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Benchmarking in extension practices: Basis for a framework of an extension program

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Abstract

This study examined the extension practices of selected Allied Health Institutes (AHIs) in Batangas and benchmark institutions in CALABARZON to develop a sustainable extension program framework. Using a convergent parallel mixed-method design, data were collected from 300 respondents and supplemented by qualitative insights from institutional representatives and community beneficiaries. The study sought to identify best practices for implementing community extension programs and the sustainability mechanisms that contribute to the success and longevity of these initiatives. Findings revealed that extension practices related to the focus of concern, resource utilization, and stakeholder partnerships were implemented most of the time. At the same time, faculty training and development activities were conducted less frequently. Benchmark institutions demonstrated stronger policy integration, organizational structures, and institutional support systems, whereas Batangas AHIs exhibited greater adaptability and responsiveness to community needs. The results further indicated positive program outcomes in terms of improved healthcare access, enhanced community engagement, increased health literacy, economic benefits, and effective program monitoring and evaluation. Based on these findings, a sustainable extension program framework was developed, highlighting collaboration, capacity building, resource mobilization, strategic planning, monitoring and evaluation, and policy support as key elements for strengthening the sustainability and impact of community extension programs.

Keywords: *Allied Health Institutes; benchmarks; community health; extension practices; program sustainability*

INTRODUCTION

Higher education institutions (HEIs) in the Philippines are mandated by the Commission on Higher Education (CHED) to perform three core functions: instruction, research, and extension. Extension translates academic knowledge, professional expertise, and institutional resources into community-based programs that address societal needs and promote sustainable development. In health sciences, extension provides AHIs opportunities to advance health education, disease prevention, community empowerment, and healthcare access. However, extension remains among the least prioritized HEI functions, with many initiatives characterized by short-term outreach, limited institutional integration, weak monitoring, and inadequate impact evaluation (Mojares, 2015). These concerns are particularly significant in healthcare, where inequitable access, health workforce disparities, low health literacy, and the growing disease burden require

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sustained and community-responsive interventions. A situational analysis of AHIs in Batangas indicated variations in extension practices concerning program focus, institutional resources, stakeholder partnerships, and faculty participation. Although health-related outreach activities are implemented, differences in institutional support, faculty development, partnership structures, and sustainability mechanisms remain evident. This is consistent with Philippine studies identifying institutional support, stakeholder collaboration, faculty engagement, leadership, and capacity building as critical to the sustainability and transformative potential of extension programs (Jaron & Malaga, 2025; Angco, 2026). Strong partnerships with local government units and community organizations have likewise been associated with program continuity and responsiveness to community needs (Llenares & Deocaris, 2018; Dela Cruz et al., 2023).

Despite these findings, limited research has systematically examined extension practices among AHIs in the Philippines through benchmarking, particularly in relation to sustainability and community impact. Benchmarking provides a mechanism for identifying, comparing, and adapting effective practices to support institutional improvement (Tasopoulou & Tsiotras, 2017). This study therefore addressed this gap by examining extension practices of selected AHIs in Batangas against benchmark institutions in CALABARZON. Anchored on the extension framework of Mojares and Baconguis (2015), the study focused on four dimensions: focus of concern, school resources, partnerships with community organizations, and faculty training and preparation. Benchmarking these dimensions provided a basis for identifying strengths, gaps, and potentially transferable practices that could inform a more sustainable and community-responsive extension program framework for AHIs in Batangas.

The study used an Input–Process–Output (IPO) framework. Inputs comprised the extension practices of selected Batangas AHIs and CALABARZON benchmark institutions in terms of focus of concern, school resources, partnerships, faculty training and preparation, and sustainability. The process involved benchmarking these practices and assessing recipients' perceptions of program impact, leading to the development of a sustainable extension program framework for an Allied Health Institute.

