# Factors influencing provision of basic emergency obstetric care services in Luzon, Philippines

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# ABSTRACT

The basic emergency obstetric and newborn care (BEmONC) strategy was designed to provide evidence-based interventions at the primary level to control maternal and newborn mortality. With less than a decade until the conclusion of the sustainable development goals, much work remains to be done in the Philippines to achieve the set target on maternal mortality. Recognition of the determinants affecting its implementation may elucidate what still needs to be addressed. This study aimed to identify the facilitators and barriers to accessibility of quality BEmONC services. Eight focus group discussions consisting of BEmONC providers were conducted from February to April 2021. These were recorded, transcribed, then translated into English. Data then underwent thematic analysis using NVivo to identify emerging themes and subthemes. There were 102 health care providers who participated in the study. There were four main themes emerged: institutional capacity, service capacity, personnel capacity, and external factors. Each had its corresponding subthemes, such as infrastructure, human resources, referrals, and local government support, respectively. Factors and/or barriers to each subtheme were identified during the discussions. The study provided important insight on the factors influencing BEmONC utilization. Focal points recognized may be used by policy makers and key stakeholders to allow optimal provision of BEmONC services.

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# 1. INTRODUCTION

Maternal mortality is a global health concern that has afflicted several countries for decades. Rightly so, maternal mortality ratio was thus considered a primary indicator of a population's overall health, of the status of women in society, and of the functioning of the health system [1]. To bring this issue to light especially to the policy makers, commitments from international agencies have been proposed. One of the widely known commitments was the millennium development goals (MDGs) wherein the 5th goal targeted improvement of maternal health and reduction of measles, mumps, and rubella (MMR) by three quarters between 1990 and 2015, which, unfortunately, was not met [2]. This necessitated succession into the sustainable development goals (SDGs), with a target of reducing the global MMR to less than 70 per 100,000 live births by 2030 [3]. Initiatives were therefore undertaken to address maternal mortality. The emergency

obstetric and newborn care (EmONC) was a strategy jointly developed by the World Health Organization (WHO), the United Nations Population Fund (UNFPA) and the United Nations Children's Fund (UNICEF) to equip health facilities to provide evidence-based, cost-effective interventions that will address the gaps contributing to maternal and newborn mortality [4]. This strategy was then adapted by the Philippine Department of Health (DOH) into the Maternal, Newborn, and Child Health And Nutrition (MNCHN) program as part of the service delivery network (SDN), which aims to address the gaps in maternal health referral systems and improve coordination across healthcare levels. There are three levels of care in the MNCHN SDN: i) Community level service providers; ii) BEmONC-capable networks of facilities and providers; and iii) CEmONC-capable facilities or networks. All three levels of care in MNCHN assist in the provision of different services and functions [5].

The BEmONC is a service protocol intended at the primary health care level, including improved rural health units (RHUs), district and community hospitals. A BEmONC-capable facility performs the following emergency obstetric functions: parenteral administration of oxytocin, anticonvulsants, antibiotics, performance of assisted deliveries in imminent breech, and provision of neonatal emergency intervention, including newborn resuscitation, provision of warmth, and referral [6]. In the Philippines, the ratio of EmONC availability is at 1.42 for every 500,000 population [7]. Globally, several studies have proven the effectiveness of EmONC in decreasing maternal mortality in low- to middle-income countries [8], [9]. However in 2014, among 95 BEmONC facilities surveyed in the Philippines, only 4 were found to be able to perform all expected signal functions [10]. The gradual decrease in MMR implies that although the strategy was able to reach the intended population, some determinants may have been failed to be acknowledged.

Numerous researchers have assessed the facilitators and/or barriers to the utilization of maternal health services both from the viewpoints of the mothers and the service, which then aided in their policy making for the provision of high-quality care [11], [12]. In the Philippines, only one study was found to assess the utilization of BEmONC services, and in the perspective of mothers [13]. Nevertheless, a comprehensive descriptive study in the context of BEmONC, with considerations of a pandemic situation, is lacking. Conducting a study in the local setting would elucidate the factors specifically relevant to the community. This paper is part of a larger evaluation study in the effectiveness of BEmONC in improving maternal service delivery and thus aims to identify and describe facilitators and barriers to quality maternal care from the perspective of the health care providers.

