Assessment of the Community Well-Being in Ilocos Sur, Philippines: A Basis for Health Extension Plan

Epifania Marlene R. Purisima¹, Jevie A. Abella², Raymund Christopher dela Pena³, Edna R. Javier⁴

Abstract

This descriptive quantitative study determined the level of community well-being among the residents of Brgy. Napo, Sto. Domingo, Ilocos Sur, involving all 149 family heads. The dependent variables are the five areas of community well-being: Clean and Green, Growth and Prosperity, Healthy Lifestyle, Safety and Security, Sense of Community, and Sustainable and Connected Transport. The independent variables comprise their sociodemographic profile. An adapted questionnaire checklist was utilized in gathering data. The mean and percentage we used to analyze the data gathered.

It was found that hypertension and heart attack are the leading cause of morbidity and mortality, respectively. Their community well-being is high, along with the sense of community, sustainable and connected transport, clean and green, safety and security, and growth and prosperity. However, their community well-being and healthy lifestyle are low.

Based on the study's findings, the following recommendations are made: 1) Support from the local government unit along livelihood programs, high-quality broadband, and sound policy framework on digital networks, and digital skill training; 2) support for low-income families by non-government organizations; 3) execution of the health extension plan, the "Healthy NA'PO! Project," by the University of Northern Philippines and 4) Conduct of qualitative study for future research.

Keywords: Community Well-being, Assessment, Health Extension Plan

¹ University of Northern Philippines, Vigan City, Ilocos Sur, Philippines, epifaniamarlene.purisima@unp.edu.ph

² University of Northern Philippines, Vigan City, Ilocos Sur, Philippines, jevie.abella@unp.edu.ph

³ University of Northern Philippines, Vigan City, Ilocos Sur, Philippines, raymundchristopher.delapena@unp.edu.ph

⁴ University of Northern Philippines, Vigan City, Ilocos Sur, Philippines, edna.javier@unp.edu.ph

Introduction

A barangay benefits the country by molding every Filipino's desired cultural and social character. As the smallest unit in society, its structure is not simple. The development largely depends on the people living in it and working hard to advance it.

High incidence of poverty is common among underprivileged barangays, often associated with poor essential services and facilities like schools, sanitation, electricity, and health centers. Like the locale of this study, the Barangay Napo in Sto. Domingo, Ilocos Sur, which can be very susceptible to such problems, may be spared if risks are identified early so that preventive measures may be employed to mitigate, if not prevent, these problems from occurring. Some residents verbalized in a casual conversation during an extension program in the area that waste management is one of the problems they face. According to them, animal wastes are scattered elsewhere in the barangay. They also verbalized the problem of the water system and their desperate need for livelihood programs to ease their financial burdens. The study by Collado (2019) found that factors affecting the population's health status in barangays include albularyo-based treatment and other old beliefs and practices, poverty or lack of income, geographical location and environment, and people's stubbornness

If not addressed accordingly, the above conditions are foreseen to bring about health problems leading to death from untreated illnesses and other disfavored health conditions. Thus, affecting community well-being. By definition, community well-being is a concept that refers to an optimal quality of healthy community life (Lee & Kim, 2014). This is the ultimate objective of all the numerous procedures and plans designed to cater to the requirements of those residing in communities. It embodies the values of coexisting peacefully in thriving, sustainable communities. Lee and Kim (2014) also described community well-being as a sound guiding principle toward sustainability. It is practically effective for local planning when sustainability principles, progress, and development are interwoven with community well-being.

The role of the Barangay Health Workers/Community Health Workers in mitigating these concerns cannot be undermined. Perry and Zulliger (2012) acknowledged the effectiveness of community health workers in accelerating progress in achieving the health-related Millenium Development Goals (MDGs). Community health workers are critical in providing cost-effective interventions and basic primary care at the barangay level. However, community health workers cannot do these alone with the diversity of problems in the barangays. The World Health Organization (2007) expressed that there must be political

leadership and substantial and consistent provision of resources to support community programs. Aside from this, NGOs, private sectors, and other institutions may offer generous help to alleviate these problems.

There are about 42,000 barangays in the country (Business World, 2018). Many Non-government Organizations (NGOs) extend a helping hand in taking these barangays to a higher level. Some provide livelihood programs, while others offer grants for projects that may be utilized for the betterment of the barangay and its people. This is why it's important for neighborhood economic growth to shape the way people approach their health.

All areas of health development require correct and timely information; thus, its accessibility should be guaranteed through the identification, collecting, processing, and analysis of the pertinent data to provide accurate results for the various parts of community health conditions. Assessing the community's human, material, and other resources will significantly help develop a rational and systematic health program responsive to the community's needs (Viet, 2004).

