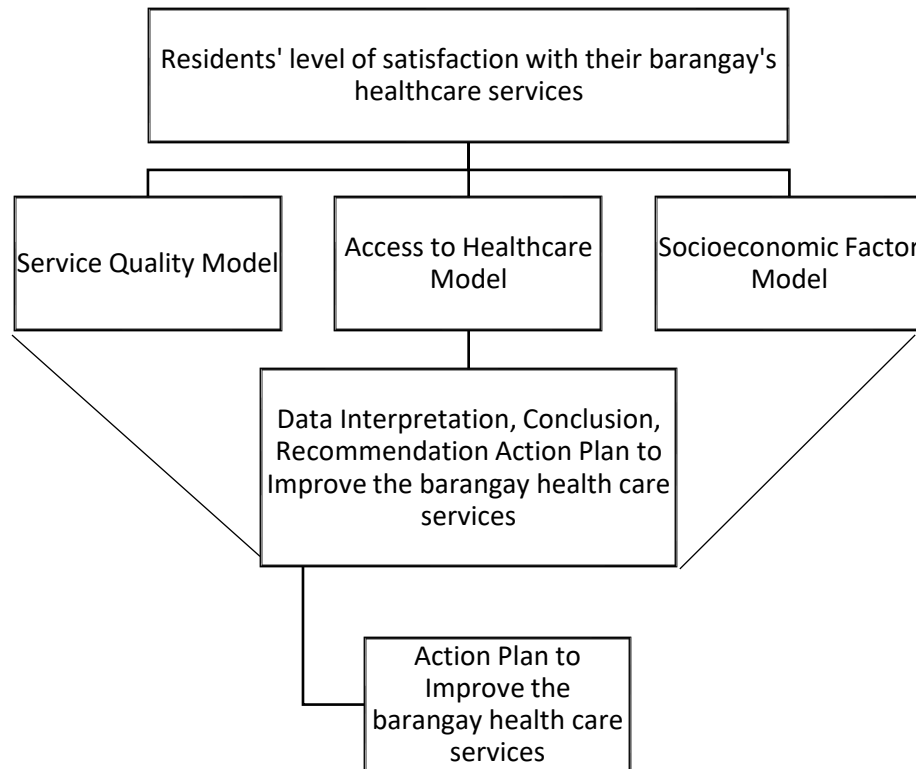


Figure 1: Theoretical Framework

Statement of the Problem

This study's goal is to find out how satisfied are the residents with the healthcare services provided by their respective barangays on the identified areas of Cebu City namely barangay Bonbon, Sudlon 1, Sudlon2, and Sinsin as basis for the crafting of an appropriate action plan. Specifically, this will answer the following questions:

1. What is the profile of the respondents in terms of:
 - 1.1 geographic location
 - 1.1.1 Distance from the office of public services;
 - 1.1.2 Distance from the nearest hospital;
 - 1.1.3 Road infrastructures in the area;
 - 1.1.4 Quality of the roads; and
 - 1.1.5 Means of transport.
 - 1.2 manpower resources
 - 1.2.1 Number of nurses working in the area;

- 1.2.2 Number of midwives working in the area;
- 1.2.3 Number of doctors working in the area; and
- 1.2.4 Number of health workers working in the area.
- 1.3 technological resources?
 - 1.3.1 Available facilities and equipment; and
 - 1.3.2 Communication access like internet and telephone.
- 1.4 common livelihood of the respondents?
 - 1.4.1 Nature of work among the respondents; and
 - 1.4.2 Educational levels attained by the respondents;
2. What is the people's level of satisfaction on the barangay's health workers in terms of:
 - 2.1 Knowledgeability and quality of service of barangay health workers;
 - 2.2 Availability and accessibility of medicines and health supplements;
 - 2.3 Availability and quality of healthcare facilities and equipment; and
 - 2.4 Programs for healthcare awareness and education?
- 3 What is the significant relationship between the perspective or the respondent's perspective and the level of satisfaction to the demographic profile?
- 4 What is the significant relationship between the respondent's perspective and the level of satisfaction to the demographic profile?
- 5 What challenges are encountered by the barangay residents regarding the provision of healthcare services?
- 6 Based on the findings of the study what action plan can be proposed?

Hypothesis

There is no significant relationship between the respondents' perspective and the level of satisfaction to the demographic profile.

Significance of the Study

This study is beneficial to the following sectors enumerated below because the findings of the study can result to an action plan that will help improve the health care system in these isolated mountain barangays of Cebu City. The different sectors listed below are the main actors that can help in making a much better delivery of healthcare services in the mountain barangays. Moreover, the identified sectors below will have much easier and faster tasks to accomplish by using the findings of this research. This research is beneficial to the following sectors:

The Barangay Leaders and the Health Workers:

The findings of this study will serve as an eye opener to the barangay leaders to improve its healthcare services. This research has clearly explained the importance and the value of a good healthcare system and how it affects the productivity of the people in the area. Healthy citizens create less problems for the communities and increases the productivity of the communities. Healthy and happy citizens will also reflect on the good performance of the barangay health workers and their leaders.

The Citizens / The Residents:

This study gives the residents the chance to express their views and opinions on the healthcare services of their barangays. The results and discussions of this research allows the opinions of the residents to reach the leaders and the health workers so that they will know what and

where to improve. An improved healthcare system and better delivery of healthcare services will also result in healthier and happier residents.

The Researcher:

This study is beneficial to the researcher because the researcher is given the chance to conduct action research that will surely contribute to the development of communities, especially the geographically isolated and disadvantaged communities like the identified barangays in this research.

The Future Researchers:

The study is beneficial to the future researcher/s because this research can be a basis for further and more complex research in the field of public health, public policy, and public administration. Moreover, other researchers may use the methodology in this research and use the questionnaires of this research to assess the efficacy and efficiency of health care services, not just in the GIDA of Cebu City, but also with other GIDA around the country.

RESEARCH METHODOLOGY

Methods Used

This research will use a mixed quantitative-qualitative method and will be mostly descriptive on its discussion in the evaluation of which among the four factors is the most satisfactory and which one scored the least satisfactory. The mixed quantitative-qualitative approach is believed to be more effective because the qualitative approach can help provide a better understanding of the data gathered from survey responses, while the quantitative method can provide better analysis to patterns of responses (Driscoll, et. al., 2007).

In gathering the responses, a self-made survey questionnaire will be used. In analyzing the responses, a statistical tool of weighted mean is ideal to assess the responses from the respondents. This is because the research is using surveys as means to gather the data, and weighted mean is an effective tool to assess responses from surveys (Xi, Sun, and Su, 2008). The data gathered and analyzed will be the basis for discussions and recommendations to identify which factors in the health services need immediate and most development, and which factors need to sustain.

The respondents are residents of the identified mountain barangay: Bonbon, Sudlon 1, Sudlon 2, and Sinsin. The total population of the four barangays is 16,188 (PhilAtlas, 2020). A sample size will be computed using the Slovin's formula, and the respondents will be randomly selected and equally distributed among the four barangays.