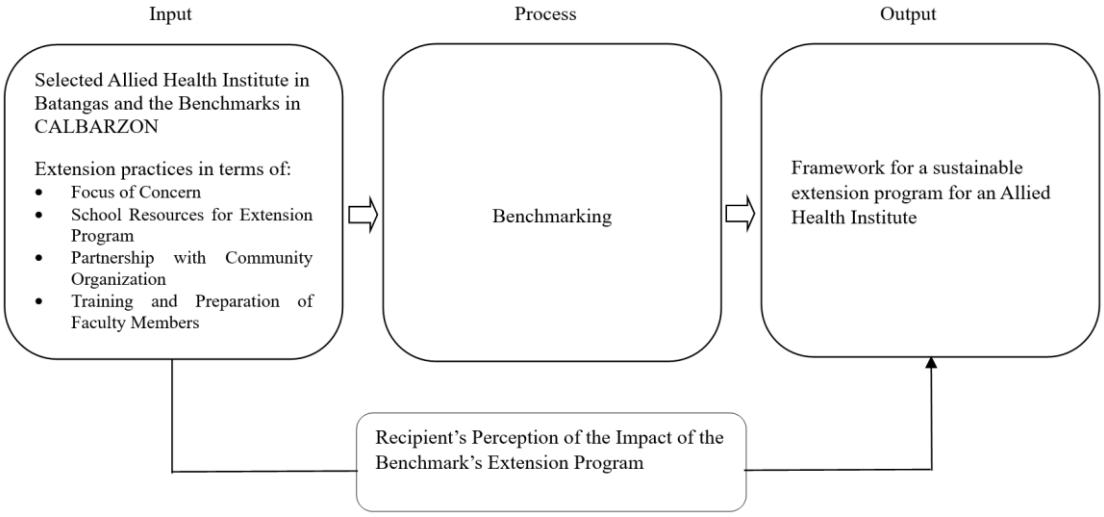

Figure 1. Research Paradigm of the Study

The study aimed to identify best extension practices and sustainability mechanisms of selected AHIs in Batangas and benchmark institutions in CALABARZON to develop a sustainable extension framework. Specifically, it sought to: (1) determine extension activities in terms of focus of concern, school resources, partnerships, and faculty training and preparation;

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(2) assess program sustainability; (3) identify best practices across the two contexts; (4) evaluate the impact of benchmark programs on community beneficiaries; and (5) develop a sustainable extension framework based on the findings.

METHOD

The study employed a convergent parallel mixed-methods design following Creswell and Plano Clark (2017), with quantitative and qualitative data collected concurrently, analyzed separately, and integrated during interpretation. A preliminary situational analysis reviewed institutional documents, extension reports, and relevant literature to establish existing extension practices and sustainability initiatives among selected Allied Health Institutes (AHIs) in Batangas and benchmark institutions in CALABARZON.

A researcher-developed questionnaire covering four dimensions of extension practices—focus of concern, school resources, partnerships with community organizations, and faculty training and preparation—was subjected to expert validation and pilot testing for content validity and reliability. Data were collected from 300 extension officers, deans, program chairs, faculty members, and student affairs personnel through validated questionnaires administered in print or electronic form. Semi-structured interviews with selected administrators and beneficiaries provided qualitative insights into program sustainability and impact.

Ethical clearance was obtained from the De La Salle University–Dasmariñas Ethics Review Committee (DERC-2022-23_10-014T2). Participants provided informed consent and were informed of the study's purpose, procedures, voluntary nature of participation, and right to withdraw. Confidentiality and anonymity were maintained throughout the study. Interview recordings and transcripts were password-protected, securely stored, and deleted after analysis.

Quantitative data were analyzed using frequency, percentage, weighted mean, and standard deviation, while qualitative data were analyzed through In Vivo coding to identify significant statements and emerging themes. Findings were integrated through triangulation by comparing quantitative and qualitative results to identify convergent and divergent findings, corroborate patterns, and provide deeper contextual understanding of extension practices and sustainability mechanisms. The integrated evidence was then used to identify key strengths, gaps, and best practices that informed the development of a contextualized and sustainable extension framework for AHIs.

RESULTS AND DISCUSSION

This section presents the quantitative and qualitative findings of the study.

Quantitative Results

The responses of the 300 respondents were interpreted using the scale presented in Table 1.

Table 1. Interpretation of Mean Score

Interpretation	Range
Always (A)	4.21 – 5.0
Most of the Time (MT)	3.41 – 4.20
Occasionally (O)	2.61 – 3.40
Seldom (S)	1.81 – 2.60
Not Done (ND)	1.00 – 1.80

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Extension Practices of Batangas AHIs and Benchmark Institutions in Terms of Focus of Concern

Table 2 shows that AHIs in Batangas implemented extension practices in terms of focus of concern "most of the time" (M = 3.54). Alignment with institutional vision, mission, goals, and objectives was highest (M = 3.71), while the presence of a functional extension unit was lowest (M = 3.40), indicating strong institutional alignment but a need to strengthen organizational support. Benchmark institutions in CALABARZON likewise demonstrated high involvement (M = 3.63), with responsiveness to urgent community concerns rated highest (M = 3.94) and multidisciplinary or multisectoral approaches lowest (M = 3.34), suggesting opportunities to strengthen collaborative approaches.

Table 2. Respondents' Activities in the Extension Practices of Selected AHIs in Batangas and Benchmarks in terms of Focus of Concern

SNA	Items Focus of Concern	Mean	BATAN-GAS AHI Respon-dents SD	VI	Mean	BENCH-MARK Respon-dents SD	VI
1	Extension services are provided by the institution in response to the urgent needs and concerns of the community it serves.	3.70	0.626	MT	3.94	0.729	MT
2	The extension services take into consideration local, regional, and national development thrusts.	3.41	0.747	MT	3.38	0.896	O
3	The services extended are reflective of the institution's vision, mission, goals, and objectives.	3.71	0.877	MT	3.75	0.746	MT
4	There is an extension unit that coordinates a functional extension program.	3.40	0.859	O	3.93	0.651	MT
5	The extension program is sustainable.	3.54	0.825	MT	3.84	0.748	MT
6	A multi-disciplinary or multi-sectoral approach is encouraged in conducting the various extension activities.	3.48	0.964	MT	3.34	1.011	O
7	It is designed for students to experience a different way of learning by exposing them to real-world situations.	3.66	0.925	MT	3.59	0.907	MT
8	The extension program builds individual and community capacity by providing new knowledge and skills.	3.45	0.892	MT	3.4	0.886	O
9	It is a cooperative extension that provides skills essential for solving home and community problems	3.46	0.645	MT	3.73	0.754	MT
10	It provides new technology transfer or innovation that helps improve lives and the community.	3.55	0.669	MT	3.38	0.971	MT
	Weighted Mean	**3.54**		**MT**	**3.63**		**MT**

