

# Leadership Development Program for Public Health Nurses: An Evaluation of Workplace Application

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## ABSTRACT

**Background and Objective.** Public health nurses (PHNs) are vital in the local implementation of the provisions of the Universal Healthcare (UHC) Act of 2019. However, they need adequate competencies in health systems approach to successfully implement the provisions of the law. In response to this, a leadership development course for public health nurses (LDC-PHN), anchored on the building blocks of health systems, was developed and implemented. This paper aims to describe the extent to which training participants have applied the competencies acquired from the LDC-PHN as manifested by the workplace application of their capstone projects.

**Methods.** Following Kirkpatrick's Model of Evaluation, we used a multi-method study design to evaluate the extent of the participants' workplace application of acquired competencies. Sources of data included the Workplace Application Plan (WAP) accomplished by each participant, a questionnaire to determine the perceived implementation status of the participants' capstone project, interviews, and focus group discussions (FGDs) conducted with selected participants and their supervisors, and observation visits. Data were collected from May to December 2022. Data from the semi-structured interviews and FGDs were analyzed through content analysis, while the participants' perceived status of their capstone project implementation was summarized as frequencies.

**Results.** Majority of the participants (61.9%) reported partial implementation of their capstone project while 16.77% reported full implementation. Capstone project implementation was facilitated by the support received from their supervisors and local chief executives. Barriers identified included the demands of the COVID-19 pandemic and the challenges imposed by the events before and after the 2022 Philippine National elections. Major themes emerged from the interviews conducted among participants and their supervisors. The workplace application of the training program outcomes, based on participants' perspectives, yielded increased capacity to lead and innovate, improved ability to advocate for capstone project implementation, transferability of acquired skill sets, and improved population

outcomes. From supervisors' perspectives, workplace application of training program outcomes include increased ability of PHNs to deliver health services, and visible enhancement of leadership and supervision skills among PHNs.

**Conclusion.** Given ample support and opportunities, and despite the barriers and challenges they faced, LDC-PHN participants, in general, utilized and applied the competencies they gained from the course in their actual work setting. Course graduates participated in health systems strengthening at various capacities by acting upon their capstone projects that addressed UHC challenges within their particular work settings.

**Keywords:** community health nurses, nurse's role, leadership, public health nurses, universal health care



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## INTRODUCTION

The Universal Health Care (UHC) Act of 2019 was instrumental in ensuring that Filipinos have appropriate and adequate access to quality health services, and they are accorded with financial risk protection against catastrophic health expenditures.<sup>1</sup> To materialize this goal, the UHC Act provided health system-wide reforms including the delineation between individual-based and population-based services and the reorganization of health service delivery through the creation of healthcare provider networks.<sup>1</sup> At the core of these reforms are health human resources including public health nurses (PHNs) who are expected to steer the local implementation of the law in their respective provinces, cities, and municipalities.<sup>2</sup> Under the UHC Act, PHNs are expected to assume leadership roles not only in health service delivery but also in health regulation, governance, financing, health human resources, and information systems.<sup>1,3</sup> Given these, it is imperative that PHNs are equipped with the necessary competencies in health systems approach to successfully adopt and implement UHC reforms within their jurisdictions.

In response to this need, UP College of Nursing developed a continuing education-cum-leadership development training program to strengthen the capacities of Filipino PHNs in responding to the health system challenges posed by the transition to UHC. The training program, also known as the Leadership Development Course for Public Health Nurses (LDC-PHN), has trained 183 PHNs across four (4) cohorts implemented thus far from 2019 to 2022.<sup>4</sup> The development and implementation of the training program were extensively discussed by Tomanan et al.<sup>4</sup> Briefly, course development was guided by the six building blocks of the health system (i.e., service delivery, governance, financing, regulation, human resource, information system) with program outcomes developed to align with these building blocks (Table 1). It is in this way that LDC-PHN is innovative and different from other training programs designed for public health workers which were mostly focused on the implementation of specific health programs or training on the local use and adaptation of health technology.<sup>5-9</sup>

Participants of LDC-PHN were selected by the Department of Health (DOH) through its regional offices in close collaboration with local government units (LGUs). The DOH provided full scholarships to selected participants. The initial implementation of the training in 2019 was done in-person, while the succeeding cohorts in 2020 to 2022 were held online due to the COVID-19 pandemic. Post-pandemic, the training program was reviewed and shifted to a blended learning format with both online and in-person modes of instruction. To complete the requirements for training, the participants were required to submit a capstone project that addresses a health system issue within their jurisdictions. While the participants chose a single health system issue focusing on a particular health system building

**Table 1.** LDC-PHN Program Outcomes

<b>Program Outcome 1</b>	Direct the provision of safe and quality health program and nursing services, and the implementation and evaluation of health programs based on assessed need of the community informed by epidemiological and research findings with emphasis on disease prevention and health promotion;
<b>Program Outcome 2</b>	Initiate collaboration and partnership with relevant stakeholders and agencies to ensure efficient and effective delivery of public health services;
<b>Program Outcome 3</b>	Develop relevant health policies that address priority health problems based on assessed need of the community;
<b>Program Outcome 4</b>	Manage public health programs and services including social health insurance programs to ensure equitable and universal access to health care;
<b>Program Outcome 5</b>	Ensure continuous quality improvement of health services and facilities to enhance efficiency and effectiveness of health service delivery;
<b>Program Outcome 6</b>	Supervise health human resource ensuring adequate skill mix and competencies of health workers; and
<b>Program Outcome 7</b>	Utilize high-quality health information to ensure efficient and effective health service delivery

block, they were required to analyze how the issue impacts the other building blocks. The focus of their capstone project was identified and agreed upon with their direct supervisor, usually the city or municipal health officer. This is to ensure that the capstone project reflects an actual health system problem that is important for the LGU to address while also providing an opportunity for the participant to apply the competencies gained from the training. It is thus expected for participants to implement their capstone projects.

Previously, Tomanan et al. reported the evaluation results of the development of and the implementation of the four cohorts of the LDC-PHN program.<sup>4</sup> However, it is important to determine the more sustained effect of the training program on the work performance of the participants themselves as this would provide important insights into the further development and possible scale-up of the course. One way to do this is to examine how participants have used the competencies gained from the training in their work setting and whether there were improvements in their job performance. Thus, this paper aims to describe the extent to which training participants have applied the competencies acquired from the LDC-PHN as manifested by the workplace application of their capstone projects. As a secondary aim, this paper also describes the facilitators, barriers, and challenges in the implementation of the capstone projects.

