

Awareness and practices on adult vaccination of obstetrician-gynecologists in the Philippines*

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ABSTRACT

Background: Adult vaccination is necessary in the prevention of many of the most common infectious diseases because immunity from infant vaccination typically wanes in adulthood. In the female population, the obstetrician-gynecologist is placed at the forefront of health promotion and disease prevention. In 2011, the Philippine Obstetrics and Gynecology Society (POGS) released a Clinical Practice Guideline on Immunization for Filipino Women but no study has been done to determine its impact.

Objective: This study determined the awareness and practices of OB-GYN specialists on adult vaccination and their perceived hindrances to routine administration of the recommended vaccines.

Methods: A self-administered questionnaire was given to the POGS fellows through email, phone and personal visits.

Results: Almost all of the respondents (95%) were aware of Clinical Practice Guideline on Immunization but only 4% of the OB-GYNs routinely administered all the vaccines. The most common vaccine administered was Human Papilloma Virus (HPV) vaccine (42.7%), followed by Influenza virus vaccine (28.1%), and Hepatitis B vaccine (27.3%). There is no significant relationship between age of the respondent, the number of years in practice, place of practice, affiliation with a teaching hospital, or subspecialty training and vaccine recommendation and administration. There is a significant positive relationship between awareness of the guidelines and the frequency of recommending the Tetanus-Diphtheria-Pertussis (Tdap) vaccine and the Influenza vaccine. Similarly, awareness of the guidelines was related to increased frequency of administering the Human Papilloma Virus (HPV) vaccine and the Influenza vaccine.

Conclusion: Hence, adult vaccination coverage may be promoted by increasing the awareness of the obstetrician-gynecologists of the POGS Clinical Practice Guidelines on Immunization. Although cost remains to be an issue (identified by 93% of the respondents), increasing awareness among OB-GYNs on the importance of adult vaccination through the CPG on Immunization and/or through attendance of the Vaccinology 101 Course through vaccinology courses may ultimately help decrease the incidence of some of the most common infectious diseases affecting the Filipino women and their children.

Keywords: awareness, obstetrician-gynecologist, practices, vaccination

INTRODUCTION

Immunization in the Philippines has been focused on infant and child vaccination especially with the implementation of the Expanded Program on Immunization (EPI). As we age, the immunity provided by vaccines administered during infancy and childhood wane causing us to be susceptible to several common infectious diseases. This is where the role of catch-up or adult immunization comes into play. A variety of factors contribute to the low rate of adult vaccination in the country. These include lack of awareness on the need for these vaccines, high cost, perceived side effects, and absence of recommendation from the patients' primary care physicians.

The obstetrician-gynecologist is placed at the forefront of health promotion and disease prevention in the female population. A lot of women seek consult with an obstetrician-gynecologist for preconceptional counselling, prenatal checkup, cervical cancer screening and for gynecologic complains such as vaginal pruritus or abnormal uterine bleeding. In the majority of cases, the obstetrician-gynecologist serves as the primary health care provider for these women. An important component of primary health care that is often neglected is vaccination. Identifying the obstacles in routinely administering vaccines to adult women is a critical part in obtaining high vaccination coverage and ultimately in decreasing the incidence of several infectious diseases.

Vaccine-preventable infections still comprise a majority of perinatal morbidities and mortalities. According to the Global Health Progress, immunization can prevent 2.5 million deaths per year from diphtheria, tetanus, pertussis and measles alone¹. The Center for

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Disease Control and Prevention (CDC) estimates that 240 million people have Chronic Hepatitis B infection.² Ong et al. (2013) noted that the HBsAg national seroprevalence in the Philippines was 16.7% thus classifying the country to be hyperendemic for the Hepatitis B infection, a status that has been constant for the past several decades.³ Pneumonia and Influenza, on the other hand, remains the third most common cause of death in this country following deaths from cardiovascular diseases and cerebrovascular diseases.