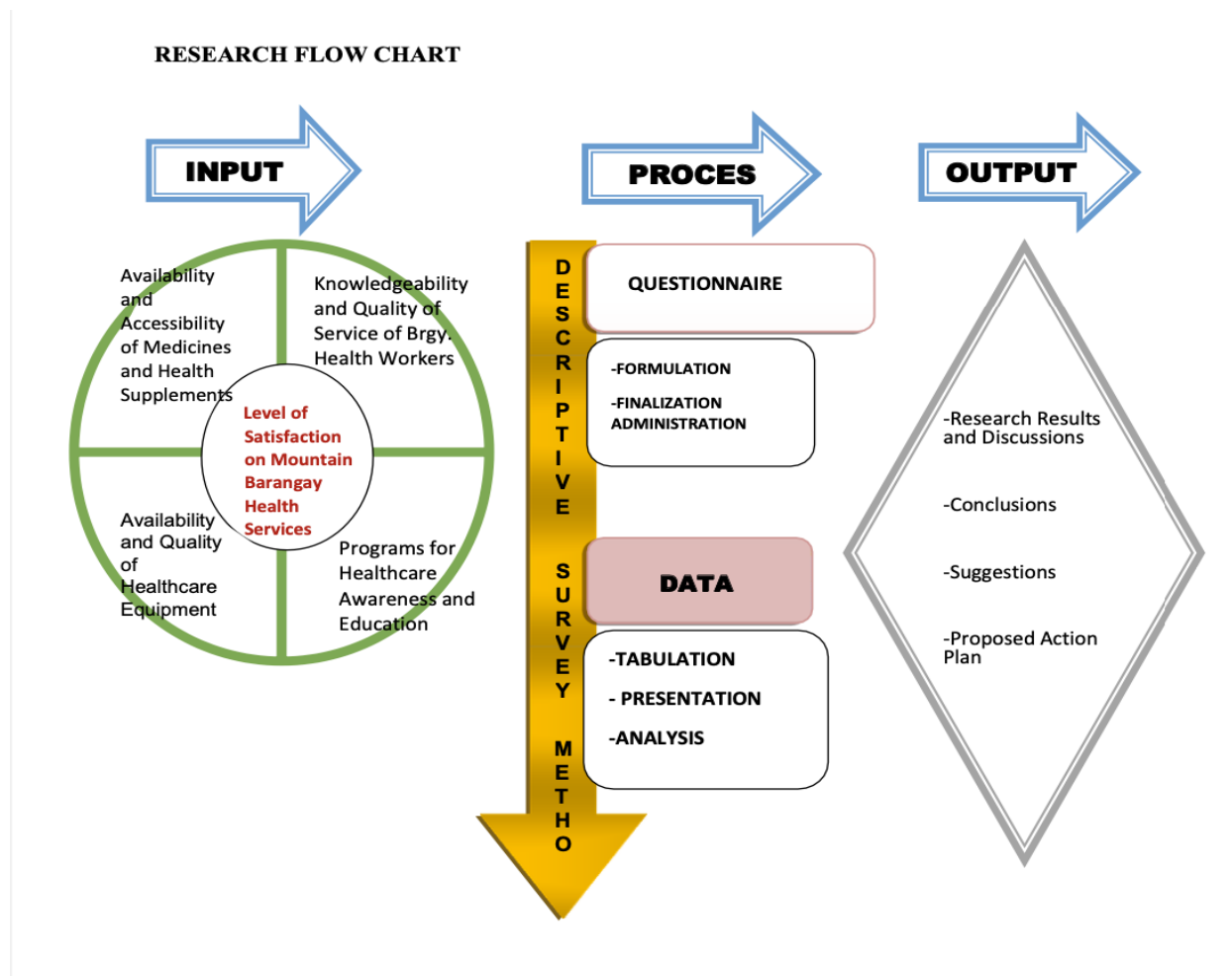


Figure 2: Research Flow of the Study

The proposed research aims to assess the people's level of satisfaction with their barangay health services in the mountain barangays of Borbon, Sudlon 1, Sudlon 2, and SinSin (Northwestern region) in Cebu City, Philippines. In the report submitted by Dayrit et. al. (2018) at the Asia Pacific Observatory on Healthcare Systems and Policies, four major areas are identified to assess the quality of healthcare services in the rural areas in the Philippines. These are (a) Knowledgeability and Quality of Service of Health Workers, (b) Availability and Accessibility of Medicines and Health Supplements, (c) Availability and Quality of Healthcare Equipment, and (d) Programs for Healthcare Awareness and Education. These identified factors shall be the input for this research.

The researcher shall draft a self-constructed survey questionnaire that is anchored from the World Health Organization's general readiness tracer checklist. The same WHO general readiness tracer checklist was used by the study of Collado (2019) in assessing the healthcare services of the identified isolated regions in his research. The survey questionnaire shall have 10 questions with numeric scale values. The Likert scale shall be used to gather and measure the survey responses. Using the Sloven's formula, the researcher will identify the number of respondents that shall participate in the survey. Respondents shall be randomly selected, and

equal distribution of respondents per barangay. The responses will be tabulated, and the weighted average mean will be computed to analyze the data.

From the analyzed data, discussions will be made, and conclusions will be drawn. Based on the outcome of the research, suggestions will be proposed, and an action plan will be drafted.

Research Environment

The research environment are the northwestern mountain barangays in Cebu City, Philippines. These mountain barangays are Bonbon, Sudlon 1, Sudlon 2, and Sinsin. These barangays are purposely selected by the researcher because (1) they are mountain barangays (which make their location distant from the accessibility of public services, including health services); (2) they are situated in the innermost locations compared to other mountain barangays in the city (which means they do not have direct access to highways and main roads). These mountain barangays are interconnected with each other through a barangay road that starts from Busay, Cebu City and ends at Campo 7, Talisay City.

Agriculture is the main livelihood of the people in the area. The leading products that these barangays produce are corn, mangoes, cabbages, and root crops like potatoes, carrots, ginger, etc. (PhilAtlas, 2020). The total population of the four barangays is 16, 188 as of the 2020 PhilAtlas census count; wherein Bonbon has a population of 6,106, Sudlon 1 has 3,273, Sudlon 2 has 4,229, and Sinsin has 2,578.

Each of these barangays mentioned has its respective barangay center where the chairman and his team hold office to provide public services to the people living in the area. These barangay centers are also the communication centers for the people to express their needs to the main public offices in the city. And they also serve as emergency response centers in cases of calamities and urgent care needs. During the pandemic, these barangay centers became the isolation and quarantine quarters to those who attested positive of Covid-19. Hence, the people in are very dependent on the services and amenities that these barangay centers can provide.

The best means of transportation to get to these barangays is the local motor taxi known as the *habal-habal* because of the narrow and steep roads. Most of the roads are already improved, but there are still many that are rough and difficult to navigate. The delay in the improvement and the challenge of road widening is caused by the instability of soil quality in the area that often leads to landslides during the wet season. Thus, transporting their agricultural products from their farms to the city is also a challenge.

Above is the map of the mountain barangays of Cebu City. The area encircled by a red mark is the area where barangays Bonbon, Sudlon1, Sudlon 2, and Sinsin are located. By looking at the map, these barangays are situated between the Transcentral Highway and Manipis Highway. Yet, the distance from both highways to access these barangays is obscure.

