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DOI: 10.4103/pjog.pjog_2_21

# Logistical concerns faced by frontliners in Obstetrics and Gynecology during the COVID-19 pandemic in a COVID-19 referral hospital in the Philippines

Bernadette Ann S. Alcazaren, Maria Antonia E. Habana

## Abstract:

**INTRODUCTION:** The COVID 19 infection has greatly affected health care delivery in the Philippines. However, the concerns of healthcare workers have yet to be explored

**Objective:** This study determined the logistical concerns of the residents and fellows of an academic government hospital that serves as a COVID-19 referral center in the Philippines.

**METHODS:** This is a cross-sectional, online survey administered to the trainees of the Department of Obstetrics and Gynecology.

**RESULTS:** Eighty-seven participants were included in the study. Mean age was  $30.7 \pm 3.7$ . Most were single, female and resident doctors. Eighty-one percent agreed there was easy access to food and water during duty and that the food and water provided by the hospital were adequate. Fifty-four percent agreed that they feel safe going to and from the hospital. However, fifty-five percent disagreed to feeling safe from COVID-19 within the hospital. A high majority of the participants agreed that they have access to personal protective equipment but only fifty-eight percent agreed that the supply was adequate. The top 5 logistical concerns identified were: (1) safety and security, (2) food, (3) supply of personal protective equipment, (4) water, and (5) transportation.

**CONCLUSION:** Although provisions on basic needs and protective equipment were adequate, trainees still felt unsafe from COVID-19 within the hospital. Both the government and hospital administrators must continue to work together to improve strategies to address concerns of frontliners.

## Keywords:

OB-GYN frontliners, COVID-19 pandemic, logistical concerns

Department of Obstetrics  
and Gynecology,  
Philippine General  
Hospital, University of  
the Philippines, Manila,  
Philippines

## Address for correspondence:

Dr. Bernadette Ann S.  
Alcazaren,  
Department of Obstetrics  
and Gynecology,  
Philippine General  
Hospital, UP Manila, PGH  
Compound, Taft Avenue,  
Manila, Philippines.  
E-mail: [bsalcazaren@up.edu.ph](mailto:bsalcazaren@up.edu.ph)

Submitted: 07-Apr-2021

Revised: 07-Apr-2021

Accepted: 12-Apr-2021

Published: 12-Jul-2021

## Introduction

Coronavirus 2019 disease (COVID-19) has infected more than 18 million people worldwide and has reached over 216 different countries.<sup>[1]</sup> The World Health Organization has already declared it as a pandemic. Local data as of August 5, 2020 reports that the Philippines has a total of 115,980 cases nationwide. 2,123 of these

have resulted in deaths while 66,270 have successfully recovered from the disease. With increased testing capacity, the national average is now at around 3,000 cases per day.<sup>[2]</sup>

COVID-19 belongs to a family of enveloped, positive-stranded ribonucleic acid viruses, Coronaviridae. By the end of 2019, the novel coronavirus was identified as a cause of a viral pneumonia outbreak in the City of Wuhan, Hubei Province, China. Much like SARS-CoV, COVID-19 binds via the angiotensin-converting enzyme 2 (ACE2) receptor located on type II alveolar cells and

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\*Third Place, PHILIPPINE OBSTETRICAL AND GYNECOLOGICAL SOCIETY (Foundation), INC. (POGS) Residents' Research Paper Contest, October 22, 2020, Online Platform: ZOOM Webinar

**How to cite this article:** Alcazaren BA, Habana MA. Logistical concerns faced by frontliners in obstetrics and gynecology during the COVID-19 pandemic in a COVID-19 referral hospital in the Philippines. *Philipp J Obstet Gynecol* 2021;45:11-22.

intestinal epithelia.<sup>[3]</sup> Patients often present with flu-like symptoms such as cough, dyspnea, fever and myalgia. Gastrointestinal symptoms such as nausea and diarrhea were also reported. However, some have been identified to remain as asymptomatic carriers of the virus.<sup>[3-6]</sup>

Currently, there is still no cure and a vaccine is yet to be developed for COVID-19. Standard of care for patients vary from institution to institution based on available knowledge. Because of this, experts have advocated for nonpharmacological public health measures such as social distancing and community quarantine to help mitigate the spread of the virus.

### Philippine timeline

The first case of COVID-19 in the country was confirmed by the Department of Health on January 30, 2020. Less than two months later, the first case of local transmission was confirmed. In response, President Rodrigo Duterte issued Proclamation No. 922 declaring a state of Public Health Emergency throughout the entire Philippines. With the help of the Inter-Agency Task Force for the Management of Emerging Infectious Diseases (IATF-EID), a national action plan was created to slow down the spread of COVID-19.<sup>[7]</sup> Given our country's limited resources, it is important to flatten the curve or reduce the rate of transmission of the virus so as not to overwhelm our already struggling healthcare system.