# 2. RESEARCH METHOD

# 2.1. Study setting

Luzon was the chosen setting of this study. It is the largest and most populous island group in the Philippines. It consists of eight administrative regions and 81 provinces and is considered the economic and political center of the country. Luzon accounts for the highest number of both livebirths and maternal deaths among the three island groups and contributes to over half of both the country's total livebirths and maternal deaths [14].

#### 2.2. Sample population and size

About 8-12 local health workers, including maternal and child health (MCH) coordinators and staff at both regional and provincial levels, were purposively selected to participate in a focus group discussion (FGD). In the selection of participants, a snowball referral sampling selection of local health workers from a list provided by the MHO was used. Program implementers and managers of the Safe Motherhood Program were prioritized in the invitation. The selected participants were invited through the local health unit/hospital. In the event that the selected participant was unable to participate, another was selected and invited until the desired number was filled. Another FGD included local government unit (LGU) and RHU officials. Willingness to participate was important as it entailed articulating their experiences of the maternal health system. They were involved in the study for 2.5 days. Before the FGD, informed consent was sought. Participants who did not give consent were excluded and those who did not adhere to guidelines were withdrawn.

#### 2.3. Data collection

The FGDs were conducted between February to April 2021 either remote via online platform or via face-to-face at a time and place suitable and convenient to the participants, with appropriate COVID-19 safety precautions. All FGDs were facilitated by the investigator. Participants were asked to answer questions on a semi-structured interview guide during the session which lasted from 60 to 120 minutes.

### 2.4. Data processing and analysis

All FGDs were recorded with participants' consent. Transcriptions were done by two independent transcribers with an 80% concurrence for finality. Recordings done in the vernacular other than Filipino were translated to English and back-translated for consistency. All FGD recordings and notes were compiled and subjected to thematic analysis using NVivo 12. Codes were assigned to all relevant statements answering or related to the research questions. They were then arranged into categories and subsequently into themes based on similar ideas and concepts. Records are kept in strict confidence and will be destroyed five years after the study.

# 3. RESULTS AND DISCUSSION

A total of 102 health care providers (HCPs) consisting of physicians, nurses, and midwives involved in the provision of BEmONC services participated in the FGDs. Among them, 35% were BEmONC-trained. One FGD was conducted in each of the eight regions of Luzon. A summary of the participants' profile is shown in Table 1.

Table 1. Participants' profile (n=102)			
Characteristic	%		
Sex disaggregation	94 (92.1%) Female		
	8 (7.8%) Male		
Age in years (mean $\pm$ SD)	45.6±11.5 years old		
Degree/license	51 (50%) MD		
	19 (18.6%) Nurse		
	32 (31.4%) Midwife		
Designation	7 (6.9%) MD		
	19 (18.5%) Nurse		
	32 (31.4%) Midwife		
	12 (11.8%) LGU personnel (e.g., MHO)		
	32 (31.4%) DOH personnel (e.g., program coordinator, DTTB)		
Years in service	43 (42.2%) <10 years		
	24 (23.5%) 10-20 years		
	35 (34.3%) >20 years		
BEmONC training	35% Yes		
	65% No		

Four major themes emerged from the analysis, namely, institutional capacity, service capacity, personnel capacity and external factors. Each had their corresponding subthemes with perceived facilitators and barriers from the participants' responses. Interestingly, several instances were noted wherein a theme was found to be a facilitator in one facility but a barrier to another, even though they were in the same area and can be seen in Table 2.

