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KNOWLEDGE, ATTITUDES, AND PRACTICES OF COMMUNITY HEALTH WORKERS (CHW) TOWARD UNIVERSAL HEALTH CARE (UHC) ACT IN SELECTED BARANGAYS IN CONSOLACION, CEBU

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Abstract

Background. Despite the Universal Health Care (UHC) law enacted in 2019, Philippine healthcare service delivery remains challenge, especially in underserved and rural areas. Community Health Workers (CHWs) are frontline health workers essential in executing the UHC law at the community level. However, limited evidence exists on whether they are prepared and capable of carrying out what this law requires. This study determined the knowledge, attitudes, and practices (KAP) of CHWs regarding the UHC law and examines variations across demographic characteristics in identifying gaps relevant to implementation.

Methods. This descriptive cross-sectional study used a study population of 36 CHWs. Data were gathered using a validated researcher-made KAP questionnaire with KR-20 = 0.624 for the knowledge domain, KR-20 = 0.857 for the attitude domain, and KR-20 = 0.927 for the practice domain. The knowledge scale is interpreted with caution.

Results. Most participants demonstrated moderate knowledge (*n*=20, 55.6%) implying a strong understanding of fundamental UHC goals, but with notable deficiencies in the structural and financial aspects. Positive attitudes (*n*=21, 58.3%) were observed suggesting support for the UHC's goals and acknowledging its ability to improve community health. Most participants were compliant (*n*=21, 58.3%) and followed UHC regulations, but inconsistencies were noted, particularly among senior healthcare workers.

Conclusions. The results indicate limited knowledge, despite positive attitudes, potentially affects UHC implementation. Capacity-building efforts, educational support, and incentive mechanisms are key areas for further consideration in strengthening CHW preparedness for UHC-related roles. Furthermore, strengthening CHW capacity may be relevant to broader discussions on improving health outcomes and promoting equitable healthcare access in the Philippines.

Keywords: *Community Health Workers (CHWs), Health Care Delivery, Knowledge, Attitudes, and Practices (KAP), Universal Health Care (UHC), Philippines*

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Research Highlights

What is the current knowledge?

- The Universal Health Care (UHC) law ensures access to affordable medical care for all Filipinos while protecting them from financial risk. This was supported by the Philippine Health Insurance Corporation (PhilHealth) and the Department of Health (DOH) mandates,

which have a prominent role in providing healthcare and act as financial provider for the local health system.

- "Community Health Workers" are health workers who provide healthcare services to the local communities and are essential for improving the utilization of healthcare services. These include Barangay Health Workers (BHWs), Barangay Nutrition Scholars (BNSs), Barangay Health and Emergency Response Team (BHERT), and midwives. They serve as frontliners in local healthcare systems and play a central role in implementing the UHC law.
- A shortage of healthcare workers and limited information dissemination to rural areas results in a lack of awareness about available health services and how to access them.

What is new in this study?

- This study provides baseline data on the CHWs' knowledge, attitude, and practices (KAP) about the UHC law at the community level. It describes the patterns of KAP across age, sex, educational attainment, occupation, and years of service; and the gaps pertinent to its implementation
- CHWs appear to demonstrate an overall understanding of the general policy of the UHC law, shows support to its goals, and adheres to the guidelines. Younger health workers appeared more engaged and confident in addressing contemporary health issues, although gaps were noted in areas such as PhilHealth automatic enrollments, benefit packages, governance and financing aspects.
- Despite positive attitudes among the CHWs, knowledge gaps were observed, highlighting potential challenges in implementing the UHC law at the community level.
- Most CHWs were Barangay Health Workers (BHWs) with 1–5 years of service, reflecting ongoing participation in UHC implementation at the community level. Enhancing employment stability and incentives may potentially contribute to sustained service delivery.
- Based on the identified gaps, continuous training on modules tailored to the varying demographics focusing on PhilHealth automatic enrollments, eligibility of beneficiaries, referral system flowchart with clear definition of roles, and meaningful participation in Local Health Boards (LHB) may be considered.

INTRODUCTION

The Philippine Constitution recognizes healthcare as a fundamental human right (Dayrit et al., 2018). Many countries continue to struggle with the World Health Organization's Development Goals, which aim to reduce the impact of diseases and malnutrition (WHO, 2019). In the Philippines, contributing factors to disparities in healthcare access include socio-economic differences, understaffed local healthcare facilities, high out-of-pocket expenses (Aytona et al., 2022), and uneven population distribution (Asan, 2019). The shortage of healthcare workers, coupled with substantial workload pressures and limited information dissemination to rural areas, results in low awareness of available health services and access to them (Mbemba et al., 2016; Aytona et al., 2022; Dondonayos et al., 2023).

Republic Act No. 11223, the Universal Health Care Act, was signed into law on February 20, 2019, guaranteeing all Filipinos access to affordable medical care and financial risk protection through a national insurance program called PhilHealth. Provisions in the UHC law outline the roles and responsibilities of local governments and provide guidelines for the DOH to adopt a community-

centered approach to healthcare through facilities such as Barangay Health Centers. Despite decentralizing the healthcare system to reach remote and underserved areas, underutilization of benefits and public mistrust in PhilHealth—due to financial coverage gaps and healthcare service delivery issues—persist as challenges in its implementation (Ramos, 2020).

According to WHO (2020), CHWs are healthcare providers who are selected, trained, and assigned to Primary Health Care (PHC) within the communities from which they originate. These providers include BHWs, BNSs, BHERT, midwives, and other medical professionals who have been established as a trained frontline workforce to support the nation's pursuit of Universal Health Coverage (Devlin et al., 2016). CHWs play an essential role in the public health workforce; this study responds to a key challenge in the literature by evaluating their knowledge, attitudes, and practices (KAP) regarding the UHC law and how these may influence healthcare service delivery across demographic variations (Szabo et al., 2020).

As described in the Barangay Health Workers' Reference Manual, a BHW is a person who has undergone training programs under any accredited government or non-government organization and who voluntarily renders primary health care services in the community after having been accredited by the LHB in accordance with DOH guidelines (DOH, 2022). A Barangay Nutrition Scholar is a community-based volunteer who delivers nutrition and related health services, including community health, backyard food production, environmental sanitation, nutrition, supplemental feeding, and family planning, within their barangay (Barangay Nutrition Program, 2010). A Barangay midwife is the most readily available and visible healthcare provider, especially within Geographically Isolated and Disadvantaged Areas (GIDAs) (Department of the Interior and Local Government [DILG], 2020). They are trained and registered healthcare professionals who implement diverse healthcare programs, including preventive, promotive, curative, and rehabilitative care. Their core responsibilities include maternal and child health services such as antenatal care, labor and delivery assistance, postpartum care, immunizations, and family planning counseling (Domingo et al., 2024). BHERT members include an executive officer (e.g., barangay captain), barangay tanod, and two barangay health workers, one of whom is preferably a nurse or midwife (Department of the Interior and Local Government [DILG], 2020). Their roles involve delivering essential health services and managing crises, emergencies, and disasters within the community.

A strong primary health care (PHC) foundation supports accessible, low-cost, and effective health services as the first point of contact, offering continuous, coordinated, and locally relevant care. The development of PHC requires CHWs to be capable of identifying what UHC requires of them, along with community involvement, medicine availability, and upgraded infrastructure. While Filipino family physicians supported the UHC law in principle, they expressed concern over community preparedness, implementation gaps, and resource scarcity (Estepa-Garcia et al., 2022). Yet, current concerns about the UHC law are being addressed through effective healthcare service delivery, lessened barriers, and better health outcomes (Philippine Institute for Development Studies [PIDS], 2021). Thus, matching policy goals with implementation capacity remains critical (Tulenko et al., 2013). Although there is full trust in local government units and belief in CHW empowerment, this idealism may not reflect local realities.

Grounded in the need to strengthen health systems, the National Unified Health Research Agenda on health systems strengthening towards UHC and United Nations Sustainable Development Goal 17 both align with this study's goals. This study aims to support local UHC implementation by promoting equitable access to healthcare, reducing inequalities, and contributing to sustainable, community-based healthcare systems.