Extension Practices of Batangas AHIs and the Benchmarks in CALABARZON in Terms of School Resources for Extension Program

Table 3 shows that Batangas AHIs demonstrated "most of the time" involvement in extension practices related to School Resources (M = 3.64), with stakeholder participation highest (M = 3.92) and the Five-Year Community Extension Development Program lowest (M = 3.43), indicating gaps in long-term planning. Benchmark institutions also rated "most of the time" (M = 3.54), with budget allocation highest (M = 3.76) and supportive institutional policies lowest (M = 3.35), highlighting the need to strengthen governance mechanisms.

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Table 3. Respondents' Activities in the Extension Practices of Selected AHIs in Batangas and the Benchmarks in Terms of School Resources

SNB	Items School Resources	Mean	BATAN-GAS AHI Respon-dents SD	VI	Mean	BENCH-MARK Respon-dents SD	VI
1	A community needs assessment is being done before the allotment of the budget for extension	3.69	0.657	MT	3.74	0.605	MT
2	The extension program is provided with a definite budget to ensure its sustainability.	3.89	0.741	MT	3.76	0.688	MT
3	Stakeholders, administration, faculty, and students are involved in the planning, implementation, monitoring, and evaluation of extension activities.	3.92	0.859	MT	3.38	0.756	O
4	The extension officers and staff are credentialled and capable of running the extension office.	3.63	1.006	MT	3.52	0.624	MT
5	The school provides appropriate policies that can support the delivery of the extension program.	3.60	0.959	MT	3.35	0.751	O
6	The school leaders have a clear and common mandate for the extension of the institution.	3.52	1.130	MT	3.37	0.862	O
7	A Five-Year Community Extension development program is available, documented, monitored, and evaluated.	3.43	0.881	MT	3.39	0.923	O
8	The School's top management recognizes and supports the timeline of activities of the extension program.	3.57	0.771	MT	3.67	0.647	MT
9	The school provides a recognition program for the citations and awards given by external, established, and reputable bodies or organizations for the extension program.	3.48	0.752	MT	3.65	0.67	MT
	Weighted Mean	**3.64**		**MT**	**3.54**		**MT**

Extension Practices of Batangas AHIs and the Benchmarks in CALABARZON in Terms of Partnership with Community Organizations

Table 4 shows that Batangas AHIs implemented partnership activities "most of the time" (M = 3.47), with knowledge and information networks highest (M = 3.56) and coordinated planning with outreach agencies lowest (M = 3.34), indicating gaps in inter-agency coordination. Benchmark institutions rated higher (M = 3.67), with strategic resource and venue linkages highest (M = 3.98) and stakeholder awareness programs lowest (M = 3.35).

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Table 4. Respondents' Activities in the Extension Practices of Selected AHIs in Batangas and the Benchmarks in Terms of Partnership with Community Organizations

SNC	Items Partnership with Community Organizations	Mean	BATAN-GAS AHI Respon-dents SD	VI	Mean	BENCH-MARK Respon-dents SD	VI
1	Partnership with the government is evident in the implementation of the community extension program.	3.55	0.717	MT	3.83	0.714	MT
2	Representatives from the target community should be invited to participate in the planning, implementation, monitoring, and evaluation of activities, as well as the sourcing of funds and other resources.	3.49	0.741	MT	3.89	0.815	MT
3	There is a Community/Industry–academic partnership that brought together the synergistic needs and resources to make the extension program successful.	3.48	0.806	MT	3.79	0.726	MT
4	Careful planning and coordination with other community outreach agencies were done to prevent duplication of the program, which will result in irrelevance of initiatives.	3.34	0.977	MT	3.78	0.722	MT
5	Awareness programs on all initiatives are in place to attract donations and support from stakeholders.	3.48	0.920	MT	3.35	0.625	O
6	The institution collaborates with other institutions, alumni, and other agencies for professional aid and development.	3.47	0.972	MT	3.88	0.762	MT
7	The extension office has an alliance with other community extension offices of other institutions and is open to joint project collaboration.	3.53	0.892	MT	3.37	0.682	O
8	The institution works with local business industries and community organizations on programs to enhance student skills or cater scholarship grants.	3.48	0.972	MT	3.40	0.578	O
9	Strategic linkages are in place for an exchange of resources and venues for the common good of students, faculty, and other stakeholders	3.43	0.927	MT	3.98	0.709	MT
10	The institution is a member or a part of a network of knowledge and information report for the good of the community.	3.56	0.945	MT	3.40	0.526	O
	Weighted Mean	**3.47**		**MT**	**3.67**		**MT**

Extension Practices of Batangas AHIs and the Benchmarks in CALABARZON in Terms of Training and Preparation of Faculty Members

Table 5 shows that Batangas AHIs demonstrated training and preparation practices at a "most of the time" level (M = 3.47), with integration into organizational development highest (M = 3.60) and human and spiritual formation lowest (M = 3.25). Benchmark institutions had a lower "occasionally" rating (M = 3.40), with organizational development integration highest (M = 3.52) and role clarity and expectations lowest (M = 3.11). Overall, faculty development and role institutionalization remain areas for improvement in both contexts.