Extension, being one of an institution's core functions, helps stakeholders be more aware of the needs of communities outside the institution and helps maintain linkages (Duquinal et al., 2020). In contrast, the University Extension Office of the University of Northern Philippines is tasked with easing the plight of those who are underequipped to achieve its goal, leading to the implementation and realization of its programs through the use of research outputs, transfer of technologies, and training in livelihood skills to help reduce poverty in the nation. The conduct of extension services is based on a formal agreement with its clientele. The University Extension Services adapts the phases of 1) Needs Assessment to benchmark and survey problems, needs, and community resources; 2) Priorities and Relevance, where the programs and activities are based on the needs, problems, and community resources; and 3) Planning, where administrators, faculty, students, and other stakeholders are involved in the identification, planning, and implementation of the various programs; 4) monitoring and evaluation, where periodic monitoring and evaluation of extension activities are conducted and 5) impact assessment, where impact study is conducted by the UNP Research and Development Office and Extension Services Office to determine the significance of the program.

This systematic mechanism makes the UNP Extension Office highly capable of implementing health and allied services stipulated in the health extension plans that will be crafted with the result of this study used as a basis. The College of Nursing (CN), in partnership with the University Extension Office of the University of Northern Philippines, is among those organizations that, with its capacity, are ever willing to

stretch forth its assistance to developing communities since Brgy. Napo is one of the CN's adapted barangay; the researchers find assessing the community's well-being essential. The study results will serve as a basis for coming up with health extension plans to be implemented in the future.

Theoretical Underpinnings and Literature Review

A psychological model called the Health Belief Model (HBM) makes an effort to explain and forecast health behaviors. The attitudes and beliefs of 24 people are the main subject. The stimulus-response theory (S-R) and the cognitive theory (C-T) are two of the most influential learning theories. According to the S-R theory, learning happens as a result of occurrences (reinforcements) that lessen the physiological drives that activate behavior. In cognitive theory, the thought process is essential; reinforcements influence expectations about the situation rather than directly influencing behavior (Champion & Skinner, 2008). Social psychologists Irwin M. Rosenstock, Godfrey M. Hochbaum, S. Stephen Kegels, and Howard Leventhal created the Health Belief Model in the 1950s at the U.S. to help the Public Health Service better comprehend the widespread ineffectiveness of screening initiatives for preventing and detecting disease. In reaction to the free TB health screening program's failure, the concept was created. Since then, the HBM has been adapted to explore a variety of long-term and short-term health behaviors, including sexual risk behaviors and the transmission of HIV/AIDS (Babbie, 2010; Champion & Skinner, 2008). One of the most popular conceptual frameworks in health behavior research, the HBM serves as a framework for health behavior interventions as well as an explanation of how to change and maintain health-related behavior.

The HBM has a number of components that explain or forecast why people will take action to stop, manage, or test for disease. These constructs include cues to action, self-efficacy, perceived benefits, perceived barriers, perceived benefits, perceived susceptibility, and perceived severity. The perceived threat is mentioned with these components but not specifically defined. Instead, it combines elements from these two structures.

Research Objectives

The main objective of this study is to determine the community well-being of Brgy. Napo, Sto. Domingo, Ilocos Sur. It determined the personal-related profile (age, sex, religion, housing, number of children, employment status, monthly family income, educational attainment, and presence/absence of comorbidity in the family). The

study also sought to determine the level of community well-being of Brgy. Napo, along with areas of clean and green, safe and secure, healthy lifestyles, growth, and prosperity, a sense of community, and sustainable and connected transport. Lastly, it identified the leading causes of morbidity and mortality in the barangay. The result of the study was utilized as a basis for crafting a health extension plan that is adjunct to the health extension program of the University of Northern Philippines.

Conceptual Framework

This study was guided using the paradigm presented below.

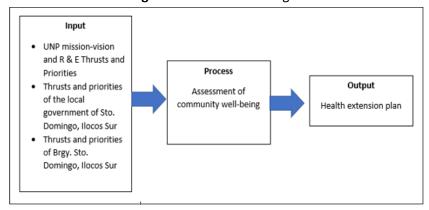


Figure 1. Research Paradigm

Methodology

This study made use of the descriptive – survey approach. It described the socio-demographic profile of the respondents and their level of community well-being. All the families in the barangay were included in this study. They were represented by either the mother or father in the family. Total enumeration shall be employed in determining the respondents.

A questionnaire checklist adopted from the City of Melville (2019) served as this study's main data-gathering instrument. Part I looked into the socio-demographic profile of the respondents, while Part II determined the level of community well-being of the respondents. The Ethics Review Committee granted the study ERC Approval. The researchers also sought permission from the Municipal Mayor and the Barangay Captain to conduct the study and gather necessary data from their jurisdiction. The questionnaire checklists were then distributed to every household. This was enclosed with a letter of request and a consent form to elicit their willingness to participate.