In 2011, the Philippine Obstetrics and Gynecology Society (POGS) released a Clinical Practice Guideline on Immunization for Filipino Women which recommended the following vaccines: Tetanus-Diphtheria-Pertussis (Tdap), Human Papilloma Virus (HPV), Varicella Virus, Measles, Mumps and Rubella Viruses (MMR), Influenza Virus, Pneumococcal Bacteria, Hepatitis A Virus (HAV), and Hepatitis B Virus (HBV).⁴ The guideline enumerated the target population, dose regimen, and contraindications for each of the vaccines. It has been 5 years since the publication of this guideline but the impression is that still a lot of obstetrician-gynecologists do not routinely offer and/or administer these vaccines to their patients.

To remedy the poor compliance to the Immunization recommendations, the Philippine Obstetrics and Gynecology Society (POGS) conducts the Vaccinology 101 Course in different regions of the country. This is to increase awareness on adult vaccination by reiterating indications, dose and contraindications for each vaccine. Infectious disease experts serve as lecturers and panel discussants. The participants can also ask questions regarding their apprehensions on routinely giving the recommended adult vaccines.

The objective of this study was to determine the awareness and practices of OB-GYN specialists on adult vaccination and their perceived hindrances to routine administration of the recommended vaccines. The data obtained from this study can be used to assist efforts to improve adult vaccination coverage in the country. The demographic characteristics that lead to poor awareness and compliance on adult vaccination were identified. The Philippine Obstetrics and Gynecology Society (POGS) can then format their Vaccinology 101 Course to cater to this population. Also by identifying the hindrances to routine administration of the recommended vaccines, further studies may be done to investigate these factors such as cost analysis studies, or an exploration of the knowledge and attitude of patients on the need for vaccination.

To our knowledge, this is the first study in the Philippines to assess the awareness and practices of OB-GYN specialists on adult vaccination.

The Center for Disease Control and Prevention (CDC) defines a vaccine as a product that protects a person from

a specific disease by stimulating the person's immune system. They also defined immunity as the protection from an infectious disease whereby exposure would not result in an infection.²

Although vaccination in infants and children is widely accepted and has a broad nationwide coverage, adult vaccination is not as popular. Most adults are not aware of the vaccines that they should be receiving. And since most adults do not routinely seek medical consult, there are no established opportunities for vaccination. When a patient does seek consult, the physician often does not inquire on the vaccination history of the patient or the physician simply assumes that their patients have already been vaccinated. The lack of a physician's recommendation for vaccination is often cited by unvaccinated patients as a reason for their not being immunized.⁵

According to the American College of Obstetricians and Gynecologists (ACOG), the obstetrician-gynecologist should incorporate immunizations as an integral part of their health care practice because immunization is one of the most effective primary health care services. Vaccines have long been proven to be safe and effective in preventing numerous infectious diseases among adults, newborns, and pregnant women.⁶

The obstetrician-gynecologist is placed at an advantageous position with opportunities to deliver vaccines in women across all ages, from newborns to the elderly. Also, for some patients, the consult with an obstetrician-gynecologist may be their only contact with the health care system. Thus primary health care has increasingly been incorporated in the practices of some obstetrician-gynecologists.⁷ One important component of primary health care is vaccination which focuses on the primary prevention of infectious diseases.

In a study by Gonik et al. (2002) on the role of the obstetrician-gynecologist in vaccine-preventable diseases and immunization, 60% of obstetrician-gynecologists stated that it is not their role to administer vaccines to their patients. Fifty percent cited cost as a hindrance for routinely administering the recommended vaccines while 43% mentioned unavailability of the vaccines as a cause.⁸ Shrag et al. (2003) also explored the vaccination practices among obstetrician-gynecologists in the United States and they reported that less than 60% would routinely ask their patient's vaccination history. They identified that the limitations to administering vaccines to their patients were cost of vaccination and the belief that vaccination was not the responsibility of the obstetrician-gynecologist.⁷ In a study done by Power et al. (2009) 6 years after in the same population, they found that although majority of obstetrician-gynecologists perceive that administering vaccines is part of their role as a health care provider, less than half of them actually evaluate their patient's