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Table 5. Respondents' Activities in the Extension Practices of Selected AHIs in Batangas and the Benchmarks in terms of Training and Preparation of Faculty Members

SND	Items Training and Preparation of Faculty Members	Mean	BATANGAS-AHI Respondents SD	VI	Mean	BENCHMARK Respondents SD	VI
1	The institution conducts training workshops to enhance skills in facilitating the community extension program.	3.29	0.454	O	3.40	0.626	O
2	The institution organizes human and spiritual formation for stakeholders to awaken their sense of love and concern for others.	3.25	0.432	O	3.45	0.499	MT
3	There is a Community/Industry–academic partnership that brought together the synergistic needs and resources to make the extension program successful.	3.48	0.806	MT	3.52	0.501	MT
4	Careful planning and coordination with other community outreach agencies were done to prevent duplication of the program, which would result in irrelevance of initiatives.	3.34	0.977	MT	3.48	0.501	MT
5	Awareness programs on all initiatives are in place to attract donations and support from stakeholders.	3.48	0.920	MT	3.50	0.501	MT
6	The institution collaborates with other institutions, alumni, and other agencies for professional aid and development.	3.47	0.972	MT	3.18	1.002	O
7	The extension office has an alliance with other community extension offices of other institutions and is open to joint project collaboration.	3.53	0.892	MT	3.11	0.669	O
8	The institution works with local business industries and community organizations on programs to enhance student skills or offer scholarship grants.	3.48	0.972	MT	3.41	0.616	MT
9	Strategic linkages are in place for an exchange of resources and venues for the common good of students, faculty, and other stakeholders.	3.43	0.927	MT	3.41	0.493	MT
10	The institution is a member or a part of a network of knowledge and information reporting for the good of the community.	3.56	0.945	MT	3.11	0.493	O
Weighted Mean		**3.47**		**MT**	**3.40**		**MT**

Qualitative Results

The qualitative analysis identified seven interrelated themes underlying the sustainability of extension programs among benchmark institutions in CALABARZON and selected AHIs in Batangas: (1) partnership development and collaboration; (2) community engagement; (3) capacity building and empowerment; (4) sustainability planning and resource mobilization; (5) strategic program design; (6) monitoring, evaluation, and continuous improvement; and (7) advocacy, policy engagement, and social change.

Theme 1: Partnership Development and Collaboration

Respondents emphasized that sustaining community extension requires partnerships with local communities, government agencies, health facilities, and NGOs. Significant statements included "We focused on building strong partnerships with local communities, government agencies, and

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NGOs" and "We collaborate with them to coordinate services, share resources, and reach more people in need." These findings indicate that partnerships support resource sharing, service coordination, broader reach, and program continuity, consistent with George et al. (2015) and Pilar and Utleg (2023), who highlighted external linkages and community relationships as important to sustaining extension initiatives.

Theme 2: Community Engagement

Community engagement emerged as a central sustainability mechanism. Respondents emphasized the importance of involving community members in planning, implementation, monitoring, and evaluation. A CALABARZON participant stated, "We don't just deliver services—we ask the community what they really need." This participatory orientation promotes ownership and ensures that programs respond to locally identified priorities, consistent with Islam et al. (2020). Faculty, students, barangay leaders, and grassroots organizations were also identified as important participants. Community leaders were described as "trusted voices" capable of mobilizing residents and improving participation. This finding aligns with O'Mara-Eves et al. (2015), who emphasized the contribution of trusted local leaders to outreach and inclusivity. Feedback mechanisms further allow community perspectives to guide program improvement.

Theme 3: Capacity Building and Empowerment

Capacity building and empowerment are essential strategies for sustaining extension programs in Batangas AHIs and CALABARZON benchmark institutions. Respondents emphasized health education, skills training, mentorship, and experiential learning to promote self-reliance. As participants shared, "We provide workshops, seminars, and educational materials to empower individuals," highlighting efforts to develop health-literate communities, consistent with Nutbeam (2018). Training and leadership development of local stakeholders were also identified as key sustainability mechanisms. Respondents noted, "We do not just deliver services; we ensure the community is capable of continuing them," reflecting the importance of decentralized skills and leadership in sustaining programs (George et al., 2015). Additionally, curriculum integration and service-learning, along with disaster preparedness and mental health training, further strengthen institutional-community capacity and long-term program continuity.

Theme 4: Sustainability Planning and Resource Mobilization

Sustainability planning and resource mobilization emerged as critical to program continuity, emphasizing diversified funding, institutional support, partnerships, and long-term planning. A CALABARZON benchmark respondent stated, "We don't rely on one funder; we apply for government grants, partner with NGOs, and work with private companies through CSR," while Batangas AHI respondents emphasized financial and institutional support from LGUs, donors, and businesses. These findings show that partnerships provide not only resources but also legitimacy and community trust, consistent with Lennox et al. (2021) and Saysi (2024), who identified resource diversification, adaptive planning, leadership support, and collaborative networks as key sustainability factors.