In the conduct of the study, the protocol was observed prior to data gathering. The request for permission to conduct the study was forwarded to the Municipal Mayors and the Barangay Captain. An explanation of the purpose and benefits of the study was provided to the respondents, and informed consent was secured. Confidentiality and anonymity were kept and observed at all times. When the final paper is done and finalized, the questionnaire will be shredded to ensure that it will not be read or used for other purposes.

Frequency, percentage, and mean were used to treat and interpret the data gathered. A 4-point Likert scale was used to interpret the level of community well-being. This scale allows the researchers to include four extreme options without a neutral choice (Fleetwood, 2023).

Results and Discussions

Profile of the Respondents.

The profile of the respondents are described in terms of the selected variables in the study as follows:

On Age. As reflected in the table, a significant percentage of the respondents (28.86%) fall under the age bracket of 44-54. A substantial percentage of the respondents (23.49%) belong to the 33-43 age group. On the other hand, only 14 (9.40%) respondents are 22-32 years old.

On Sex. The data shows that most respondents (81.88%) are male, and only 18.12% are female. This could be attributed to the fact that traditionally, males are the head of the household.

On Religion. It could be gleaned from the table that most of the respondents (93.96%) are Roman Catholic. There are only 5 (3.36%) who are INC.

On House Ownership. The table shows that the majority of the respondents (66.44%) have and lives in their own home. On the other hand, a great percentage of the respondents (17.45%) are still living with their parents.

On Employment Status. As shown in the table, a great number of the respondents (40.27%) are employed full-time. Furthermore, 34.23% of the respondents are self-employed. Moreover, only 6.71% are employed casual or part-time.

On Number of Children Living in Household. It can be observed from the table that a great percentage of the respondents (46.31%) have children aged 18 years and above. It can also be noted that 19.46% of the respondents have no children.

On Combined Household Income. As reflected in the table, a great percentage of the respondents (42.95%) have a combined household

income of Php 5,001-10,000. In contrast, 4.03% of the respondents have a combined household income of Php 15,001-20,000.

On Educational Attainment. When it comes to educational attainment, it can be observed from the table that a great percentage of the respondents (26.17%) are bachelor's degree holders. On the other hand, 1.34% of the respondents are elementary undergraduates.

On assistance with self-care, mobility, or communication because of disability, long-term health condition, or old age. It can be seen from the table that a great majority of the respondents (81.21%) do not have anyone in the household needing assistance with self-care. In contrast, only 18.79% of the respondents need assistance with self-care

2. Level of Community Well-being

a. On Clean and Green

Presented in Table 1 is the level of community well-being of the respondents, along with clean and green. Clean and green refer to environmental sustainability, which involves caring for and protecting the environment through the engagement of the community in leading an environmentally conscious lifestyle.

Table 1. Level of Community Well-being Along Clean and Green

Statements	М	DR			
The local outdoor locations are suitable for socializing.	3.33	Strongly Agree			
Public areas such as local paths and parks are suitable for physical activity.	·				
3. I feel safe being out in parks and public open spaces in my local community.	3.32	Strongly Agree			
 I feel that my local area is a clean and green environment. 	2.79	Agree			
I feel safe breathing in the air in my community.	2.32	Disagree			
Overall	3.02	High			

It can be gleaned from the table that the residents in Brgy. Napo Sto. Domingo, Ilocos Sur has a high level of community well-being along with Clean and Green, as manifested by the mean score of 3.02. This implies that the residents have access to a safe and healthy place where their families can live safely. Taken singly, the residents strongly agree that the local outdoor locations are suitable for socializing (M = 3.33), public areas such as local paths and parks are suitable for physical activity (M = 3.32), and they feel safe being out in parks and public open spaces in their local community (M = 3.32). This shows that the community is an environment where people can freely and safely mingle with others and do physical activities that provide

relaxation without restriction. Social interaction is the meaningful contact between people (Rabinowitz & Glinn, 2022). The availability of spaces where community people can meet and get to know one another is one of the strong points of a community. These good community gathering places provide a physical setup encouraging conversation and interaction. In addition to these social benefits, good places for interaction can also lead to economic development as suitable outdoor spaces, magnets, and gateways to welcome people from the neighborhood.

However, the residents opted to disagree that they feel safe breathing in the air in their community (M = 2.32). The barangay is mainly agricultural land, where many of the residents are engaged in farming. This disagreement on breathing fresh air in the community may be credited to using synthetic fertilizers and pesticides by farmers in the barangay, which usually thrive in the atmosphere. Healthy communities rely on a well-functioning ecosystem (World Health Organization, 2015), including abundant fresh air. In contrast, pesticide sprays applied to fields might directly affect non-target vegetation, drift, or volatilize from the treated region, contaminating the air. Numerous illnesses, such as cancer, leukemia, and asthma, may be the outcome (Kim et al., 2017).

b. On Growth and Prosperity

The level of community well-being, Growth, and Prosperity are presented in Table 2.