# **3.1. Institutional capacity**

# 3.1.1. Infrastructure

Most facilities were reported to be well-maintained, spacious, and met the standards. Several rooms were allocated specifically for maternal and newborn services. Nonetheless, many lacked back-up generators, necessitating transfer of their refrigerator's contents during power interruptions. Those close to CEmONC facilities were also less prioritized for upgrade. Moreover, renovations in some facilities took years to finish or were eventually utilized for other purposes instead, such as into a staff office.

#### **3.1.2. Equipment and supplies**

Equipment were described as functional, clean, well-labeled, and well-kept. Facilities were wellstocked that in some, supplies were reported nearing their expiry. However, in geographically isolated and disadvantaged areas (GIDAs), several essential equipment were found to be lacking. In others, equipment were tagged for repair or replacement for so long but no action had been done yet. Likewise, sporadic supply of medicines from the local government unit (LGU) necessitated patients to use their own money.

#### **3.1.3. Data management**

Data generally, were updated and properly managed. Patient history records were reportedly complete and most were available electronically as a computer file, thus aiding in record keeping. Typhoon-prone areas, however, were at higher risk to have their records, as well as their supplies, damaged.

Themes	Subthemes	Facilitators	Barriers
Institutional capacity	Infrastructure	Infrastructure meeting the standards	Prioritization of upgrading hospitals over RHUs Inadequate infrastructures
	Equipment and Supplies	Availability of functional equipment and supplies	Nonfunctioning facilities Lack of essential equipment and supplies
	Data management	Effective data management	Poor data management
	Transportation	Availability of transportation	Lack of transportation
	Communication	Good communication channels	Poor communication channels
	Financial resources	Financial risk reduction to clients Incentives to mothers	Difficulty with Philippine Health Insurance Corporation (PhilHealth) claims
	Protocols	Observance of protocols	
	License/accreditation	Licensed to operate and DOH accredited	Difficulty complying to DOH accreditation guidelines
Service capacity	Accessibility of services	Clients' ease of access	e
	Provision of care	Quality care provision	Limited services available Presence of nearby hospitals
	Human resources	Adequate personnel Availability of 24/7 staff	Inadequate personnel: overworked and underpaid Lack of other essential personnel
	Capacity building	Presence of capacity building opportunities	Lack of capacity building opportunities
	01-111-	**	Poor knowledge/confidence on skills
	SKIIIS		Unwillingness to learn new skill
Personnel capacity	HCWs' roles	Recognition of the importance of each HCW's role	Problems in leadership
1 2	Referrals	Uncomplicated CEmONC referrals	Problems with CEmONC referrals
External factors	Stakeholder involvement	Strategic planning and consultative meetings Political support	Differing priorities Political issues
	DOH monitoring	Regularity of monitoring	Lack of monitoring
	Disasters and unforeseen events	COVID-19 pandemic	Natural disasters COVID-19 pandemic
	Cultural beliefs		Cultural inappropriateness

Table 2. Themes and subthemes of facilitators and barriers identified by the healthcare providers

# 3.1.4. Transportation

Several innovations were made to provide transportation to patients, including designation of a barangay ambulance vehicle in several areas. Ambulance services for pregnant women, such as when they're in labor, were often free 24/7 with an accompanying midwife on duty. On the other hand, some RHUs don't have a well-functioning ambulance for BEmONC purposes. A staff's own vehicle had to be used for patient transport in some instances.

"Each barangay has a tricycle serving as an ambulance for the pregnant women. We also take note of the women's schedules for ultrasound and every Wednesday at 1PM, we pool them and provide transportation to the city for their ultrasound schedule." (Region V)

# 3.1.5. Communication

Most facilities maintain good communication channels with the provincial health office. Utilization of social networking services like Viber and Facebook Messenger for updating facility capacity and reporting for monitoring were also being practiced, enabling efficient inter-facility communication. Yet this is not the case for some regions experiencing poor connectivity, and such situations tend to hinder regional coordinators from realizing what genuinely occurs at the grassroots level.