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LITERATURE REVIEW

To improve governance and extend support to local communities, especially in underserved and rural areas, the Philippines was decentralized since the Republic Act No. 7160 (1991). Currently, in the advent of the UHC law, providing equitable healthcare service delivery is greatly delegated to the Local Government Units (LGUs), particularly at the barangay level. The CHW are considered the key actors linking between the community members and local health authorities. They relay and translate the healthcare policies formulated from the national level to the community and in return reports the needs and assessment to its immediate LGU, ascending to regional and national level (Devlin et al., 2016). Therefore, they are accountable to the community, local politicians, and government (Schaaf et al., 2020). Yet, Filipinos seeking health consults and medical supplies are delayed because of barriers that affect healthcare delivery, such as geographical location, limited healthcare accessibility, financial constraints, and inadequate medical staff (Cruzada, 2025; Co et al., 2024). This underscores the importance of integrating CHWs into the healthcare framework and aligning service features with community needs.

In each local area, CHWs have different characteristics which may have influenced their demographics, culture, norms, and social relationships. The characteristics of the respondents are better comprehended with demographic profiling, as it offers insights on the variations in attitudes, knowledge, and practices. It can demonstrate patterns on the different variables such as age, gender, educational qualifications, years of experience, and the manner in delivering health service and addressing health issues in the community (Szabo et al., 2020; Sugarman, 2021).

Analyzing the data is useful in evaluating and developing programs, and health interventions tailored to the different demographic characteristics of the respondents. This serves as a guide in the workforce planning and identifies areas where CHWs need additional support, undertrained or lack resources due to their background or geographic location. It is important as well in determining the barriers in certain populations as a basis in monitoring and intensifying program objectives.

Their specific duties are determined by the LGUs where they work. They generally provide clinical services, health education, and community mobilization, although overlapping of roles may exist. They are also responsible for referring community members to the Barangay Health Stations (BHS). These CHWs provide essential health and social services, including nutrition counseling, antenatal care, and family planning (Devlin et al., 2016). Among their essential roles are promoting health and educating the community relevant in preventing and controlling disease outbreaks. Nevertheless, citizens in Samar, Philippines have high overall satisfaction but were not aware of health promotions and access in healthcare systems (Cananua-Labid et al., 2024).

Studies on job satisfaction and perceived hurdles to UHC delivery by WHO (2011) predominates. In addition, studies exhibiting positive correlation between education, salaries, and knowledge, indicates a notable influence of education and income level in awareness of UHC law. However, the understanding of the practices, attitudes, and expertise of the CHWs, who play a critical role in enforcing and promoting UHC, are the key features in literature analysis but there is inadequate specific data in low-income communities, rural areas, and underserved subgroups (Kawi et al., 2024), which this study tries to address by focusing on the CHWs in three barangays in Consolacion, Cebu. CHWs' perspective on the UHC law and the healthcare system are not fully examined which

necessitates further research to completely comprehend their opinions on the efficacy and efficiency of the UHC law as well as their individual involvement. This study advances knowledge of the variables affecting CHWs' knowledge, attitudes, and practices of the UHC law which eventually aid in the creation of programs and policies at improving healthcare delivery in the Philippines.

METHODOLOGY

Design

This descriptive cross-sectional study assessed CHWs' knowledge, attitudes, and practices regarding the UHC law.

Participants and Locale

Total enumeration was used with a total population of 36 CHWs, reflecting the entire target population from Barangays Cabangahan, Panoypoy, and Polog in Consolacion, Cebu. The CHWs were composed of BHW, BNS, midwives, and members of BHERT. Based on the national guidelines, inclusion criteria were at least 18 years of age, undergone training in their respective fields, professional license for midwives, civil service eligibility for BNS, and officially appointed by the local government. Exclusion criteria disqualified individuals not meeting the respective aforementioned criteria. Participants had the right to withdraw at any point without explanation or penalty.

Instruments

A self-administered researcher-made questionnaire comprising demographic, knowledge, attitudes, and practices (KAP) domains related to the UHC Law was used. The questionnaire was based on the Republic Act No. 11223 (2019) and KAP model (Kim et al., 1969). Prior data collection, content validation was done by three experts, consisting of a physician from DOH, a psychometrician, and a City Health Officer. Based on their recommendations, items 7, 14 and 16 knowledge-related items were reassigned to the practice domain to better assess the CHWs' capability of carrying out what the law requires. No removal of any items was done. The questionnaire originally in English language was subjected to forward translation in Bisaya, the native language of the respondents, by a linguist with no back-translation**.** The knowledge domain consists of 20 multiple choice questions. The attitude domain consists of 20 dichotomous questions (yes/no format). The practice domain consists of 23 dichotomous questions (yes/no format). Content validity indices were excellent on knowledge subscale (S-CVI/Ave=1, and S-CVI/UA=1), attitude subscale (S-CVI/Ave=1, and S-CVI/UA=1), and practices subscale (S-CVI/Ave=1, and S-CVI/UA=1). The statements were phrased positively to reduce confusion. Although Likert scales were mostly used in determining attitude, 'yes' or 'no' questions were used to reduce survey fatigue (Ghafourifard, 2024), considering the heterogeneous educational backgrounds, length of the questionnaire, and the need for CHWs quick response to avoid work interruption (Santhosh, 2025). With a good internal validity KR 20 coefficient, a derivative of the Cronbach's coefficient, on the attitude domain both during pilot and the actual study, this parallels with assessment using Likert scales (Capik & Gozum, 2014).

A pilot study was conducted involving 15 CHWs, reflecting the entire accessible population from Barangay Casili, Consolacion and yielded strong internal consistency with knowledge (KR20 = 0.78), attitude (KR20 = 0.74), and practice (KR20 = 0.95). During actual data collection, reliability indices yielded low reliability (KR20 = 0.624) on the knowledge, good reliability (KR20 = 0.857) on the attitude domain, and excellent reliability (KR20 = 0.927) on the practice domain. The number of CHWs, both during the pilot test and the actual data collection, and heterogeneity of CHWs having different positions with varying responsibilities, training exposure, and involvement in UHC implementation substantially contributed to the knowledge reliability estimates being unstable. Sample size calculation and power analysis was not applicable since the target population was only 36. However, to mitigate, more sample size was needed which was not applicable due to the total target population, although item analysis was done. Given the exploratory aims and content-driven development, the knowledge scale was interpreted with caution and considered preliminary.

Data Gathering and Analysis

Collection was done through face-to-face sessions. Each participant gave informed consent before data collection. Descriptive statistics were used in describing the age, sex, educational attainment, occupation, and years of service. IBM Statistical Package for the Social Sciences (SPSS) version 23 was used in analyzing the data. A point of 1 was given for every correct answer and 0 for incorrect. Bloom's cutoff was used for the knowledge domain, with the following categories: high for 16–20 points (>80%), moderate for 12–15 points (60–79%), or low for 0-11 points (<60%). The attitudes section used 20 yes/no questions, with "yes" (1 point, positive attitude) and "no" or "I do not know" (0 points, negative attitude). The practices section included 23 yes/no questions, where "yes" (1 point) indicated compliance with UHC guidelines. Median split was used for attitudes and practices since both have dichotomous levels (positive/negative; compliant/non-compliant). The actual median of the respondents' score for attitude (20) and practice (22) was obtained and used as a basis for categorization. Total scores above the median were categorized as positive attitudes and compliant, while total scores less than the median were negative attitudes and non-compliant. All items in the questionnaires were completely answered. With the study design and the aim to describe the KAP patterns of CHWs, and due to the small number of respondents inferential statistics were intentionally excluded.

Ethical Considerations

Ethical approval was obtained from the Cebu Doctors' University - Institutional Ethics Review Committee. Data were anonymized using participant's codes (e.g., "P##" for pilot and "R##" for research samples). Data access was restricted to authorized research team members only. In accordance with data retention and disposal protocols, all data records were securely stored and destroyed. To ensure the protection of participants' rights and well-being throughout the research process, the study adhered to the Philippine Medical Association Code of Ethics and Republic Act No. 10173, or the Data Privacy Act of 2012.

