

State of maternal–fetal medicine in the Philippines

The practice of maternal–fetal medicine (MFM) in the Philippines originated within the broader scope of obstetrics and gynecology. The specialty started to emerge to address the need for specialized care for high-risk pregnancies and the management of fetal complications. Over the years, the development of MFM as a distinct subspecialty has evolved through advancements in medical technology, training programs, and the increasing complexity of pregnancy management.

The Philippine Society of MFM (PSMFM), established in 1996, is the primary organization representing MFM specialists in the country. It is dedicated to advancing the field through education, training, service, and research. PSMFM provides its members a platform to enhance their knowledge, improve their skills, foster collaboration, and share expertise.

Training and Education

Comprehensive training and education programs for health-care providers are essential for delivering effective MFM care. These programs ensure that not only MFM specialists are adequately prepared to manage high-risk pregnancies and fetal complications, but also general obstetricians, nurses, midwives, and other health-care professionals.

Postresidency fellowship training programs in MFM aim to provide comprehensive training for obstetrician gynecologists to develop essential knowledge and skills for diagnosing and managing high-risk pregnancies, including advanced diagnostic and treatment techniques. The Philippine Board of MFM (PBMFM) is actively involved in the process of training and certifying additional specialists in the field of MFM. They regulate the practice through accreditation of MFM fellowship programs and promoting continuing education and research. Currently, there are 16 accredited fellowship programs with 55 fellows undergoing training in these programs.

MFM specialists often pursue advanced degrees and training, both locally and internationally. They specialize in fields such as advanced ultrasound, fetal therapy, and genetics. This extensive training ensures that they are well-equipped with the latest knowledge and skills in their field.

To support the continuing professional development of MFM specialists and other health-care professionals, PSMFM organizes Continuing Medical Education (CME) activities, such as workshops and seminars. These events focus on the latest advancements in MFM and best practices in maternal and fetal care to update the participants' expertise in the field. Online CME courses and webinars are offered to ensure that health-care professionals who work in remote areas may access high-quality training materials without having to travel.

Hands-on workshops are likewise being held to impart knowledge in areas such as electronic fetal monitoring interpretation, intrapartum ultrasound, fetal echocardiography, and fetal neurosonology. These workshops ensure that necessary skills are developed and updated for the diagnosis and appropriate management of high-risk patients and their fetuses.

The society also conducts several CME programs that focus on a multidisciplinary approach that involves obstetricians, MFM specialists, neonatologists, nurses, and other relevant professionals to encourage collaborative care. In addition, training programs are being implemented for community health workers and midwives, with emphasis on providing basic prenatal care, developing the ability to identify and if needed facilitate referrals for specialized care on certain high-risk conditions such as preeclampsia. These workers are likewise trained to conduct programs aimed at educating communities about the importance of prenatal care and early detection of pregnancy complications.

Access and Availability of Infrastructures

Despite ongoing efforts by the government and private sectors to promote equal access to maternal healthcare, there are significant disparities in the availability of quality MFM services across the country.

In major cities, there are specialized medical centers and hospitals that are well-equipped, offering convenient access to advanced diagnostic equipment such as high-resolution ultrasound and magnetic resonance imaging capable of performing Doppler velocimetry, fetal echocardiography, fetal neurosonology, and placental mapping. Invasive procedures such as amniocentesis, chorionic villus sampling, amnioreduction, fetal

thoracentesis, and cordocentesis can also be performed in these facilities. Unfortunately, these important services are often unavailable in rural areas, making it challenging for many women to access high-quality and optimal care provided by MFM specialists.

In addition, advanced MFM infrastructure and resources are still in the early stages of development. There is a wide variation in the availability of prenatal diagnostic technologies including genetic screening tests, among different health-care institutions, even in urban areas. Access to specialized care such as fetal surgery, laser photocoagulation for twin-to-twin transfusions, and other advanced interventions, is limited to very few tertiary care hospitals. These disparities negatively impact the accuracy of diagnoses and the ability to provide comprehensive, consistent, and high-quality care for high-risk pregnancies and their fetuses across the country.

Finally, economic and financial barriers significantly impact access to MFM services in the Philippines. The high cost of these services creates financial challenges for many families, especially those in rural areas. This includes expenses for diagnostic tests, fetal and maternal surveillance procedures, and specialized treatments, all of which are essential for managing high-risk pregnancies. Health insurance coverage for specialized MFM services is usually limited and does not cover the full range of necessary services, leaving families to pay out-of-pocket for essential care. The high cost of services, combined with limited insurance coverage, can lead to financial strain and may cause delayed or forgone care, ultimately resulting in poorer health outcomes for both mother and fetus.

Distribution of Maternal–Fetal Medicine Specialists

One significant issue in providing MFM care in our country is the shortage of MFM specialists. This shortage leads to a lack of qualified professionals who can manage high-risk pregnancies and fetal complications. As of the end of 2022 based on the Philippine Statistics Authority, there were 1,455,393 live births registered nationwide. With only 259 board-certified maternal–fetal medical experts practicing, this means that there is only one MFM specialist for every 5620 live births.

Moreover, there are significant differences in the distribution of MFM specialists across various regions. Based on the PSMFM registry, 54% of the specialists are practicing in NCR while the remaining 46% are distributed across the other regions. Most of these specialists are located in major cities and metropolitan areas, with a shortage in rural and remote areas. This

unequal distribution affects the accessibility and quality of care for high-risk pregnancies, as many regions have to rely on general obstetricians and gynecologists who may not have specialist training or access to necessary resources to handle high-risk pregnancies.