Theme 5: Program Design and Strategic Framework

Findings from Batangas AHIs and CALABARZON benchmark institutions emphasized the importance of clear direction, strategic planning, and responsive implementation in community extension programs. Batangas AHI respondents highlighted **"**Identifying our goals and objectives" and **"**Develop a strategic framework," underscoring the need for clear outcomes aligned with community needs (Guignona et al., 2021). Meanwhile, CALABARZON benchmark respondents cited "setting up mobile health clinics" and "partnering with local healthcare providers," reflecting flexible and context-responsive implementation supported by co-design and stakeholder engagement (Brand et al., 2021; Abbonizio et al., 2025). Overall, sustainable

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extension requires clear objectives, strategic planning, stakeholder participation, and adaptability to community needs

Theme 6: Monitoring, Evaluation, and Continuous Improvement

Monitoring and evaluation (M&E) emerged as essential to program sustainability, emphasizing evidence-based practice, data-driven decision-making, and continuous feedback. A CALABARZON benchmark respondent stated, "We prioritize the use of evidence-based practices and data-driven decision-making," while a Batangas AHI respondent noted, "By keeping an eye on these metrics and adjusting our strategies as needed, we can ensure that our program remains strong, effective, and impactful for years to come." These findings highlight the value of combining quantitative and qualitative indicators and align with Dela Torre (2026), De Mesa (2025), and Fournier et al. (2019), who emphasized evidence-based, participatory, and continuous evaluation for program improvement and sustainability.

Theme 7: Advocacy, Policy Engagement, and Social Change

Advocacy and policy engagement emerged as essential to sustaining extension programs and promoting long-term social change. A CALABARZON benchmark respondent stated, "We advocate for policy changes and sustainable funding mechanisms," while Batangas AHI respondents highlighted advocacy on disaster resilience, climate adaptation, food security, healthcare access, and health promotion. These findings underscore the importance of embedding extension initiatives in policy and governance structures through evidence-based advocacy, stakeholder collaboration, and community participation, consistent with Cousins et al. (2025) and Cairney and Oliver (2017).

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Comparative Analysis of Extension Practices and Sustainability Strategies between Benchmark Institutions and Selected Allied Health Institutes in Batangas

Table 6. Summarizes the comparative findings across the four dimensions of extension practice.

Table 6. Comparison between the Extension practices of Batangas AHI and CALABARZON Benchmarks

Dimension	CALABARZON Benchmark Institutions	Batangas Allied Health Institutes (AHI)	Key Insights
1. Focus of Concern	Higher mean (M = 3.63). Stronger alignment with institutional goals. Higher responsiveness to community needs (M = 3.94) and presence of coordinating extension unit (M = 3.93).	Slightly lower mean (M = 3.54). Strong in multidisciplinary approaches (M = 3.48) and technology transfer (M = 3.55). More grassroots-oriented and adaptable but less formalized.	CALABARZON = systematized, scalable, policy-driven. Batangas = flexible, community-immersed, context-driven.
2. School Resources	Mean = 3.54. High in budget allocation (M = 3.76) and administrative support (M = 3.67). Lower in stakeholder participation (M = 3.38). Resource sharing model across departments.	Mean = 3.64. Higher in definite budget allocation (M = 3.89) and stakeholder involvement (M = 3.92). Stronger in mobilizing tangible resources and human capital.	Batangas = stronger resource allocation, agile mobilization. CALABARZON = structured support but gaps in stakeholder engagement.
3. Partnership Community Organization	Mean = 3.67. Higher in community participation (M = 3.89), government partnerships (M = 3.83), and strategic linkages (M = 3.98). Strong formalized, multi-sectoral, policy-driven partnerships.	Mean = 3.47. Stronger in grassroots partnerships with LGUs (M = 3.55) and knowledge networks (M = 3.56). Lower in industry–academic linkages (M = 3.38). Partnerships are informal, trust-based, and locally driven.	CALABARZON = formal, structured, multi-sectoral. Batangas = grassroots, relational, locally contextualized.
4. Training and Preparation	Mean = 3.40. Higher in stakeholder engagement (M = 3.48) and collaboration (M = 3.50). Gaps in supervision of training plans (M = 3.11) and role clarity (M = 3.18).	Mean = 3.39. Higher in integration into institutional development (M = 3.60) and supervision of training plans (M = 3.47). Moderate in role clarity (M = 3.37).	CALABARZON = more collaborative and externally oriented approach to faculty training, emphasizing stakeholder engagement and partnership-building Batangas = exhibits a more institutionalized approach, integrating extension training into organizational development plans and providing stronger supervision of training activities.

Table 7 shows the comparative matrix of sustainability approaches between CALABARZON benchmark institutes and the Batangas AHIs based on the seven common emergent themes.