## Theoretical Framework

The Kirkpatrick Model of Evaluation is used as the framework for evaluation in this paper.<sup>10</sup> This model provides

a simple and pragmatic approach to measure the learning outcomes and impact of a given training.<sup>11</sup> Briefly, the model employs a four-level hierarchy in terms of program results and each level is significantly in contact with the next level.<sup>12,13</sup> These levels include reaction (level 1), learning (level 2), behavior (level 3), and results (level 4). Reaction and learning criteria are considered internal as they focus on the direct circumstances and events within a training program whereas behavior and results criteria are external as they focus on the changes that occur after and outside the program.<sup>14</sup> Specifically, the behavior criteria (level 3) refer to the extent of workplace application of the acquired competencies from the training. As mentioned above, the results of the process evaluation of the LDC-PHN which corresponded to the reaction (level 1) and learning (level 2) criteria were previously reported by Tomanan et al.<sup>4</sup> In this paper, we report the results of the behavior criteria (level 3). We considered the participants' extent of implementation of their capstone project as reflective of the behavioral criteria based on Kirkpatrick's model because the projects were based on actual health system issues that are within the priority action areas of their respective LGUs.

## MATERIALS AND METHODS

We used a multi-method evaluation study design to describe the extent of the participants' application of their acquired competencies in their work setting. This design entails using various data collection methods of a single research paradigm to comprehensively analyze the extent of the participants' application of acquired competencies.<sup>15-17</sup> Primarily, self-report data through interviews, FGDs, and questionnaires were utilized to obtain in-depth information on the participants' capstone project implementation.

The data presented in this paper were collected as part of the monitoring and evaluation (M&E) activities of the previous four cohorts of the LDC-PHN. Sources of data included the Workplace Application Plan (WAP) complete with means of verification accomplished by each participant, a questionnaire to determine the current implementation status of the participants' capstone project, actual observations of participants' work settings, and interviews and focus group discussions (FGDs) conducted with selected participants and their supervisors. Since this project is part of the routine monitoring and evaluation of an existing training program, this was deemed to be exempted from ethics review by the University of the Philippines Manila Research Ethics Board. Nevertheless, informed consent was obtained from all participants of the interviews, focus group discussions, and the questionnaire. Participants were informed that their recorded responses may be used for documentation and future research. As promised, only study data from existing LDC-PHN documents were included in this study.

The authors of this study were involved in the development, implementation, and evaluation of LDC-PHN.

Their participation came in varying degrees of involvement and based on their role assignment. On one hand, faculty authors engaged in the training program and this study to fulfill their obligation for public service and research, respectively. On the other hand, non-faculty authors are young professionals who found work opportunities in LDC-PHN. Notably, all authors are registered nurses who desire to further the nursing profession through their own contribution.

## Monitoring and Evaluation of the LDC-PHN

From May to December 2022, monitoring and evaluation (M&E) activities were conducted across the four cohorts of the LDC-PHN. The goal of the M&E is to describe the extent of capstone project implementation by the course participants. Several M&E activities were conducted through a combination of online and face-to-face evaluation strategies.

First, we reviewed the accomplished WAP of each of the participants. WAP is a document that aims to demonstrate the intention of the learner to apply their acquired knowledge and skills from a learning and development (L&D) intervention in their work setting. It consists of specific and targeted milestones that the participants accomplish to determine the extent of capstone project implementation. The WAP was introduced by DOH through Administrative Order No. 2021-0007, consisting of four elements which detail the specific activities that exhibit the resulting skill, output, or outcome from the application of a competency.

Second, we requested all 183 trained participants of the LDC-PHN to answer a questionnaire that asked about perceived implementation status of their capstone projects including the challenges, facilitators, and barriers of implementation. The questionnaire, constructed using Google Forms, is in English and consisted of both open and close-ended questions. It had four sections each collecting relevant data from LDC course completers. The first section collected relevant work-related data such as the participant's place of work, position/designation, DOH CHD assignment, and LDC batch graduated. The second section assessed the participant's perceived completion status of their capstone project whether it is fully, partially, or not implemented. The third section explored the facilitators and barriers leading to the perceived status of the capstone project. Lastly, the fourth section collected the participants' schedule of availability for the course mini graduation/conference. The questionnaire was sent to the participants through email and responses were solicited from July 12 to 22, 2022.

Third, site visits and observations were conducted with select participants to validate capstone project implementation status. Observation of the participants' actual work setting was important because it not only provides physical evidence but also projects continuity and commitment of course completers in strengthening their respective localities through external evidence.<sup>18</sup> It also allowed evaluators to apprehend what has been reported in their WAP as achievements. Considering budgetary limitations, only a total of 11 sites

were visited. These sites were, nevertheless, selected through maximum variation such that there was a good mix of sites where capstone projects were fully or partially implemented. This is to ensure that the data gathered will be informationally representative of the other sites.<sup>19</sup> Of the 11 sites, four were located in Luzon, three in Visayas, and four in Mindanao. Due to resource constraints, natural disasters, and limitations imposed by the COVID-19 pandemic, five of the 11 sites were only visited “virtually” through an online platform. Relevant evidence of capstone project accomplishments was presented by the participants during these visits. The project team observed the actual implementation, and in some cases, the outcome of implementation of the capstone projects. Observations were guided by the evaluation criteria and standards and the means of verification they indicated in their capstone projects and Workplace Application Plans, respectively. Examples of means of verification that were reviewed included facility-based reports and supervisory logbooks. In “virtual site visits,” the project team relied on photos and other documentation submitted and presented by the participants.

During these site visits, the participants and their immediate supervisors were interviewed about the extent of accomplishment of the formers’ capstone implementation, the barriers and facilitators experienced during implementation, and their thoughts and insights on the sustainability of the leadership development course. This provided an in-depth exploration of interviewees’ thoughts and perspectives.<sup>20,21</sup> Participants and their supervisors were interviewed separately, and each interview lasted for approximately one hour each.

Aside from the actual observation and site visits to the 11 sites mentioned above, other participants who were not selected for the site visits were invited to a regional conference-cum-caravan style presentation of their capstone project status. This facilitated the collection of monitoring and evaluation data from participants who were not selected for site visits. Sites were clustered and centers were identified according to the proximity and accessibility to course graduates. These regional conferences were held in Baguio City (for Luzon-based participants), Zamboanga City (for Mindanao-based participants), and supposedly in Iloilo City (for Visayas-based participants), but this was later shifted to Manila City due to COVID-19 restrictions imposed at the time of the conference. It was during these conferences when FGDs with participants were conducted to identify barriers and facilitators of capstone project implementation. The FGDs allowed participants to reflect together on their capstone project barriers and facilitators, and it also ensured efficient data collection given time constraints.<sup>20</sup> A total of seven FGDs were conducted with participants ranging from six to fourteen for each FGD session.