Table 2. Growth and Prosperity

Statements	М	DR
1. When buying goods, I can usually find what I need in the local area.	3.34	Strongly Agree
2. There is locally available entertainment.	2.52	Agree
3. I feel I am staying in touch with changing technology.	2.49	Disagree
4. I would consider Barangay Napo a good place to open a business.	2.41	Disagree
Overall	2.69	High

As depicted in Table 2, the respondents' overall level of community well-being, along with Growth and Prosperity, is high (M=2.69). They strongly agree that when buying goods, they usually find what they need in the local area (M=3.34). This implies that the basic commodities needed by the people are readily accessible in the barangay. Good, by definition, are items that satisfy human wants and provide utility, for example, to a consumer purchasing a satisfying product. It can be anything from merchandise, supplies, raw materials, or completed products. The availability of a steady supply of goods is

one indicator of a rural area's growth and prosperity. In the study of Gebre and Gebremedhin (2019), it was posited that urban areas rely on rural areas to meet their demands for food, water, wood, and raw materials. Many cultural and public benefits are found in rural locations. Their agroecological infrastructure delivers things people directly value, such as food, fiber, and energy (Czyewski et al., 2022). This is congruent with the study of Ursulom et al. (2020), unveiling that for economic and investment promotion, the citizens were highly aware of the programs and activities in promoting barangay micro business enterprises, livelihood programs, product/brand marketing and promotion of local goods and tourist attractions.

Meanwhile, it was noted that the respondents disagree that they stay untouched by the changing technology. This was represented by a mean score of (M = 2.49). This could mean that the residents are still transitioning to embracing emerging technology. They may be seemingly left behind in keeping abreast with changing technology or lack the resources to access it. To ensure that rural barangays take advantage of the potential presented by technological transformation, rural communities may need to adopt a forward-thinking attitude through using technology. The Organization for Economic Cooperation and Development (2022) emphasized that technology innovation might bring new solutions for rural regions to overcome their lack of critical mass, higher transportation costs, and distance from markets. This would boost rural resilience. Notably, the Covid-19 outbreak brought attention to the value of utilizing technology. In rural locations, teleworking, remote learning, and e-services are especially crucial. Moreover, the growing number of people, services, and products going online indicates the need to make the most out of digitalization in rural barangays.

c. On Healthy Lifestyle

Table 3 illustrates the respondents' level of community well-being along with Healthy Lifestyle.

Table 3. Healthy Lifestyle

Statements	М	DR
There are places in the local area where I can be physically active.	2.99	Agree
2. I believe I have a healthy lifestyle.	2.93	Agree
 Indoor and Outdoor space that are quiet, pleasant and calming is a concern for me* 	1.63	Strongly Agree
4. Outside noise is a problem in the local area.*	1.63	Strongly Agree
Overall	2.30	Low

The overall mean score of 2.30 indicates that the overall level of community well-being along Healthy Lifestyle is Low. This could mean the respondents recognize a threat to their health and lifestyle.

Despite this low level, a closer look at the table revealed that the respondents agree that there are places in the local area where they can be physically active (M = 2.99). Somehow, there may be areas in the community where people can do physical activities. The researchers personally noticed the presence of a covered court where they could play basketball and other sports. The reconstructed roads in the barangay also provide a favorable trail for bikers. Community trails provide equitable and accessible opportunities for physical activities in rural areas. Physical activity has well-established health benefits (Park et al., 2017). The World Health Organization (2020) emphasized that physical activity is proven to help prevent and manage non-communicable diseases such as heart disease, stroke, diabetes, and several cancers. It helps prevent hypertension, maintains healthy body weight, and can improve mental health, quality of life, and well-being. However, it must be noted that physical activity is not limited to doing bodily exercises and engaging in sports. Physical activity refers to all movement during leisure time or as part of an individual's work.

Although the respondents believe that they have a healthy lifestyle (M = 2.93), they strongly agree that indoor and outdoor space that are quiet, pleasant and calming is a concern for them (M = 1.63). This could mean that indoor and outdoor space does not provide a tranquil space for peace and calmness. Tranquil spaces are good for health (Watts, 2017), but in places where there tend to be man-made noises, like agricultural machinery and motorcycles on the roads, it is more likely that noise pollution may result. This is confirmed by the respondents, who strongly agreed that outside noise is a problem in the local area (M = 1.63). Karaoke singing and other activities that potentially create noise could be one of the reasons for this. Many people may not be aware that the sounds they hear every day could harm their hearing, increase their stress levels, and negatively impact their general health (Teague, 2017).

d. On Safety and Security

The level of community well-being in terms of Safety and Security is presented in Table 4.