RESULTS

The demographic profile of the community health workers in Barangays Cabangahan, Panoypoy, and Polog, Consolacion, Cebu in Table 1 shows that majority of respondents were middle-aged (*n*=18, 50.0%), all were female (*n*=36, 100%) and mostly completed secondary education (*n*=26, 72.2%), 8 (22.2%) had tertiary education, and 2 (5.6%) had primary education. The majority (*n*=27, 75.0%) were working as BHWs and have been in service for 1–5 years (*n*=13, 36.1%).

Table 1.

Demographic Profile of Community Health Workers in Barangays Cabangahan, Panoypoy, and Polog, Consolacion, Cebu

Demographic Profile		Frequency (f)	Percentage (%)
Age	Young adult (≥18-29 years old)	2	5.6
	Middle Aged (30-45 years old)	18	50
	Old Adult (>45 years old)	16	44.4
Sex	Male	0	0
	Female	36	100
Educational Attainment	No Formal Education	0	0
	Primary	2	5.6
	Secondary	26	72.2
	Tertiary	8	22.2
Occupation	Barangay Midwife	3	8.3
	Barangay Health Worker	27	75
	Barangay Nutrition Scholar	3	8.3
	Barangay Emergency Response Team member	3	8.3
Years of Service	1 to 5 years	13	36.1
	6 to 10 years	9	25
	11 to 15 years	7	19.4
	16 to 20 years	5	13.9
	More than 20 years	2	5.6

Note. N= 36.

In Table 2, overall knowledge of the UHC Law among community health workers in Barangays Cabangahan, Panoypoy, and Polog shows that the majority of the respondents (*n*=20, 55.6%) scored 12–15 points (60–79%) suggesting moderate knowledge on the six pillars of the UHC Law.

Table 2.

Overall Knowledge of the Universal Health Care Law among Community Health Workers in Barangays Cabangahan, Panoypoy, and Polog, Consolacion, Cebu

Knowledge of UHC Law	Frequency (f)	Percentage (%)
High Knowledge	9	25
Moderate Knowledge	20	55.6
Low Knowledge	7	19.4
Total	**36**	**100**

Table 3 shows the item analysis of the knowledge in more detail. There were varying levels of knowledge observed in the item analysis. High accuracy was observed in the items that assess their knowledge of the benefits for low-income families (97.2%) and identifying the required health facility for primary care (91.7%). There was similar knowledge (88.9%) among the participants on items that refer to the government agency as responsible for the implementation of the law, the roles of barangay health workers, and recognizing health promotion and disease prevention as key UHC aspects. Additionally, 86.1% correctly identified how community members can support UHC implementation, showing a strong grasp of community involvement.

CHWs demonstrated limited knowledge that Filipinos are automatically enrolled in PhilHealth, weak in identifying the roles of the LHB and the mechanism to achieve financial protection. PhilHealth entitles every Filipino to its benefits, either as direct contributors or subsidized by the government. Individuals no longer have difficulty paying medical expenses since accessible and affordable health services are provided. It is imperative that CHWs be familiar with the purpose of these aspects to guide the community about their benefit coverage and referral systems. The LHB shapes community health policies in planning, budgeting, and setting priorities. A lack of awareness of these aspects implies limited community engagement, inefficient allocation of resources, and inequity.

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Table 3.

Item Analysis of the Knowledge of the Universal Health Care Law among Community Health Workers in Barangays Cabangahan,Panoypoy,and Polog

	Items	Correct	Incorrect
1	What is the primary goal of Universal Health Care (UHC) in the Philippines?	20 (55.6%)	16 (44.4%)
2	Which government agency is primarily responsible for the implementation of Universal Health Care in the Philippines?	32 (88.9%)	4 (11.1%)
3	Under the Universal Health Care law,which group is automatically enrolled in PhilHealth?	18 (50.0%)	18 (50.0%)
4	What is the main purpose of the Barangay Health Emergency Response Team (BHERT)?	19 (52.8%)	17 (47.2%)
5	Which of the following is NOT a service covered by PhilHealth under the Universal Health Care Law?	18 (50.0%)	18 (50.0%)
6	What is the role of barangay health workers in the context of Universal Health Care?	32 (88.9%)	4 (11.1%)
7	What is the focus of the "Health Promotion and Disease Prevention" aspect of Universal Health Care?	32 (88.9%)	4 (11.1%)
8	Which of the following is a benefit of the Universal Health Care law for low-income families?	35 (97.2%)	1 (2.8%)
9	Under the Universal Health Care law, which type of health facility is required to offer primary health care services?	33 (91.7%)	3 (8.3%)
10	How does the Universal Health Care law impact local government units (LGUs)?	22 (61.1%)	14 (38.9%)
11	What is the primary purpose of financial protection under the UHC law?	7 (19.4%)	29 (80.6%)
12	Which of the following is a component of financial protection?	20 (55.6%)	16 (44.4%)
13	Which types of health services should be covered under UHC?	27 (75.0%)	9 (25.0%)
14	What is the role of local health systems in the UHC framework?	28 (77.8%)	8 (22.2%)
15	Which of the following is a key governance principle under the UHC law?	32 (88.9%)	4 (11.1%)
16	Who is primarily responsible for implementing UHC at the local level?	19 (52.8%)	17 (47.2%)
17	Which agency is responsible for regulating health services to ensure compliance with UHC standards?	24 (66.7%)	12 (33.3%)
18	What is the significance of the Local Health Board in relation to UHC?	12 (33.3%)	24 (66.7%)
19	What is a common misconception about UHC?	23 (63.9%)	13 (36.1%)
20	How can community members contribute to the success of UHC?	31 (86.1%)	5 (13.9%)

In Table 4, more CHWs from the three Barangays expressed positive attitudes toward the UHC Law (21, 58.3%), while 15 (41.7%) exhibited negative attitudes. This indicates that the majority showed strong agreement and support for UHC principles and implementation.

Table 4.

Overall Attitudes towards the Universal Health Care Law among Community Health Workers in Barangays Cabangahan, Panoypoy, and Polog, Consolacion, Cebu

Attitudes towards UHC Law	Frequency (f)	Percentage (%)
Positive Attitudes	21	58.3
Negative Attitudes	15	41.7
Total	**36**	**100**

Based on the item analysis of CHWs' opinions, many thought UHC reduces inequality (86.1%), promotes community health (97.2%), and increases service quality (100.0%) and access (97.2%). According to them, it offers financial security (94.4%), reduces the burden of medical expenses (91.7%), and eventually improves results. During planning and implementation, CHWs felt well-informed about the UHC provisions that were made explicit to communities.

All CHWs agreed that there is a need for more government funding, developing trust in local government, health worker empowerment, and improving healthcare quality. CHWs have faith in UHC's ability to lessen inequality, increase access, and offer financial security. On the question of whether the current system satisfies community needs, however, there was significant variation, suggesting some discontent.

Overall, CHWS generally have positive opinions on UHC Law. They believed it improved health outcomes, lessened financial burden, and strengthened community health systems. They trust the government to carry out the law and think it gives them more authority to provide better services. However, others feel that the needs of the community are not adequately met by the current system. This emphasizes how crucial it is to match actual healthcare service delivery with policy expectations.

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Table 5.