### **3.1.6. Financial resources**

Participants' opinions on whether financial circumstances promote or hinder provision of BEmONC services varied. On one hand, little to no expense was shouldered by clients for utilization of the services, regardless of PhilHealth membership, and it was noted to motivate pregnant women to deliver in BEmONC facilities. To further encourage institutional delivery, some facilities also gave incentives to mothers who chose to deliver there. On the other hand, nearly all facilities experienced difficulties with their PhilHealth claims, from technical issues on filing of cases to long processes for receipt of reimbursements. These reimbursements were oftentimes part of their budget to support the facility, yet facilities without a license to operate were subsequently not PhilHealth accredited, hence, lack this benefit.

"The facility becomes unsustainable as the reimbursement is one of the main sources of funds." (Region V)

### 3.1.7. Protocols

As reminders to staff, BEmONC protocols and posters were put up in rooms. This aided the adherence to the BEmONC standards. An efficient management of patients and systematic flow of the health service delivery system were likewise observed.

# 3.1.8. License/accreditation

DOH accredits facilities based on their set guidelines and gives them the license to operate (LTO). In most BEmONC facilities, this license and other certificates were displayed to the public and staff claimed it boosted their confidence. However, the DOH requirements for licensing and annual reaccreditation were noted to be stringent and vary yearly. Issues with building permits and structure requirements also hindered accreditation. Despite the lack of an LTO, facilities with BEmONC-trained staff in remote areas needed to operate and continue serving their clients due to hospitals being inaccessible to their community.

"There was noted discrepancy in the measurement between the design and when the construction began. This led to the facility not obtaining a license to operate even if the staff are BEmONC-trained and all papers were accomplished." (Region V)

#### 3.2. Service capacity

# **3.2.1.** Accessibility of services

Different transportation means, including motorboats, were employed to reach GIDAs to provide a one-stop-shop for health essentials of pregnant women and other patients. Some RHUs dedicate certain day/s of the week to prioritize service provision to a particular group, such as pregnant women. RHUs sometimes were also able to offer additional services such as laboratory tests and ultrasound, as well as gynecologic procedures, though this relied greatly on availability of supplies and staff.

# **3.2.2. Provision of care**

BEmONC staff reported thoroughly assessing and evaluating each pregnant woman's health status, including triaging of high-risk cases. Mothers were consistently followed up for their pre- and postnatal checkups, with conduction of home visits, if necessary. Staff noted that personalized care they provide and absence of certain restrictions found in CEmONC facilities made the birthing units a more sought-after facility for delivery. Lectures and lay fora were additionally imparted to the community for health education.

*"We exercise the utmost care because women lay their lives on the line during the birthing process."* (Region I)

In most cases, however, facilities offered only limited services, with some catering to consults only, due to a stated agreement with hospitals for all deliveries to be done at the latter. Some mothers were also noted to prefer the services of a hospital as opposed to a BEmONC facility. Losing BEmONC accreditation halts the operations of a facility, and thus hinder service provision.

#### 3.2.3. Human resources

Inadequacy of human personnel was universally mentioned in the discussions. To augment the workforce, contractual nurses and midwives had been deployed. Some also went on BEmONC duties while BHWs also assist in lying-ins. Providers without formal training were guided by experienced and BEmONC-trained staff. On the other hand, most facilities were understaffed and HCPs were overworked and underpaid.

"The fast turnover of BEmONC-trained personnel due to retirement, relocation, or reassignment led to a void in terms of skilled personnel in the RHU." (Region III)

Offers for permanent positions were limited yet contractual staff reportedly were disallowed to go on BEmONC duties. Moreover, most BEmONC staff were not dedicated solely to BEmONC but handle other health programs as well. Aside from BEmONC staff, lack of other essential personnel such as pharmacists and medical technologists were also raised.

# 3.2.4. Capacity building

Lack of capacity building opportunities was prevalent across Luzon. Newly hired staff weren't automatically given slots for the training and contractual personnel likewise weren't included in the roster of trainees due to their quick turnovers. Concurrently, administrative staff were sometimes included in the list of trainees although they do not attend to patients. LGUs at times have funded the BEmONC trainings for their constituents but is constrained by budget availability. HCPs unanimously desired to attend refresher courses that could serve as evaluation and reassessment of their skills and update on the management guidelines.