Table 4. Safety and Security

Statements	М	DR
I feel safe being out in public in my local community.	3.36	Strongly Agree
2. If I get into difficulties, I could count on family and friends to help me.	3.35	Strongly Agree

3. I would feel okay about asking a neighbor for help.	3.35	Strongly Agree
4. I feel safe using social media and the internet.	3.35	Strongly Agree
5. I believe I will have enough in the future.	2.44	Disagree
6. I feel prepared in the event of a local emergency.	2.13	Disagree
7. I have worried about having enough money to pay bills.*	1.66	Strongly Agree
Overall	2.80	High

The overall mean of 2.8 revealed that the respondents' community well-being level is "high." The result shows that they "strongly agree" that they felt safe in public in their community (M = 3.36). Some "Disagree" (M = 2.13) that they felt prepared for a local emergency. Disaster preparedness has become a primary concern of the Filipino authorities (Rafanan & Romo, 2021). On the contrary, this study revealed that residents feel unprepared for emergencies that can occur. This can be because insufficient training or resources are available to spread knowledge on what to do in case of local emergencies.

The findings indicate that the respondents can safely leave their homes and go to any part of their barangay without fear of danger. Barangay leaders and barangay enforcers continue to do everything in their power to ensure the safety of their respective communities. Meanwhile, disaster preparedness has become a primary concern of the Filipino authorities (Rafanan & Romo, 2021). However, in this study, it was found that residents feel unprepared for emergencies that can occur. This can be because insufficient training or resources are available to spread knowledge on what to do in case of local emergencies. Citizens require training, information, and resources to prepare individually and collectively for the threat of a prospective local calamity.

On the other hand, they "Strongly Agree" that they worry about having enough money to pay bills (M = 1.66). The respondents feel their financial resources are limited to meet their basic food needs and healthcare. This was even made worse when the impact of COVID-19 was of such magnitude that social, cultural, economic, educational, political, and health institutions were shaken (De Castro et al., 2020). The nature of the challenges that need to be addressed must be made clear as government programs are put together based on a shared vision of the future as the government develops strategies to promote a recovery process for the Filipino people.

The goal of community safety is to make communities feel and become safe. It is essential that residents of the community feel secure in their homes, places of employment, and leisure activities. People are more likely to go about their daily lives in a safe and secure environment without worrying about being the target of political-motivated, ongoing, or widespread violence.

e. On Sense of Community

Table 5 depicts the level of community well-being of the residents in Brgy. Napo, Sto. Domingo, Ilocos Sur along Sense of Community.

Table 5. Sense of Community

Statements	М	DR
I have relationships in my life where I feel accepted and supported.	3.34	Strongly Agree
People in our household have opportunity to have a say on things that happen in the local area	3.34	Strongly Agree
3. There are opportunities to have casual interactions with people.	3.19	Agree
 There are opportunities for me to be involved in community activities and events. 	3.01	Agree
Overall	3.22	High

Overall, the respondents have a "high" level of community well-being along the sense of community, with a mean rating of 3.22.

The table further shows that the respondents "Strongly Agree" have relationships where they feel accepted and supported and that people in their household can have a say on things that happen in the local area, with a similar mean rating of 3.34. The respondents also revealed that they "Agree" that there are opportunities for them to be involved in community activities and events (M = 3.01).

According to the findings, they have community leaders who hold community meetings/assemblies and involve locals in problem-solving activities. They can also participate in civic organizations such as neighborhood councils, community organizations, social movements, and neighborhood improvement associations. This is similar to the study of Prompen and De la Rosa (2019), who found that people are interested in making decisions, especially on matters that affect them and the organizational aspect of the participatory process, such as organizing group meetings and leading discussions.

Furthermore, according to McMillan & Chavis (1986, referenced in Collaboration for Development, 2023) a sense of community is a feeling of belonging, a sense that members matter to one another and to the organization, and a shared belief that members' needs would be satisfied by a commitment to be together. A successful, continuous, sustainable community must have a strong feeling of community.

f. On Sustainable and Connected Transport

Table 6 shows the level of community well-being among the respondent along Sustainable and Connected transport.

Table 6. Sustainable and Connected Transport

Statements	М	DR
1. I feel safe riding a bicycle in my local area.	3.34	Strongly Agree
I feel safe travelling on a tricycle in my local area.	3.23	Agree
The public transport in my local area meets my needs.	3.08	Agree
4. The roads in my local area meet my needs.	3.07	Agree
Overall	3.18	High

Generally, there is a "high" level of community well-being along sustainable and connected transport as backed up by the overall mean rating of 3.18.

As seen further in the table, the respondents claimed that they "Strongly Agree" that they feel safe riding a bicycle in their local area (M = 3.34). Furthermore, they "Agree" that the roads in their local area meet their needs (M = 3.07). The data indicate that respondents can ride their bikes along the barangay roads because there are fewer automobiles and obstacles, such as pebbles and pets.

The UN recognized transportation as a key element of sustainable development. Sustainable transportation is integrated into many SDGs and targets in the 2030 Agenda for Sustainable Development, including those that deal with food security, health, energy, economic growth, infrastructure, cities, and human settlements (United Nations, 2023). Transport infrastructure serves as a vital link for individuals to access jobs, healthcare, and education.