Item Analysis of the Attitudes towards the Universal Health Care Law among Community Health Workers in Barangay Cabangahan,Panoypoy,and Polog, Consolacion, Cebu

	Items	Yes	No
1	Universal health care is essential for improving the overall health of the community.	35 (97.2%)	1 (2.8%)
2	I believe that the current health care system in our barangay adequately meets the needs of all residents.	23 (63.9%)	13 (36.1%)
3	Universal health care will significantly reduce the financial burden of medical expenses for families in our barangay.	33 (91.7%)	3 (8.3%)
4	The government should allocate more resources to ensure that universal health care is effectively implemented in our barangay.	36 (100.0%)	---
5	I feel that our barangay is well-prepared to handle the challenges of transitioning to a universal health care system.	34 (94.4%)	2 (5.6%)
6	I am confident that universal health care will improve access to medical services for underserved populations in our barangay.	34 (94.4%)	2 (5.6%)
7	Training and support for barangay health workers are crucial for the success of universal health care in our area.	35 (97.2%)	1 (2.8%)
8	Universal health care would lead to better health outcomes and reduced mortality rates in our barangay.	35 (97.2%)	1 (2.8%)
9	There is a need for greater community awareness and education about the benefits of universal health care.	35 (97.2%)	1 (2.8%)
10	l am personally committed to supporting the implementation of universal health care in our barangay.	35 (97.2%)	1 (2.8%)
11	I believe that the Universal Health Care law will improve access to health services in our community.	35 (97.2%)	1 (2.8%)
12	The UHC law provides adequate financial protection against high medical costs.	34 (94.4%)	2 (5.6%)|
13	I feel well-informed about the provisions of the Universal Health Care law.	36 (100.0%)	---
14	The implementation of the UHC law will reduce health inequalities in our community.	31 (86.1%)	5 (13.9%)
15	I trust that local government units will effectively implement the UHC law.	36 (100.0%)	---
16	The UHC law empowers community health workers to better serve our population.	36 (100.0%)	---
17	I believe that the community is adequately involved in the planning and implementation of UHC programs.	35 (97.2%)	1 (2.8%)
18	l am confident that the UHC law will lead to improvements in the quality of health services.	36 (100.0%)	---
19	I think the benefits of the UHC law are clearly communicated to the community.	35 (97.2%)	1 (2.8%)
20	I feel that the UHC law is a step in the right direction for our country's health system.	36 (100.0%)	---

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In Table 6, more community health workers were compliant (*n*=21, 58.3%) than non-compliant (*n*=15, 41.7%). Most reported involvement in UHC initiatives like disseminating UHC information, conducting outreach programs, implementing health services including patient referral, and participating in routine monitoring and evaluations. Only 28 respondents (77.8%) indicated they addressed access barriers. CHWs also lacked awareness of community feedback mechanisms, and none reported violations or compliance issues.

Table 6.

Overall Practices towards the Universal Health Care Law among Community Health Workers in Barangays Cabangahan, Panoypoy, and Polog, Consolacion, Cebu

Practices towards UHC Law	Frequency (f)	Percentage (%)
Compliant	21	58.3
Non-compliant	15	41.7
Total	**36**	**100**

Table 7.0 shows item analysis of the practices towards UHC Law among the three barangays. The CHWs were compliant and showed significant personal commitment to the UHC guidelines signifying knowledge of its components. There was regular training performed for CHWs on UHC policies and practices in local health units. The CHWs and local government collaborated to provide essential health services to the community. Planning and implementation of UHC initiatives were participated by barangay officials. However, items concerning reporting compliance issues, community engagement in planning, and awareness of feedback mechanisms and access barriers were weak. To enable CHWs to respond effectively to local health challenges, results emphasize in optimizing support systems and resources.

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Table 7.

Insert: Item Analysis of the Practices towards Universal Health Care Law among Community Health Workers in Barangays Cabangahan,Panoypoy,and Polog, Consolacion, Cebu

	Items	Yes	No
1	Do barangay health workers regularly provide information about universal health care services to community members?	34 (94.4%)	2 (5.6%)
2	Do barangay officials actively support universal health care initiatives in the community?	32 (88.9%)	4 (11.1%)
3	Is there regular training available for barangay health workers on universal health care policies and practices?	32 (88.9%)	4 (11.1%)
4	Does your barangay have established procedures for referring patients to higher levels of health care?	34 (94.4%)	2 (5.6%)
5	Are there systems in place for tracking and managing health care services and resources within the barangay?	35 (97.2%)	1 (2.8%)
6	Do barangay health workers participate in community health outreach programs related to universal health care?	35 (97.2%)	1 (2.8%)
7	Is the UHC law being implemented in your barangay?	32 (88.9%)	4 (11.1%)
8	Are barangay officials involved in planning and implementing local health care initiatives aligned with universal health care objectives?	32 (88.9%)	4 (11.1%)
9	Is there adequate coordination between barangay health workers and local government units to address health care needs?	35 (97.2%)	1 (2.8%)
10	Do barangay health workers have access to the necessary tools and resources for delivering universal health care services?	35 (97.2%)	1 (2.8%)
11	ls community feedback on health care services regularly collected and used to improve universal health care practices in your barangay?	30 (83.3%)	6 (16.7%)
12	Are you currently implementing the services mandated by the Universal Health Care law in your area?	33 (91.7%)	3 (8.3%)
13	Have you distributed information about the UHC law to your community members?	32 (88.9%)	4 (11.1%)
14	Are you knowledgeable about the components of the UHC law?	33 (91.7%)	3 (8.3%)
15	Are you following the guidelines set forth by the UHC law in your health programs?	34 (94.4%)	2 (5.6%)
16	Are you aware of the services offered under the UHC law?	32 (88.9%)	4 (11.1%)
17	Do you regularly monitor and evaluate health services to ensure compliance with UHC standards?	35 (97.2%)	1 (2.8%)
18	Have you identified and addressed any barriers to accessing health services as required by the UHC law?	28 (77.8%)	8 (22.2%)
19	Are community members involved in the planning and implementation of health programs under the UHC law?	28 (77.8%)	8 (22.2%)
20	Do you ensure that health services are provided without discrimination in accordance with the UHC law?	31 (86.1%)	5 (13.9%)
21	Have you reported any violations or issues related to UHC compliance in your area?	11 (30.6%)	25 (69.4%)
22	Are you aware of any feedback mechanisms in place for community members regarding UHC services?	25 (69.4%)	11 (30.6%)
23	Do you believe that you are adequately supported in your role to comply with the UHC law?	32 (88.9%)	4 (11.1%)

In Table 8, knowledge of the Universal Health Care law is described across the demographic profile of the community health workers in Barangays Cabangahan, Panoypoy, and Polog. Most CHWs aged 30–45 years demonstrated moderate knowledge (11, 61.1%). Secondary education showed a higher proportion of moderate knowledge (16, 61.5%); Barangay Health Workers mostly had moderate knowledge (17, 63.0%). The CHWs with 11–15 years of service had the highest moderate knowledge (5, 71.4%). These results suggest mid-career CHWs may have greater familiarity with the UHC Law, while older, longer-serving CHWs need targeted continuing education.

Table 8.

Knowledge of the Universal Health Care Law across the Demographic Profile of Community Health Workers in Barangay Cabangahan, Panoypoy, and Polog, Consolacion, Cebu

Demographic Profile		Knowledge of UHC Law		
		High	Moderate	Low
Age	Young Adult (≥18-29 years old)	1 (50.0%)	1 (50.0%)	—
	Middle Aged (30-45 years old)	5 (27.8%)	11 (61.1%)	2 (11.1%)
	Old Adult (>45 years old)	3 (18.8%)	8 (50.0%)	5 (31.3%)
Educational Attainment	Primary	—	2 (100.0%)	—
	Secondary	6 (23.1%)	16 (61.5%)	4 (15.4%)
	Tertiary	3 (37.5%)	2 (25.0%)	3 (37.5%)
Position	BHERT	2 (66.7%)	1 (33.3%)	—
	BHW	3 (11.1%)	17 (63.0%)	7 (25.9%)
	BNS	2 (66.7%)	1 (33.3%)	—
	Barangay Midwife	2 (66.7%)	1 (33.3%)	—
Years of Service	1 to 5 years	4 (30.8%)	8 (61.5%)	1 (7.7%)
	6 to 10 years	3 (33.3%)	3 (33.3%)	3 (33.3%)
	11 to 15 years	1 (14.3%)	5 (71.4%)	1 (14.3%)
	16 to 20 years	1 (20.0%)	3 (60.0%)	1 (20.0%)
	More than 20 years	—	1 (50.0%)	1 (50.0%)

In Table 9., the attitudes toward the UHC law among the community health workers in Barangays Cabangahan, Panoypoy, and Polog are described across the demographic profile. All CHWs aged 18–29 showed positive attitudes (2, 100%), while those 46 and older were equally divided between positive (8, 50%) and negative (8, 50%). Tertiary-educated respondents mostly had negative attitudes (87.5%), primary education showed mixed attitudes, and secondary education had more positive attitudes (19, 73.1%). Barangay Health Workers (BHWs) mostly expressed positive attitudes (18, 66.7%), whereas BHERT members and Barangay Midwives had more negative attitudes. The CHWs with 1–5 years of service had the highest positive attitudes (84.6%), with positivity declining as years of service increased. Overall, younger and newer CHWs displayed more favorable attitudes toward UHC, while older, experienced workers tend to doubt its effectiveness or impact.