Research Materials

This research utilized a combination of research materials to gather and analyze data. The primary objective of the research was to understand the level of satisfaction that residents experienced in relation to the quality and accessibility of their public health services. To achieve

this, a survey methodology was employed, involving 390 respondents from the target community.

The research materials employed in this study included:

Survey Questionnaire:

A carefully designed survey questionnaire was the central research material. This questionnaire contained a series of questions that aimed to capture the residents' perceptions, opinions, and attitudes towards their local community health services. The questions were likely to cover aspects such as the quality of medical care, the availability of services, waiting times, staff attitudes, facility cleanliness, and overall experience.

Sampling Methodology:

The researchers used the Slovin's Formula to select the 390 respondents. This methodology ensured that the respondents were representative of the community's demographics and diversity. This approach helps increase the generalizability of the research findings to the larger population.

Data Collection Tools:

To administer the survey, data collection tools were used. These tools could be physical paper surveys, or interview-based methods. The choice of tools depended on the researchers' preferences and the convenience for the respondents.

Ethical Guidelines:

Ethical guidelines and informed consent forms were also essential research materials. These ensured that respondents' rights and privacy were respected, and they were fully informed about the purpose of the study and how their data would be used.

Literature and Background Research:

The researcher likely gathered existing literature, research articles, and reports related to community health services and satisfaction to inform the design of their survey questionnaire and to provide context for their findings.

Research Plan and Protocol:

A well-defined research plan and protocol were crucial materials that outlined the research objectives, methodology, data collection procedures, and analysis methods. This ensured that the research was conducted systematically and followed a rigorous approach.

Research Team:

The researcher and her assistants were also key research materials. Their expertise, experience, and skills played a critical role in designing the survey, collecting data, and interpreting results.

By utilizing these research materials, the study aimed to obtain a comprehensive understanding of the residents' satisfaction with their barangay's health services. The survey questionnaire, combined with proper sampling, data collection tools, and analysis methods,

allowed the researchers to quantify residents' opinions and draw meaningful conclusions about the level of satisfaction in the community.

Research Respondents or Experimental Units

The respondents are residents of the identified mountain barangay: Bonbon, Sudlon 1, Sudlon 2, and Sinsin. The total population of the four barangays is 16,188 (PhilAtlas, 2020). A sample size will be computed, and the respondents will be randomly selected and equally distributed among the four barangays.

Using the Slovin's formula, a sample size is computed. The Slovin's formula is used to calculate for the sample size because this is commonly used in scientific studies when the total population size is too large, and when the responses from a sample group can actually generate similar responses as to when the whole group is being surveyed or interviewed; but, a level of confidence must be established, thus, the margin of error must be identified by the researchers themselves when computing with the Slovin's formula (Blair and Blair, 2015). Please refer below for the computation:

$$n = \frac{N}{1 + (N * e^2)}$$

Wherein:

- N = Total population
- E. = margin of error

The researcher has decided to use the standard 5% margin of error for this research because of the large total population size; plus, considering the time limitation of the researchers in completing this research.

$$n = \frac{16,188}{1 + (16,188 * 0.05^2)}$$

$$n = \frac{16,188}{1 + (40.47)}$$

$$n = \frac{16,188}{41.47}$$

$$n = 390.35 \text{ or approximately } 390$$

Therefore, a sample size of 390 respondents will be requested to respond to the survey questionnaires.

Research Instrument or Design

The researcher has constructed a survey questionnaire as an instrument for this research. The survey questionnaire is self-made based on the World Health Organization's general readiness tracer checklist because the checklist also identifies the four factors/core areas in this research.

The researcher has identified four core areas that are needed to evaluate the efficacy and efficiency of the barangays healthcare services and to measure the residents' level of satisfaction. These four core areas are adapted from the research of Dayrit et. al. (2018): (a) Knowledgeability and Quality of Service of Health Workers, (b) Availability and Accessibility of Medicines and Health Supplements, (c) Availability and Quality of Healthcare Equipment, and (d) Programs for Healthcare Awareness and Education.

Data Collection Procedure

A self-constructed survey questionnaire will be distributed to the 390 respondents. Every respondent must be a resident of the four barangays. Respondents are selected randomly and evenly distributed among the four barangays. If there are 390 respondents, therefore, there must be 97-98 selected respondents per barangay.

- First, each respondent will be oriented about the researcher, the research title, the research purpose, and the significance of their participation in the research. An informed consent will be provided for the respondents to read and sign to prove their voluntary participation in the research.
- Second, the survey questionnaire will be given to the respondents. The researchers will orient the respondents regarding the survey questionnaire and how to answer it, how significant are their honest responses, what possible data can be gathered, where will the data be used for, and how significant can the data be to create a plan of action for recommendation to improve the quality of healthcare services in their respective barangays.
- Third, the completed questionnaires will be collected, and the responses will be tabulated for data treatment and analysis.

Data to be Gathered

Measuring the level of satisfaction among residents with their local community health services involves gathering a range of data to provide a comprehensive understanding of their perceptions and opinions. Here are some key data points that you might want to gather through your survey:

Demographic Information:

- Age
- Gender
- Education level
- Income level
- Ethnicity/cultural background

Residency Information:

- Local community of residence (one of the three identified communities)
- Length of time residing in the community
- Type of housing (renting, owning)

Healthcare Utilization:

- Frequency of using local health services (e.g., clinics, hospitals, pharmacies)
- Type of health services typically utilized (preventive, curative, emergency)

Satisfaction with Specific Services:

- Accessibility of healthcare services (distance, transportation options)
- Waiting times for appointments
- Availability of medical professionals and specialists
- Cleanliness and hygiene of healthcare facilities
- Range of available medical treatments
- Adequacy of medical equipment and technology
- Availability of necessary medications

Quality of Care:

- Knowledge and competence of healthcare professionals
- Clear communication from healthcare providers
- Respect and empathy from healthcare staff
- Patient involvement in treatment decisions

Service Information and Communication:

- Awareness of available health services
- Clarity of information about services offered
- Effectiveness of communication channels (websites, brochures, community events)

Community Engagement and Feedback:

- Participation in community health programs or events
- Willingness to provide feedback on services
- Perceptions of community involvement in healthcare planning

Overall Satisfaction:

- Overall satisfaction with local community health services
- Likelihood of recommending services to others

Suggestions for Improvement:

- Open-ended questions to gather suggestions for enhancing services

Additional Comments:

A section where respondents can provide any other comments or thoughts they might have. To ensure the data's reliability and validity, it's important to use well-designed survey questions, possibly including Likert scale questions (e.g., strongly agree, agree, neutral, disagree, strongly disagree) and open-ended questions for qualitative insights. Also, consider piloting the survey with a small sample before distributing it to the full 390 respondents. This can help identify any potential issues with the survey design and question clarity.

Statistical Analysis

As soon as the survey responses are gathered and tabulated, the weighted mean will be computed to acquire the value of the responses, and for the researchers to draw their conclusions. The weighted mean is the easiest and most common method of interpreting data, especially for descriptive statistical analysis (Business Dictionary, retrieved 2016). Thus, the

researchers decided to interpret the survey responses from this research using the weighted mean.