### Data Analysis

Quantitative data on the status of capstone project implementation were summarized descriptively using

frequencies. Qualitative data from the semi-structured interviews and FGDs were analyzed through content analysis. Specifically, we used conventional content analysis, which is characterized as being data-driven, and was guided by the steps recommended by Hsieh & Shannon.<sup>22</sup> Briefly, the data from the interview and FGD transcripts were read iteratively to identify key thoughts that capture the extent to which training participants have applied the competencies acquired from the LDC-PHN as manifested by the workplace application of their capstone projects. Since we were also interested in identifying the facilitators and barriers in capstone project implementation, we also identified texts relevant to these. Thus, the identified codes reflect the participants’ application of acquired training competencies including facilitators and barriers in capstone project implementation.<sup>22</sup> The codes were generated inductively by reading and rereading the 28 transcripts from the interviews and the FGDs.<sup>22</sup> Codes that were similar conceptually were grouped together to form the categories.<sup>23</sup>

We ensured trustworthiness of the data analysis through the following steps. Credibility was ensured by engaging three independent coders with at least one of the coders not involved in the actual interview or FGD. The coders were part of the training program team who also conducted the monitoring and evaluation.<sup>23</sup> Disagreements which were mainly about the naming of the category were resolved through consensus. Dependability of the data was ensured by using uniform interview and FGD guides including questions for probing across all the interviews and FGDs done.<sup>23</sup> However, transferability may be limited to those who participated in the monitoring and evaluation and whose data were part of the analysis.<sup>23</sup>

## RESULTS

### Overview of the Training Participants, Sites, and Supervisors

Table 2 summarizes the sociodemographic profile of the participants of the four cohorts of the LDC-PHN. In general, the majority of course participants are female, between 30 to 39 years old, and have a bachelor’s degree in nursing as the highest educational attainment. Most (43.7%) have a total of 6 to 10 years of public health nursing experience and the majority (65.6%) are employed by their respective LGUs. Majority (69%) also did not have prior training in public health nursing.

In terms of the 11 sites visited, one was classified as a first-class municipality, two third-class municipalities, two fourth-class municipalities, two city health offices, three provincial health offices, and one regional health office. From these sites, there were 12 public health nurses and 11 supervisors who were interviewed. One site had two graduates of the course accounting for the seeming mismatch between the number of PHNs to supervisors. The 12 PHNs are working in various capacities. Two of them as NDPs,

**Table 2.** Demographic Profile of PHN Participants from Batch 1 to 4 (N=183)

Demographic Categories	No.	%
<b>Gender</b>		
Male	54	29.50
Female	129	70.50
<b>Age</b>		
Below 29	20	10.93
30-39	120	65.57
40-49	30	16.39
Above 50	13	7.10
<b>Educational Attainment</b>		
Bachelor's Degree	137	74.86
Master's Degree	45	24.59
Doctorate Degree	1	0.55
<b>Nursing Experience (years)</b>		
0-5	23	12.57
6-10	84	45.90
11-15	47	25.68
Above 16	29	15.85
<b>Public Health Nursing Experience (years)</b>		
1-5	62	33.88
6-10	80	43.72
11-15	24	13.11
Above 16	17	9.29
<b>Previous public health nursing training</b>		
With training	56	30.60
Without training	127	69.40
<b>Employment</b>		
LGU-Hired	120	65.57
DOH NDP	56	30.60
CHD Nurse Program Manager	7	3.83

Source: Tomanan et al.<sup>4</sup>

four as PHNs assigned at the municipal level, three at the provincial health office, two at city health offices, and one working at the regional health office. A total of 11 supervisors were interviewed and are composed of two nurse supervisors, three municipal health officers, two city health officers, two provincial health officers, one division chief, and one chief of technical. Regarding the capstone project implementation status, five PHNs reported to have fully implemented their proposals while six were partially implemented. One PHN reported that their capstone project was approved by local supervisors but is pending implementation.

### Status of Capstone Project Implementation

Based on participants' submissions, the capstone projects are commonly focused on health service delivery addressing non-communicable diseases (n=27), communicable diseases (n=35), and maternal and child health issues (n=55). A few capstone projects (n=38) focused on locally important conditions such as filariasis and schistosomiasis and other health system issues including health information systems and telehealth implementation (Tables 3 and 4). In general, their capstone project revolved around the health programs they manage, personal advocacy, or the current position they hold. For example, participants who are part of the Nurse Deployment Program (NDP) and some *plantilla* PHNs were tasked by their supervisors and local chief executives to focus on the health programs that were assigned to them while PHNs at the provincial and regional levels focused on topics at the managerial and administrative level.

A questionnaire was administered in July 2022 to determine the status of the participants' capstone project implementation. Among the 183 LDC graduates, only 155 (84.7%) responded to the questionnaire. Table 3 summarizes the capstone project implementation status of the training participants. Across the four cohorts, the majority (61.9%) reported partial implementation of their capstone project. Only 16.77% reported full implementation of their capstone project.

### Facilitators in Capstone Project Implementation

Both participants and supervisors have expressed ideas on the facilitators that enabled the former to implement their capstone projects. In general, the participants expressed the importance of receiving support from their supervisors (either the municipal health officer or nurse supervisor), their local chief executive (LCE), colleagues including *barangay* health workers, and other stakeholders in implementing their respective capstone projects.

*"Yung mga tao sa paligid po. Kung wala po sila, di magiging successful yung mga iniisip na activities or strategies. Gaya ng BHW [barangay health workers], staff sa health [facilities], sa LGU." [The planned activities and strategies would not be successful without the people working around me, including the barangay health workers and other staff of the health facilities and LGU.] – Participant B6*

**Table 3.** Classification of Capstone Projects of LDC-PHN Participants across Four Cohorts according to Public Health Issue and Status of Completion

Cohort	N	Non-communicable Diseases, n (%)			Communicable Diseases, n (%)			Maternal and Child Health, n (%)			Others, n (%)		
		FI	PI	NI	FI	PI	NI	FI	PI	NI	FI	PI	NI
Batch 1	36	2 (5.56)	3 (8.33)	2 (5.56)	2 (5.56)	7 (19.44)	0 (0.00)	2 (5.56)	7 (19.44)	2 (5.56)	1 (2.78)	6 (16.67)	2 (5.56)
Batch 2	43	0 (0.00)	5 (11.63)	1 (2.33)	4 (9.30)	7 (16.28)	1 (2.33)	4 (9.30)	8 (18.60)	6 (13.95)	2 (4.65)	4 (9.30)	1 (2.33)
Batch 3	24	0 (0.00)	0 (0.00)	1 (4.17)	5 (20.83)	2 (8.33)	1 (4.17)	2 (8.33)	5 (20.83)	2 (8.33)	0 (0.00)	4 (16.67)	2 (8.33)
Batch 4	52	1 (1.92)	8 (15.38)	4 (7.69)	1 (1.92)	5 (9.62)	0 (0.00)	0 (0.00)	12 (23.08)	5 (9.62)	1 (1.92)	13 (25.00)	2 (3.85)
<b>Total</b>	155	3 (1.94)	16 (10.32)	8 (5.16)	12 (7.74)	21 (13.55)	2 (1.29)	8 (5.16)	32 (20.65)	15 (9.68)	4 (2.58)	27 (17.42)	7 (4.52)