Since March 12, 2020, the Philippine government has implemented various levels of community quarantine based on IATF epidemic risk classification as well as economic, social and security considerations.<sup>[7]</sup>

Based on mathematical models, a rapid review of available literature done by Nussbaumer-Streit et al (2020) showed that quarantine, whether alone or in combination with other public health measures, is consistently beneficial in controlling transmission and subsequent spread of COVID-19. However, this review did not take into account the psychosocial and economic effects that quarantine had on individuals and their communities.<sup>[8]</sup>

### Bayanihan

To provide a unified approach in the fight against COVID-19, the Philippine government passed the Bayanihan to Heal as One Act or Republic Act 11469. Among its provisions include:

1. Providing public health care workers COVID-19 special risk allowance and compensation if they contract or die of COVID-19 and
2. Directing the operation of any privately-owned hospitals, medical and health facilities and other establishments to house health workers, serve as

quarantine areas and centers, medical relief, aid distribution locations and temporary medical facilities

3. Directing public transportation to ferry health, emergency and frontline personnel.<sup>[9]</sup>

The law expired on June 24, 2020. Congress is currently in the process of approving a new Bayanihan 2 Act or House Bill No. 6953 entitled "*Bayanihan to Recover as One Act*."<sup>[10]</sup>

### Response to the pandemic

In a virtual press conference held March 23, 2020, the Philippine General Hospital (PGH) Director Dr. Gerardo "Gap" Legaspi accepted the task of PGH being a designated COVID-19 referral center of the National Capital Region. However, the hospital remains to be a center for tertiary care. And as such, it does not cater exclusively to those with COVID-19. This hospital is a 1,500-bed tertiary hospital located at the heart of Manila.

COVID-19 has changed the way we live. Individuals are required to wear masks in public at all times and observe social distancing whenever outdoors. Mass gatherings of any kind are prohibited—even those meant for spiritual worship. Only selected establishments are open for business – groceries, banks, hospitals, drug stores and some food establishments which provide food for pick up. Leisure shops and entertainment establishments such as salons and gyms remain closed.

Despite all these changes, health care workers still leave the comforts of their homes to serve and care for the sick. This study explores the logistical challenges health care workers face due to the enhanced community quarantine. It recognizes that health care workers play a vital role in the fight against COVID-19 and as such, the needs of these personnel must also be provided for.

### Definition of terms

1. COVID-19 – An infectious disease caused by the newest coronavirus which began in Wuhan, Hubei Province, China, in December 2019.
2. Pandemic – Characterized by a disease occurring over a wide geographic area affecting an exceptionally high proportion of the population
3. General Community Quarantine (GCQ) – Based on the Inter Agency Task for Emerging Infectious Disease (IATF) Resolution No. 12 released on March 13, 2020, GCQ is defined as "*movement of people limited to accessing basic necessities and work*" with "*uniformed personnel and quarantine officers present at border patrol*"
4. Enhanced Community Quarantine (ECQ) – Based on the Inter Agency Task for Emerging Infectious

Disease (IATF) Resolution No. 12 released on March 13, 2020, ECQ is defined as “*strict home quarantine in all households.*” It includes suspension of transportation, regulation of provision for food and essential health services, and a heightened presence of uniformed personnel to enforce quarantine procedures

5. MECQ – Based on the Omnibus Guidelines on the Implementation of Community Quarantine in the Philippines by the Inter Agency Task for Emerging Infectious Disease (IATF) released on May 15, 2020, MECQ refers to “*the transition phase between ECQ and GCQ.*” The following temporary measures are relaxed: “*stringent limiting movement and transportation of people, strict regulation of operating industries, provision of food and essential services, and heightened presence of uniformed personnel to enforce community quarantine protocols.*”

## Objectives

### General objective

This study aims to determine the logistical concerns of the residents and fellows of the Department of Obstetrics and Gynecology in the Philippine General Hospital during the COVID-19 pandemic.

### Specific objectives

- To describe the demographic profile of the respondents
- To enumerate the different logistical challenges encountered by the residents and fellows of the Department of Obstetrics and Gynecology in the Philippine General Hospital
- To rank according to the importance of different logistical challenges encountered by the residents and fellows of the Department of Obstetrics and Gynecology in the Philippine General Hospital
- To examine how these challenges were addressed and the adequacy of the hospital’s response
- To detail the recommendations and suggestions for further improvement.

## Materials and Methods

### Study design and duration

A cross-sectional, online survey was administered to the residents and fellows of the department of OBGYN of an academic government hospital which has been designated as a COVID-19 referral center in the Philippines. The research was approved on June 23, 2020, by the hospital’s Ethics Review Panel 3 and conducted from July 1 to 30, 2020.

### Sampling size and sample size calculation

All 109 trainees, 63 residents and 46 fellows, of OBGYN from January 2020 to December 2020 were invited to participate in the study. Those eligible to partake in the study include residents or fellows aged 19–65 years who have internet access and a laptop/computer/

smartphone. Exclusion criteria include those who refuse to give their informed consent and those who cannot access the survey due to lack of internet access or absence of a laptop/computer/smart phone.

Openepi online software (OpenEpi: Open Source Epidemiologic Statistics for Public Health, Version. [www.OpenEpi.com](http://www.OpenEpi.com), updated 2013/04/06) was used for sample size computation. Using a population size of 109, 50% frequency to achieve highest possible minimum sample size, 5% margin of error, and 95% confidence interval, a minimum sample of 86 participants are needed.

Subjects were withdrawn from the study at any phase of data collection if the participant decided to withdraw her consent for reasons she may choose to divulge or not to the principal investigator and research assistant.

### Data collection tool

Based on the available literature, a structured questionnaire was developed and a survey hosted by SurveyMonkey.com was conducted among the residents and fellows of OBGYN.

The survey was divided into two sections: The first section covers the demographic profile of the respondents, and the second section inquires into the logistical challenges they have experienced during the COVID-19 pandemic. The second section contains questions regarding access to different basic needs and services that are affected by the ECQ and how these are being addressed. These include food and water, transportation, housing, safety/security, physical care (exercise, haircuts), spiritual care, and other basic services such as banking and internet access. A comment box was included at the end for any other logistical challenges that were not mentioned in the survey as well as suggestions and recommendations on how these concerns can be addressed.

An online pretest of the survey was done, and necessary modifications and corrections were implemented to ensure content validity and face validity. Content validity was established using the item-level content validity index (I-CVI). I-CVI was computed using the proportion of experts who agree that the item is either quite or highly relevant.