The use of weighted average has many advantages, such as: easy to count and understand, the result is the same scale as the component variables, offers the possibility of differentiating weights of the dimensions. (Grela, 2013, p. 1,220)

The formula is as follows:

$$\mu = \Sigma fx/n$$

Where:

- μ = weighted mean
- Σ = summation
- f = number of respondents under each scale x = weight assigned to each scale
 n = number of respondents

For the researcher to facilitate the analysis of the weighted mean, the following mean range and interpretation are utilized:

Weight	Mean Range	Equivalent
4	3.26 – 4.00	(ES) Extremely Satisfied
3	2.51 – 3.25	(S) Satisfied
2	1.76 – 2.50	(DS) Dissatisfied
1	1.00 – 1.75	(ED) Extremely Dissatisfied

DEFINITION OF TERMS

To give clarity to the readers on the words stipulated in the manuscript, the terms mentioned were defined according to its concept and how it is operationally indicated.

- **Barangay:** a community of people living together in a specific area that is identified by the political and geographical jurisdictions under Philippines laws.
- **Barangay Chairperson:** The person in charge of the public affairs and the delivery of public services in a community.
- **Barangay Health Center:** The area in the community designated to be used as a medical emergency response center for medical issues, and a satellite facility to deliver public health services in the local communities.
- **Barangay Health workers:** A few members in the community that are nominated by the barangay chairperson to look after the public health care needs of the people in the community.
- **Isolated Zones:** These are areas identified under the geographical and political maps of the Philippines that are located distantly from any major city or town. Thus, accessing the areas, delivering of goods and services to these areas, and transporting goods from these areas are challenging.
- **Mountain Barangay:** These are identified communities of people living in specific geographical land areas in the mountainous areas in the Philippines that are difficult to access because of the inaccessibility of roads or lack of transportation.

REVIEW OF RELATED LITERATURE

The mountain barangays in the Philippines are remote, isolated, and difficult to reach, making it challenging to provide basic public health services (Collado, 2019; Cabello, 2018). This review of related literature aims to explore the causes and effects of poor public health services in these areas and identify potential solutions.

Causes of Poor Public Health Services in Mountain Barangays

The primary cause of poor public health services in mountain barangays is the lack of government support and funding for healthcare in remote areas. According to a study by Alcantara et al. (2019), the allocation of funds for healthcare in the Philippines is often skewed towards urban areas, leaving rural and remote areas underfunded. This disparity results in a lack of basic health facilities, medicines, and medical personnel in mountain barangays. Financing healthcare services in mountain barangays is also a significant issue. Due to the poverty prevalent in these areas, residents are unable to afford healthcare services (Pernia, 2018). The government's healthcare financing system is inadequate, making it challenging to provide financial assistance to those who need it (Suguitan, 2019). In many cases, the cost of healthcare services is too high for residents, making it difficult for them to access medical care.

Additionally, the lack of infrastructure, particularly road networks, makes it challenging for medical personnel and supplies to reach mountain barangays (Morales & Adiova, 2021). Moreover, the limited access to clean water, sanitation, and hygiene facilities in these areas poses a risk to public health (Department of Health, 2020). In many cases, the lack of access to transportation is a significant barrier to healthcare services, making it difficult for residents to reach hospitals or clinics. In addition, the lack of healthcare professionals in these areas contributes to the inadequate healthcare services (Sanchez, 2019). According to a study conducted by Lintag (2017), the lack of doctors and nurses in mountain barangays results in a shortage of medical services and supplies.

Effects of Poor Public Health Services in Mountain Barangays

The effects of poor public health services in mountain barangays are significant, particularly in terms of mortality rates, morbidity rates, and healthcare-seeking behaviors. According to a study by Dillip et al. (2018), the infant mortality rate in remote areas of the Philippines is twice as high as in urban areas, and maternal mortality rates are also high. In addition, the prevalence of infectious diseases, such as tuberculosis, is higher in remote areas due to poor living conditions and lack of healthcare access. The inadequate healthcare services in mountain barangays have significant implications for public health. Due to the lack of medical care, residents are more vulnerable to illness and disease (Lintag, 2017). The lack of preventative measures also results in an increase in the spread of infectious diseases. In addition, the inadequate healthcare services can result in a decline in the overall health of residents in these areas.

Furthermore, the lack of trust in the healthcare system and low healthcare-seeking behaviors in these areas exacerbate the problem (Alcantara et al., 2019). Some communities rely on traditional medicine or self-medication, while others delay seeking medical attention until their conditions become severe.

Several potential solutions can address the issue of poor public health services in mountain barangays. One approach is to increase government funding and support for healthcare in remote areas (Department of Health, 2020). Additionally, investing in infrastructure, particularly road networks, can improve healthcare access and delivery (Morales & Adiova, 2021).

Community engagement and empowerment can also play a significant role in addressing the issue. According to Alcantara et al. (2019), involving communities in the planning and implementation of healthcare programs can increase trust in the healthcare system and improve healthcare-seeking behaviors. Moreover, training and supporting community health workers can improve access to basic health services in remote areas (Dillip et al., 2018).

Public health has been discussed in the drafting of public policies since the 1950's, and the issue of healthcare services in the country is one of the major topics of discussion among government leaders, policy makers, academics, and civil society. Because of the importance of public health policies and healthcare services, the country has drafted policies and implemented different mechanisms to reform and to continuously improve the country's health system. In 1991, to better reach the people and provide their healthcare needs, the Philippines "adopted decentralized health governance"; this has led to the establishment of local health offices in every city and community health centers in every barangay (Dayrit et. Al., 2018). Recently, the country has adapted the universal health system to ensure that every Filipino has access to health services. As a result of the continuous efforts to improve the health sector, the average life span has increased by 0.180% (O'Neill, 2022), reduction of infant mortality rate, and a wider coverage of immunization to many tropical diseases (Dayrit et. Al., 2018). The life expectancy of most Filipinos in the 1950's to early 1990's is 60-65 years; this has improved to 73-75 years old at present (O'Neill, 2022). The chart below shows the increasing and improving life expectancy of Filipinos (Statista, 2022).