# 3.3. Personnel capacity

# 3.3.1. Skills

While lack of skills rooted mostly in the HCPs' lack of training and cases, some purposively refuse to learn new skills for reasons like disinterest or poor perception of its importance. On the other hand, others were apprehensive to perform actual deliveries due to lack of confidence despite being BEmONC-trained. The lack of cases also hindered the opportunity for staff to practice their skills.

"Referral to CEmONC is easily facilitated but because of it, the staff just tend to refer most patients thus, a barrier to their skills." (Region III)

# **3.3.2.** Health care providers' roles

Health care providers invariably recognize one another's role as essential. Each had their own responsibilities, for instance, municipal health officers (MHOs) and other physicians primarily lead the team while the grass-roots management is done by midwives and nurses. Likewise, BHWs were involved in listing and reporting target clients to the assigned rural health midwives. On the other hand, the frequent turnover for MHOs was cited by some to disrupt program implementation including structure upgrade.

"When a senior or someone experienced supports them [nurses and midwives], they gain confidence in what they are doing." (Region V)

# 3.3.3. Referrals

BEMONC staff claimed to adhere to the referral system and protocols. Having CEMONC-capable hospitals made the facilitation easier. Some were also able to receive feedback from the latter on the management, outcome, and follow-up recommendations of their patients. Similarly, CEMONC facilities refer low-risk pregnancies to BEMONC facilities. An established communication line aid in inter-facility referral with sharing of information on bed availability. Despite that, some encountered difficulty and resistance when referring their patients. A hospital, though nearest to a BEMONC facility, but is under jurisdiction of another political boundary, will insist that they will not accept the referral.

#### **3.4.** External factors

### 3.4.1. Stakeholder involvement

Consultative meetings with community leaders, including the local chief executive, were held where maternal death review and birth census review were also discussed. Community surveys are likewise held and strategic planning for the location of a BEmONC facility involved taking into consideration the insights of community members. Some community leaders, having recognized the impact of a healthy community, decided to invest on health promotion.

"One RHU is supported financially by the barangay, so they are able to provide free medications and other services." (NCR)

NGOs, through their barangay volunteers, have enabled a wider reach of maternal services, as they will then refer these patients to the RHU. That said, differing priorities of stakeholders restrict access to BEmONC services. Institutions, particularly DOH and PhilHealth, were also mentioned to have conflicting

policies. An example would be with emergency cases of those not considered low-risk pregnancies. For DOH, these can be managed in a birthing facility, but as per PhilHealth policy, no reimbursements can be claimed for such cases as they should be managed in hospitals.

#### 3.4.2. LGU support

Approval of the municipal board council is necessary before any project can be signed and executed by the municipal mayor, and any delays in the council approval affect the output previously planned by the provincial health offices. Earning the support of the LGU could mean a steady supply of medicines and equipment needed. Likewise, one LGU initiated the 'halfway home' project for indigent/ indigenous pregnant women to stay in, which is near the birthing center when they are near term.

"The LGU has allotted budget for free PhilHealth enrolment of indigent patients... Because of this, newborn screening coverage was high and the patients are provided with essential BEmONC services." (Region V)

It is clear that the level of implementation of BEmONC services vary depending on the level of support from the LGU heads. At the outset, prioritization of the BEmONC initiative was downplayed by other programs such as vaccinations and other non-health programs. Issues on conflict of interest have arisen as well. Some facilities were reportedly more favored than others, thus, are better equipped. Political unwillingness affected the delay in construction of a BEmONC facility despite availability of trained personnel. Conversely, it also influenced the creation of additional personnel items.

### **3.4.3. DOH monitoring**

The Provincial Health Office were primarily in-charge of monitoring of the birth census of the municipalities, maternal death review, and facility visits. Through their evaluation, recommendations were formulated and technical assistance were provided to follow through with the solution. In most cases, monitoring were done through a monthly surprise visit of the facilities pre-pandemic. A DOH database likewise aided in determining what areas require more training.