Content validity of the questionnaire was reviewed by six trainees – one resident and one fellow representing each of the three teams who go on duty for a week followed by mandatory quarantine for 2 weeks. Each item was rated by the respondent as not relevant, somewhat relevant, quite relevant, and highly relevant. Items with a CVI of 0.8 (i.e., 80% of the respondents rated an item as quite or highly relevant) were accepted, while those below 0.8 were modified if not rejected.

Face validity was assessed by ten participants who met the study inclusion criteria. They were asked to answer the questionnaire and each respondent was asked regarding each item in the tool: *Was this question important to you? Was there any difficulty understanding this question?* Respondents were also given the chance to comment on each item.

The participants included in the pretest were no longer included in the study sample population.

### Data collection procedure

Participants were able to complete the survey only once and were given the chance to terminate the survey any time they desired.

The study was conducted at the department of OBGYN of an academic government hospital which has been designated as a COVID-19 referral center in the Philippines. 93 respondents (53 residents and 40 fellows) employed by the department of OBGYN for 2020–2021 were invited to join the study.

The residents' and fellows' contact information such as e-mail and cellphone numbers were accessed through the official directory of the department of OBGYN. Only the principal investigator had access to this information. The participants were invited by the principal investigator and given a copy of the URL to the online survey the following online messaging applications: Viber, Telegram, and Facebook Messenger. It was a self-administered online survey which included an initial page containing information on the purpose and procedure of the study. An informed consent was obtained once the objectives and methodology of the study have been read and agreed to by the participant. The informed consent ensured anonymity of the participants. Those unable to participate in the study were unable to access the survey. Refusal to answer the survey had no bearing on their training.

All data gathered were recorded on individual survey forms. A master list was created by the principal investigator using Microsoft Excel spreadsheet file to summarize and tabulate all the information retrieved using the individual survey forms. Each form was assigned a tracking number to aid in the process of entering and storing data. Data gathered from the study was kept in full confidentiality. Only the principal investigator, supervising investigator/research adviser, and research assistant/s have direct access to the accomplished survey forms.

### Data analysis plan

Data checking, compiling, and editing were performed manually by the principal investigator. Descriptive statistics were used. Frequency and proportion were

used for nominal variables, median and range for ordinal variables, and mean and standard deviation for interval/ratio variables. All other logistical concerns and recommendations and suggestions written at the end of the survey were documented verbatim. Grouping of answers and analysis was done.

The data were encoded in Microsoft Excel and analyses were done using STATA 14 (StataCorp. 2015. Stata Statistical Software: Release 14. College Station, TX: StataCorp LP).

## Results

A total of 87 participants (93.5%) were included in the study. Their mean age was 30.7 years (standard deviation [SD] = 3.7) with 57.5% belonging to 19–30 years ( $28.8 \pm 1.3$ ). Majority were single (80.5%) and female (89.7%). Majority were resident doctors (60.9%), while the rest were fellows. As much as 83.9% live within Manila while 37.9% live in other parts of Luzon. Table 1 summarizes the demographic profile of the participants included in the study.

### Logistical concerns encountered

Table 2 summarizes the different logistical concerns faced by OB frontliners during the COVID-9 pandemic and how it is being addressed by the hospital.

In terms of food, 81.8% of the participants agreed that there was easy access to food during their tour of duty while 10.3% disagreed. The main source of food during duty came from donations (57.5%). Only a few (13.8%) brought packed food, while no one ate food from the hospital cafeteria. On the other hand, 83.9% agreed that food was easy to access at home.

In terms of water, majority agreed (94.3%) that there was easy access to drinking water during their tour of duty while 4.6% disagreed. The main source of water during duty was reported to come from donations (46.0%). On the other hand, 94.3% of the respondents agreed that drinking water was easy to access at home.

For accommodations, majority agreed (81.6%) that they lived within walking distance to the hospital. Majority (58.6%) reside in their own houses/apartments. 5.7% lived in the hospital dormitory or LGU.

In terms of transportation, majority agreed (85.1%) that no problems are encountered with transportation going to and from the hospital. 12.6% disagreed. Majority (79.3%) also walked going to and from the hospital.

For safety and security, majority agreed (54.0%) that they feel safe going to and from the hospital while 24.1%

**Table 1: Participant demographic information (n=87)**

	n (%)
Age	30.7±3.7
Age range (years old)	
19-30	50 (28.2±1.3) (57.5)
31-40	35 (33.8±2.3) (40.2)
>40	2 (41.5±0.5) (2.3)
Civil status	
Single	70 (80.5)
Married	17 (19.5)
Separated	0
Widow	0
Sex	
Male	9 (10.3)
Female	78 (89.7)
Occupation	
Resident	53 (60.9)
Fellow	34 (39.1)
Current address	
Within manila	73 (83.9)
Within metro manila	11 (12.6)
Within NCR	1 (1.1)
Others	2 (2.3)
Permanent address	
Metro manila	17 (19.5)
NCR	26 (29.9)
Luzon	33 (37.9)
Visayas	6 (6.9)
Mindanao	5 (5.7)
Others	0

NCR=National capital region

disagreed. However, majority disagreed (55.2%) feeling safe from COVID-19 in the hospital.

Most of the participants agreed (98.9%) that they have access to personal protective equipment (PPE) whenever on duty and as much as 50.6% of them received their PPEs from the department of OBGYN. Only 33.3% came from the hospital. In addition to this, 79.3% agreed that they have access to COVID-19 testing.

Most of the participants agreed (96.6%) that they were able to access webinars, online lectures, meetings, and conferences using the internet. 70.1% of the respondents used their home internet, while 23.0% used their cellphone data.