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Table 7. Comparative Matrix of Sustainability Approaches of CALABARZON Benchmark Institutions vs. Batangas Allied Health Institutes (AHI)

Dimension	CALABARZON Benchmark Institutions	Batangas Allied Health Institutes (AHI)
1. 1. Partnership Development and Collaboration	Formalized, multi-sectoral partnerships with MOUs and joint monitoring; includes LGUs, DOH, private hospitals, and NGOs.	Formalized, multi-sectoral partnerships with MOUs, and joint monitoring; includes LGUs, DOH, private hospitals, and NGOs.
Significant Statement	CALABARZON: "We collaborate with them to coordinate services, share resources, and reach more people in need."	Batangas: "Local government provides venues, permits, and sometimes financial assistance."
	CALABARZON: "Our MOUs with LGUs ensure accountability and resource-sharing."	Batangas: "Partnerships with civic groups make mobilization faster during emergencies."
2. Community Engagement	Structured engagement aligned with barangay/municipal development plans.	Structured engagement aligned with barangay/municipal development plans.
Significant Statement	CALABARZON: "Involving community members in program planning, implementation, and evaluation."	Batangas: "Involve community members in planning and decision-making."
	CALABARZON: "We organize community assemblies to solicit feedback.	Batangas: "We work closely with community members to ensure our efforts are community-led."
	" CALABARZON: "Community partners help facilitate access to populations in need of healthcare services.	Batangas: "Youth and PWD groups are part of the planning committees to make sure no one is left behind."
3. Capacity Building And Empowerment	Certified training aligned with national/professional board standards; formal skill accreditation for employability	Tailored, practical skills training based on immediate community needs; informal but context-specific.
Significant Statement	CALABARZON: "We provide training and professional development opportunities."	Batangas: "We mentor students and health workers to sustain services even after the project ends."
	CALABARZON: "We train community health volunteers to serve as peer educators."	Batangas: "Capacity-building sessions are designed for immediate problems, like dengue outbreaks or disaster response."
	CALABARZON: "Every training is certified and aligned with DOH and CHED standards."	Batangas: "We give training that fits the community's needs—conducted training workshops to educate community members."
4. Sustainability Planning & Resource Mobilization	Written sustainability plan with diversified funding streams (government grants, CSR, research projects).	Relies on community resource pooling, in-kind donations, and volunteerism for program continuity.
Significant Statement	CALABARZON: "We develop comprehensive sustainability plans that outline long-term goals."	Batangas: "Seeking out funding through grants, donations, and partnerships."
	CALABARZON: "We make sure our projects are tied to provincial funding and CSR partnerships."	Batangas: "Volunteerism sustains our projects when funds are limited."
	CALABARZON: "Our sustainability plan is regularly updated and linked to the regional health agenda."	Batangas: "Barangays contribute in-kind—venues, meals, transportation—for activities."

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5. Strategic Program Design	Designs follow provincial strategic health plans; sustainability indicators are embedded from inception.	Flexible and adaptive program design that evolves with emerging needs and crises.
Significant Statement	CALABARZON: "Our program design follows the provincial health strategic plan and integrates sustainability indicators from the start."	Batangas: "We adjust the program as new needs emerge, especially during crises."
	CALABARZON: "We align our goals with provincial and national health priorities."	Batangas: "Our design is flexible so we can quickly respond to disasters like typhoons."
	CALABARZON: "Indicators are embedded early to ensure continuity."	Batangas: "Programs are reshaped with feedback from barangay assemblies and frontline workers."
6. Monitoring Evaluation & Continuous Improvement	Systematic, data-driven M&E with baseline studies and indicators.	Informal participatory evaluation through direct community feedback and real-time adjustments.
Significant Statement	CALABARZON: "We prioritize the use of evidence-based practices and data-driven decision-making."	Batangas: "We monitor our results, listen to feedback… adjust our strategies."
	CALABARZON: "We conduct baseline studies and track health outcomes regularly."	Batangas: "Every activity ends with a feedback session so that improvements are based on the community's voices."
	CALABARZON: "Every project has an evaluation component embedded."	Batangas: "Monitoring is ongoing, with feedback from students, parents, and barangay officials."
7. Advocacy Policy Engagement & Social Change	Policy engagement that leads to institutionalized environmental health efforts for sustainability.	
Significant Statement	CALABARZON: "We've been advocating for policies that promote environmental stewardship and resilience."	Batangas: "Engaged policymakers through lobbying and media campaigns to enforce and create environmental policies."
	CALABARZON: "Our work influenced the integration of environmental health in the municipal development plan."	Batangas: "We build alliances with local officials to ensure our health projects are adopted into barangay ordinances."
	CALABARZON: "We collaborate with policymakers to sustain our advocacy at the institutional level."	Batangas: "Our advocacy is people-driven—we mobilize communities first, then bring the issue to the policymakers."

Impact of the Benchmarks' Extension Program on the Recipient

The qualitative analysis of responses from program recipients of benchmark institutions in CALABARZON identified five interrelated themes: healthcare access and equity, program effectiveness and monitoring, community engagement, economic benefits, and health literacy.

Theme 1: Healthcare Access and Equity

Healthcare access and equity emerged as significant outcomes, particularly for underserved populations facing financial and geographic barriers. One participant noted that the program "provides comprehensive health screenings and consultations, bringing essential medical services directly to our doorsteps," supporting improved healthcare accessibility (Cu et al., 2021; George et al., 2015). Community involvement likewise strengthened sustainability, with one respondent emphasizing that "high levels of community involvement … indicated strong community ownership and commitment" to sustaining health promotion efforts (O'Mara-Eves et al., 2015; Chin, 2021).