FI = Fully Implemented; PI = Partially Implemented; NI = Not Implemented

**Table 4.** Classification of Capstone Projects of LDC-PHN Participants across the Four Cohorts Based on the Main Health System Building Block Addressed in the Project

Cohort	N	Health Service Delivery n (%)	Health Regulation n (%)	Health Financing n (%)	Health Governance n (%)	Human Resources for Health n (%)	Health Information Systems n (%)
Batch 1	36	29 (80.56)	2 (5.56)	0 (0.00)	1 (2.78)	1 (2.78)	3 (8.33)
Batch 2	43	27 (62.79)	8 (18.60)	2 (4.65)	1 (2.33)	3 (6.98)	2 (4.65)
Batch 3	24	14 (58.33)	3 (12.50)	0 (0.00)	2 (8.33)	3 (12.5)	2 (8.33)
Batch 4	52	33 (63.46)	7 (13.46)	1 (1.92)	0 (0.00)	8 (15.38)	3 (5.77)
Total	155	103 (66.45)	20 (12.90)	3 (1.94)	4 (2.58)	15 (9.68)	10 (6.45)

This finding was corroborated by the supervisors as they also emphasized how they supported the participants in implementing the capstone project. The support came in various forms including reducing workload and providing adequate time and opportunity for capstone project implementation.

*“Sa tingin ko naman na-support siya dahil ang kailangan lang din na ano niya ay time sa pag-focus sa study niya. Pag ganun naman binibigyan siya ng leeway na habang ongoing ay bigyan niyo na mas magaan na load, kunin niyo muna. Pagtapos naman back to normal na.” [I think they were supported because they were given the time they needed to focus on their study. They were given leeway such as provision of lighter workload and delegation of other tasks. After her study, her work is back to normal again.] – Supervisor C2*

Other participants, particularly those from the provincial and regional health offices, leveraged on their existing relationships with colleagues or other agencies as they implemented their capstone projects.

*“So nag-lobby po ako sa City Health Officer namin and then sa partner agency po namin, ang POPCOM [Commission on Population]. Lucky lang kami kasi po very supportive ang POPCOM. So lahat po ng mga awareness about health services sa adolescents, sila po ang nag-te-take over. Sumasama lang po kami sa kanila. And then ang ginawa po nila, sa pag-lobby ko po sa kanila, nag-add po sila ng additional batch sa peer educators para marami po sila.” [I lobbied to our City Health Office and partner agency, POPCOM (Commission on Population). We were lucky that POPCOM was very supportive. They are taking over programs on adolescent’s awareness on health services. After lobbying, they also added an additional batch for peer educators to increase their numbers.] – Participant F5*

Resources available in the local government such as additional human resources, budgetary allocation, and other materials have also been identified as crucial facilitators in implementing the capstone projects. A few PHNs have also partnered with local and international non-government organizations (NGOs) to access resources.

*“Malaking tulong si Mayor, MHO, at DOH for providing necessary budget and resource persons for the implementation of the capstone.” [Our municipal mayor, Municipal Health Officer and the Department of Health were a huge help in providing the necessary budget and resource persons for the capstone implementation.] – Participant B7*

*“Ang next target namin ay yung traditional birth attendants. We are doing [partnership] with NGO. Lahat ng mga traditional birth attendants sa city ng [redacted]. Pupuntahan ng NGO yung every barangay. May 4 barangay in the afternoon. Hanapan ng traditional birth attendant kasi sila yung partner namin sa community. Knowing ang [redacted] is a highland. Tulungan kami kasi sa kanila, di namin masasabi na lahat nanganganak sa facility because merong culture kasi. Yun ang dapat puntahan namin...Ngayon nag-start, may 4 barangays ako napuntahan kung sino manghihilot, mangtatawas. Hindi lang traditional birth attendants, pati yung manghihilot. Kasi nagpapahilot sila. Baka ma-premature.” [Our next target is the traditional birth attendants. We are partnering with an NGO (non-government organization). The NGO will look for all traditional birth attendants in [redacted] since they are our partners in the community. They will visit every barangay, with 4 barangays in the afternoon. Since our area is a highland, we will help because we cannot say that every pregnant woman gives birth in the facility due to their culture. Now that we started, I was able to visit 4 barangays and ask not only the traditional birth attendants but also other traditional healers, such as manghihilot<sup>†</sup> and mangtatawas<sup>\*</sup>, because pregnant women may have premature birth.] – Participant J4*

\*Mangtatawas refers to a person who performs rituals to identify the cause of one's illness or disease.

†Manghihilot refers to a person who performs manual manipulation techniques to treat musculoskeletal conditions including sprains, fractures, and other conditions that cause physical change in the body such as childbirth.

Competencies learned from LDC-PHN such as developing policy briefs, lobbying and advocating for projects to stakeholders, and health systems assessment were likewise mentioned by FGD participants as important facilitators.

*“Nakatulong yung capstone and yung course for lobbying to the stakeholders na dapat as simple as presenting them the policy brief na maintindihan kung ano yung objective of the program. Malaking tulong na yon for them to engage and help. Kasi may politicians tayo dyan na nilalagay lang dyan just to be politicians. It’s good na mapaintindi natin sa kanila kung ano yung pwede nilang itulong sa programs. Kasi kung hindi sila tutulong sa atin, wala lang din.” [The capstone and course on lobbying to stakeholders helped me in presenting the policy brief for them to understand the program objectives. It’s a big help for them to engage and help. Since there are politicians who are in position just to be a politician, it’s good to make them understand what they can do to help our programs. Nothing will happen if they will not help us.] – Participant J7*

### Challenges and Barriers to Capstone Project Implementation

Both participants and supervisors have acknowledged that the COVID-19 pandemic has greatly affected the implementation of capstone projects as the former, who were themselves PHNs in their respective localities, were mobilized to respond to the pandemic. PHNs were tapped to manage quarantine facilities, perform COVID-19 vaccinations, administer screening of persons exposed to COVID-19, and facilitate referral of patients to different facilities and treatment of persons with COVID-19.

*“Obviously, the pandemic affected everything. Funds were allocated solely to COVID. Meetings were not frequent, so delays were evident. What was planned before the pandemic na scrap entirely tapos may devolution pang pumatong samin.” [Obviously, the pandemic affected everything. Funds were allocated solely to COVID. Meetings were not frequent, so delays were evident. What was planned before the pandemic was scrapped entirely and then there was the addition of devolution.] – Supervisor G3*

For a few supervisors, on the other hand, the pandemic provided an opportunity for their PHNs to implement their capstone projects. Supervisors saw how PHNs applied what they learned from the course particularly in helping strengthen local response to the COVID-19 pandemic.