Only 3.4% used the hospital internet provider. On the other hand, most agreed (57.5%) in terms of having access to mental and spiritual health uplifting activities while 12.6% disagreed. Activities offered include counseling session (35.6%) and support groups (25.3%).

Table 3 shows the adequacy of responses of the hospital to the logistical needs faced by frontliners in the hospital. Based on the survey, majority agreed that

the food (52.3%) and water (55.2%) provided by the hospital were adequate. Most of the participants neither agreed nor disagreed (49.4%) in terms of adequacy of the housing and accommodations provided by the hospital. However, 27.5% agreed while 23.0% disagreed. In addition to this, 50.6% of respondents neither agreed nor disagreed in terms of adequacy of the transportation services provided by the hospital. On the other hand, 35.6% agreed, while 13.8% disagreed.

Majority agreed (58.6%) that the PPE provided by the hospital was adequate while 21.8% disagreed. Majority also agreed (86.0%) that the free COVID-19 testing was made available to all healthcare workers.

Most of the participants (54.0%) agreed that free internet is provided by the hospital to access webinars, online lectures, meetings, and conferences. On the other hand, 46.0% of the respondents neither agreed nor disagreed to the adequacy of the mental and spiritual uplifting activities offered by the hospital. However, 31% disagreed.

According to the survey, Majority ranked safety and security as top priority (40.2%), followed by food (32.2%) and PPE availability (24.1%). These were followed by water (26.4%) and transportation (6.9%). The least concerns were laundry (8.0%) and banking services (8.0%).

The most commonly reported other logistical concerns include availability of medications and other supplies needed for patient care (5.7%) and fast internet connection (3.4%).

On the other hand, 13.8% of the respondents suggested ensuring the adequacy of PPEs of healthcare workers (13.8%).

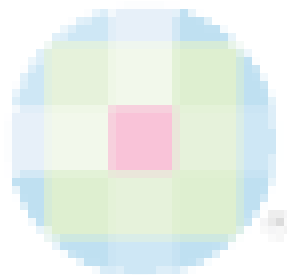
## Discussion

In an online press conference held last August 1, 2020, The Philippine College of Physicians together with more than 80 medical associations called for a two-week return to ECQ to recalibrate and strategize a public health response to the alarming increase in COVID-19 cases.<sup>[11]</sup> The medical community warned that the country's health system is already overwhelmed by the consistent increase in cases. On August 4, 2020, the DOH reported 6,352 confirmed new cases—the highest single day increase so far—bringing the national total to 112,593.<sup>[12]</sup>

President Rodrigo Duterte agreed to revert back Metro Manila and nearby provinces of Bulacan, Cavite, Laguna and Rizal into MECQ. Effective August 4-18, 2020, this is in the hopes that the two weeks of quarantine will

**Table 2: Logistical concerns faced by obstetric frontliners during the COVID-19 pandemic in a COVID referral hospital and how it is being addressed by the hospital**

	<i>n</i> (%)
<b>Food</b>	
I have easy access to food during my tour of duty	
Strongly agree	18 (20.7)
Agree	53 (60.9)
Neither agree nor disagree	7 (8.0)
Disagree	9 (10.3)
Strongly disagree	0
I have easy access to food at home	
Strongly agree	31 (35.6)
Agree	42 (48.3)
Neither agree nor disagree	6 (6.9)
Disagree	8 (9.2)
Strongly disagree	0
My main source of food during my tour of duty is from	
Packed food from the house	12 (13.8)
Food delivery	21 (24.1)
Donations	50 (57.5)
Hospital cafeteria (dietary)	0
Hospital cooperative store (COOP)	4 (4.6)
<b>Water</b>	
I have easy access to drinking water during my tour of duty	
Strongly agree	29 (33.3)
Agree	53 (60.9)
Neither agree nor disagree	1 (1.1)
Disagree	4 (4.6)
Strongly disagree	0
I have easy access to drinking water at home	
Strongly agree	43 (49.4)
Agree	39 (44.8)
Neither agree nor disagree	4 (4.6)
Disagree	1 (1.1)
Strongly disagree	0
My main source of water during my tour of duty is from	
Packed water from the house	25 (28.7)
Food delivery	11 (12.6)
Donations	40 (46.0)
Hospital cafeteria (dietary)	1 (1.1)
Hospital cooperative store (COOP)	10 (11.5)
<b>Accommodations</b>	
I live within walking distance to the hospital	
Strongly agree	54 (62.1)
Agree	17 (19.5)
Neither agree nor disagree	1 (1.1)
Disagree	11 (12.6)
Strongly disagree	4 (4.6)
During the ECQ/MECQ, I resides in	
My own house/apartment	51 (58.6)
Rented house/apartment/bed space	31 (35.6)
Hospital dormitory	4 (4.6)
LGU-subsidized housing outside (hospital)	1 (1.1)
Others	0
<b>Transportation</b>	
I encounter no problems with transportation going to and from the hospital	
Strongly agree	50 (57.5)