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Theme 2: Program Effectiveness and Monitoring

Program effectiveness and monitoring emerged as essential to successful extension programs, with respondents emphasizing outcome-based monitoring, patient satisfaction, and evidence-based evaluation. One participant noted that the program "looked at patient outcomes after the medical mission," reflecting data-informed accountability (Sinshaw, 2024). Community participation and economic benefits were likewise evident, as one respondent stated that beneficiaries "save[d] money on medical treatment … received high-quality care at no cost," supporting the value of participatory and cost-effective community interventions (Kabote et al., 2021; Dion et al., 2025).

Theme 3: Community Engagement

Community engagement emerged as a key factor in the relevance, effectiveness, and sustainability of extension programs. One participant emphasized that "community engagement … is essential for the long-term success of our program," highlighting the importance of active participation in sustaining initiatives. This finding aligns with studies emphasizing community relationships, meaningful partnerships, and shared participation as foundations for social accountability and sustainable outcomes (Pilar & Utleg, 2023; Marjadi et al., 2022). Overall, active community engagement strengthens accountability, responsiveness, and long-term program sustainability.

Theme 4: Economic Benefit

Economic benefits emerged as a significant outcome of community extension programs. Respondents emphasized that preventive healthcare, medical missions, free consultations, and medicines reduced out-of-pocket expenses and supported early detection and disease prevention. One participant noted that health check-ups and workshops helped "prevent the need for emergency care or the worsening of illnesses." Another respondent also described the financial relief associated with free medicines and healthcare services, with one participant stating that the program helped them "save money on medical treatment." These findings suggest that community-based preventive interventions provide both health and economic value by reducing immediate healthcare costs and potentially preventing more costly utilization (Brown et al., 2019; Adame et al., 2022).

Theme 5: Health Literacy

Health literacy emerged as a key outcome of the extension programs, defined as the ability to access, understand, and apply health information for informed decision-making (Nutbeam, 2020). Respondents reported increased awareness of healthy lifestyles, disease prevention, medication safety, and mental health. One participant noted, "Small changes in our daily diet could have powerful effects on well-being," while another emphasized learning basic first aid and hygiene practices. Findings also show improved understanding of preventive healthcare and safer health practices, particularly in medication use. As one respondent stated, "The community was educated about the proper use of medications and common misconceptions about pharmaceutical drugs." These outcomes align with evidence that health literacy programs enhance preventive behaviors and healthcare utilization (Paasche-Orlow & Wolf, 2019) and improve understanding of medications and healthy practices (Ran et al., 2022).

Integration of Findings

The integration of the quantitative and qualitative findings provided a comprehensive understanding of the extension practices and sustainability strategies of Allied Health Institutes (AHIs) in Batangas and benchmark institutions in CALABARZON. The findings served as the basis for developing the proposed Allied Health Institute Extension Program Framework, presented in Table 8. The framework identifies the key components needed to establish relevant, effective, and sustainable extension programs.

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Components of the Proposed Framework

- Vision and Mission. The vision and mission provide the overall direction of the extension program. They should emphasize academic relevance, community needs, health improvement, and evidence-based practice to promote program sustainability (Saysi, 2024).
- Goals. The goals define the broad outcomes that the extension program intends to achieve. These should address health service delivery, workforce development, and community empowerment to contribute to stronger health systems (Nancarrow et al., 2021).
- Objectives. The objectives specify the expected short- and long-term results of the program. Short-term objectives should focus on community needs assessment, evidence-based planning, and skills development, while long-term objectives should emphasize institutionalization and sustainability (WHO, 2020).
- Core Pillars. The framework is anchored on four core pillars: focus of concern, school resources, partnerships, and training and preparation of faculty members. These pillars provide the essential areas for planning and implementing effective and sustainable extension programs (Lehmann et al., 2015).
- Sustainability Foundations. The sustainability foundation encompasses partnership development and collaboration, community engagement, capacity building and empowerment, sustainability planning and resource mobilization, strategic program design, monitoring and evaluation, and advocacy and policy engagement to support the continuity and long-term viability of extension initiatives, supporting the framework of Moreland-Russel et al. (2024).
- Impact Indicators. The framework identifies indicators related to healthcare access and equity, program effectiveness, economic benefits, community engagement, and health education to assess the contribution and outcomes of extension programs, consistent with D'Lima et al. (2022) structure-process-outcome model.
- Strategic Components. Strategic components include governance, curriculum development, faculty development, partnerships, monitoring and evaluation, and sustainability planning to strengthen institutional support and program accountability, as discussed by Michener et al. (2016).
- Operational Flow. The framework follows a continuous process of needs assessment, strategic planning, implementation, monitoring and evaluation, and feedback and adaptation, providing a systematic approach to program improvement reflecting the Plan–Do–Study–Act model of Taylor et al. (2014).
- Priority Areas. The framework prioritizes health across the lifespan, environmental protection, health ethics, health program assessment, and health sciences education and administration in responding to community and institutional needs, aligned with the integrated health approach of Whitmee et al. (2015).
- Additional Considerations. The framework incorporates interprofessional collaboration, knowledge translation, technology integration, community engagement, and cultural competence to enhance the relevance, responsiveness, and sustainability of extension programs, consistent with WHO (2016).