vaccination status and fewer give the full complement of vaccines recommended. Power still pointed to high cost as a deterrent to vaccinating all their eligible patients but they also emphasized that another limiting factor is the belief of obstetrician-gynecologists that they are inadequately trained on adult vaccination. Majority of the obstetrician-gynecologists replied that continuing medical education and other educational materials can increase the likelihood of them administering vaccines to their patients.⁹ Physicians who had more awareness and knowledge on adult vaccination were more likely to administer the vaccines to their patients.⁸

OBJECTIVE

The objective of this study was to determine the awareness and practices of OB-GYN specialists on adult vaccination and their perceived hindrances to routine administration of the recommended vaccines.

Specific Objectives:

1. to determine the awareness rate among obstetrician-gynecologists on the 2011 POGS Clinical Practice Guideline on Immunization of Filipino Women;
2. to determine frequency of recommendation and administration of each vaccine among obstetrician-gynecologists;
3. to identify demographic factors that increase the awareness and compliance factors to the adult vaccination guidelines; and
4. to enumerate hindrances to administering the recommended vaccines

METHODOLOGY

The study population consisted of fellows of the Philippine Obstetrics and Gynecology Society (POGS) who are currently in the practice of Obstetrics and Gynecology. A POGS fellow is a member who has been board certified in Obstetrics and Gynecology and fulfilled the requirements identified by the society.

For 2016, the current number of POGS fellows nationwide was 2,120. From the POGS directory, 1960 fellows had active email addresses. All of them were contacted through email, and some of them through phone and personal visits.

A self-administered questionnaire was given to the fellows of the Philippine Obstetrics and Gynecology Society (POGS). The questionnaire consisted of four sections: 1) a series of items regarding the respondents' demographic characteristics (age, sex, years of practice, place of practice, subspecialty if any, affiliation with a training institution), 2)

awareness of the 2011 POGS Clinical Practice Guideline on Immunization of Filipino Women, 3) vaccination practices, and 4) factors hindering administration of vaccines on all patients (financial constraints, patient does not perceive the need for the vaccine, apprehension on the possible side effects). Question formats were primarily yes or no questions or opinion questions requiring a scaled response.

The vaccines that were included in the study were those recommended by the POGS Clinical Practice Guideline on Immunization of Filipino Women. This were the following vaccines: Tetanus-Diphtheria-Pertussis (Tdap), Human Papilloma Virus (HPV), Varicella Virus, Measles, Mumps and Rubella Viruses (MMR), Influenza Virus, Pneumococcal Bacteria, Hepatitis A Virus (HAV), and Hepatitis B Virus (HBV).

Description of the Study Procedure

A copy of the latest directory of Philippine Obstetrics and Gynecology Society (POGS) was obtained. There were 2,120 fellows listed in the POGS directory and 1960 of the fellows had active email addresses. All of them were contacted through email, and some of them through phone and personal visits. A self-administered questionnaire was emailed to all 1960 POGS fellows. Two follow up emails were sent one week and two weeks after the first email if a response was not received from the respondents. Questionnaires were also distributed in person during the annual gatherings of obstetrician-gynecologists in the country. (POGS Annual Convention held last July 12-13, 2016 and one of the Obstetrics and Gynecology Postgraduate Courses held last June 2016).

Outcomes

This study investigated the following outcomes of interest:

1. Awareness rate among obstetrician-gynecologists on the existence of the 2011 POGS Clinical Practice Guideline on Immunization of Filipino Women computed by obtaining the ratio of the number of respondents aware of the immunization guidelines over the total number of respondents multiplied by 100.

2. Frequency of recommendation and administration of each vaccine among obstetrician-gynecologists computed based on the mean rating computed per vaccine. For the likert questions, the scaled answers were assigned a numerical value (never = 0, rarely = 1, sometimes = 2, most of the time = 3, always 4).