*Contd...*

**Table 2: Contd...**

	<i>n (%)</i>
Agree	24 (27.6)
Neither agree nor disagree	2 (2.3)
Disagree	7 (8.0)
Strongly disagree	4 (4.6)
I usually go to the hospital through the following means	
Walking	69 (79.3)
Ride a bike/scooter	1 (1.1)
Drive my own car	12 (13.8)
Carpool	2 (2.3)
Avail of transportation	3 (3.4)
<b>Safety and security</b>	
I feel safe going to and from the hospital	
Strongly agree	11 (12.6)
Agree	36 (41.4)
Neither agree nor disagree	19 (21.8)
Disagree	19 (21.8)
Strongly disagree	2 (2.3)
I feel safe from COVID-19 in the hospital	
Strongly agree	1 (1.1)
Agree	17 (19.5)
Neither agree nor disagree	21 (24.1)
Disagree	35 (40.2)
Strongly disagree	13 (14.9)
I have access to personal protective equipment whenever I am on duty	
Strongly agree	29 (33.3)
Agree	57 (65.5)
Neither agree nor disagree	1 (1.1)
Disagree	0
Strongly disagree	0
My supply of personal protective equipment during duty comes from	
Hospital main supply	29 (33.3)
Department of OBGYN	44 (50.6)
Various donations	5 (5.7)
Bought with own money	5 (5.7)
Others	0
I have access to COVID-19 testing	
Strongly agree	15 (17.2)
Agree	54 (62.1)
Neither agree nor disagree	13 (14.9)
Disagree	4 (4.6)
Strongly disagree	1 (1.1)
<b>Other concerns</b>	
I am able to access webinars, online lectures, meetings and conferences using the internet	
Strongly agree	39 (44.8)
Agree	45 (51.7)
Neither agree nor disagree	3 (3.4)
Disagree	0
Strongly disagree	0
I am able to access webinars, online lectures, meetings and conferences using internet provided by	
Hospital internet	3 (3.4)
Home internet	61 (70.1)
Cellphone data	20 (23.0)
No access	0
Others	0



Contd...

**Table 2: Contd...**

	<i>n (%)</i>
I have access to mental and spiritual health uplifting activities	
Strongly agree	12 (13.8)
Agree	38 (43.7)
Neither agree nor disagree	26 (29.9)
Disagree	10 (11.5)
The following mental and spiritual uplifting activities are offered by the hospital	
Counseling sessions	31 (35.6)
Prayer meetings	1 (1.1)
Meditation sessions	2 (2.3)
Support groups	22 (25.3)
Others	2 (2.3)

COVID: Coronavirus, ECQ: Enhanced community quarantine, MECQ: Modified ECQ, LGU: Local government units, OB-GYN: Obstetrics and Gynecology

be used to reevaluate and improve on public health strategies against COVID-19.<sup>[11]</sup>

### Hospital response

PGH launched its COVID-19 Operations Center last March 30 to serve as its COVID-19 command center. It's a 24/7 facility which aims to answer any inquiries regarding the pandemic, including how to volunteer and donate to the hospital. Faculty, students, and alumni were invited to volunteer.<sup>[12]</sup>

To augment the needs and address the concerns of the OB residents and fellows during the pandemic, the Department of Obstetrics and Gynecology formed a COVID-19 task force. This task force is made up of consultants, residents and fellows who work in close coordination with the central supply of the hospital to oversee procurement, distribution and accounting of various food, personal protective equipment and monetary donations. Moreover, they ensure safety policies are in place. The COVID-19 Task Force also serves as the channel for residents and fellows to voice their needs and concerns to the Department regarding the COVID-19 pandemic.

Through the survey, the top five logistical concerns of OB frontliners identified were 1) safety and security 2) food 3) supply of personal protective equipment 4) water and 5) transportation.

### Food and water

During the ECQ and MECQ, limited establishments were open to provide adequate food and water for consumption during duty. In response to this, the Department COVID-19 task force sought donors to ensure food safety. Respondents agreed that there was easy access to food (81.8%). Majority of food (57.5%) were from donations. Funds from the department are also allotted for meals in instances when donations were unavailable. Only a few opted to have food delivered (24.1%) or brought packed food(13.8%), while no one ate food from the hospital cafeteria. This may be due to the fact that the hospital cafeteria only serves food at allotted

times which may not necessarily be in coordination with the schedule of residents and fellows. This is especially true since they do not have a fixed meal time. In addition to this, residents usually have to stay at the labor room and would require doffing and donning of PPE just to go to the hospital cafeteria. In terms of responses regarding adequacy, majority agreed (52.3%) that the food provided by the hospital was adequate. There is no 24-hour source of food within the hospital compound. Majority of respondents also agreed (83.9%) that food was easy to access at home.

In terms of water, 94.3% of respondents agreed that there was easy access to water during duty. Majority of the water (57.5%) were from donations. In terms of responses regarding adequacy, majority agreed(55.2%) that the water provided by the hospital was adequate. This may be due to the fact that drinking water is actually not provided for free by the hospital. There are no working drinking fountains. Instead, residents have their own water dispenser in the call room, the funds for which come from their monthly lounge maintenance fee.

### Accommodations

For accommodations, majority agreed (81.6%) that they lived within walking distance to the hospital. According to respondent demographics, 83.9% currently reside in Manila, Only 4.6% resided in the hospital dormitory and 1.1% were in an LGU-subsidized housing facility outside of the hospital. Majority of residents and fellows usually rent or buy nearby apartments/condominiums which are within walking distance from the hospital. Some on the other hand, opt to stay in the dormitories found within the hospital grounds. They stay in these accommodations for the duration of their residency or fellowship training. However, a few still opt to commute to and from the comfort of their own homes, regardless of the distance from the hospital.