Table 9.

Attitudes towards the Universal Health Care Law across the Demographic Profile of Community Health Workers in Barangays Cabangahan, Panoypoy, and Polog, Consolacion, Cebu

Demographic Profile		Attitudes towards UHC Law	
		Positive	Negative
Age	Young adult (≥18-29 years old)	2 (100.0%)	—
	Middle aged (30-45 years old)	11 (61.1%)	7 (38.9%)
	Older adult (>45 years old)	8 (50.0%)	8 (50.0%)
Educational Attainment	Primary	1 (50.0%)	1 (50.0%)
	Secondary	19 (73.1%)	7 (26.9%)
	Tertiary	1 (12.5%)	7 (87.5%)
Occupation	BHERT	1 (33.3%)	2 (66.7%)
	BHW	18 (66.7%)	9 (33.3%)
	BNS	2 (66.7%)	1 (33.3%)
	Barangay Midwife	—	3 (100.0%)
Years of Service	1 to 5 years	11 (84.6%)	2 (15.4%)
	6 to 10 years	3 (34.3%)	6 (66.7%)
	11 to 15 years	4 (57.1%)	3 (42.9%)
	16 to 20 years	2 (40.0%)	3 (60.0%)
	More than 20 years	1 (50.0%)	1 (50.0%)

In Table 10, the practices towards the UHC law are described across the demographic profile of the community health workers in Barangays Cabangahan, Panoypoy, and Polog. There was full compliance (*n*=2, 100%) observed in the 18–29 age group; most middle-aged CHWs (*n*=12, 66.7%) were compliant, while non-compliance was higher among those 46 years and above (*n*=9, 56.3%). The CHWs with secondary education were most compliant (*n*=17, 65.4%), while tertiary-educated CHWs showed more non-compliance (*n*=6, 75.0%). The BHWs had the highest compliance rate (16, 59.3%), BHERT members were all compliant (3, 100%), and all Barangay Midwives were non-compliant (3, 100%). The newer CHWs (1–5 years) showed the highest compliance (*n*=9, 69.2%), while those with over 20 years had balanced compliance and non-compliance.

Table 10.

Practices towards Universal Health Care Law across the Demographic Profile of Community Health Workers in Barangays Cabangahan, Panoypoy, and Polog, Consolacion, Cebu

Demographic Profile		Practices towards UHC Law	
		Compliant	Non-compliant
Age	Young adult (≥18-29 years old)	2 (100.0%)	—
	Middle aged (30-45 years old)	12 (66.7%)	6 (33.3%)
	Older adult (>46 years old)	7 (43.8%)	9 (56.3%)
Educational Attainment	Primary	2 (100.0%)	—
	Secondary	17 (65.4%)	9 (34.6%)
	Tertiary	2 (25.0%)	6 (75.0%)
Occupation	BHERT	3 (100.0%)	—
	BHW	16 (59.3%)	11 (40.7%)
	BNS	2 (66.7%)	1 (33.3%)
	Barangay Midwife	—	3 (100.0%)
Years of Service	1 to 5 years	9 (69.2%)	4 (30.8%)
	6 to 10 years	5 (55.6%)	4 (44.4%)
	11 to 15 years	3 (42.9%)	4 (57.1%)
	16 to 20 years	3 (60.0%)	2 (40.0%)
	More than 20 years	1 (50.0%)	1 (50.0%)

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DISCUSSION

This study explored the nuances in the CHWs' knowledge and attitudes about the UHC law, and their compliance at a community level. With the study design employed, these results may be considered preliminary and a basis for pilot policies and programs. It highlights the gaps which need to be dealt with in order to achieve the UHC goals. Despite moderate knowledge, CHWs may have limited knowledge on PhilHealth's automatic enrollment of Filipino citizens, on financial protection, and LHB roles, as well challenges in practice particularly in problem reporting and feedback.

CHWs may generally have moderate knowledge of frontline and community-based health provisions. DOH, in cooperation with Human Resources for Health 2030, has documented proficiency in skills essential for health service through DOH Academy e-learning (HRH2030 Program, 2020) and beyond formal certification such as outreach activities, infographics, and regular lectures at Kauswagan Community Clinic and Social Center. Nevertheless, limited knowledge was observed on technical or administrative areas, particularly those referring to Filipino citizens automatically enrolled in PhilHealth, the purpose of financial protection, and the significance of LHB. In a decentralized system, differences in personnel positioning or employment status (Akintola et al., 2016; Shrestha et al., 2024) and type and number of training (O'Donovan et al., 2018) may co-occur with knowledge acquisition, as evidenced by previous literature. This likely reflected Item 11 which appears to be difficult in some CHWs. These have to be considered in interpreting the variations in knowledge scores rather than reflecting individual knowledge. However, the results may also highlight standardized education and training designed across all CHWs.

Under the UHC law, Filipinos are financially protected by automatically enrolling them to the National Health Insurance Program through PhilHealth, prevent paying out-of-pockets expenses from high medical costs (Republic Act No. 11223, 2019); and CHWs serve as the link to the community ensuring that the people can utilize its benefits. They are effective patient navigators in the healthcare system primarily through proper referral to healthcare providers with a wider range of health services, especially the vulnerable population (e.g., senior citizens, indigents, and people with disabilities) and underserved areas (PhilHealth, 2024). Limited knowledge on who are automatically enrolled in PhilHealth may have been associated with challenges in protecting the community financially, providing guidance on benefit package coverage, and facilitating immediate access to PHC services. The results align with previous local studies and in many low-income countries indicating that frontline health workers understood the general UHC goals despite difficulty in concepts on the structural and financial components, including health insurance and drug-dispensing (Meessen et al., 2019; Tung et al., 2016). This highlights the gap in the CHWs' knowledge on financing aspects and PhilHealth modules (PhilHealth, 2022) regarding automatic enrollment, eligibility of beneficiaries, referral system flowchart, and financial support mechanisms (Meessen et al., 2019).

With the Philippines decentralized system, the LGU has the main responsibility of implementing the UHC law at the local level. The LHB has shared health responsibility in supervising and coordinating at the provincial, municipal level and the concerned units in the LGU (Department of Health & Department of the Interior and Local Government [DOH & DILG], 2022). They plan and develop policies, mobilize resources, engage and are accountable to the community and multi-stakeholders. CHWs' lack of understanding of LHB roles and responsibilities co-occurs with poor accountability

and transparency (Dodd et al., 2021). Other reported challenges in the literature include non-standard CHWs training, unsatisfactory implementation of health programs, unorganized referral systems for patients needing advanced care, poor assessment in community needs, and inadequate reporting to the LHB. Consequently, weak support from the national level responding to the needs of the community has been reported along with reduced trust from the community (Rumsey et al., 2021). The literature result possibly reflects the weakness in governance framework and governance orientation, leadership training, and standardization of training on community-based programs (Rumsey et al., 2021). Benefits were observed in updating CHWs on UHC policies and PhilHealth benefit packages, and improving awareness with the roles and responsibilities of the different health workforce (Mallari et al., 2020). Several studies also point out the use of simplified, context-specific explanations and participatory learning methods in improving comprehension on financing, and enhancing engagement with governance structures (Meessen et al., 2019; Domin, 2014, as cited in Kiendrébéogo et al., 2020). These findings highlight competency-based UHC education programs connecting policy knowledge to practical community-level application.