3. Hindrances to routine administration of the recommended vaccines

Description of Analysis

The data were extracted by the investigator from the accomplished survey forms completed by fellows of the

Philippine Obstetrics and Gynecology Society (POGS). The information gathered were tabulated in a Microsoft Excel file.

Descriptive statistics such as mean and frequency were used for the socio-demographic variables to provide an overview of the study population.

The association between selected physician characteristics (age, years of practice, place of practice, subspecialty if any, affiliation with a training institution) and the awareness of the 2011 POGS Clinical Practice Guideline on Immunization of Filipino Women was analyzed using Fischer's exact test. The frequency of recommendation and administration of each of the seven vaccines were related to the physician's demographic characteristics and awareness of the immunization guidelines using chi square test.

Ethical Considerations

The protocol for this research study was approved by the institution's Ethics Board.

Informed consent was obtained from the participants invited to accomplish the survey. Demographic information and personal answers to the questionnaire were kept confidential. The names of the participating obstetrician-gynecologists were not disclosed in the reporting of the study. For those who answered using the online survey, a copy of the informed consent form was provided for their perusal and their consent was implied once they have completed the online survey.

RESULTS

Demographics

A total of 99 respondents answered through the administered online survey and 102 respondents answered the written questionnaires distributed in person through annual gatherings of the Philippine Obstetrics and Gynecology Society. There were a total of 201 POGS fellows who completed the administered questionnaire.

The mean age of the respondents was 44 years, 92% of them were female and the average length of practice was 12 years. A greater portion (41%) of the respondents held their medical practice in Metro Manila, 33% practiced in the rural areas, and the other 26% were practicing in urban areas outside Metro Manila. Majority (54%) did not go into subspecialty training and were practicing general Obstetrics and Gynecology and 62% were affiliated with a training institution.

Awareness

Almost all of the respondents (95%) were aware of the 2011 POGS Clinical Practice Guideline on Immunization

of Filipino Women and 77% had a personal copy of the guidelines.

Awareness of the practice guidelines is not influenced by age, the length of practice, place of practice, affiliation with a teaching hospital, subspecialty training or place of practice.

Vaccine Recommendation

Only a small percentage (17.4%) responded that they routinely recommend all the eight vaccines included in the 2011 POGS Clinical Practice Guideline on Immunization of Filipino Women. The most commonly recommended vaccine was the Human Papilloma Virus (HPV) vaccine (recommended all the time by 60% of the respondents), followed by Influenza virus vaccine (46.2%), Tetanus-Diphtheria-Pertussis (Tdap) vaccine (42.3%), and Hepatitis B vaccine (37.3%). The least recommended vaccine was the Hepatitis A virus vaccine followed by the Varicella virus vaccine.

For all of the vaccines, there is no significant relationship between age of the respondent, the number of years in practice, place of practice, affiliation with a teaching hospital, or subspecialty training and vaccine recommendation.

Awareness of the 2011 POGS Clinical Practice Guideline on Immunization of Filipino Women is significantly associated with the frequency of recommending the Tetanus-Diphtheria-Pertussis (Tdap) vaccine and the Influenza vaccine. It has no significant relationship with the recommendation of the HPV vaccine and Hepatitis B vaccine.

Awareness of the guidelines on immunization is a positive factor in recommending the Tetanus-Diphtheria-Pertussis (Tdap) with a significant relationship at 95% confidence level. Those who are aware of the immunization guidelines have a higher mean rating of 2.96 than those who are unaware of it (mean rating of 1.9). A huge portion (43%) of the respondents who were aware of the guidelines would always recommend the Tdap vaccine to their patients. On the other hand, the greater portion (30%) of those who are unaware of the guidelines rarely recommend the Tdap vaccine.

Awareness of the immunization guidelines also has a significant positive relationship with the frequency of recommending the Influenza vaccine at a 95% confidence interval. The respondents who were aware of the guidelines have a mean rating of 3.15 whereas those who were not aware of the guidelines have a mean rating of 1.4. A big percentage (48.1%) of those who were aware of the immunization guidelines always recommend the Influenza vaccine, while 30% of those unaware of the guidelines responded that they sometimes recommend the Influenza vaccine to their patients.