Although there have been significant changes that are visible and experienced by the people in the country, there are still many issues that the health department must face. These include addressing tropical diseases like dengue fever, tuberculosis, and pneumonia, and other communicable diseases which affect mostly toddlers and infants (Dayrit et. Al., 2018). Apart from these health risks, the health sector is also facing challenges with funding. The World Health

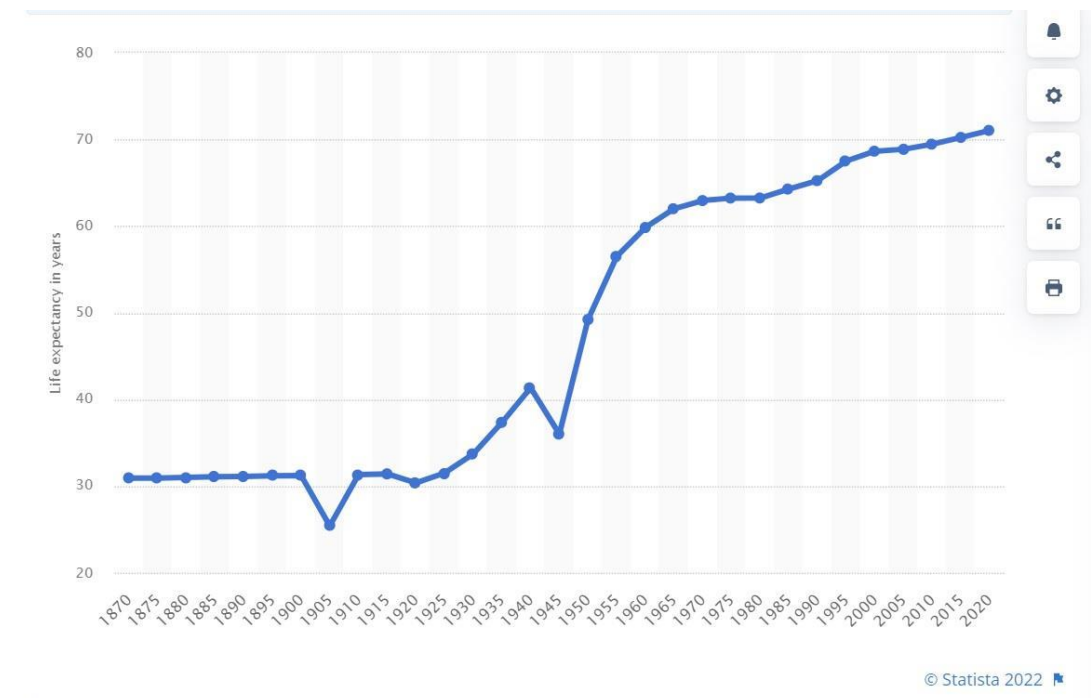


Figure 3: Life Expectancy Chart of the Philippines (1870-2020)

Source: Statista, 2022

Organization (2014) even proposed that the ideal allocation of a state to health services should not be less than 5% of its gross domestic product. However, the Philippines has only allocated 4.1% of its GDP. It will be a challenge for the Philippines to increase the budget allocation without compromising the other sectors like the education and agriculture sectors that the government also wanted to prioritize (O'Neill, 2022). The 4.1% budget allocation is a good improvement from the 2010 allocation which was only 3.4%. The lack of budget appropriations for the health sectors is not only a problem of the Philippines, but throughout Southeast Asia, and common among economically challenges states (WHO, 2014).

COUNTRY	2000 Health Expenditure as of % GDP	2010 Health Expenditure as of % GDP
BRUNEI	3.0%	2.9%
CAMBODIA	6.3%	6.0%
INDONESIA	2.0%	2.8%
LAOS PDR	3.3%	2.6%
MALAYSIA	3.1%	4.4%
MYANMAR	2.1%	2.0%
PHILIPPINES	3.2%	4.1%
SINGAPORE	2.8%	4.5%
THAILAND	3.4%	3.9%
VIETNAM	5.3%	6.8%

Figure 2: Health Expenditure as of % GDP (WHO, 2014)

Based on the 2013 statistics of the World Health Organization (WHO), the total health expenditure ratio of the Philippines improved from 3.2% in 2000 to 4.1% in

2010, gaining 0.9 percentage point over a decade, albeit still below the benchmark. Among the ten selected countries in Southeast Asia, the Philippines ranked 5th both in 2000 and in 2010, as shown in Table 1. Cambodia took the lead with 6.3% in 2000 followed by Vietnam with 5.3%, but it was reversed in 2010 when Vietnam recorded a ratio of 6.8% while Cambodia fell to 6.0%. Only these two countries exceeded the 5% total health expenditure-to-GDP ratio. (WHO, 2014, p. 1, par. 3)

This explains why public hospitals and other medical centers are always deficient when it comes to supplies, facilities, equipment, and services. This also explains the reason that even if the annual health expenditures increase, the government share of the health expenditures is not as much as the share that is coming from the private sources. This because many Filipinos prefer to avail the medical services of privately-owned hospitals and medical centers because of the up-to-date facilities and equipment and the standardized quality of services. Another factor causing the inadequate funding in the health sector is the decentralization of public services. Upon the enactment of Republic Act (RA) 7160, also known as the “Local Government Code of 1991”, wherein the delivery of public services is delegated to the local government units to ensure faster delivery of services. However, it also gives the local government units (LGU) the control to allocate funds to the different services, including health services. *The sources of funds of LGUs include, but are not limited to, the internal revenue allotment, share in the national wealth, real property taxes, regulatory fees, donations, and local taxes; however, the local health budget would depend on the priorities given by each LGU to health services and facilities.* (Legislative Budget and Monitoring Office, 2013, p. 5, par. 3) This explains why there are disparities in the distribution of funds allocated to health services in different barangays, even if they belong to the same local government unit. Issues of malpractice and misuse of funds are also being raised by barangay health workers; insinuating that barangays whose leaders are in the same political party of the ruling mayor receive more funds, faster delivery of services, and quick responses to their needs compared to other barangays that are led by leaders from the opposition (Arroyo, 1998).

Another issue raised that is affecting the slow development of health services is the maldistribution of the facilities, equipment, and skilled healthcare professionals around the country (Estoque et. al., 2020). Estoque et. al. (2020) further explains that differences in the costs of living between the urban and rural areas resulted to the differences in wages and compensation packages; hence, more skilled practitioners and medical experts are crowding in the major cities of the country because they have better compensation packages and higher pay rate. This is the reason why there is a deficiency of skilled healthcare professionals in the rural areas, worse in the geographically isolated and disadvantaged areas. Facilities and equipment are difficult to deliver in the rural areas because of the lack of safe and efficient transport systems (Estoque et. al., 2020).

Lastly, the issue on the quality of health services in the rural areas and isolated areas in the Philippines can be attributed to the roles of the community health workers or the barangay health workers. Barangay health workers do not hold tenured positions, do not receive standardized minimum wages (only stipend), no work benefits, and no regular work hours; thus, there is no sense of accountability and no motivation to meet their key performance indicators (KPIs) (Mallari -tHESISet. al., 2020). Therefore, there are no schemes to sustain

barangay health workers from holding on to their positions and performing their daily tasks and obligations. How does one expect standardized quality healthcare services?

The isolation of mountain barangays in the Philippines has contributed to poor public health services in these areas. The lack of healthcare professionals, transportation, and financing are significant factors that contribute to the inadequate healthcare services. The government needs to implement policies and initiatives to improve healthcare services in these areas to ensure that residents have access to medical care. Providing adequate healthcare services is crucial for the well-being and health of residents in isolated mountain barangays.

PRESENTATION, ANALYSES, AND INTERPRETATION OF DATA

In this study, several aspects of the respondents' profiles can be considered, including their geographic location, manpower resources, technological resources, and common livelihood. These factors provide an important context for understanding the unique characteristics and challenges faced by the residents in these areas.

Geographic Location

The geographic location of the respondents in the identified mountain barangays is a crucial aspect of their profile. Being situated in isolated mountainous areas, these barangays may face geographical barriers that can impact accessibility to healthcare services and other resources. These areas have rugged terrain, limited road infrastructure, and longer travel distances to urban centers, which can affect the delivery of healthcare and other services.