Previous information proved the advantage from structured feedback mechanisms and technical support in quality health service delivery (Taburnal, 2020). As frontline workforce, CHWs act as a bridge between the national level and the community, translating the UHC law locally and reporting feedback to the NHB for assessment and planning. However, challenges were observed in previous studies, problems in reporting and feedbacking, and identifying barriers, with similar observations in other countries, alongside vague reporting mechanisms, inadequate resources, insufficient supervision (Breakthrough ACTION and RESEARCH, 2024). These findings underscore optimization on available digital technologies in supervising, reporting, and monitoring health programs (DOH, 2020), together with participatory forums (Taburnal, 2020).

The KAP evaluation aligns with previous demographic patterns that reported younger CHWs often have positive attitudes and compliance (Bogaert et al., 2022). However, this study revealed unexpected patterns where there are less favorable attitude and lower compliance among those with higher education, in contrast to previous observation which may suggest association of higher education with health engagement (Musoke et al., 2019). Fragmented CHWs participation, were most likely associated with limited planning involvement, reporting, and referral processes, aligning with prior reports of integration challenges, overlapping duties, resource limitations (Pepito et al., 2025), inconsistent financial and non-financial incentives (Tejero et al., 2021), and job migration (Hartigan-Go et al., 2025).

CHWs were mostly middle-aged women with secondary education, consistent with national and global trends reflecting rural, low-resource settings (Hartigan-Go et al., 2025; Kok, 2015). Although younger individuals may offer advantage (Erfani et al., 2025) but many find the job less appealing (Smithwick et al., 2023) with a Salary Grade (SG) 1 (House Bill No. 2475 (2025). Some low- and middle-income countries (LMICs) reported difficulties in cross-gender discussions of sexual and reproductive health (Musoke et al., 2022), emphasizing the relevance of workforce composition and gender dynamics. Barangay midwives were knowledgeable yet discontent and non-compliant. This is consistent with reports that knowledge may not ensure effective practice in resource-limited settings (Pepito et al., 2025). Conversely, BHWs showed a more balanced distribution across KAP domains. CHWs serving 1–5 years had the most favorable outcomes consistent with observations among recently trained CHWs on UHC goals (Taburnal, 2020). However, short retention of services faced with challenges in the recruiting and renewal process have been described in the literature along with job displacement, stipend loss during changes in local leadership, and repeated training of newly hired applicants (Mallari et al., 2021). The findings emphasize the CHWs' indispensable

roles in linking community and local government units, as well as the importance of incentives, sustainable funding mechanisms, uninterrupted productivity, developing skill performance, and accreditation of some CHWs (Dodd et al., 2021).

The demographic analysis may suggest the potential value of education and adequate structural support in UHC implementation. CHWs are essential to the UHC's success, however, generally positive attitudes, moderate knowledge but inconsistent compliance levels may be associated with systemic barriers rather than personal. Strategies in addressing the demographic differences in developing targeted programs, educational materials and interventions are suggested:

- Defining CHW roles and recognizing their participation in policy and decision making during LHB discussion (Mallari et al., 2021).
- Improving reporting and feedback mechanisms by optimizing useful tools and easily accessible standardized training formats (DOH, 2020).
- Increasing policy familiarization by adapting practical tools and continuous training in PhilHealth modules (PhilHealth, 2022) emphasizing on automatic enrollment, eligibility of beneficiaries, referral system flowchart, and financial support mechanisms (Meessen et al., 2019).
- Moreover, providing job security from changing administrations through plantilla staffing (House Bill No. 2475, 2025), incentivizing top-performing CHWs, and offering professional growth opportunities through certification programs (DILG, 2023; Tejero et al., 2021).

The study was able to sample 36 respondents as these were the available manpower in the local health unit. The limited number of respondents may decrease the generalizability of the KAP findings to CHWs with similar characteristics of the study population. The study utilized self-reported data and may be subject to recall bias. To reduce confusion among the respondents, items on the attitude section were phrased positive and may have introduced acquiescence bias. The use of dichotomous attitude and practice items may have limited the ability to capture the depth in strength and may reduce sensitivity in detecting nuanced variations in attitudes and practices. To minimize these biases in future studies, consider using Likert-type responses. The study population consists of CHWs with different roles, with varying levels of involvement in UHC implementation, training exposure, and role-specific responsibilities may have partly reflected differences in knowledge scores rather than their individual knowledge. Although the knowledge domain intends to capture general understanding of UHC-related provisions applicable across CHW roles, some items may be more relevant to specific positions. Assessing the level of awareness may be considered as an alternative in future studies.

CONCLUSION AND RECOMMENDATIONS

Based on the analysis, in a decentralized system, the CHWs play a vital role as a system navigator in advancing health empowerment and supporting the implementation of the UHC law. Overall, while CHWs demonstrated a positive attitude towards the law, potential knowledge gaps particularly in the governance and financing aspects, as well as weaknesses in reporting practices were observed. These disparities may reflect challenges in relation to the requirements outlined in the law. These nuances may shed light for policy makers in continuous training on context-specific modules to the varying demographics focusing on PhilHealth automatic enrollment, eligibility of beneficiaries, referral system flowchart with clear definition of roles, and meaningful participation in LHBs. Despite the potential patterns and relationships demonstrated, these do not imply causation due to the cross-

sectional design and limited population size. Nevertheless, the study contributed to understanding observations that are adapted to its location. This informs local policy actions and future research on community-based UHC implementation.

List of Abbreviations

BHERT- Barangay Health Emergency Response Team
BHS - Barangay Health Stations
BHW - Barangay Health Workers
BNS - Barangay Nutrition Scholar
CHWs - Community Health Workers
CDU-IERC- Cebu Doctors' University Institutional Ethics Review Committee
DILG- Department of the Interior and Local Government
DOH- Department of Health
DRDF- Demographic Research and Development Foundation, Inc.
GIDAs - Geographically Isolated Disadvantaged Areas
KAP- Knowledge, Attitudes, and Practices
LGUs - Local Government Unit
LHB - Local Health Board
LMICs - low- and middle-income countries
NNC - National Nutrition Council
PHC- Primary Health Care
PIDS- Philippine Institute for Development Studies
PRC- Professional Regulation Commission
PSA- Philippine Statistics Authority
UHC- Universal Health Care
UPPI- University of the Philippines Population Institute
WHO- World Health Organization

Declarations

Ethics approval and consent to participate

This study was reviewed and approved by the Cebu Doctors' University Institutional Ethics Review Committee (CDU-IERC) with protocol code 2025-066-Dajay-DemographicProfile. The certification was provided by CDU-IERC Chair, Dr. Jasmin A. Burgos. Informed consent was obtained from all participants before their involvement in the study.

Consent for publication

Not applicable

Availability of data and materials

All data generated or analyzed during this study are included in this published article and its supplementary information files.

Competing interests
The authors declare that they have no competing interests.

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Authors' contributions
This manuscript represents the work of the contributors, who independently conceptualized the study and the instrument, derived the protocol based on the study's own results, and conducted the quantitative data collection, interpreted findings, reviewed and finished the manuscript.