Vaccine Administration

Only 4% of the respondents stated that they routinely administered all the eight vaccines included in the clinical practice guidelines. The most common vaccine administered by the respondents was the Human Papilloma Virus (HPV) vaccine (always administered by 42.7%), followed by the Influenza virus vaccine (always administered by 28.1%), and the Hepatitis B vaccine (always administered by 27.3%). The Hepatitis A vaccine and Varicella virus vaccine were the least commonly administered vaccines (never recommended by 39% and 29.6% of the respondents, respectively).

The administration of any of the eight vaccines is not influenced by either the age of the respondent, the number of years in practice, place of practice, affiliation with a teaching hospital, or subspecialty training.

There is a significant positive relationship between the respondent's awareness of the 2011 POGS Clinical Practice Guideline on Immunization of Filipino Women and the administration of the HPV vaccine and of the Influenza vaccine.

Those who were aware of the guidelines on immunization were highly likely to administer the HPV vaccine at 95% confidence level. They have a higher mean rating of 3.25 compared to the group of respondents who were unaware of the immunization guidelines with a mean rating of 2.5. Majority (43.6%) of those who were aware of the guidelines administered the HPV vaccine always while 40.0% administered the vaccine most of the time. Whereas among those who were unaware of the guidelines, 40% administered the HPV vaccine only sometimes.

Awareness of the clinical practice guidelines on immunization also has a significant relationship with the administration of the Influenza vaccine at 95% confidence level. Those who were aware of the guidelines had a mean rating of 1.34 with 31.5% of them saying that they never administer the vaccine while those who were unaware of the guidelines had a mean rating of 0.67 with 44.4% of them saying that they never administer the Influenza vaccine.

Barriers

The main factor identified as a hindrance to the routine administration of the recommended vaccines was that the patient lacks funds for the vaccines (93%). Majority (52%) also stated the vaccines were not available to them (probably because of the need for additional equipment for the storage of the vaccines), 11% did not routinely administer the vaccines because of lack of knowledge on the dose, indication and contraindications of each vaccine. Another 9% of the respondents were wary of the possible side effects of the vaccines and 7% felt that the vaccines should be administered by another doctor such as a family

physician, a pediatrician, or an infectious disease expert.

Impact of a Vaccinology Course

Among the respondents, only 33% have already attended a vaccinology course. Of the 67% who have not yet attended a vaccinology course, almost all (93%) were interested in attending. A huge percentage (82%) of those who attended the vaccinology course found it very useful to their practice.

DISCUSSION

Adult vaccination is deemed necessary in the prevention of some of the most common infectious diseases because the immunity provided to us by the vaccines we received as infants usually wanes. In the female population, the obstetrician-gynecologist is placed at the forefront of health promotion and disease prevention. They often serve as primary health care providers and they may even be the only physician that the adult female patient sees. It is often that adult vaccination is neglected either due to lack of funds or from the lack of recommendation from their physician. Identifying the obstacles in routinely administering vaccines to adult women is a critical part in obtaining high vaccination coverage and ultimately in decreasing the incidence of several infectious diseases.

In 2011, the Philippine Obstetrics and Gynecology Society (POGS) released a Clinical Practice Guideline on Immunization for Filipino Women which recommended the following vaccines: Tetanus-Diphtheria-Pertussis (Tdap), Human Papilloma Virus (HPV), Varicella Virus, Measles, Mumps and Rubella Viruses (MMR), Influenza Virus, Pneumococcal Bacteria, Hepatitis A Virus (HAV), and Hepatitis B Virus (HBV). POGS also conducts several vaccinology courses in different regions in the country to try to increase the compliance to the practice guidelines on immunization.