*“Actually marami [siyang] ideas na nabigay sa interventions. Halos siya nagbibigay ng input. Dami niya gusto garwin. Kabit yung sa mga radio siya talaga... Laki ng role ni PHN. Yung sa staff kasi namin dito, multitasking talaga. ‘Di lang nakatuon sa maternal si PHN. HEPO din siya. Kasali din siya sa COVID task force... Asset siya ng CHO.” [Actually, she gave us*

*multiple ideas for interventions and provided most of the input on what she wants to do. She plays a huge role, even in the radio [campaign]. Because our staff here often multitask, she does not only focus on maternal health, but she is also the HEPO (Health Education and Promotion Officer) and is part of the COVID Task Force. She is an asset in the City Health Office.] – Supervisor K4*

The 2022 Philippine elections have also affected the implementation of the capstone projects. Before the elections, campaign activities for local executive government positions competed with the participants’ implementation of their capstone projects. The post-election period had another impact on their capstone projects. After elections, some PHNs felt lucky to have their projects endorsed by either re-elected or new local chief executives. However, there were others whose capstone project implementation were affected because of change in governance. The shift in priority and political agenda made it difficult for a few PHNs to implement their projects. PHNs in this kind of situation felt the lack of political and institutional support that they needed.

*“Yung mga BHW [barangay health workers] na supposed to be itetrain for health information dissemination activities, natanggal sila for political reasons. Sa health financing, we already lobbied kaya lang di na-push through kasi iba yung administration.” [The barangay health workers who are supposed to be trained for health information dissemination activities were laid off due to political reasons. For health financing, we already lobbied but it did not push through due to the change in administration.] – Participant J7*

Similarly, some supervisors cited that there were local chief executives (LCEs) such as city and municipal mayors who did not prioritize the implementation of the proposed capstone projects. Because of this, a few supervisors verbalized the value of having local leaders who are trained in health leadership and governance.

*“Number one Sir yung hindi priority ng LCE ang health. Yun talaga. Kabit anong plan pa namin, pag hindi talaga priority ng LCE yung health, wala tayong magagawa. So actually na-explain ko sa kanila, before pa, ilang beses na na-presenta doon, wala pa ring aksyon kasi hindi nila priority yung health.” [Number one is the non-prioritization of health by our LCE (Local Chief Executive). No matter how much we plan, if health is not the priority of our LCE, we cannot do anything. Actually I have already explained to them before and presented my project, but there was no action because health is not their priority.] – Supervisor G4*

*“Si mayor kasi ngayon also underwent MLGP [Municipal Leadership and Governance Program]... He now has a better perspective of health. Kabit siya*

*aminado na before his first term, first 9 years, hindi ganun ka-open ang kanyang pananaw in terms of health. Pag health, si Doc bahala. Yung typical na mindset. But now, realizing that the nature of health is intersectoral, kailangan labat ng stakeholders should have a say or have an input. Whenever I lobby, parang 'Mayor kailangan po ng ganito o kailangan si ganitong stakeholder', he now gets bakit kailangan si DSWD [Department of Social Welfare and Development] nandyan. So mabilis mag-lobby." [Our mayor also underwent MLGP and now has a better perspective of health. He admitted that before his first term, in the first 9 years, he did not have an open perspective on health. He has the typical mindset that if it's about health, the Doctor is in charge. But now, he realized that the nature of health is intersectoral and all stakeholders should have a say or an input. Whenever I lobby that we need these specific stakeholders, he now gets it why they should be present. So it's easier to lobby now.] – Supervisor G2*

Several barriers cited by both participants and supervisors were related to the inadequacy, retention, and work environment concerns of the participants. Issues cited by some of the PHN participants included 1) inadequacy of human resources at the grassroots and municipal level, 2) excessive workload due to task shifting especially during the COVID-19 pandemic, 3) challenges in project continuity especially for PHNs who were reassigned to other areas, 4) or in the case of PHNs under the Nurse Deployment Program (NDP), non-renewal of employment contract, and 5) difficulties in collaboration attributed to negative attitudes of organic health facility staff towards PHNs working in their area under the NDP.

*"Yung isa po sa magiging challenge namin kasi sa devolution transition, baka mawala na po yung mga NDPs at RHMs [rural health midwives] na augmentation po ng DOH. Malaking kawalan po sa amin ang health personnel. Yung workforce po namin kulang." [One of the challenges we have is due to the devolution transition. We may lose our NDPs and RHMs who were augmented by DOH. It is a big loss for us, to have an inadequate health workforce.] – Participant F2*

*"We don't really have full authority [as NDP] to make a decision. Kapag wala po yung organic, we have to wait for them. Kung ano po yung say nila, that will be the final decision... Kapag hindi po nakaka-comply yung mga regular, ang napupukol po ay kami and kami rin po yung dapat mag-comply." [We don't really have full authority as NDPs to make a decision. We have to wait for the organic staff to arrive at a final decision. When the regular employees are unable to comply with their work, we are the ones who get criticized and will be asked to comply.] – Participant J2*

*"Kulang pa kasi pa rin kami sa trainings. Hindi kasi labat ng staff namin trained sa BEmONC. Dito sa amin sa RHU, 3 lang ang trained although marunong yan sila labat." [We are still lacking in training. Not all staff were trained in BEmONC. In our RHU, only 3 were trained although all of them know the procedure.] – Supervisor K4*

Both participants and supervisors have also mentioned as a challenge the knowledge, attitudes, and practices of indigenous cultural communities that affected the delivery of health services. Conversely, few PHNs have also expressed frustration over colleagues who refuse to provide health services invoking their personal belief systems.

*"Tsaka yung culture mahirap din. Dito at our level, ginagawa namin yung trabaho namin. Yung mga nakasanayan, mahirap baguhin. Kasi meron silang paniniwala na they don't want to deliver here sa center kasi may issue sa privacy. Parang meron silang trust issues lalo na sa Christian na health workers. Merong parang discrimination sa part namin na health workers. Yung trust ba kulang." [At our level, we are doing our job. With the culture they are used to, it is hard to change. They do not want to deliver their baby in the center due to their perceived issue of privacy. They have trust issues especially on Christian health workers. There seems to be discrimination on our part. Their trust (in us) is inadequate.] – Supervisor K2*

*"May dialogue din kami sa mga spiritual leaders. Kasi dun sila mostly naniniwala talaga. Kung ano sabihin ng religious leaders sa isang lugar, pinapaniwalaan talaga. Lalo na yung sa malalayo." [We have dialogue with the spiritual leaders because most of the people believe in them. They believe what the religious leaders tell them, especially those who reside in far flung areas.] – Supervisor K4*

### **Workplace Application of the Training Program: Participants' Perspectives**

After analyzing the interview and FGD transcripts with the participants together with data coming from site visit observations, we have identified the following categories pertaining to the workplace application of the training outcomes from the participants' perspectives: increased capacity of participants to lead and innovate, improved ability to advocate for capstone implementation, transferability of acquired skill sets, and improved population outcomes.