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References

Akintola, O., & Chikoko, G. (2016). Factors influencing motivation and job satisfaction among supervisors of community health workers in marginalized communities in South Africa. *Human Resources for Health*, *14*(1), 54. https://doi.org/10.1186/s12960-016-0151-6

Asan, D. (2019, October 29). *Challenges, gaps, and opportunities in the Philippine healthcare system as it moves towards universal healthcare.* LinkedIn. https://www.linkedin.com/pulse/challenges-gaps-opportunities-philippine-healthcare-system-donna-asan

Aytona, M.G., Politico, M.R., McManus, L., Ronquillo, K., & Okech, M. (2022). Determining staffing standards for primary care services using workload indicators of staffing needs in the Philippines. *Human Resources for Health*, *19*(Suppl. 1), 129. https://doi.org/10.1186/s12960-021-00670-4

Barangay Nutrition Program, S. Bill No. 2397, 15th Cong. (2010). https://legacy.senate.gov.ph/lisdata/99858566!.pdf

Bogaert, K., Papillon, G., Etheridge, K. W., Plescia, M., Gambatese, M., Pearsol, J. L., & Mason, A. (2022). Seven years, 3 surveys, a changed world: the state public health workforce 2014-2021. *Journal of Public Health Management and Practice*, 29(Suppl. 1), S14–S21. https://doi.org/10.1097/phh.0000000000001645

Breakthrough ACTION and RESEARCH. (2024, August). Community health worker literature review: health systems linkages.https://breakthroughactionandresearch.org/wp-content/uploads/2024/12/CHW-Literature-Review-Health-Systems-Linkages.pdf

Cananua-Labid, S. A., de Paz-Silava, S. L. M., Quilatan, J. A. M., Cabaguing, A. M., & Bajado, J. C. (2024). Awareness, availment, and satisfaction on various health services among residents

of a rural community in Samar, Philippines: A mixed methods study. *Acta Medica Philippina, 58*(23), 32–41. https://doi.org/10.47895/amp.vi0.8344

Capik, C., & Gozum, S. (2014). Psychometric Features of an Assessment Instrument with Likert and Dichotomous Response Formats. *Public Health Nursing*, *32*(1), 81–86. https://doi.org/10.1111/phn.12156

Co, P. A., Vîlcu, I., De Guzman, D., & Banzon, E. (2024). Staying the Course: reflections on the progress and challenges of the UHC law in the Philippines. *Health Systems & Reform*, *10*(3), 2397829. https://doi.org/10.1080/23288604.2024.2397829

Cruzada, R. G. (2025). Barriers to Timely Access to Specialized Healthcare in a Geographically Isolated Municipality: Evidence from Mapun, Tawi-Tawi. *ideas.repec.org*. https://ideas.repec.org/a/bcp/journl/v9y2025issue-9p6317-6322.html

Dayrit, M. M., Lagrada, L. P., Picazo, O. F., Pons, M. C., & Villaverde, M. C. (2018). The Philippines health system review. *Health Systems in Transition, 8*(2). https://iris.who.int/bitstream/handle/10665/274579/9789290226734-eng.pdf?sequence=1&isAllowed=y

Department of Health. (2020). *Human Resources for Health Master Plan 2020-2040*. https://hrh2030program.org/wp-content/uploads/2020/08/x12.1_HRH2030PH_HRHMasterplan-Full.pdf.

Department of Health. (2022). *Barangay health workers' reference manual*. https://tciurbanhealth.org/wp-content/uploads/2023/03/BHW-Reference-Manual-2022.pdf

Department of Health & Department of the Interior and Local Government. (2022). *Policy framework on leadership and governance for health (LeadGov4Health) towards a functional local health board* (Joint Administrative order No. 2022-0001).https://www.dilg.gov.ph/PDF_File/issuances/joint_circulars/dilg-joincircular-202473_80767fd57d.pdf

Department of the Interior and Local Government. (2020, February 06). *Amended guide to action against the 2019 novel coronavirus acute respiratory disease (Memorandum Circular No. 2020-023)*. https://dilg.gov.ph/PDF_File/issuances/memo_circulars/dilg-memocircular-202026_9dec468b19.pdf

Department of the Interior and Local Government. (2023, October). *Reiteration of DILG MC 2003-89 re review of job descriptions filling-up plantilla positions for midwives (Memorandum Circular No.* 2023-153 https://dilg.gov.ph/PDF_File/issuances/memo_circulars/dilg-memocircular-20231023_df8e170991.pdf

Devlin, K., Egan, K. F., & Pandit-Rajani, T. (2016). *Community health systems catalog country profile: Philippines*. Arlington, VA: Advancing Partners & Communities. https://www.scribd.com/document/471080144/apc-philippines-chs-catalog-profile-0-9

Dodd, W., Kipp, A., Nicholson, B., Lau, L. L., Little, M., Walley, J., & Wei, X. (2021). Governance of community health worker programs in a decentralized health system: A qualitative study in the Philippines. *BMC Health Services Research, 21*(1), 451. https://doi.org/10.1186/s12913-021-06452-x

Domingo, A. V., Domingo, J. F., & Flores, J. P. (2024). Socio-ecological analysis of the coping mechanisms of Filipino rural health midwives during the pandemic. *Journal of Interdisciplinary Perspectives, 2(12),* 1-1. https://www.ejournals.ph/article.php?id=24841

Dondonayos, G. V., Masukat, H. H., Ochave, M. C. II., Ulangkaya, J. L., Zacaria, L., & Faller, E. M. (2023). A review of challenges of delivering healthcare service in rural areas of the Philippines. *International Journal of Research Publication and Reviews*, *4*(1), 96–105. https://ijrpr.com/uploads/V4ISSUE1/IJRPR9315.pdf

Erfani, G., McCREADY, J., Gibson, B., Nichol, B., Unsworth, J., Jarva, E., Mikkonen, K., & Tomietto, M. (2025). Factors influencing digital health competence among healthcare

professionals: A cross-sectional study. *Applied Nursing Research*, *82*, 151922. https://doi.org/10.1016/j.apnr.2025.151922

Estepa-Garcia, K., & Carpio, L. P. D. (2022). Attitudes and perceptions of Filipino family physicians toward the Universal Health Care Act. *The Filipino Family Physician, 60*(2), 254–259. https://thepafp.org/journal/abstract/attitudes-and-perceptions-of-filipino-family-physicians-toward-the-universal-health-care-act/

Fathers have critical roles in raising boys to be gender sensitive, non-violent and caring men. (n.d.). Our Stories - Save the Children Philippines. https://www.savethechildren.org.ph/our-work/our-stories/story/fathers-role-in-raising-gender-sensitive-children/

Hartigan-Go, K. Y., Prieto, M. L., & Valenzuela, S. A. (2025). Important but neglected: A qualitative study on the lived experiences of barangay health workers in the Philippines. *Acta Medica Philippina*. https://doi.org/10.47895/amp.vi0.9589

HRH2030 Program. (2020). Human Resources for Health in 2030 in the Philippines Final Report. https://hrh2030program.org/wp-content/uploads/2021/01/USAIDs-HRH2030-Philippines-Final-Report.pdf

Ghafourifard, M. (2024). Survey Fatigue in Questionnaire based Research: The Issues and Solutions. *Journal of Caring Sciences*, *13*(4), 214–215. https://doi.org/10.34172/jcs.33287

Kawi, J., Fudolig, M., Serafica, R., Reyes, A. T., Sy, F., Leyva, E. W. A., & Evangelista, L. S. (2024). Health information sources and health-seeking behaviours of Filipinos living in medically underserved communities: Empirical quantitative research. *Nursing open, 11*(3), e2140. https://doi.org/10.1002/nop2.2140

Kiendrébéogo, J. A., De Allegri, M., & Meessen, B. (2020). Policy learning and universal health coverage in low- and middle-income countries. *Health Research Policy and Systems, 18*(1), 85. https://doi.org/10.1186/s12961-020-00591-z

Kim, T. R., Ross, J. A., & Smith, D. P. (1969). Korea: trends in four national KAP surveys, 1964-67. *Studies in Family Planning, 1*(43), 6–11. https://doi.org/10.2307/1965090

Kok, M. (2015, April 6). Improving the performance of community health workers: What can be learned from the literature? *CHW Central*. https://chwcentral.org/improving-the-performance-of-community-health-workers-what-can-be-learned-from-the-literature/

Mallari, E., Lasco, G., Sayman, D. J., Amit, A. M. L., Balabanova, D., McKee, M., Mendoza, J., Palileo-Villanueva, L., Renedo, A., Seguin, M., & Palafox, B. (2020). Connecting communities to primary care: A qualitative study on the roles, motivations and lived experiences of community health workers in the Philippines. *BMC Health Services Research, 20*, 860. https://doi.org/10.1186/s12913-020-05699-0