During the ECQ/MECQ, the hospital provided additional lodging for its employees in cooperation with nearby hotels such as Eurotel Pedro Gil, Bahay



**Table 3: Adequacy of response of (hospital) to the logistical concerns faced by obstetric frontliners during the coronavirus-19 pandemic**

	n (%)
The food provided by the hospital is adequate	
Strongly agree	9 (10.3)
Agree	37 (42.5)
Neither agree nor disagree	25 (28.7)
Disagree	15 (17.2)
Strongly disagree	1 (1.1)
The water provided by the hospital is adequate	
Strongly agree	9 (10.3)
Agree	39 (44.8)
Neither agree nor disagree	15 (17.2)
Disagree	17 (19.5)
Strongly disagree	7 (8.0)
The housing and accommodations provided by the hospital are adequate	
Strongly agree	3 (3.4)
Agree	21 (24.1)
Neither agree nor disagree	43 (49.4)
Disagree	18 (20.7)
Strongly disagree	2 (2.3)
The transportation services provided by the hospital are adequate	
Strongly agree	3 (3.4)
Agree	28 (32.2)
Neither agree nor disagree	44 (50.6)
Disagree	12 (13.8)
Strongly disagree	0
The personal protective equipment provided by the hospital is adequate	
Strongly agree	8 (9.2)
Agree	43 (49.4)
Neither agree nor disagree	16 (18.4)
Disagree	18 (20.7)
Strongly disagree	1 (1.1)
Free COVID-19 testing is made available to all healthcare workers in (hospital)	
Strongly agree	16 (18.4)
Agree	58 (66.7)
Neither agree nor disagree	7 (8.0)
Disagree	5 (5.7)
Strongly disagree	0
Free internet is provided by the hospital to access webinars, online lectures, meetings, and conferences	
Strongly agree	7 (8.0)
Agree	40 (46.0)
Neither agree nor disagree	17 (19.5)
Disagree	21 (24.1)
Strongly disagree	2 (2.3)
The mental and spiritual uplifting activities offered by the hospital are adequate	
Strongly agree	1 (1.1)
Agree	19 (21.8)
Neither agree nor disagree	40 (46.0)
Disagree	23 (26.4)
Strongly disagree	4 (4.6)

COVID: Coronavirus-2019

Kubo Hostel and BP International Hotel. Other lodging available included the university dormitory, UP Manila Dorm, PGH Dorms 3 and 5 and PGH Nurses Home.<sup>[13]</sup>

Most respondents neither agreed nor disagreed (49.4%) in terms of adequacy of the housing and accommodations provided by the hospital. 27.6% agreed that accommodations were adequate while 23.0% disagreed. The disparity between having easy access to basic necessities and the low adequacy of these services provided by the hospital may be due to the fact that the respondents are aware of the struggles of other healthcare workers even if it doesn't necessarily apply to them.

### Transportation

In terms of transportation, majority agreed (85.0%) that no problems were encountered with transportation going to and from the hospital. This may be attributed to the fact that majority (79.3%) walked going to and from the hospital. Only 3.4% availed of transportation for frontliners. Most respondents neither agreed nor disagreed (50.6%) in terms of adequacy of the transportation services provided by the hospital. This is probably because majority of those included in the survey have no problems with transportation or are unaffected by it. However, the respondents may have taken into consideration the plight of other healthcare workers; accounting for the 13.8% who disagreed that the transportation services provided are adequate.

Hospital employees have a variety of options for transportation. This includes the hospital own shuttle service, a staff transport in cooperation with Toyota Mobility Foundation and Swat Foundation, and a UP PGH Grab Whitelist. Other transportation services include Sakay (<http://covid19.sakay.ph>)- A COVID-19 shuttle services directory which provided various transport options available during the enhanced community quarantine for frontliners in Metro Manila. This was made possible by the Sakay.ph team in partnership with the Office of The Vice President, Department of Transportation, Department of Interior and Local Government, Pasig City Government's City Transport Development and Management Office. Bikes were also made available to hospital employees through the hospital Bike Program.<sup>[13]</sup>

### Safety and security

For safety and security, majority agreed (54.0%) that they feel safe going to and from the hospital. In addition to this, 40.2% of respondents disagreed feeling safe from COVID-19 in the hospital as opposed to the 20.7% who agreed to feeling safe. 24.1% of respondents neither agreed nor disagreed.

Based on current literature, exposure to COVID-19 causes emotional distress, burnout, and physical manifestations

such as headaches and difficulty of breathing associated with wearing PPE. Furthermore, studies show that healthcare workers experience fear and anxiety from contracting the virus and possibly bringing it home. Although healthcare workers continue to carry out their responsibilities to the best of their abilities, their dual role as a family member causes much distress, especially if they live with those considered as part of the vulnerable population.<sup>[14,15]</sup>

Being a COVID-19 referral hospital, majority of patients seen are infected with COVID-19. The risk of exposure is definitely higher for healthcare workers in the hospital. As such, strict infection control protocols have been put in place. High risk and low risk zones have been identified in order to guide the employees regarding the proper PPE to use when working in these areas. Moreover, controlled ventilation system, air purifying equipment, UV light and automated hand hygiene dispensers have been installed in the entire hospital.<sup>[14]</sup>

The hospital has also produced and disseminated information, education and communication (IEC) materials via various social media platforms. This is to serve as constant reminders to help impose strict infection control protocols and correct any misinformation that the healthcare workers may have about COVID-19.

79.3% of respondents agreed that they had access to COVID-19 testing. On the other hand, 86.0% of the respondents agreed that free COVID-19 testing was made available to all health care workers in the hospital.

Mandatory routine testing of all healthcare workers is costly and may not be sustainable for the hospital at this time. Instead, healthcare workers are encouraged to practice daily self-assessment, testing once with symptoms and wearing the appropriate PPE according to area or activity risk. The hospital clinic remains open for employees who feel sick or have symptoms of COVID-19.

### Personal protective equipment

Most of the participants agreed (98.9%) that they have access to personal protective equipment whenever they report for duty while none disagreed. 50.6% of these respondents received their PPEs from the Department of Obstetrics and Gynecology. This may be attributed to the fact that the Department COVID-19 Task Force also coordinates with various donors and suppliers to augment the PPE supply provided by the hospital. The Department supplies additional PPE needed for clean zones or low risk areas such as the out-patient department or elective/non-COVID operative cases. On the other hand, only 33.3% of PPE comes from the hospital main/central supply. This is because the hospital is responsible for supplying the minimum

recommended PPE for each zone. Any additional PPE needed comes from the Department.