### **3.4.4.** Disasters and unforeseen events

Interestingly, the COVID-19 pandemic was a double-edged sword in terms of BEmONC provision. Since the onset of the pandemic, more mothers availed of the services at the RHU and lying-in clinics as they see it as a safer place rather than hospitals, especially those which became COVID-19 referral centers. Hence, a significant increase in patients consulting in primary facilities was noted, and unfortunately, imminent deliveries as well, as patients feared going out of their houses. Likewise, due to difficulty in referral and transport to CEmONC facilities, patients were instead managed in the RHU. Some patients themselves also expressed not wanting to be referred to private facilities due to the higher cost.

Human resources were even more depleted with some being reassigned to COVID-19 response. On the other hand, staffs getting infected with COVID-19 and needing isolation with their coworkers undergoing quarantine severely diminishes human resources. BEmONC trainings were also temporarily halted so most, if not all, newly hired HCPs have yet to undergo the training.

"There is a need for a standardized, modified BEmONC training ('pandemic-proof'), but as of now, there is difficulty drafting this new training given the new normal." (Region III)

Emergency vehicles were being used to transport COVID-19 patients instead. Bed capacity was reduced to observe social distancing protocols. Some facilities had to close while others were temporarily used as a swabbing area or as an isolation facility. Physical visits for monitoring were evidently reduced, however, was compensated through reporting via SNS group chat. Aside from the COVID-19 pandemic, a constant threat in typhoon-prone areas is the damage brought by the calamity, especially to their equipment and supplies, and stored records. Some facilities had to cease operations due to frequent typhoons in their location.

### 3.4.5. Patient factors

Though tribes are still present, cultural influences related to childbirth had somehow dissipated. Traditional healers were also reportedly knowledgeable of medical practices. However, home birthing was still prevalent in several regions. Though incentives were offered, it was not enough to deter mothers from delivering at home.

#### **3.5.** Discussion

# 3.5.1. Institutional capacity

Substandard infrastructure pose a health risk for workers and patients alike, causing worry on top of the latter's existing health concern. On the contrary, a well-maintained facility could ensure the safety of both staff and patients, and thus, the sustainability of the establishment. Accessible and well-equipped facilities would encourage patients to seek consult there and motivate HCPs knowing that they are working in an environment where they would be able to provide the best care to their patients [15]. An adequate supply of medicine and equipment similarly impacts a mother's preference to seek consult as it entails reduction of financial risk. Interestingly, due to a lower number of cases, there were facilities with supplies nearing expiry. It may be reasonable to offer these to facilities with a lack thereof and a patient census justifying utilization of the supplies.

Data management, when efficient and accurate, can aid in the consolidation and analysis of health indicators to monitor and evaluate implemented programs which can be utilized in the development of evidence-based strategies and policies to improve healthcare delivery. Other studies noted how incomplete accomplishment of healthcare forms can also hinder quality care provision [16], [17]. Digitization of data, especially when centralized, permit faster information dissemination and allow delivery of regular updates for monitoring and evaluation. It would also address problems of compromised physical copies of data. However, its limitations must also be realized to mitigate problems of network connection or lost data issues.

Similarly, the availability of a reliable emergency transport system is essential for the timely delivery of maternal health services and efficient facilitation of referral. Transportation is a common theme found in several third-world countries [16], [18]–[23]. Delay in the ability to reach care often stems from the shortage of vehicles and poor road infrastructure [18]. As much as there have been innovations to address this problem, most facilities still lack transportation means to offer to their patients, causing patients to pay for their own transportation, further aggravating their financial incapacity [16]. The SDN then acts as a measure to ensure availability and ready access to such system.