#### **Increased capacity to lead and innovate**

Participants reported that their attendance to the training program enabled them to better lead their co-workers and other stakeholders in strengthening their local health systems. Their capstone project not only served as an exercise but an actual guide in addressing health system-wide



challenges in their localities. PHNs reported that managing health programs became relatively easier after they attended the program.

*“The course helped us on the way we present the capstone or the problem to the policymakers na mas naiintindihan nila... Naging push sa amin to look inside the problem. Hindi lang ito yung problema. Parang may problema pang iba.” [The course helped us in the way we present the capstone or the problem to the policymakers so that they understand it more. It pushed us to look more deeply into the problem.] – Participant J7*

Corollary to the full implementation of their capstone project, one PHN shared that the health systems assessment they performed was used as a reference by various municipalities in their province. Other municipalities were able to assess their health systems through the guidance of the PHN. While it was unintentional, the PHN considers this as an achievement considering their employment status as NDP.

*“Unang-una, hindi po s’ya madali actually, pero enjoy and meron po talagang learning. Like ngayon po kasi we are being required nga po as part of primary care worker certification [of NDP]. So mae-enroll po kami sa e-Learning module ng DOH. So about UHC and primary health care, ‘di na po ako masyado nahirapan kasi most of the discussion po ay nadaanan ko sa Leadership Course, so madali ko lang po s’yang natapos.” [First of all, it wasn’t easy, but it was enjoyable and provided learning. For example, we are now required to enroll in an e-Learning module by the DOH as part of primary care worker certification of NDP. It will not be hard for me to understand discussions on UHC and primary health care since these were also tackled in the Leadership Course. I was able to finish the module with ease.] – Participant J2*

Among participants who were from geographically isolated and disadvantaged areas (GIDA), their participation in the training program was reported to influence their capacity to address health system problems despite limited resources and infrastructures. Specifically, the course enabled them to consider various solutions and maximize current resources including leveraging on existing partnerships and collaborations. One participant reported that the demolition of their birthing facility led them to have stronger coordination with the local government and private institutions in delivering the needed maternal care. Another participant from a GIDA area reported implementing innovative mechanisms for pregnant women to save money to support their labor, delivery, and subsequent postpartum and neonatal care.

*“Kasalukuyan po wala kaming birthing kasi na-demolish po yung RHU namin gawa ng expansion at construction ng municipal building. Kaya po nung time na yon, dumami yung home deliveries namin... Yung*

*mga midwives-in-charge po sa kanilang catchment areas, sila na po yung magdi-disseminate at mag-feedback sa mga BHWs [barangay health workers] and BNS [barangay nutrition scholars] na under sa kanilang catchment.” [At present, we do not have a birthing [facility] since our RHU was demolished to make way for the expansion and construction of the municipal building. During that time, the number of home deliveries rose. The midwives-in-charge in their catchment areas were tasked to disseminate and provide feedback to the BHWs and BNS under them...] – Participant F2*

Another participant from a conflict-ridden area reported optimizing the utilization of lying-in and primary care facilities and took advantage of having a rural health physician who has specialization in obstetrics and gynecology. This was done to have fully functional maternal and child health facilities.

*“Pregnancy tracking in every purok. Alam mo kung ilan buntis sayo. Alam mo kailan sila pupunta sa health center. Kung hindi sila nakapunta because of pandemic, we ask them to. Because they are trained to take BP. May doppler kami for fetal heart tone.” [Pregnancy tracking in every purok. You know how many pregnant women there are in your area and you know when they will go to the health center. If they were unable to go due to the pandemic, then we will ask them to. The center is trained to take blood pressure and we have a doppler for fetal heart tone.] – Participant J4*

### Improved ability to advocate for capstone implementation

Many participants have reported that the implementation of their capstone projects was facilitated by the administrative and logistical support provided by their supervisors and local government units. Upon further analysis, it was apparent that the support provided by the supervisors and local government units was a result of the participants' efforts in clearly presenting, communicating, and advocating for their capstone projects in their localities. This finding was reported by participants coming from rural areas including GIDA, conflict-ridden areas, and urban areas.

*“Parang na-realize ko na kung a-attend ako ng meetings and planning activities, okay mag-a-attend pero with this, parang ‘Ah nandito ako, kailangan i-maximize ko yung avenue na ito para marinig yung voice ko din.’ Take that opportunity to be heard para kung ano ba yung gusto mong ipaalam, dahil yun nga pag ‘di natin sinasabi, hindi rin po nila malalaman.” [I have realized that if I will attend meetings and planning activities, I am here to maximize the avenue for my voice to be heard. I will take that opportunity to communicate what I want them to know.] – Participant B3*

Several participants were able to present their capstone project in their local health boards and for some, their projects were included in their municipality's local investment plan for health (LIPH).

*"Nakipag-usap ako kay MHO [municipal health officer] if I could have a dialogue and present sa Local Health Board. Pumayag naman po siya kaya na-schedule po yung meeting and then during our meeting noong August, na-present ko po yung capstone project pero while I was preparing the plans, nagfi-feedback din po ako kay MHO kaya nabanggit ko rin po sa kanya yung need for hiring and supportive naman din po siya kaya sinasabi niya na for next year meron tayong mapopondohan na hiring ng midwives." [I talked with the MHO if I could have a dialogue with the Local Health Board and present (my project). He then scheduled the meeting last August, and I was able to present my capstone project. While I was preparing the plans and providing feedback to the MHO, I told him that we need to hire midwives and he was supportive of the idea. He told me that there will be funds for hiring next year.] – Participant B3*

*"I was able to improve the participation in the local investment plan for health [and] annual operation plan because I was the focal person for that. Assistant po ako ng CHO [city health officer]." [I was able to improve the participation in the local investment plan for health and annual operation plan because I was the focal person for that. I am the assistant of the CHO] – Participant J4*

### Transferability of acquired skill sets

Some participants reported that the training prepared them to assume higher positions within their respective local health offices or to higher offices in the province or their region.

*"Parang naging advantage ito [capstone project] dahil I am from the DOH. Then I am employed as a permanent position as a Provincial Health Office at harwak ko pa Universal Health Care." [The capstone project became an advantage because I am from the DOH then I was employed in a permanent position at the Provincial Health Office where I oversee Universal Health Care.] – Participant B8*

One of the PHNs who is no longer connected with their previous local government employer said that they are able to apply what they learned from the course to their current employment under an NGO.

