

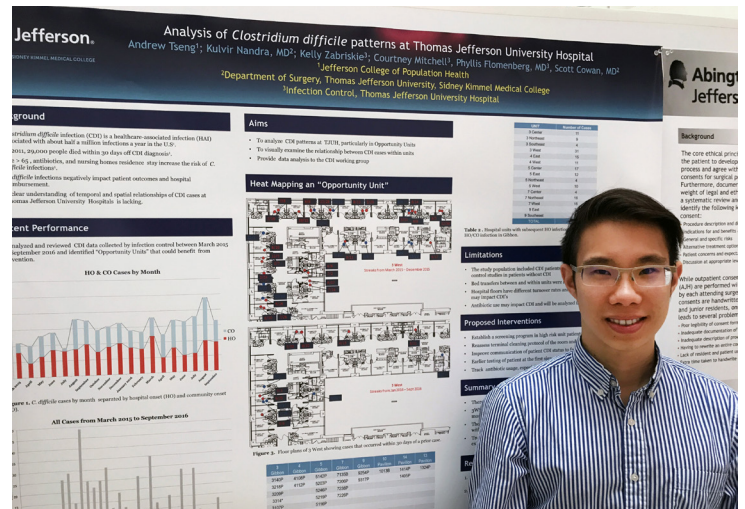
A Look at Interdisciplinary MPH Student Projects

MPH graduate student Andrew Tseng (2017) completed two fascinating interdisciplinary projects as part of his workload at JPCH, which exemplifies the importance of collaborative work among professionals of diverse backgrounds to achieve population health goals.

The first project, which culminated in a poster entitled, *Clostridium Difficile* (CDI) Patterns at Thomas Jefferson University Hospital, was a quality improvement effort with the Surgery Department that looked at the infection's spatial patterns in TJU hospital units. CDI is a healthcare associated infection that affects half a million people a year in the U.S. and in 2011, 29,000 people died within 30 days of a CDI diagnosis. It negatively impacts patient outcomes as well as hospital reimbursement. Tseng identified the need for a clear understanding of temporal and spatial relationships cases in TJUH units and created a heat map to depict the CDI cases in the hospital between March 2015 and September 2016. The units with higher CDI rates, or "opportunity units," were highlighted to determine if there were any patterns between community onset and hospital onset CDI cases. In addition, the project examined same bed re-infections within 30 days in the hospital.

The study combined the usage of maps and health data to explore pattern and rates.

The second project that Tseng worked on was with the Department of Family and Community Medicine on a 5 year grant from Health Resources Service Administration (HRSA) called JeffAPCT (Accelerating Primary Care Transformation). Among many of its goals, was to improve colorectal cancer (CRC) screening through quality improvement projects, as primary care physicians are often responsible for making the referral for a CRC screening. CRC is the third most diagnosed cancer in the United States and increasing screening rates for those aged 50 to 75 is paramount to preventing the disease. Despite the importance of primary care physicians in the referral process, there are significant variations in this process, which often lead to lower screening rates. Tseng's MPH capstone focused on evaluating the



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trend of CRC screening rates in TJUH and determine which interventions made an impact in increasing the screening rate. CRC screening rates have been increasing in the U.S. and CRC rates have been decreasing as a result. The results will hopefully inform Jefferson of what interventions have been effective and if the rates are increasing. Currently, Tseng is applying to medical programs from his home town in Huntington Beach, California.