This study provides important insights into the awareness and practices of OB-GYN specialists on adult vaccination. It identifies their perceived hindrances to routine administration of the recommended vaccines. We are also able to whether certain demographic factors are predictive of a higher likelihood of recommendation and administration of vaccines.

This study showed that most OB-GYNs would more likely administer the Human Papilloma Virus (HPV) vaccine compared to the other seven vaccines included in the practice guidelines, followed by Influenza virus vaccine and Hepatitis B vaccine. This is similar to the results of the study conducted by Power et al. (2009) among members of the American College of Obstetricians and Gynecologists (ACOG) where the most frequently

administered vaccine was the HPV vaccine followed by the Influenza vaccine.⁹ Gonik et al. (2002) also did a similar survey among ACOG members.⁸ Though the study included all of the recommended vaccines except HPV vaccine, they noted that the mostly commonly recommended vaccines, in order of frequency, were Hepatitis B vaccine, Measles, Mumps and Rubella Viruses (MMR) vaccine, and Influenza Virus vaccine. In our study, 4% of the POGS fellows routinely administered all the eight vaccines, whereas among members of the ACOG, 6% administered all six vaccines (excluding HPV vaccine and Hepatitis A vaccine)⁸.

The most commonly recommended and administered vaccine by the obstetrician-gynecologists was the Human Papilloma Virus (HPV) even though it is the most recently developed vaccine among the eight recommended vaccines for Filipino women. Probably this is because cervical cancer and genitals warts caused by HPV is also within the realm of the gynecologist. It may be easier to advise the patients seeking gynecologic consult especially if they came for a pap smear or if they were diagnosed with sexually transmitted infections. The OB-GYN specialist may also be more knowledgeable on its indications and on the perceived benefits of this vaccine.

It is also notable that less than half (42.3%) of the obstetrician-gynecologists always recommend the Tetanus-Diphtheria-Pertussis (Tdap) vaccine and only a small percentage (26.7%) always administer the vaccine to their patients. This is alarming since most adult women are only able to update their Tetanus vaccination during pregnancy. Pregnant patients not vaccinated with Tetanus vaccine by their obstetricians are lost opportunities.

Influenza virus vaccine administration is also low (always administered by only 28.1% of the respondents). This is compared to the results of the survey done by Kissin et. al. (2011) among randomly selected member of the American College of Obstetricians and Gynecologists members, which showed that majority 77.6% of OB-GYNs in the United States routinely give the Influenza vaccine to their patients.¹⁰ This vaccine is safe to be administered during pregnancy and Influenza infection may cause significant pregnancy complications.⁷ But some obstetricians may still be cautious in administering Influenza vaccine because of concerns about safety and benefits, and possibly the lack of vaccine acceptance by the pregnant patient.

Only several (9.7%) OB-GYN specialists always administer the Measles, Mumps and Rubella Viruses (MMR) vaccine and 29.6% do not administer it. It is possible that even though majority are aware of the POGS Clinical Practice Guideline on Immunization, they may not be knowledgeable on the need for the MMR vaccine booster during adulthood. The infections prevented by this vaccine

are known to cause devastating fetal malformations especially when contracted during the first trimester of pregnancy. Postpartum administration of the Rubella vaccine can decrease the incidence of Congenital Rubella Syndrome by half.⁵ Hence the Philippine Obstetrics and Gynecology Society must augment their efforts to increase Rubella vaccine coverage among Filipino women.

The results showed that a great majority of the respondents were aware of the 2011 POGS Clinical Practice Guideline on Immunization for Filipino Women regardless of age, years in practice, affiliation with a teaching hospital or subspecialty training.