*"Yung sa building blocks, nashe-share ko sa kanila kasi s'yempre medyo ibang structure, ibang framework 'yung ginagamit nila. Somehow na-she-share ko ito 'yung ganito, 'yung LGU, kasi LGU naman 'yung target namin, which is doon din kami mag-pe-penetrates. At 'yung gusto rin namin is sustainability ng project so ginagamit ko rin 'yung paano natin ma-implement ng tama o maayos na walang ma-mi-miss out. Lahat ng*

*mga building blocks, pinapaano ko sa kanila, "O baka dito kulang tayo. So baka pwede d'yan tayo mag-insert ng activities na pwedeng ganito, gan'yan." So it's really helpful, 'yung course." [(The NGO) used a different structure and framework on the building blocks. Somehow, I am able to share about the framework of the LGU since that is also where we'll penetrate. What we also want is sustainability of the project so I look into how we can implement it properly and completely. I remind them that we can insert activities in the building blocks. The course was really helpful.] – Participant F5*

### Improved population outcomes

The participants reported that applying the competencies acquired from the training program directly translated to improvement in health service delivery in their respective localities. Participants whose capstone projects were reported to be either partially or fully implemented, reported that there was an evident decrease in the incidence of both communicable and non-communicable diseases in their areas.

*"100% of persons with TB received health services during the pandemic" – Participant 92*

*"0 home delivery from January to June 2022" – Participant 95*

*"15% reduction in tobacco smoking" – Participant 23*

*"The COVID-19 Vaccination coverage for X city is now 91.03% for the first dose and 90.28% for the second dose, which is one of the reasons why the city is now under Alert Level 1 status. It has been eight months since I implemented my capstone project. – Participant 96*

Some respondents used other health building blocks as indicators to describe the impact of their capstone projects such as:

*"Health care provider networking was strengthened at 90% because of proper channeling of client referrals from barangay to the RHU to the district hospitals and the apex hospital..." – Participant 24*

*"The community no longer waits for the instructions from the RHU on what to do, when [dengue] cases arise, instead the barangay will just inform the RHU that they have patient admitted in the hospital and they have finished the clean up, monitoring, and submitted larval sample to the laboratory for identification." – Participant 59*

*"100% of contractual or job order employees in the municipal health office were covered with a PhilHealth premium through the Group Enrollment Program." – Participant 42*

One of the more palpable results was the realization of having insurance coverage for all contracts of service personnel in one health facility.

*“Kung wala ‘yung capstone, wala akong naging support or ways na ‘yung module na health financing, doon ko nalaman ‘yung mga ano kailangan garwin, kailangan mag-collaborate with the SB on health, then with the mayor [and] with the MHO. Kaya ‘yun na-implement nang 100% ngayon na year ‘yung pagbibigay ng sponsorship sa mga health staff namin, then sa health workforce din. At the same time, ‘pag mayroon na kami mga bagong JO, automatic talaga mayroon na silang PHIC [Philippine Health Insurance] coverage.” [Without the capstone, I will have no support or ways to know. (Through) the module on health financing, I learned that I need to collaborate with the SB on health, the mayor, and the MHO. That’s why I was able to achieve this year a 100% implementation of giving sponsorship to our health staff and health workforce. At the same time, when there is a new job order, they will have automatic PHIC coverage.]*  
– Participant J6

Overall, learning from the course made the transition towards UHC easier for both the PHNs and their respective offices.

*“Nung in-introduce yung UHC, sa amin, “Hala bago, trabaho, budget, kakayanan ba?” Nang dahil dito [capstone/training], kaya pala to. Way mo [na] para siyang branch na gagawin mo to para next step ganito. Parang 1, 2, 3 para ‘di ka mahirapan sa goal na abutin. Kung wala, patay. UHC is a very big word.” [When UHC was introduced to us, we thought, ‘New work, new budget, can we do this?’ But because of the training, we knew that we could do it. It’s like a branch that tells you to do these next steps so it’s not hard to achieve our goals. Without it, we cannot do it because UHC is a very big word.]* – Participant J7

### Workplace Application of the Training Program: Supervisors’ Perspectives

The following were the categories identified from the supervisors’ interviews pertaining to the PHNs’ workplace application of the training program outcomes: increased ability to deliver health services, and visible enhancement of leadership and supervision skills.

#### Increased ability to deliver health services

Supervisors observed that the public health nurses who participated in the LDC-PHN had improved in the performance of their expected roles. For them, this can be attributed to an apparent increase in knowledge. They also cited that the PHNs were initiating innovative strategies to ensure delivery of health services, and this includes using social networks and social media to connect with different

agencies and stakeholders. The communication skills of the PHNs were also reported to have improved.

*“I’d like to believe that after the training that [the participant] attended, she has this added confidence to approach officials or personalities. I don’t know, maybe you were able to motivate her to do so. She approaches or continually approaches individuals who are important or who can really help her in her capstone project. She has the guts to approach the mayor, the city councilors, and talk about them.”* – Supervisor K3

#### Visible enhancement of leadership and supervision skills

Aside from an improvement in role performance, the supervisors also observed that the PHNs exhibited more leadership and supervisory skills. The PHNs were observed to aid other public health nurses in the LGU even without the supervisor’s direct help.

*“Noon hindi ko nakikita yung leadership aspects ni [participant]. Pero nung bumalik siya rito nagulat na din ako kasi matagal ko na siyang kasama. Napansin ko na mas gumaling sa papeles.” [Before, I did not see the leadership aspects of the participant. But once she came back from the LDC, I was shocked because for the long time I was with her, she improved in paper work.]*  
– Supervisor C5

*“Parang na-enhance yung views niya as a leader. Yun kasi importante. Pansin ko rin na kabit doctor ka, leadership talaga ang importante lalo na kung public health nurse ka. Kasi pag hindi mo ma-lead yung tauban mo. Tapos you are dealing with different personalities. Yun ang mahirap.” [Her views as a leader were enhanced. That’s important. I also observed that even as a doctor, leadership is important especially if you are a public health nurse. If not, you will not be able to lead your staff as you are dealing with different personalities.]* – Supervisor K5

The PHNs were also reported by supervisors to be more knowledgeable and skillful in planning and writing proposals which helped in advocating for health program priorities at the level of their local chief executive. They also established good working relationships with other local government leaders and even their confidence in approaching other government officials to collaborate for a project increased.

*“I learned recently that she spoke again to the city councilor on health and during the recent deliberation on budget for health. Her proposals or the topics or the issues brought out by [the participant] were also being brought out during the budget deliberation of the city health.”* – Supervisor K3

## DISCUSSION

This paper aimed to describe the workplace application of the program outcomes of the LDC-PHN, a continuing education-cum-leadership training program to develop the capacities of public health nurses in implementing health system reforms in their localities. Following the Kirkpatrick Model of Evaluation, we used the assessment of our participants' capstone project implementation as an indicator of the workplace application of competencies acquired through the training program.<sup>10</sup> Our results show that the training program has improved the capacities of participants in applying health systems approaches in addressing health problems relevant to their particular contexts. The improvements in the participants' capacities have been corroborated by their immediate supervisors. The results of our study add to the limited but growing literature on the impact of leadership training programs to the leadership competencies of nurses in general.<sup>24</sup>

Among the six building blocks, it was noticeable that most of the course graduates chose to strengthen health service delivery issues through the improvement of specific health programs. The programmatic approach to health service delivery may seem to be contrary to the life course approach that is provided for under the UHC Act of 2019 and operationalized with the publication of the DOH Omnibus Health Guidelines.<sup>1,25</sup> However, this is also understandable as the health system is still within the period of transition. Nevertheless, the LDC-PHN addressed this issue by increasing the participants' capabilities in strengthening the other five building blocks of health. Concretely, the LDC-PHN provided the framework so that even an issue that is primarily health service delivery is also analyzed from the lens of the other building blocks, thus, providing a more holistic perspective in addressing such issue.