2. Leading Causes of Morbidity and Mortality

a. Morbidity

Morbidity refers to the state of being afflicted with a specific illness or condition or to the amount of disease within a population. Although morbidity can refer to an acute illness, it is more commonly used to describe a chronic or long-term illness. Morbidity, as a medical term, does not indicate the likelihood of death. According to Basaraba (2012), A person with high morbidity may not live as long as someone healthy. Morbidity does not always indicate an imminent risk of death, though. If a disease progresses over time, your risk of dying may increase. The morbidity rate of a community is important because it allows us to examine outbreaks that occur at various times or in different locations. These rates apply to the population at risk or those vulnerable to sickness or death from a certain cause. Table 7 presents

the leading causes of morbidity in Brgy. Napo, Sto. Domingo, Ilocos Sur

Table 7. Leading Causes of Morbidity in Brgy. Napo, Sto. Domingo, Ilocos Sur

Causes	f	%
A. Non-communicable Diseases		
Hypertension	25	39.68
Arthritis	10	15.87
Kidney stones	2	3.17
Asthma	4	6.35
Diabetes	4	6.35
Stroke	2	3.17
B. Communicable Diseases		
Covid-19	8	12.71
PTB	3	4.76
Influenza	5	7.94
Total	63	100.00

It can be gleaned that hypertension (25 or 39.68%) is the leading cause of morbidity. This is followed by arthritis (10 or 15.87%) and Covid-19 (8 or 12.71%. Meanwhile, kidney stones (2 or 3.17%) and stroke (2 or 3.17%) were found to be the least. The result implies that a great number of the residents are hypertensive. Hypertension occurs when the blood pressure is too high (140/90 mmHg or higher). Old age, genetics, being overweight or obese, not being physically active, high salt in the diet, and drinking too much alcohol increases the risk of high blood pressure (World Health Organization, 2023). The residents may be prone to having hypertension due to lifestyle-related factors.

b. Mortality

Mortality refers to the number of deaths within a particular society in a certain period of time (Cambridge Dictionary, 2023). Presented in Table 8 are the leading causes of mortality in Brgy. Napo, Sto. Domingo, Ilocos Sur.

Table 8. Leading Causes of Mortality in Brgy. Napo, Sto. Domingo, Ilocos Sur

Causes	f	%
Heart Attack	4	44.45
Covid-19	2	22.22
Asthma	3	33.33
Total	9	100.00

As seen in the table, heart attack (4 or 44.45%) is the number one cause of mortality, followed by Asthma (3 or 33.33%), then by Covid-19 (2 or 22.22%).

When the heart muscle is not getting enough blood, a heart attack, or myocardial infarction, occurs. The more time that passes without treatment to restore blood flow, the greater the damage to the heart muscle (Centers for Disease Control and Prevention, 2023). The main factor for heart attacks is coronary artery disease (CAD). A coronary artery spasm, which is a severe abrupt contraction, is a less frequent cause and can cut off blood flow to the heart muscle. The result may be due to existing coronary artery disease, predisposing them to the incidence of heart attack. The most common sign of a heart attack is chest pain. The chest pain is often severe, but some may only experience minor pain, similar to indigestion (National Health Service, 2023). This could be one reason patients may recognize the pain but ignore it and fail to perceive that it requires emergent attention and hospitalization.

3. Health Extension Plan

Based on the study's findings, the researchers developed a health extension plan, the "Healthy NA'PO! Project: A Community-based Program for the Well-being of Napo, Sto. Domingo, Ilocos Sur, for possible implementation. The project involves the following programs: 1) RUDS Program, 2) Health Promotion and Prevention Program, and 3) Capability Building Program. (Please refer to the table below for the details.)

Table 9. Health Extension Plan "Healthy NA'PO: A Community-based Program for the Well-being of Napo, Sto. Domingo, Ilocos Sur"

Program	Objectives	Specific Project/Activity	Strategy of Implementation	Venue/ Location	Clientele	Persons Responsible	Funding Source	Collaborating Agency	Time Frame
RUDS Program	To inform the respondents regarding the results of the research conducted in their place	Information Dissemination of Research Findings and Presentation of Plan of Activities	Lecture Presentation and Open Forum	Covered Court Brgy. Napo, Sto. Domingo, Ilocos Sur	Residents Male and Female	CN Researchers CN Faculty	GAA	SEO, URDO	June 2023
Health Promotion and Prevention Program	To promote information including healthy lifestyle to stay fit (physical activity and wellness management)	Health and Wellness: Food, Fun and Happy Lifestyle	Lecture on Food Facts, Prevention of Lifestyle Illnesses Wellness Clinic: Monthly Zumba Lecture on hypertension	Covered Court Brgy Napo, Sto. Domingo, Ilocos Sur	Residents -Adult Male and Female -All age group Male and Female	Brgy. Officials, BHW, BNS CN Researchers CN Faculty	GAA, LGU	SEO, PE Dept.	July 2023
Capability Building Program	To provide training on Basic Technology Skills Transfer to the residents	Training on Basic Technology Skills Transfer Skills Training on Computer Programming (Navigation) and Trouble Shooting Skills Training on Blood Pressure Monitoring	Lecture and Demonstration, Skills Return Demonstration	Covered Court Brgy Napo, Sto. Domingo, Ilocos Sur	Residents BHWs	Brgy. Officials, CN Researchers CN Faculty	GAA, LGU	CCIT CN Faculty	August 2023