In the study of Collado (2019), her research discussed that the lack of well-maintained roads and transportation routes hampers the movement of medical personnel, supplies, and equipment. This can result in delayed response times during emergencies and difficulties in regular health check-ups and consultations. The nearest public hospital to these mountain barangays is the Vicente Sotto Memorial Hospital, and it is 23.5 kilometers (Google Maps, Accessed July 30, 2023). Therefore, the distance will take an hour and 15 minutes' drive, at least (Google Maps, Accessed July 30, 2023). However, considering the 5-kilometer stretch of rough and uneven terrain from Trans-central highway to the barangay health centers, then, we can assume that the estimated one hour and 15 minutes' drive is not enough, and will usually take longer. Thus, explains the slow response to emergency situations and the late delivery of medical and health supplies in the health centers; leading to unsatisfied residents when it comes to the timeliness of services.

Manpower Resources

The profile of the respondents should also consider the availability of manpower resources in the barangays. Isolated mountain barangays may have relatively smaller populations and limited healthcare personnel, such as doctors, nurses, midwives, and other healthcare professionals. The scarcity of healthcare providers can impact the quality and availability of healthcare services in these areas, potentially affecting residents' satisfaction levels. As of this writing, the barangay centers only have barangay health workers, who are considered voluntary workers because they are not receiving regular compensation for their services. There is only one nurse who does rotation shifts in the three barangays. The nurse spends 36 hours in one barangay before moving to another barangay. There are no doctors, dentists, and

other medical specialists assigned to these mountain barangays. These barangays only receive treatments and medical check-ups once a year when doctors on medical missions visit them.

Thus, the shortage of specialized healthcare professionals, such as pediatricians, obstetricians, and surgeons, limits the availability of specialized care in these areas (Cabello, 2018). Patients with complex medical needs may need to travel to urban centers for appropriate treatment. Furthermore, the remote and isolated nature of these barangays can make it difficult to attract and retain qualified healthcare professionals (Cabello, 2018). Limited amenities, professional isolation, and lifestyle challenges can discourage healthcare workers from committing to long-term service in these areas.

Technological Resources

Isolated mountain barangays in Cebu City typically have limited access to modern technological resources due to their remote locations and challenging terrains. Essential technological resources such as reliable internet connectivity, medical equipment, and telecommunication systems are often scarce or absent. According to the Cebu City Health Department (CCHD), many of these barangays lack basic healthcare facilities and rely on periodic medical missions for healthcare services (CCHD, 2023). Upon visiting the barangay centers, the researcher found out that the barangay centers only have a telephone and a mobile phone to be used by the security-guard on-duty. The barangay centers do not have stable internet connections and rely only on mobile internet data.

The absence of reliable internet connectivity in isolated mountain barangays hinders the implementation of telemedicine programs. Telemedicine, which involves remote medical consultation and diagnosis, could significantly enhance healthcare access for the locals. However, the lack of stable internet connections prevents healthcare professionals from offering timely consultations and diagnoses, leading to delayed treatment (Cruz, 2019).

Inadequate telecommunication systems in these areas impede the dissemination of critical healthcare information to both residents and healthcare providers. The delay in receiving information about outbreaks, preventive measures, and treatment guidelines can lead to a slow response to health crises and negatively impact the health outcomes of the population (Cebu Daily News, 2020).

Another disadvantage is that the barangay health centers do not have computers. The health workers will have to share the computer with the staff from the barangay centers. Hence, these mountain barangays have outdated or non-existent electronic health records systems hinder efficient health data management in isolated mountain barangays. This leads to difficulties in tracking patient histories, coordinating care, and identifying health trends, all of which are vital for effective healthcare planning and resource allocation (Ling & Carpio, 2017).

The technological resources available in isolated mountain barangays in Cebu City are limited, which has adverse effects on public healthcare services. The absence of reliable internet connectivity, modern medical equipment, efficient communication systems, and robust health data management contributes to delays and insufficient healthcare services for the local population. Addressing these technological resource limitations is crucial for improving healthcare access, response times, and overall health outcomes in these remote areas.

Common Livelihood

The common livelihood of people residing in the isolated mountain barangays of Sinsin, Sudlon 1, and Sudlon 2 in Cebu City, Philippines, predominantly revolves around agriculture and subsistence farming. These communities rely on traditional farming practices to sustain their livelihoods due to their remote locations and limited access to modern economic opportunities. Agricultural activities in these areas encompass the cultivation of crops such as root crops, vegetables, and fruits that are suitable for the challenging terrain. Residents engage in farming practices tailored to the local climate and topography, primarily aimed at providing sustenance for their families and, potentially, generating supplementary income through the sale of surplus produce.

Furthermore, small-scale livestock raising, including poultry and backyard pig farming, also constitutes a supplemental source of food and income for some households in these mountain barangays.

Given the isolated nature of these regions, opportunities for alternative livelihoods like formal employment, trade, and services are constrained. Consequently, the communities heavily depend on the agricultural resources available within their immediate environment to ensure their subsistence.

Based on the survey results, it appears that the level of satisfaction of people in the mountain barangays with their healthcare services is generally low. Out of the 13 items measured in the survey, 11 of them indicate dissatisfaction among the respondents. This suggests that there are several areas of concern and improvement is highly needed in the healthcare services.

Based on tabulated and calculated results of the survey, there are only two factors that reached a satisfactory level while the remaining 11 items scored dissatisfaction, we can delve into the specifics of the data analysis.

Let's examine each item individually:

Cleanliness of the Health Center and Its Facilities:

This item received a high satisfaction score, indicating that the respondents perceive the health center and its facilities as clean and well-maintained. This positive perception is essential as it contributes to the overall trust and confidence in the healthcare services provided within the barangays.

Programs Initiated by The Barangay Healthcare Workers:

The satisfaction expressed for this item suggests that the respondents appreciate the efforts made by the barangay healthcare workers in implementing healthcare-related programs. These initiatives may include health promotion campaigns, disease prevention programs, or community health education. The positive response to this item reflects the effectiveness of these programs in addressing the healthcare needs of the residents.

Involvement of Barangay Officials in Prioritizing and Addressing Healthcare Issues:

This item received the lowest satisfaction score, indicating that the respondents perceive a lack of involvement from barangay officials in addressing healthcare issues. This dissatisfaction suggests that the respondents feel the officials are not actively prioritizing healthcare concerns

or actively participating in finding solutions to improve healthcare services in the barangays. This underscores the need for increased engagement and collaboration between the officials and the residents in addressing healthcare-related matters.

For the remaining 11 items that scored dissatisfaction, specific details about the responses may include the following:

Accessibility:

The respondents may have expressed concerns about the availability and proximity of healthcare services within the barangays, transportation challenges, or the need for better infrastructure and road networks to facilitate access to healthcare.

Quality of Care:

The dissatisfaction in this item suggests that the respondents perceive shortcomings in the overall quality of healthcare services provided. This could include issues related to the competence of healthcare providers, the timeliness and effectiveness of treatments, or the availability of necessary medical equipment and supplies.