The improvements in the participants' capacities that were qualitatively reported include increased knowledge in health service delivery, leadership and advocacy skills, and innovativeness. Based on the interviews and FGDs, the specific applications of these competencies have been wide-ranging from the delivery of specific health services or programs to advocating to local governments for the financing and implementation of certain health programs that would have a population-wide impact. It is also interesting to note that many training participants have reported increased confidence in carrying out their tasks and have been more assertive in advocating for health programs. The findings of this evaluation study support the results of previous studies and recommendations that nurses, in general, when given adequate educational support and resources, can perform to their full potential within the bounds of the nursing scope of practice.<sup>26-28</sup> The development of these competencies directly aligned with the program outcomes of LDC-PHN and are essential in preparing public health nurses in facilitating the local implementation of the provisions of the UHC Act of 2019.<sup>1</sup>

Understandably, the majority of the participants reported only partial implementation of their capstone projects. Several barriers to capstone project implementation were reported, including factors that shaped the local political climate (e.g., the COVID-19 pandemic and the 2022 Philippine elections). Results showed that events of national importance, whether fortuitous or predictable, affected the field and demanded extra effort to implement their capstone projects. Lack of support from their LCEs and supervisors in public health due to competing priorities and conflicting political alignment prevented PHNs from reaching important milestones, and worse, prohibited them from actually implementing their project. Intersections between indigenous knowledge and practices from indigenous communities and conventional health systems as represented by PHNs implementing capstone projects highlighted the importance of cultural competence to achieve national health targets that rest on the latter. Despite these challenges, the PHNs manifested improvement regardless of their capstone project implementation status and the challenges that they faced. This is mostly due to a work environment that is characterized by supportive leadership, mostly coming from the PHNs' immediate supervisors and local chief executive, lending support to previous findings about the impact of leadership style on the nursing workforce.<sup>29</sup>

Participants have shown fidelity in completing the implementation of their capstone projects; working beyond the scheduled completion signaled their commitment and desire to better themselves. PHNs either attempted or gave their time, energy, and effort to implement their capstone projects. In doing so, they were able to manifest development not only at the workplace level, but also at the intrapersonal and interpersonal levels.<sup>30,31</sup> At the intrapersonal level, PHNs had increased capacity to lead and innovate and had transferability of acquired skill sets. Interpersonally, PHNs had improved ability to advocate for capstone implementation, increased ability to deliver health services, and had visible enhancement of leadership and supervision skills. In their workplace, PHNs were able to contribute to improving population outcomes regardless of their relatively "small" capstone projects. LDC-PHN facilitated learning at the level of the self, self in relation to other people, and the self in relation to the environment and the community. Learning went beyond their selves as PHNs began to work interprofessionally and assume advanced roles while implementing health programs that they are used to managing and are heavily immersed in to achieve population-level outcomes.

Though LDC-PHN remains as a learning development intervention (LDI) and a continuing professional education program, it could serve as a model for future training programs on health systems approach catering not only to nurses but for other health professions cadre including midwives and physicians. Furthermore, the potential of transforming such training into a micro-credential can be explored further because this may allow PHNs to gather post-graduate units

for professional and academic progress.<sup>32</sup> Such professional development opportunities for PHNs are important non-monetary benefits which may facilitate retention of health workers especially in rural municipalities in the Philippines.<sup>33</sup> It may be worthwhile, therefore, to explore adding such benefits for health workers as part of government policies on human resources for health including the National Human Resource for Health Masterplan.<sup>34</sup>

Beyond training public health nursing leaders, the LDC-PHN has the potential to catalyze efforts in advancing public health nursing in the Philippines. The LDC-PHN can also serve as a springboard for a community of practice of public health nurses where they can freely exchange knowledge and best practices.<sup>35</sup> The establishment of the National Association of Public Health Nurses, Inc. (NAPHNI) in 2022 was an idea born out of the LDC-PHN which training participants have helped to establish.

Future directions for research should further examine the impact of the program to health systems as measured through population-level indicators and outcomes. A tracking survey can also look into the nature of employment among course graduates highlighting the career opportunities and changes that they can attribute to the course and being included in the network of nurse leaders who took the course. In addition, the project also creates an opportunity to study the intrapersonal transformation of PHNs as they undergo the training by including critical reflections in their journals and interviews.

The results of this evaluation study should be considered given the following limitations. The use of the capstone project as the only indicator of the workplace application of competencies acquired from the training is an important limitation. While it is reasonable to assume that the participants' implementation of their capstone project can reflect their actual workplace application of competencies, it is still possible that the transferability of skills may be limited in some participants. We addressed this limitation by interviewing immediate supervisors and including their perspectives in the analysis. Another limitation is that the perspectives of the target beneficiaries of the capstone project were not elicited. This could have provided a richer and more nuanced account of the participants' workplace application of their acquired competencies. Also, there was a limited number of participants that were site visited, which was due to logistical constraints. It is possible that the experiences of those who were visited differ from those who were not visited. We addressed this limitation by conducting "virtual site visits" when possible.

## CONCLUSION

Given ample support, opportunities, and despite the barriers and challenges they faced, participants of the LDC-PHN were able to apply acquired competencies from the training as manifested through the implementation of their

capstone projects. Among those whose capstone projects were fully and partially implemented, workplace application was apparent and the means of verification they presented were validated by their supervisors. For the rest whose capstone projects were not implemented, participants at the very least, were able to come up with a proposal and lobby for their capstone project proposals among important stakeholders. Common barriers and challenges encountered by the PHNs include the COVID-19 pandemic, national elections, inadequate support from LCEs and supervisors, understaffing, high workloads, precarious work environments, and cultural beliefs and practices. Despite barriers and challenges in capstone project implementation, course participants contributed to health systems strengthening at various capacities by acting upon their capstone projects that addressed UHC challenges within their particular work settings. The outcomes are directly aligned with the expected competencies of LDC-PHN which are essential in preparing public health nurses in facilitating the local implementation of the provisions of the UHC Act of 2019. Overall, this evaluation demonstrated the positive impacts of training Filipino nurses in public health leadership and health systems strengthening. We recommend further evaluation of the program's impact at the intrapersonal and population levels, as well as tracking of graduates.

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All authors certified fulfillment of ICMJE authorship criteria.

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