Finances is another aspect almost universally seen across various countries. In the Philippines, having little to no expense paid by clients for utilization of BEmONC services, regardless of PhilHealth membership, can address the delay in accessing obstetric care which is frequently reported in women from a lower socioeconomic status [18]. Likewise, providing financial incentives were found to potentially increase women's access to maternal health care, particularly the timely presentation during emergencies, thus reducing maternal morbidity and death [21]. The National Health Insurance Act of 2013 stated that even unenrolled women about to give birth shall be covered by PhilHealth [22]. Yet the delayed disbursement from claims often incapacitates facilities as it is a major source of their funds, hence the lack of supplies. In some localities, the reluctance of private practitioners to refer high-risk patients for fear of losing their PhilHealth reimbursements can inadvertently lead to maternal deaths [23].

Nonetheless, protocols and guidelines are formulated through thorough review and consultations from expert panel backed up by evidence to guide HCPs in quality service delivery. These likewise are constantly updated as new knowledge and technology emerge, to ensure provision of quality care at all times. As for DOH guidelines for accreditation, a consultative meeting between the DOH and facility managers may lead to reach a middle ground with both sides hear the concern of the other, especially with the reported stringency and varying requirements so that each and every BEmONC facility available may be utilized.

# 3.5.2. Service capacity

BEMONC facilities were constructed with the intent of making quality maternal and neonatal services available to all, as such, emphasis on accessibility was considered during its construction and are thus found within the community. Good management and dedication of MHO and team efforts of every HCP is key to providing optimal care to patients. Through adequate services, they would be able to gain the trust of the patients to give birth in the facilities [24]. Limited availability, on the other hand, could push patients to rather seek care in hospitals where they perceive their needs will be met and they could adequately be cared for [19], [25].

A recurring theme both in this study and in other countries is on personnel. The lack thereof leads to a poor management system [18]. Prohibition of contractual personnel to go on BEmONC duties, which was ordered since several years back further disables service provision necessitating careful review of such memorandum [26]. Some were able to work their way around this by letting these personnel go on duty provided they were under the supervision of a permanent staff. Yet, staff are still underpaid and overworked. Most aren't dedicated solely to BEmONC but manage other programs as well, and so both suffer as a consequence of staff being unable to focus on just a single program [26]. In addition, a change in government leadership leads to replacement of most staff, including BEmONC personnel, which more often than not, are new and still lack training. All these contribute to the dwindling human resources. As of 2018, 95% of the 1,758 public birthing centers in the Philippines have trained BEmONC teams [27]. This statistic, however, do not reflect the concerns expressed by the HCPs on the apparent lack of capacity building opportunities, be it the formal BEmONC trainings or refresher courses. Such trainings were desired by the staff to enable them to provide quality care through updated guidelines. The lack of training instead led to a lack of confidence and a feeling of incompetence and therefore reluctance in performing actual deliveries. This also makes them more prone to misdiagnosis and inappropriate management, causing further harm to patients [18], [20], [25], [26]. Nevertheless, there is a dire need to correct the attitude of providers who deliberately refuse to attend trainings thinking that their current practices are adequate. The scarcity in cases likewise hindered opportunities where they could have honed their skills and performed the signal functions [15]. Patients with or at risk for complications were to be referred to higher levels of care, i.e. hospitals, as stated in the PhilHealth policy for them to avail of the Maternity Care Package [22]. In a similar study, it was found that staff were already told during training that lying-in facilities are prohibited from performing procedures such as assisted vaginal delivery [26]. Their inclusion as signal functions, however, meant that BEmONC-capable facilities are expected to perform these competencies.

# 3.5.3. Personnel capacity

A timely referal is essential for the prevention of life-threatening complications and subsequently, maternal deaths. Establishing an effective communication with provincial health offices and other facilities is crucial to securing coordinated referrals along with adherence to the referral protocols [24]. Ideally, patients should be referred to the nearest hospital, regardless of political boundaries, as this would ensure timely management. A feedback mechanism wherein receiving facilities inform the referring centers of the outcome and treatment done to their referred patients, together with follow up instructions could guarantee the continuity of care [16], [28].