Availability of Healthcare Personnel:

Respondents may have expressed dissatisfaction with the availability of healthcare professionals such as doctors, nurses, midwives, and other healthcare providers within the barangays. The shortage of personnel can impact the accessibility and quality of healthcare services.

Facilities:

Dissatisfaction with this item indicates concerns related to the adequacy and quality of healthcare facilities within the barangays. It may include issues such as limited capacity, outdated equipment, or the need for improved infrastructure and maintenance. The relationship between a respondent's perspective and their level of satisfaction with their community's public healthcare services is a fundamental aspect of understanding the effectiveness and impact of healthcare delivery. In the context of this research on the level of satisfaction of residents with their community's public healthcare services, the significant relationship between the respondent's perspective and their demographic profile can be examined as follows:

Perception and Expectations:

The way residents perceive their community's public healthcare services is influenced by their personal expectations, beliefs, and experiences (Cabello, 2018). Demographic attributes such as age, gender, socioeconomic status, and educational background can shape these perceptions. For instance, older residents might have different expectations based on their life experiences compared to younger generations. A person's socioeconomic status can influence their understanding of healthcare services and their access to information, which in turn affects their satisfaction levels. However, the respondents of this research were randomly selected but must belong to the age bracket (18-60 years old) that the researcher has chosen so that the gap between the differences of perception will not be too wide.

Cultural Relevance:

Cultural factors inherent in a demographic profile play a crucial role in shaping perspectives and satisfaction (Collado, 2019). Different cultures might have distinct preferences for healthcare approaches, communication styles, and treatment modalities. A healthcare service that aligns with cultural values and practices is more likely to be positively perceived and thus result in higher satisfaction levels (Collado, 2019). For example, if a suggested treatment does not follow the superstitious beliefs of the people in the barangay, then, the treatment may not get a popular approval among the people. Yet, in these 3 mountain barangays, although most of them may not have accessed to higher education, they also have accessed to television, news, radio, and even to social media outlets which allowed them to learn and accept more modern means of treatment rather than the cultural options of treatment.

Access and Utilization:

Demographic attributes can significantly impact access to healthcare services. Factors such as income, education, and geographic location can determine the extent to which residents are able to utilize healthcare services (Collado, 2019). Residents who face barriers to access, whether due to financial limitations or geographic constraints, might have lower satisfaction levels if they perceive that the services do not adequately address their needs (Collado, 2019).

Trust and Communication:

The level of trust residents has in their healthcare providers is closely tied to their demographic attributes (Dayritt et. al., 2018). Factors such as language barriers, gender preferences for healthcare providers, and cultural sensitivities can influence trust (Dayritt et. al., 2018). Effective communication that respects residents' preferences and backgrounds foster a positive perspective and enhances overall satisfaction with the healthcare services. In this research, most women respondents scored high the factors in the survey that talks about knowledge, skills, professionalism, attitude, and behavior of the healthcare worker if the healthcare worker is also a woman. Hence, there is more trust and communication with female healthcare workers.

Inclusivity and Representation:

Residents who perceive that their demographic attributes are acknowledged and represented in healthcare services are more likely to feel satisfied. When healthcare facilities and professionals reflect the diversity of the community, residents are more likely to trust and engage with the services, leading to higher levels of satisfaction (Collado, 2019).

The significant relationship between the respondent's perspective and the level of satisfaction with their community's public healthcare services is multifaceted and influenced by various demographic attributes. Recognizing and understanding this relationship is crucial for policymakers, healthcare providers, and administrators to develop strategies that address residents' unique needs and perspectives, ultimately leading to more effective and satisfactory healthcare services.

INTERPRETATION OF DATA

It is important to analyze the tabulated responses in more detail to identify specific patterns and trends (Dayritt et. al., 2018). Therefore, this research further needs a proper statistical analysis, such as calculating mean scores, percentages, or conducting further data exploration

techniques. These analyses can provide deeper insights into the residents' perspectives and pinpoint specific areas for improvement in the healthcare services. By computing the weighted average mean from the number of responses in every item in the survey, the researcher was able to interpret the data resulting to a conclusion of a dissatisfied citizenry in the barangays of Sudlon 1, Sudlon 2, and Sinsin in Cebu City with their healthcare services. The table below will show the computed weighted average mean and their interpretations.

Table 1: Table of Data Interpretation

Criteria	TSWS Total Sum of Weighted Scores	WAM Weighted Average Mean	DEF Definition / Interpretation	REF Reference
	Total sum of the number of responses after being multiplied to their respective corresponding values	Quotient of the total weighted scores and the total number of respondents	Interpretation is based on the table of references	
<i>*Over-all Satisfaction</i>	846	2.17	DS = Dissatisfied	1.76-2.50
<i>*Satisfaction level on the easy access to healthcare services and healthcare products</i>	906	2.32	DS = Dissatisfied	1.76-2.50
<i>*Satisfaction level on the professionalism, attitude, and behavior of healthcare workers.</i>	913	2.34	DS = Dissatisfied	1.76-2.50
<i>*Satisfaction level on the speed and timeliness on the delivery of healthcare services</i>	921	2.36	DS = Dissatisfied	1.76-2.50
<i>*Satisfaction level on the level of cleanliness</i>	919	2.36	DS = Dissatisfied	1.76-2.50
<i>*Satisfaction level on the equipment and facilities of the healthcare center.</i>	1010	2.59	S = Satisfied	2.51-3.25
<i>*Satisfaction level on the knowledge, skills, and expertise of the barangay health workers; especially on first aid response.</i>	903	2.32	DS = Dissatisfied	1.76-2.50
<i>*Satisfaction level on the information shared about healthy living</i>	973	2.49	DS = Dissatisfied	1.76-2.50
<i>*Satisfaction level on the emergency response protocol.</i>	956	2.45	DS = Dissatisfied	1.76-2.50

<i>*Satisfaction level on the costs of health care services</i>	837	2.15	DS = Dissatisfied	1.76-2.50
<i>*Satisfaction level on the involvement of the barangay officials in the programs of the health center.</i>	849	2.18	DS = Dissatisfied	1.76-2.50
<i>*Satisfaction level on the healthcare programs and activities</i>	1050	2.69	S = Satisfied	2.51-3.25
<i>*Satisfaction level on the cleanliness of facilities and healthcare products.</i>	959	2.46	DS = Dissatisfied	1.76-2.50

The data from the research study reveals an overall dissatisfaction among residents of the identified mountain barangays in Cebu City regarding healthcare services. Out of the 13 items in the survey, only two items related to the cleanliness of the health center and its facilities, and the programs initiated by the barangay healthcare workers reached a level of satisfaction. On the other hand, the remaining 11 items scored dissatisfaction, with the item regarding the involvement of barangay officials in prioritizing and addressing healthcare issues in the barangays receiving the lowest score.

The high satisfaction scores for the cleanliness of the health center and its facilities suggest that residents perceive these aspects to be well-maintained and hygienic. This positive perception can contribute to a sense of trust and confidence in the healthcare services provided within the barangays. Similarly, the satisfaction with the programs initiated by the barangay healthcare workers indicates that residents appreciate the efforts made by healthcare workers to implement healthcare-related initiatives or services.