Conclusions

Based on the findings of the study, it is evident that the community well-being in Brgy. Napo, Sto. Domingo, Ilocos Sur is high along a sense of community, sustainable and connected transport, clean and green, safety and security, and growth and prosperity. However, their community well-being and healthy lifestyle are low. These findings further reveal the need to sustain their high levels of community well-being and to intensify lifestyle changes to improve their low levels of a healthy lifestyle. Furthermore, it was found that hypertension is the leading cause of morbidity and heart attack mortality. As an output of this study, a health extension plan was crafted to address these concerns in the barangay mentioned above.

Recommendations

The following recommendations are hereby drawn based on the study findings:

- 1. For the Local Government Unit to a) welcome investors to open up a business in the area, b) look into the possibility of providing livelihood programs for the residents, especially those with low and marginalized income since the advent of the pandemic, c) devise ways of improving and ensuring high-quality broadband in the rural areas coordinating with internet providers for low cost and government-subsidized internet connectivity among its residents, d) to develop a strong policy framework that takes into account the need for greater use of digital networks and invests funds on digital skills training to advance ICT literacy, e) to intensify the implementation of ordinances regarding control of noise in the local areas, and f) encourage Involvement of residents in community activities and conduct of regular barangay assembly, and to conduct disaster training to assure the readiness of barangay residents in the event of calamities.
- 2. For the Non-government Organizations to extend assistance and support for livelihood programs for low-income families.
- 3. For UNP Extension Office/ CN Extension Unit to promote the implementation of the health extension plan, the "Healthy NA'PO!" Project, an output of this study, and conduct disaster preparedness training among the residents.
- 4. For Future Research, conduct a qualitative study to explore and describe the well-being of the residents in barangay Napo, Sto. Domingo, Ilocos Sur is also recommended.

Bibliography

- 1. Business World (2018). The Barangay System. https://www.bworldonline.com/the-barangay-system/
- 2. Cambridge Dictionary (2023). Mortality. https://dictionary.cambridge.org/dictionary/english/mortality
- 3. Centers for Disease Control and Prevention (2023). Heart attack symptoms, risks, and recovery. https://www.cdc.gov/heartdisease/heart attack.htm
- Champion, V. L., & Skinner, C. S. (2008). The health belief model. In K. Glanz, B. K. Rimer, & K. Viswanath (Eds.), Health behavior and health education: Theory, research and practice (4th ed.,). San Francisco, CA: Jossey-Bass.
- Collaboration for Development. (2023). Sense of community. https://collaboration.worldbank.org/content/sites/collaboration-for-development/en/groups/communities4Dev/blogs.entry.html/2021/03/22/sense_of_community-wyUE.html
- Collado, Z. (2019). Challenges in public health facilities and services: Evidence from a geographically isolated and disadvantaged area in the Philippines. https://www.joghr.org/article/11962-challenges-in-public-health-facilities-and-services-evidence-from-a-geographically-isolated-and-disadvantaged-area-in-the-philippines
- Czyżewski, B., Matuszczak, A., Czyżewski, A., & Brelik, A. (2020). Public goods in rural areas as endogenous drivers of income: Developing a framework for country landscape valuation. Land Use Policy, 104646. https://doi.org/10.1016/j.landusepol.2020.104646
- 8. De Castro, L., Lopez, A. A., Hamoy, G., Alba, K. C., & Gundayao, J. C. (2020). A fair allocation approach to the ethics of scarce resources in the context of a pandemic: The need to prioritize the worst-off in the Philippines. Developing World Bioethics. https://doi.org/10.1111/dewb.12293
- 9. Department of Health. (2007). Public Health Nursing in the Philippines. Publications Committee, National League of Philippine Government Nurses, Inc.
- 10. Duquinal, M., Riboroso, R., Domondon, C., Reotutar, M., and Llagas Jr., R. Training needs of the community residents of Bantay, Ilocos Sur: An assessment. 5f4dfc3dedc6e IJAR-33079.pdf (journalijar.com)
- 11. Famorca, Z., Nies, M., & McEwen, M. (2013). Nursing Care of the Community. Elsevier Mosby Publishing
- 12. Fleetwood, D. (2023). What is Likert Scale Definition, example, characteristics, & advantages? https://www.questionpro.com/blog/what-is-likert-scale/#:~:text=Researchers%20use%20even%20Likert%20scales,a%204%2DPoint%20Likert%20Scale.
- 13. Gebre, T., & Gebremedhin, B. (2019). The mutual benefits of promoting rural-urban interdependence through linked ecosystem services. Global

