



CHOT Summer Healthcare IE Internship Program Summer 2011



Title: On call rooms assessment

Student name: Sabrina Tang
Visiting from: Toronto, Canada
Organization: Brigham and Women's Hospital (BWH)
Sponsor: Janet Razulis, Debra Leven (BWH)
CHOT mentor: Claire Bond (NU)
Project Dates: June - August 2011



Project focus

Sabrina Tang began in June 2011 as a consultant for Brigham and Women's Hospital to evaluate call room usage hospital wide. On-call rooms have beds for physicians to sleep in during an overnight shift. However, not all physicians use their rooms every night. Therefore, the goal was to gain an understanding of how the rooms are utilized and identify areas of greater demand to reallocate unused space accordingly.

Results

Sabrina analyzed data from several sources, interviewed physicians, observed physicians overnight, and met with senior administrators. Physician schedules and sleep percentages were calculated and input into a probability model to determine the maximum number of beds required on a regular basis. To incorporate the differences of each department and specialty into the calculation, a J-Binomial probability model was used. This allows different scenarios to be assessed by the model to determine potential demand. Results and recommendations were presented to senior administrators to guide the process of call room reallocation.

During the internship, Sabrina also helped develop the internal process for expanding the healthcare engineering internship program at CHOT. Furthermore, she met and shadowed health care practitioners and administrators to learn more about their careers.

Sabrina is an industrial engineering undergraduate student from the University of Toronto.

Testimonial

"Sabrina did great work for us. Her work gave us a much better understanding of the room utilization. She provided and organized the data to move the initiative to use these rooms more appropriately along. Sabrina was a bright, cheerful, and willing intern. She learned the organization culture quickly. The final product was exactly what we needed and she left us with the tools to modify the model as things change at our organization and/or if we want to test different scenarios."

--Janet Razulis



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