Others sources of PPE identified come from various donations (5.7%), or are purchased out-of-pocket (5.7%). Examples of these are the elastomeric respirators. In addition to providing PPEs for all its staff, the hospital also facilitates the fit testing of N95 and KN95 masks. This is to ensure that all staff are wearing the appropriate type of masks which provide the best protection while going on duty. There are also unified donning and doffing areas with assigned safety officers to ensure that PPEs are properly worn and discarded in COVID areas. In addition to this, the hospital has the Lakbay Alalay program which aims to supply masks and face shields for employee use inside as well as travel to and from the hospital.<sup>[14]</sup>

Majority of respondents still agree (58.6%) that the personal protective equipment provided by the hospital is adequate while 21.8% disagree. Based on the survey, the most common recommendation of respondents was to ensure the adequacy of PPEs of the healthcare workers (13.8%).

### Other concerns

According to the survey, 96.6% of the participants agreed that they were able to access webinars, online lectures, meetings and conferences using the internet while none disagreed. Majority of respondents use their home internet (70.1%) while 23.0% use their cellphone data. Only 3.4% use the internet connection provided by the hospital. This may be due to the limited bandwidth and coverage provided. Respondents recommended providing a fast internet connection for the frontliners not just for webinars and online lectures, but also for telemedicine purposes as well. Respondents also suggested that internet access should also be made available in all areas of the hospital because there are some zones which do not have internet signal. Despite this, 54.0% of respondents agree that the free internet provided by the hospital is adequate while 26.4% disagreed. 2.3% of respondents also suggested providing mobile load for teleconsults.

57.5% of respondents agreed to having access to mental and spiritual health uplifting activities. Among these activities are counselling sessions (35.6%), support groups (25.3%), meditation sessions (2.3%) and prayer meetings (1.1). 2.3% of respondents answered "others"— there were no such programs available. The Department of Psychiatry and Behavioral Sciences launched a "Psychosocial Care Hotline for Frontliners" exclusive to employees of the hospital. This is an effort to help healthcare workers cope with the many stressors they experience during the pandemic. In addition to this, the Section of Child and Adolescent Psychiatry

together with MHPAD began “Heroes’ Heroes.” Through this project, children and their parents are able to send thank you cards and words of encouragements for health workers and other frontliners.<sup>[14]</sup> However, 46% of respondents answered that they neither agree nor disagree on the adequacy of mental and spiritual uplifting activities provided by the hospital. 31.0% disagreed. This may be due to the lack of awareness of existing programs regarding mental and spiritual health uplifting activities. This could also be because the existing programs do not necessarily address their needs.

The most commonly reported other logistical concern include availability of medications and other supplies needed for patient care (5.7%). This has always been a concern of residents and fellows across all departments and is probably the reason for the “stash” culture. Medical personnel have made it a practice to have their own supply of essential medicines and medical supplies to augment whatever is provided by the hospital.

Another important concern which was not included in the study was the issue of proper and timely compensation of healthcare workers. The hospital employs a ‘no work, no pay’ policy. Calling in sick for work not only means less manpower to the already skeletal duty team, but also means less income for the already underpaid healthcare worker. Respondents recommend an increase in hazard pay. Healthcare workers continue to fight for fair compensation and await the increased pay that was promised to them through the Bayanihan Act. The hospital administration has addressed this issue.<sup>[14]</sup>

## Conclusion

A total of 87 participants (93.5%) were included in the study. Their mean age was 30.7 years (SD = 3.7) with 57.5% belonging to 19–30 years ( $28.8 \pm 1.3$ ). Majority were single (80.5%) and female (89.7%). Majority were resident doctors (60.9%) and the rest were fellows. As much as 83.9% live within Manila, while 37.9% live in other parts of Luzon.

The residents and fellows of the department of OBGYN continue to face a number of logistical challenges in a COVID referral hospital during the pandemic. The top five logistical concerns identified were (1) safety and security, (2) food, (3) supply of PPE, (4) water, and (5) transportation. The department of OBGYN has formed a COVID-19 task force to ensure that all the needs and concerns of the fellows and residents of the department are properly and adequately addressed. The COVID-19 task force also works in close coordination with the hospital-wide COVID-19 Operations Center to provide an organized and centralized method of procurement, distribution and accounting of various food, PPE, and

monetary donations. Moreover, they ensure safety policies are in place. The COVID-19 task force also serves as the channel for residents and fellows to voice their needs and concerns to the department regarding the COVID-19 pandemic. Healthcare workers are the last line of defense in the fight against COVID-19. Both government and hospital administrators must work hand in hand to provide our frontliners with access to basic needs and services so that they may continue to do their best in serving the Filipino people.

## Recommendations

The following are recommendations to help address the logistical concerns of the OB frontliners. These are based on the results of the survey.

1. If feasible, extend the availability of food services in the hospital since there is no 24-h source of food or water within the hospital compound  
Food dispensed by the dietary division for its employees can also be put in to-go bags to be claimed by one representative on duty instead of requiring personnel to go there themselves. This can be arranged per duty team
2. If the improvement of the speed and bandwidth of the hospital provider is not feasible right away, an alternative is providing cellphone load or allowance to each resident and fellow. This will allow each of them to do teleconsults simultaneously and will also cover for their webinars and online conferences. This would be more cost-efficient than just providing one phone used for all teleconsults
3. Being a COVID-19 referral hospital, the majority of patients seen are positive for COVID-19. The risk of exposure is definitely higher for healthcare workers. Risk can only be reduced by making sure that infection control protocols are followed religiously by everyone. A safety officer should be assigned per duty team to oversee adherence to safety protocols
4. For PPE, it is important to take into consideration that sizes should be provided. PPEs should also fit the residents/fellows properly in order for them to better perform their tasks with ease
5. The mental health and well-being of the residents and fellows should also be made a priority. This can be addressed by starting a support group within the department itself or by having a monthly activity to distress. A buddy system can also be proposed to ensure that each resident/fellow will not feel alone during this pandemic. It is also important to have an avenue by which the residents and fellows can voice their concerns as OB frontliners in a COVID-19 referral hospital.