- Ecology and Conservation, 20, e00707. https://doi.org/10.1016/j.gecco.2019.e00707
- 14. Haruna D. Musa, Mohd R. Yacob, Ahmad M. Abdullah & Mohd Y. Ishak (2016). Sustainable City: Assessing the Community Happiness of Residents in Putrajaya Municipality Malaysia; Review of European Studies; Vol. 9, No. 1; 2017 ISSN 1918-7173 E-ISSN 1918-7181 Published by Canadian Center of Science and Education https://www.researchgate.net/publication/312315921_Musa_Haruna
- 15. HeeKyung Sung & Rhonda G. Phillips (2018). Indicators and Community Well-Being: Exploring a Relational Framework International Journal of Community Well-Being (2018) 1:63–79 https://doi.org/10.1007/s42413-018-0006-0 http://www.thecyberhood.net/documents/papers/sung2018.pdf\
- 16. Kim, K.-H., Kabir, E., & Jahan, S. A. (2017). Exposure to pesticides and the associated human health effects. Science of the Total Environment, 575, 525–535. https://doi.org/10.1016/j.scitotenv.2016.09.009
- 17. National Health Service (2023). Heart attack. https://www.nhs.uk/conditions/heart-attack/
- 18. Organization for Economic Cooperation and Development. (2022). Rural well-Being: Geography of opportunities. www.oecd-Ilibrary.org. https://www.oecd-ilibrary.org/sites/ae6bf9cd-en/index.html?itemId=/content/component/ae6bf9cd-en
- Park, T., Eyler, A. A., Tabak, R. G., Valko, C., & Brownson, R. C. (2017). Opportunities for promoting physical activity in rural communities by understanding the interests and values of community members. Journal of Environmental and Public Health, 2017, 1–5. https://doi.org/10.1155/2017/8608432
- Perry, H. & Zulliger, R. (2012). How effective are community health workers?https://www.childhealthtaskforce.org/sites/default/files/2019-07/How%20Effective%20are%20CHWs Evidence%20Summary%20Con
 - densed%28JHSPH%2C%202012%29.pdf
- 21. Prompen, T., & De la Rosa, J. (2019). The extent and impact of people's [articipation in local development planning: The Suratthani Municipality Thailand Experience. https://vector.unp.edu.ph/index.php/1/article/view/51/12
- 22. Rabinowitz, P., & Glinn, A. (2022). Chapter 26. Changing the physical and social environment | section 8. Creating good places for interaction | main section | community toolbox. Ctb.ku.edu. https://ctb.ku.edu/en/table-of-contents/implement/physical-social-environment/places-for-interaction/main
- 23. Rafanan, C. & Romo, N. (2022). Disaster Risk Reduction and Management of a Coastal Grade School: A Case Analysis. The Asian Journal of Education and Human Development (AJEHD), 2(1). https://ajehd.unp.edu.ph/index.php/ajehd/article/view/31
- 24. Seung Jong Lee and Yunji Kim (2015). Community Well-being and Community Development Conceptions and Applications: Searching for the Meaning of Community Well-Being

- https://www.naspa.org/images/uploads/kcs/WHPL_Canon_WB_Meaning of community Wellbeing.pdf
- 25. Teague, T. (2017, December 22). Dealing with noise pollution in your neighborhood. Hearing Consultants. https://hearingconsultants.com/dealing-with-noise-pollution-in-your-neighborhood/
- 26. United Nations. (2023). Sustainable transport. https://sdgs.un.org/topics/sustainable-transport
- 27. Ursulom, F., Martinez, A., Embat, M., & Guzman, K. (2021). Satisfaction on Localized Services: A Basis of the Citizen-Driven Priority Action Plan. The Asian Journal of Education and Human Development (AJEHD), 1(1). https://ajehd.unp.edu.ph/index.php/ajehd/article/view/1
- 28. Watts, G. (2017, August 18). How tranquil spaces can help people feel calm and relaxed in cities. The Conversation. https://theconversation.com/how-tranquil-spaces-can-help-people-feel-calm-and-relaxed-in-cities-82358
- 29. World Health Organization (2023). Hypertension. https://www.who.int/news-room/fact-sheets/detail/hypertension
- 30. World Health Organization. (2007). Community health workers: What do we know About them? https://www.who.int/hrh/documents/community_health_workers.pdf
- 31. World Health Organization. (2015). Biodiversity and Health. https://www.who.int/news-room/fact-sheets/detail/biodiversity-and-health
- 32. World Health Organization. (2020, November 26). Physical activity. Www.who.int.https://www.who.int/news-room/fact-sheets/detail/physical-activity#:~:text=Regular%20physical%20activity%20is%20proven