However, the dissatisfaction expressed in the majority of the survey items indicates several areas of concern. The involvement of barangay officials in prioritizing and addressing healthcare issues received the lowest score, suggesting that residents perceive a lack of proactive engagement from the officials in addressing healthcare concerns. This may indicate a disconnect between the residents' expectations and the level of involvement and support they perceive from the barangay officials.

The dissatisfaction expressed across the other 11 items highlights potential gaps or shortcomings in various aspects of healthcare services. These may include issues related to accessibility, quality of care, availability of healthcare personnel, facilities, and other dimensions of healthcare delivery. It indicates that residents have concerns regarding these areas and perceive a need for improvements or interventions.

The findings suggest that there is a significant opportunity for improvement in the healthcare services provided in these mountain barangays. The low satisfaction scores underscore the need for increased involvement and collaboration between barangay officials, healthcare workers, and residents in addressing healthcare issues. It is crucial for the barangay officials to

prioritize and actively engage in healthcare-related matters, working towards enhancing healthcare accessibility, quality, and overall satisfaction levels.

These findings can inform policymakers, healthcare providers, and local government units to develop targeted interventions and strategies. It highlights the importance of addressing the identified areas of dissatisfaction, including the involvement of barangay officials, to improve residents' satisfaction and enhance healthcare services in the isolated mountain barangays of Cebu City.

CONCLUSION AND RECOMMENDATION

Conclusion

In conclusion, this research delved into the levels of satisfaction among residents in the identified barangays of Cebu City with regards to public healthcare services, aiming to provide a foundation for crafting an effective action plan. The study employed a comprehensive survey approach, involving 390 respondents, and analyzed their perspectives on various dimensions of healthcare services.

The analysis of respondents' profiles unveiled several key insights. Geographic factors, such as distance from public services and hospitals, road infrastructure quality, and transportation means, play a pivotal role in shaping residents' perspectives. Manpower resources, encompassing the numbers of healthcare professionals like nurses, midwives, doctors, and health workers in the area, are integral to the overall healthcare experience. Moreover, technological resources like healthcare facilities, equipment, and communication access, as well as common livelihood indicators such as occupation and educational levels, significantly contribute to the residents' perspectives.

The research revealed a nuanced picture of satisfaction levels, with only two aspects obtaining favorable ratings: cleanliness of facilities and equipment, and satisfaction with healthcare programs initiated by barangay healthcare workers. This indicates that while certain facets of healthcare services are meeting residents' expectations, there's considerable room for improvement across other dimensions.

Through statistical analysis, it was found that demographic factors indeed influence residents' satisfaction levels. Geographic and manpower resources, as well as technological access, have discernible impacts on how residents perceive healthcare services. Challenges surfaced, ranging from inadequate accessibility to medicines and health supplements to concerns about healthcare facilities and equipment quality, highlighting crucial areas that require intervention. In light of these findings, the study recommends an action plan that combines targeted improvements with a holistic approach to public healthcare services. Prioritizing investments in healthcare infrastructure, such as expanding the availability of healthcare facilities and ensuring proper maintenance of equipment, can lead to enhanced satisfaction among residents. Strengthening the training and knowledgeability of healthcare workers, while bolstering healthcare awareness and education programs, can further elevate the overall quality of services.

To sum up, this research offers valuable insights into residents' perspectives on public healthcare services in Cebu City's barangays. The identified satisfaction levels and demographic

relationships lay the groundwork for a thoughtful and effective action plan that can bring about positive change, improving the overall quality and accessibility of healthcare services for the residents. The findings of this study contribute to the broader discourse on healthcare service enhancement and can guide policy decisions to create a more satisfactory and comprehensive healthcare experience for the community.

Recommendations

Increase healthcare infrastructure: Invest in the development of healthcare infrastructure in the mountain barangays to ensure that healthcare services are readily accessible to the residents. This may involve constructing new healthcare facilities or expanding existing ones to accommodate the needs of the population.

Strengthen healthcare workforce: Address the shortage of healthcare professionals in the mountain barangays by recruiting and deploying additional doctors, nurses, and support staff. Provide incentives and training opportunities to attract and retain skilled healthcare personnel in these areas.

Improve transportation and accessibility: Enhance transportation networks and connectivity to ensure that residents can easily access healthcare facilities. Consider initiatives such as mobile health clinics or telemedicine services to reach remote areas that may face challenges in physical accessibility.

Enhance healthcare services: Implement quality improvement programs to enhance the overall standard of healthcare services. This could involve regular training and capacity-building initiatives for healthcare professionals, ensuring the availability of necessary medical equipment and supplies, and adhering to evidence-based clinical guidelines.

Community engagement and awareness: Foster community engagement by organizing health education programs and awareness campaigns. Empower residents with knowledge about preventive measures, early detection of diseases, and available healthcare services. Encourage active participation and collaboration between the healthcare providers and the community to identify and address specific healthcare needs.

Collaborate with stakeholders: Establish partnerships with local government units, non-governmental organizations, and other relevant stakeholders to leverage resources, expertise, and funding. This collaborative approach can help address the unique challenges faced by the mountain barangays and lead to more sustainable improvements in healthcare services.

Regular monitoring and evaluation: Continuously monitor and evaluate the quality of healthcare services provided in the mountain barangays. Collect feedback from the community and use it to identify areas for improvement and track progress over time. This data-driven approach can guide decision-making and ensure that interventions are effective and responsive to the needs of the people.

By implementing these recommendations, the level of satisfaction with healthcare services in the mountain barangays of Cebu City can be improved. It will require a coordinated effort from

various stakeholders to address the multifaceted challenges and ensure that every resident receives equitable and quality healthcare services.

OUTPUT OF THE STUDY

Proposed Action Plan

To address these concerns and improve the level of satisfaction, it will be necessary to take appropriate actions. Some potential steps could include:

- **Increasing accessibility:** Improve transportation and infrastructure to ensure that healthcare services are easily reachable for people in the mountain barangays. This could involve constructing new healthcare facilities or expanding existing ones.
- **Enhancing staffing and resources:** Increase the number of healthcare professionals and support staff to meet the needs of the population. Ensure that there are an adequate number of doctors, nurses, and other healthcare personnel available to provide quality care. Additionally, allocate sufficient medical equipment, medications, and other necessary resources.
- **Improving communication and education:** Conduct awareness campaigns and provide health education programs to enhance people's understanding of healthcare services, prevention, and treatment options. This could help address any misconceptions and empower individuals to make informed decisions about their healthcare.
- **Quality improvement initiatives:** Establish mechanisms for monitoring and evaluating the quality of healthcare services provided. Implement quality improvement programs to address any identified issues and ensure that the services meet the needs and expectations of the people.
- **Collaboration and partnerships:** Foster collaboration between local government bodies, healthcare providers, community organizations, and relevant stakeholders to collectively address the challenges faced in providing healthcare services to mountain barangays. This could involve seeking support from regional or national health authorities, NGOs, or other organizations.

By taking these actions, it is possible to address the identified areas of dissatisfaction and improve the overall level of satisfaction with healthcare services in the mountain barangays. Regular monitoring and feedback from the community would also be crucial to gauge the effectiveness of these interventions and make necessary adjustments to ensure the provision of quality healthcare services.

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