Furthermore, a patient-centered approach, with recognition of them as partners in the decisionmaking, is emphasized in health programs, and is known to cultivate a better sense of responsibility towards their own health [29]. Being treated with respect motivates patients to continue seeking consult in that facility. HCPs being a member of the community they're serving in had also been known to increase the acceptability of a health program and improves engagement of the community [24]. It facilitates a more intimate and personal environment for mothers to feel more comfortable and respected. Poor provider-client relationship, on the other hand, especially lack of emotional support and disregard to privacy might stir them to instead seek consult with a traditional healer and deliver at home [11], [15], [18].

#### **3.5.4.** External factors

Receiving the LGU's support is pivotal for the sustenance of a facility. They provide additional supplies and equipment which, unfortunately, depends on their funds and priorities [25]. The political will of local program implementers, through employment of different innovative strategies, could thereby decrease catastrophic referrals to CEmONC. Conversely, conflicts between LGU and the health care personnel affect opportunities for improvement of the facilities in terms of budget, manpower, supplies, and infrastructure. It is known that success of local health programs depends on the investment and support of policy makers and chief executives at the local level. These factors are outside a health program 's direct control, thus advocacy to political stakeholders for their realization and acceptance of the program must be promoted [25].

Other studies, have noted the role of cultural beliefs in BEmONC utilization [18], [19]. In the Philippines, a "No Home Birthing Policy" was implemented in several cities and municipalities in attempts to abate cases of home delivery but was met with controversies [30]. It is important to address cultural practices misaligned with current BEmONC guidelines and obstetric practices in a sensitive manner, treating their culture with respect. Similarly, indigenous healers have been found to acknowledge and incorporate medical practices [11]. If the goal is provision of quality maternal services inclusive of all Filipino women, then engagement with traditional birth attendants towards healthy community practices is warranted. Nonetheless, health education strategies targeting the community have come a long way in increasing the knowledge of say, mothers on pregnancy and maternal health. The vigilance of HCPs on information sharing between community members may prevent distortion and inaccuracy of credible information.

As far as the BEmONC strategy is concerned, the COVID-19 pandemic brought both advantages and disadvantages. The patients' choice of consulting at a BEmONC facility rather than a hospital solidifies the need for facilities to strictly adhere to COVID-19 health protocols to avoid exposure of both staff and patient to the virus. Identification of a facility as a source of transmission may lead to closure of the facility, and thus impair service provision. Patients' preference for BEmONC facilities serves as a chance for primary level facilities to prove their capacity to cater to patients adequately which could then decongest CEmONC facilities but in contrast, may overwhelm the low bed capacity of most facilities. One cannot deny that the COVID-19 pandemic has truly crippled the provision of health services especially in terms of personnel and transportation, but for a program such as BEmONC, its importance cannot be stressed enough during this time.

This study was not without limitations. Firstly, as it was conducted at the time of the COVID-19 pandemic, there were several restrictions as opposed to the usual way FGDs were held. Virtual conduction of some FGDs were subjected to network connection issues which limited participation and smooth flow of the discussions. The study involved only one FGD group per Luzon region which may not be reflective of the perspective of BEmONC providers for the whole Philippines. Only the viewpoint of HCPs were considered in this study, yet this same study emphasized the importance of other stakeholder's participation in providing a complete picture of the facilitators and barriers to BEmONC utilization.

# 4. CONCLUSION

With the increasing number of pregnancies in the Philippines, BEmONC services are needed now more than ever. This study was able to explore the insights of the providers on the determinants of BEmONC utilization. Realization of the enablers and obstacles would enable policy makers and key stakeholders to focus on maximization of the benefits this strategy offers. Significant facilitators and good practices may be adapted to a regional or even a nationwide level, and barriers may be investigated to implement the appropriate action. Future researchers may consider involving participants from the other island groups of the Philippines for a more comprehensive representation. Likewise, an integration of the perspectives of mothers and other community members on this topic would be integral in understanding what influences BEmONC utilization.

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