Research in the United States has shown that the density of MFM specialists is significantly and inversely associated with maternal mortality ratios.^[1] Likewise, it has been suggested that an increase of 5 MFM specialists per 10,000 live births will result in a 27% reduction in the risk of maternal death.^[1] This association indicates that having access to appropriate obstetric and medical care may be a significant factor in determining the overall ratio of maternal mortality. MFM specialists can have an impact on the maternal mortality ratio both through prevention and aggressive prenatal management of conditions such as heart disease, preeclampsia, chronic hypertension, multiple gestations, and diabetes.

A comprehensive approach is being implemented to increase the number of MFM specialists and address their uneven distribution across the Philippines. The goal of these initiatives is to ensure that all regions will have adequate access to specialized health-care services provided by these experts. Ultimately, this will help reduce rates of maternal and fetal morbidity and mortality, leading to improved outcomes for high-risk mothers and fetuses.

One way to increase the number of proficient and qualified MFM specialists is to establish more fellowship programs, especially in regions outside Metro Manila. The PBMFM actively supports this initiative. Currently, there are 16 accredited fellowship programs in MFM, with one located in Davao and another in the Bicol Region. Two additional fellowship programs outside of Metro Manila are seeking accreditation this year, one in Bulacan and another in Ilocos Norte, bringing the total number of fellowship programs to 18 with 57 fellows in training.

Several regional hospitals in the Philippines are also taking proactive steps to effectively address the present shortage of MFM specialists in their respective areas. They are offering funding support for general obstetrician–gynecologists to pursue fellowship training in MFM. The objective is to ensure that these doctors return to their home regions after completing their training, thus increasing the number of specialized health-care professionals in regional facilities. Most of these hospitals collaborate with leading medical institutions offering MFM fellowship programs to ensure that the training provided is of high quality and meets global standards. In addition, Local Government Units supplement the funding and support to ensure that

healthcare improvements that will be provided by these specialists after their training are aligned with their local needs. It is crucial to continue supporting and expanding these programs to improve the distribution of MFM specialists and enhance the overall quality of maternal and fetal healthcare in rural and underserved areas.

The society regularly holds national public health campaigns on preeclampsia, gestational diabetes, and preterm labor, emphasizing early prenatal care and routine check-ups to raise awareness of the importance of maternal and fetal healthcare in preventing complications. These initiatives aim to raise awareness of the importance and need for specialized maternal-fetal care, leading to a demand for a more equitable distribution of MFM experts. These community service programs also offer essential maternal-fetal health-care services and specialist prenatal consultations, improving access to MFM care for pregnant women in remote and rural locations.

Collaboration and Multidisciplinary Approach

Collaboration and a multidisciplinary approach are important aspects of effective MFM care in the Philippines. This collaborative strategy ensures that expectant high-risk pregnant mothers will receive the best possible care, combining medical expertise from various health-care professionals. Typically, these include MFM specialists, general obstetricians, neonatologists, geneticists, and other health-care specialists and providers working together to develop individualized care plans for each patient.

This approach provides numerous advantages. First, all maternal and fetal health aspects are considered and managed effectively, reducing the risk of complications and improving overall outcomes. Effective communication among health-care providers is likewise improved, which enhances coordination and ensures that all team members are aware of the patient's condition and the planned interventions. In addition, patients receive more comprehensive education and support, helping them to understand their condition, the proposed treatments, and the expected outcomes, leading to better patient compliance and satisfaction. Finally, a multidisciplinary approach allows for better utilization of available resources, including medical personnel, diagnostic tools, and therapeutic interventions, which is particularly important in resource-limited settings.

Research and Development

Research is a crucial component of MFM practice in the Philippines. MFM specialists actively engage in various research initiatives to advance clinical knowledge and

practice. These initiatives aim to improve understanding of the pathophysiology and risk factors of pregnancy complications, enhancing diagnostic techniques such as advanced imaging technologies, biomarkers, and genetic testing, as well as developing effective management strategies for the benefit of both the mother and the fetus.

The PSMFM supports opportunities and platforms for the dissemination of research findings through its Annual Research and Interesting Case Presentations. Moreover, the Society has initiated several multicenter research projects, including the COVID-19 Registry, the Development of a Customized Fetal Growth Curve for Filipinos, and the Head Circumference/Obstetrical Conjugate Ratio to Predict Labor Arrest Study.

In line with the society's objective of promoting evidence-based practice in MFM, an annual research funding grant has been established this year. This grant is open to all members and fellows-in-training of PSMFM, as well as individuals who have completed an accredited PSMFM fellowship training program or are affiliated with an institution that provides MFM specialty care.

Challenges and Opportunities

Although there has been significant progress, the field is still confronted with several challenges such as the need to ensure fair and equal access to MFM infrastructures across the country, high service costs and inadequate insurance coverage, a shortage of MFM specialists with the majority concentrated in major cities, and a lack of public awareness about the availability of MFM specialized services and its importance in reducing maternal and neonatal morbidity and mortality.

Nonetheless, the MFM specialty in the Philippines is in a good position to resolve and address these issues benefiting from the continued support and efforts of a committed and dedicated group of professionals who are members of the PSMFM. Its continuous initiatives are aimed at a sustained and continued investment in education and training, research promotion, health-care infrastructure and resources improvement, community engagement and awareness, and collaboration with other health-care professionals. The ultimate goal is to strengthen and improve the standard of MFM to ensure a future where every high-risk pregnant woman in the Philippines receives the specialized care she and her unborn baby deserve.

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