The study of Schrag et al. (2003) regarding vaccination and perinatal infection prevention practices among obstetrician-gynecologists identified several characteristics of OB-GYNs who provide vaccines: some of the characteristics were working in group practice, working in multispecialty practice, and working in urban clinics.⁷ The results of our study however showed that the likelihood of recommending and administering the vaccines by the obstetrician-gynecologist is not influenced by his or her age, years of practice, affiliation with a teaching hospital nor subspecialty training. The only statistically significant factor is the obstetrician-gynecologist's awareness of the guidelines. It is a positive predictor in the frequency of recommending the Tetanus-Diphtheria-Pertussis (Tdap) vaccine and the Influenza vaccine and also in the frequency of administration of the Human Papilloma Virus (HPV) vaccine and the Influenza vaccine. Gonik et al. (2002) similarly showed that physicians who had more awareness and knowledge on adult vaccination were more likely to administer the vaccines to their patients.⁸ Hence stronger information dissemination and promotion of the Clinical Practice Guideline on Immunization is imperative in increasing adult vaccination coverage.

The cost of vaccination was identified as the most common hindrance to the routine administration of the recommended vaccines (93%). Majority (52%) also stated the vaccines were not available to them. The study by Gonik et al. (2000) on the role of the obstetrician-gynecologist in vaccine-preventable diseases and immunization, showed that the top hindrance to the routine administration of the recommended vaccines was the that the administration of vaccines was deemed not within the role of the OB-GYN (60%), followed by cost (50%) and unavailability of the vaccines (43%).⁸ Schrag et al. who determined the vaccination and perinatal infection prevention practices among obstetrician-gynecologists concurred with the study by Gonik et al. According the Schrag et al. (2003), the most common reason for not vaccinating were due to prohibitive cost (44%), the belief that the vaccine should be administered by an internist or family practitioner (41%), and the lack

of vaccine storage facilities.⁶ The barriers to routine vaccination identified by our study were similar to both of the aforementioned studies except that in our study only 7.5% of the obstetrician-gynecologists felt that adult vaccination is not their responsibility. Most of the POGS fellows identified vaccination as part of their role as physicians which is a promising step in achieving a greater vaccination coverage. Also, only a small portion was apprehensive in administering the vaccine due to lack of knowledge on the dose, indication and contraindications of each vaccine.

Although we cannot do much about the prohibitive cost of vaccination and the unavailability of vaccines (which could also be linked to the cost of storing the vaccines), we can increase adult vaccination coverage by increasing the awareness of the obstetrician-gynecologists of the POGS Clinical Practice Guidelines on Immunization. This may increase the rate of recommendation of the vaccines by their OB-GYNs. Physician recommendation of vaccines has been shown to encourage patients to receive vaccines.

In order to increase awareness and compliance to the 2011 POGS Clinical Practice Guideline on Immunization for Filipino Women, the Philippine Obstetrics and Gynecology Society (POGS) conducts vaccinology courses. Among the POGS fellows who have not yet attended one, 93% were interested in attending and among those who have attended, 82% found the vaccinology course very useful to their practice. Power et al. (2009) suggests that continuing medical education and other educational materials can increase the likelihood of vaccination by obstetrician-gynecologists.⁹

CONCLUSION

In the country, there remains a low rate of administration of vaccines by obstetrician-gynecologists. Awareness of the Clinical Practice Guideline on Immunization has a positive impact on increasing adult vaccination coverage. Although cost remains to be an issue, increasing awareness among OB-GYNs through vaccinology courses may ultimately help decrease the incidence of some of the most common infectious diseases affecting the Filipino women.

LIMITATIONS AND RECOMMENDATIONS

There were three identified limitations of this study. First, since this is a cross-sectional study, we cannot establish the causal relationship between the obstetrician-gynecologist's awareness of the POGS immunization guidelines and the frequency of administration of the recommended vaccines. Second, the response of the participants is subject to errors of recall and subjectivity. It is self-reported and cannot be verified by actual vaccination records. Third, the low response rate will make us wary of making generalizations for the whole population of obstetrician-gynecologists in the country.

A prospective analysis of actual vaccination practices is recommended to avoid errors of recall and subjectivity. Since the high cost of vaccines is the main barrier to promoting adult immunization, cost analysis studies may be done. Also, this study only tackled the physician's point of view, it may be helpful to study the knowledge and attitude of patients regarding vaccination. ■

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