The current study is limited only to the residents and fellows from the department of OBGYN who are currently in a COVID referral center during the

COVID-19 pandemic. A hospital-wide survey can be performed to enumerate the logistical concerns of all other departments and to consolidate the strategies that they have applied to address these concerns. Furthermore, this survey can also be conducted among other frontliners such as nurses, security guards, and PhilCare workers since they are also integral to the healthcare team. At last, this survey can also be administered among different OB training institutions to compare logistical concerns encountered by OB frontliners in the Philippines as well as the strategies that other institutions have applied to address their concerns.

### Financial support and sponsorship

Nil.

### Conflicts of interest

There are no conflicts of interest.

### References

1. World Health Organization, Coronavirus (COVID-19) [Online]. 2020 [cited 2020 May 02]. Available from <https://covid19.who.int/>.
2. Department of Health, COVID-19 Case Tracker [Online]. 2020 [cited 2020 May 02 and 2020 August 02]. Available from <https://www.doh.gov.ph/2019-nCoV>.
3. Del Rio C, Malani PN. COVID-19—New Insights on a Rapidly Changing Epidemic. *JAMA*. 2020; 323(14):1339–1340. doi:10.1001/jama.2020.3072.
4. Di Mascio D., Khalil A, Saccone G, *et al*. Outcome of Coronavirus spectrum infections (SARS, MERS, COVID 1-19) during pregnancy: A systematic review and meta-analysis. *American journal of obstetrics & gynecology MFM* 2020; 100107. Advance online publication. <https://doi.org/10.1016/j.ajogmf.2020.100107>.
5. Donders F, Lonnée-Hoffmann R, Tsiakalos, *et al*. ISIDOG COVID-19 Guideline Workgroup. ISIDOG Recommendations Concerning COVID-19 and Pregnancy. *Diagnostics* 2020;10:243.
6. Jianguo Wu, Jun Liang, Hongji Zhou, *et al*. Clinical Features and Outcomes of Asymptomatic Cases of SARS- CoV-2 Infection, *Journal of Infection* 2020; doi: <https://doi.org/10.1016/j.jinf.2020.04.027>.
7. Department of Health, Inter-agency task force for the management of emerging infectious diseases resolutions [Online]. 2020 [cited 2020 May 02]. Available from <https://www.doh.gov.ph/COVID-19/IATF-Resolutions>.
8. Nussbaumer-Streit B, Mayr V, Dobrescu AI, *et al*. Quarantine alone or in combination with other public health measures to control COVID-19: a rapid review. *Cochrane Database of Systematic Reviews* 2020, Issue 4. Art. No.: CD013574. DOI: 10.1002/14651858.CD013574.
9. Official Gazette of the Philippines, "Republic Act No. 11469 – An Act Declaring the Existence of a National Emergency Arising from the Coronavirus Disease 2019 (Covid-19) Situation and ALCAZAREN | 20 a National Policy in Connection Therewith, and Authorizing the President of the Republic of the Philippines for a Limited Period and Subject to Restrictions, to Exercise Powers Necessary and Proper to Carry Out the Declared National Policy and for Other Purposes"(PDF) [Online]. 2020 [cited 2020 May]. Available from Senate of the Philippines: <https://www.senate.gov.ph/Bayanihan-to-Heal-as-One-Act-RA-11469.pdf>
10. Cepeda M. House nears approval of Bayanihan 2 bill with P162-B pandemic fund [Online]. 2020 [cited 2020 August]. Available from Rappler: <https://rappler.com/nation/house-nears-approval-bayanihan-2-bill-with-fund-pandemic-response>.
11. Jaymalin M. and Crisostomo, S, Inappropriate Tests, Failing Strategies: Why the Gov't Is Losing the Battle Against COVID-19, According to Healthcare Workers [Online]. 2020 [cited 2020 August]. Available from One News: <https://www.onenews.ph/inappropriate-tests-failing-strategies-why-the-gov-t-is-losing-the-battle-against-covid-19-according-to-healthcare-workers>.
12. University of The Philippines, UP-PGH Bayanihan Na! COVID-19 Operations Center [Online]. 2020 [cited 2020 August]. Available from University of The Philippines - Padayon Public Service Office: <https://publicservice.up.edu.ph/uppggh-bayanihan-na/>.
13. Philippine General Hospital, Frontliner Logistics [Online]. 2020 [cited 2020 August]. Available from <https://www.pgh.gov.ph/hcwlogistics/>.
14. Berba R, Berberabe E, Veloso B, Dofitas R, Genuino, L, Legaspi G. PGH shares lessons learned during ongoing efforts to prevent COVID-19 transmission. University of the Philippines. [Online]. 2020 [cited 2020 August]. Available from: <https://www.up.edu.ph/wp-content/uploads/2020/08/Policy-Paper-PGH-shares-lessons-learned-PGH-COVID-Crisis-Team-PDF.pdf>.
15. Ramaci T, Barattucci M, Ledda C, Rapisarda V. Social Stigma during COVID-19 and its Impact on HCWs Outcomes. *Sustainability* 2020;12:3834.