Meessen, B., Akhnif, E. H., Kiendrébéogo, J. A., Belghiti Alaoui, A., Bello, K., Bhattacharyya, S., Dini, H. S. F., Dkhimi, F., Dossou, J.-P., Kelley, A. G., Keugoung, B., Millimouno, T. M., Pfaffmann Zambruni, J., Rouve, M., Sieleunou, I., & van Heteren, G. (2019). Learning for universal health coverage. *BMJ Global Health*, *4*(6), e002059. https://doi.org/10.1136/bmjgh-2019-002059

Mbemba, G. I. C., Gagnon, M., & Hamelin-Brabant, L. (2016). Factors influencing recruitment and retention of healthcare workers in rural and remote areas in developed and developing countries: an overview. *Journal of Public Health in Africa, 7*(2). https://doi.org/10.4081/jphia.2016.565

Musoke, D., Ndejjo, R., Atusingwize, E., Mukama, T., Ssemugabo, C., & Gibson, L. (2019). Performance of community health workers and associated factors in a rural community in Wakiso district, Uganda. *African Health Sciences, 19*(3), 2784–2797. https://doi.org/10.4314/ahs.v19i3.55

Musoke, D., Nyashanu, M., Bugembe, H., Lubega, G. B., O'Donovan, J., Halage, A. A., & Gibson, L. (2022). Contested notions of challenges affecting Community Health Workers in low- and

middle-income countries informed by the Silences Framework. *Human Resources for Health*, *20*(1), 4. https://doi.org/10.1186/s12960-021-00701-0

O'Donovan, J., O'Donovan, C., Kuhn, I., Sachs, S. E., & Winters, N. (2018). Ongoing training of community health workers in low-income and middle-income countries: a systematic scoping review of the literature. *BMJ Open*, 8(4), e021467. https://doi.org/10.1136/bmjopen-2017-021467

Pepito, V. C. F., Loreche, A. M., Legaspi, R. S., Guinaran, R. C., Capeding, T. P. J. Z., Ong, M. M., & Dayrit, M. M. (2025). Health workforce issues and recommended practices in the implementation of Universal Health Coverage in the Philippines: a qualitative study. *Human Resources for Health*, *23*(1), 21. https://doi.org/10.1186/s12960-025-00988-3

PhilHealth. (2022, March 10). *Implementing Guidelines for the PhilHealth Konsultasyong Sulit at Tama (PhilHealth Konsulta) Package Revision 1*. (Circular 2022-0005). https://www.philhealth.gov.ph/circulars/2022/circ2022-0005.pdf

PhilHealth. (2024, May 14). *Enhancement of the PhilHealth Konsulta Benefit Package* (Circular 2024-0013). https://www.philhealth.gov.ph/circulars/2024/PC2024-0013.pdf

Philippine Institute for Development Studies. (2021). *Robust primary healthcare system key to addressing noncommunicable diseases in the Philippines: PIDS study*. https://www.pids.gov.ph/details/robust-primary-healthcare-system-key-to-addressing-noncommunicable-diseases-in-ph-pids-study

Ramos, M. A. (2020). PhilHealth investigating 20K fraud cases, chief tells senate. *Philippine Daily Inquirer.* https://newsinfo.inquirer.net/1316738/philhealth-investigating-20k-fraud-cases-chief-tells-senate

Republic Act No. 11223. (2019). *An act instituting universal health care for all Filipinos, prescribing reforms in the health care system, and appropriating funds therefore*. Official Gazette of the Republic of the Philippines. https://www.officialgazette.gov.ph/2019/02/20/republic-act-no-11223/

Republic Act No. 7160. (1991). *An act providing for a local government code of 1991.* Official Gazette of the Republic of the Philippines.https://www.officialgazette.gov.ph/1991/10/10/republic-act-no-7160/

Republic of the Philippines, House of Representatives. (2025). *House Bill No. 2475: An act providing for the Magna Carta of Barangay Health Workers* (20th Congress, 1st Session).*https://docs.congress.hrep.online/legisdocs/basic_20/HB02475.pdf*

Rumsey, M., Leong, M., Brown, D., Larui, M., Capelle, M., & Rodrigues, N. (2021). Achieving Universal Health Care in the Pacific: The need for nursing and midwifery leadership. *The Lancet Regional Health - Western Pacific*, *19*, 100340. https://doi.org/10.1016/j.lanwpc.2021.100340

Schaaf, M., Warthin, C., Freedman, L., & Topp, S. M. (2020). The community health worker as service extender, cultural broker and social change agent: a critical interpretive synthesis of roles, intent and accountability. *BMJ Global Health*, *5*(6), e002296. https://doi.org/10.1136/bmjgh-2020-002296

Shrestha, P., Afsana, K., Weerasinghe, M. C., Perry, H. B., Joshi, H., Rana, N., Memon, Z. A., Khaled, N., Malhotra, S., Bhardwaj, S., Kafle, S., Inagaki, Y., Schimdt, A., Hodgins, S., Neupane, D., & Rao, K. D. (2024). Strengthening primary health care through community health workers in South Asia. *The Lancet Regional Health - Southeast Asia*, *28*, 100463. https://doi.org/10.1016/j.lansea.2024.100463

Santhosh. (2025, September 19). *35+ Dichotomous questions and survey strategies to boost response in 2025*. CultureMonkey. https://www.culturemonkey.io/employee-engagement/dichotomous-questions/

Smithwick, J., Nance, J., Covington-Kolb, S., Rodriguez, A., & Young, M. (2023). "Community

health workers bring value and deserve to be valued too:" Key considerations in improving CHW career advancement opportunities. *Frontiers in Public Health*, *11*, 1036481. https://doi.org/10.3389/fpubh.2023.1036481

Sugarman, M. (2021, May). Assessing the Community Health Worker (CHW) workforce at the state and local level. *National Association of Community Health Workers.* https://nachw.org/wp-content/uploads/2023/06/06.04Translation-SummaryAssessingCHWWorkforce.pdf.

Szabo, S., Nove, A., Matthews, Z., Bajracharya, A., Dhillon, I., Singh, D. R., Saares, A., & Campbell, J. (2020). Health workforce demography: a framework to improve understanding of the health workforce and support achievement of the Sustainable Development Goals. *Human Resources for Health, 18*(1). https://doi.org/10.1186/s12960-020-0445-6

Taburnal, M. V. M. (2020). Knowledge and competence of barangay health workers (BHWs). *International Journal of Innovation, Creativity and* Change, 14(1), 1301–1320. https://www.ijicc.net/images/Vol_14/Iss_1/14160_Taburnal_2020_E_R.pdf

Tejero, L. M. S., Leyva, E. W. A., Abad, P. J. B., Montorio, D., & Santos, M. L. (2021). Production, recruitment, and retention of health workers in rural areas in the Philippines. *Acta Medica Philippina*. https://doi.org/10.47895/amp.vi0.1510

Tulenko, K., Møgedal, S., Afzal, M. M., Frymus, D., Oshin, A., Pate, M., Quain, E., Pinel, A., Wynd, S., & Zodpey, S. (2013). Community health workers for universal health-care coverage: from fragmentation to synergy. *Bulletin of the World Health Organization, 91*(11), 847–852. https://doi.org/10.2471/blt.13.118745

Tung, F. L. N., Yan, V. C. M., Tai, W. L. Y., Chen, J. H., Chung, J. W., & Wong, T. K. S. (2016). Nurses' knowledge of universal health coverage for inclusive and sustainable elderly care services. *Revista Latino-Americana De Enfermagem*, *24*(0), e2670. https://doi.org/10.1590/1518-8345.1152.2670

World Health Organization. (2019). *Primary health care towards universal health coverage* (Seventy-second World Health Assembly). https://apps.who.int/gb/ebwha/pdf_files/WHA72/A72_12-en.pdf