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Table 8. Proposed Framework of Extension Program for an Allied Health Institute

Allied Health Institute Extension Program Framework	
Section	**Details**
1. Vision & Mission Alignment	**Vision:** Improve community health outcomes through sustainable, collaborative, and evidence-based extension services.
	Mission: Leverage allied health expertise to deliver accessible, relevant, and impactful programs that empower communities and strengthen the health system.
2. Goals	1. Enhance community health and well-being.
	2. Strengthen health systems and services.
	3. Promote the sustainability of health initiatives.
	4. Advance allied health education and practice.
	5. Foster partnerships and collaborative action.
3. Objectives	**Short- to Medium-Term (1–3 years):** Annual community needs assessments, evidence-based programs, capacity-building workshops, formal partnerships, integration into student programs.
	Long-Term (4–6 years): Institutionalize partnerships, achieve policy adoption, secure sustainable funding, demonstrate measurable health improvements, and publish best practices.
4. Core Pillars	**A. Focus of Concern:** Alignment with VMGO, response to health needs, student real-world exposure, sustainability, and functional extension unit.
	B. School Resources: Needs-based budget allocation, defined roles, supportive policies, strategic plan, recognition programs.
	C. Partnership: LGU and agency linkages, collaborative planning and funding, awareness programs, resource exchanges, membership in networks.
	D. Training Preparation: Skills workshops, human and spiritual formation, train-the-trainer, training plan with supervision.
5. Sustainability Foundation	I. Partnership Development & Collaboration.
	II. Community Engagement.
	III. Capacity Building & Empowerment.
	IV. Sustainability Planning & Resource Mobilization.
	V. Strategic Program Design.
	VI. Monitoring, Evaluation & Continuous Improvement.
	VII. Advocacy, Policy Engagement & Social Change.
6. Impact Indicators	**Healthcare Access & Equity:** Improved access for rural residents.
	Program Effectiveness and Monitoring: Better disease management, recovery, and caregiver confidence.
	Economic Benefits: Free services, reduced expenses, and preventive care.
	Community Engagement: Increased trust and participation.
	Health Education: Higher awareness and application of healthy practices.

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7. Strategic Components	**Governance:** Governing board with academic, clinical, and community reps.
	Curriculum Development: Align with PRC, WHO, CHED, TESDA; tech integration.
	Faculty Development: CPD, mentorship, industry exposure.
	Partnerships: Formal MOUs with stakeholders.
	M&E: KPIs for academic, research, and community outcomes.
	Sustainability Planning: Diversified funding, annual reviews, adaptive strategies.
8. Operational Flow	1. Needs Assessment → 2. Strategic Planning → 3. Implementation → 4. Monitoring & Evaluation → 5. Feedback & Adaptation.
9. Priority Areas	Health Across the Lifespan; Environmental Protection; Health Ethics; Health Programs Assessment; Health Sciences Education & Administration.
10. Additional Considerations	Interprofessional collaboration, knowledge translation, technology integration, community engagement, cultural competence.

Conclusion

The study concludes that allied health extension programs in Batangas and CALABARZON demonstrate moderate strengths in community engagement and resource mobilization but continue to face challenges in faculty training and sustainability planning. CALABARZON benchmark institutions exhibit more structured and policy-oriented practices, while Batangas AHIs demonstrate adaptive and community-responsive approaches. Integrating formal sustainability mechanisms with participatory and flexible strategies offers the most effective path toward long-term program sustainability.

Overall, sustainable allied health extension programs require institutional alignment, faculty preparedness, strong partnerships, continuous evaluation, and policy engagement. Combining evidence-based frameworks with local adaptability enables AHIs to deliver accessible, equitable, and sustainable community health services.

Recommendations

Based on the findings of the study, Allied Health Institutes (AHIs) should adopt a comprehensive and institutionally embedded approach to strengthening the sustainability of their extension programs. Institutional sustainability should be reinforced by integrating evidence-based practice, community responsiveness, and sustainability principles into the institution's vision, mission, goals, policies, and extension plans, with programs aligned with local health and development priorities. Adequate financial, human, and technological resources should be strategically allocated to support program implementation, complemented by sustained faculty capacity development through structured training, mentorship, continuing professional development, and appropriate recognition and incentive mechanisms. Strategic partnerships with local government units, the Department of Health, non-government organizations, private sector organizations, and alumni should be formalized through appropriate agreements and collaborative planning to promote multisectoral participation, shared accountability, and community ownership. Furthermore, AHIs should institutionalize sustainability planning, resource mobilization, and systematic monitoring and evaluation mechanisms to ensure program continuity and effectiveness, with continuous quality improvement approaches such as the Plan–Do–Study–Act (PDSA) cycle incorporated into program management. The strategic integration of digital technologies, including telehealth, digital learning platforms, and data management systems,

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should likewise be strengthened to enhance accessibility, efficiency, and responsiveness to community needs, while active participation in health policy advocacy and governance should be pursued to support institutionalization and long-term policy commitment. Finally, further research is recommended to empirically validate, refine, and assess the applicability of the proposed framework through longitudinal studies, outcome and impact assessments, and implementation across diverse allied health institutions and community contexts.

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