

My Experience as an Applied Health Economics and Outcomes Research Fellow at JCPH

The increasing magnitude and intricacy of the current global economic and reimbursement environments pose challenges for researchers working in the health economics and outcomes research (HEOR) space. It is essential that professionals working in the health economics and market access (HEMA) sector have the knowledge and competencies to conceptualize, evaluate and disseminate evidence-based research, as well as to improve healthcare decision-making processes. To strengthen my HEOR research competencies and expand my knowledge and skills in health policy development, I applied for the Jefferson College of Population Health's (JCPH) collaborative Fellowship program with Ethicon Inc., Johnson & Johnson. My objectives for the HEOR Fellowship were to participate on diverse HEOR development teams, to gain fundamental knowledge and direct experience in health policy and global reimbursement systems, and to understand the multi-sectorial dynamics, implications and opportunities to enhance the HEOR research and marketing strategies in the surgical healthcare space.

Under the academic and industry mentorship of Dr. Martha Romney, Dr. Vittorio Maio and Dr. Joseph Jackson of JCPH and Dr. Anuprita Patkar of Ethicon Inc., I have been involved in an extensive range of diverse projects, ranging from more advanced technical components of HEOR research to the development of HEMA strategies in medical devices. Through these opportunities I have provided substantive contributions to manuscripts resulting in salient publications including "Gastrectomy and D2 Lymphadenectomy for Gastric Cancer: A Meta-Analysis Comparing the Harmonic Scalpel to Conventional Techniques" in the *International Journal of Surgical Oncology*, and an opinion piece, "Gap between Evidence and Patient Access: Policy Implications for Bariatric and Metabolic Surgery in

Treatment of Obesity and its Complications" on journal *PharmacoEconomics*. I also developed an economic budget impact model on spinal fusion procedures for adult deformity and adolescent scoliosis that is now being deployed worldwide. These are several examples of the breadth of research techniques, surgical and therapeutic areas, and multidisciplinary collaborations I have engaged in during the course of my Fellowship.

Coming from a pharmacy background, this Fellowship has provided the opportunity for me to assess the subtle but profound differences of HEOR work in pharmaceutical and medical device industries. While the research principles are similar, HEMA work in the medical device industry faces the challenges of shorter product life cycle development, the limited clinical and economic data, and the increasingly complex global reimbursement ecosystem. Strategic conceptual plans including proactive identification and data access, creative leveraging of existing information to develop evidence-based development portfolios to conduct compliant and scientifically rigorous research are paramount.

In addition to the meaningful research opportunities, the Fellowship also supported extensive development opportunities and forums to learn from international HEOR researchers, regulators and policy makers and to extend my professional network. These included the JCPH's annually sponsored *Population Health Colloquium*, the International Society for Pharmacoeconomics and Outcomes Research Conference, the Health Technology Assessment International Conference, the Medical Device Coverage and Reimbursement Conference, and the American Society for Metabolic and Bariatric Surgery Obesity Week. The educational opportunities heightened my awareness and



Carine C.W. Hsaio BSPHarm, MHS

insights about the complexity, magnitude and critical nature of various issues and advances in related areas. In addition, under the introduction from Dr. Romney, I was able to meet with Dr. Janine Kyriillos, an internist and the Director of the Comprehensive Weight Management Program at Thomas Jefferson University Hospital. It was a wonderful experience to speak with a critical thought leader in the field to understand the key challenges of the patient referral system to bariatric surgery and obesity management programs, as well as to discuss how we can best integrate HEOR research to improve access for patients.

The JCPH Applied Health Economics and Outcomes Research Fellowship has expanded and enhanced my research and policy development capacities and prepared me for a career as a HEMA professional in the healthcare industry.

For more information on the AHEOR Fellowship program [click here](#).

Carine C.W. Hsaio, BSPHarm, MHS
JCPH Applied Health Economics and Outcomes Research Fellowship Alumna

Carine will continue her work at Ethicon in a new position this Fall.