



**Abstract of parallel session: 12**

Title: Creating a certificate in health care improvement for inter-professional teams to improve health care delivery and reduce variation

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**Purpose:** The science of practice variation is well established, and has been incorporated into policy discussions for health care delivery. However, adoption of this science into medical education programs has lagged, and represents a missed opportunity to reduce variation. Our objective was to develop and test the feasibility of a hybrid learning model for inter-professional teams focused on healthcare improvement informed by the science of practice variation.

**Approach/ Methods:** The program was developed by a team having expertise in medical education, health services research, and hybrid learning methodology. The program was delivered as a pilot over 9 months in 2017-2018. It consists of six 6-week modules housed on an online learning platform: Practice Variation, Improvement Science, Safety, Quality, & Diagnostic Error, Population Health & Health Equity, and Leading Change. Each week the learners independently view 1-2 brief didactic videos (6-30 minutes long), review 2-3 sentinel readings, and complete a brief exercise or contribute to an online discussion board. Participants convene for a 1 hour synchronous online session with the faculty lead for that week's content. Each team received a hospital service area report of practice patterns and underlying population health at the start of the program, and developed a performance improvement project with faculty guidance. Program evaluation included a rigorous mixed methods approach, including participant feedback at the end of each module via electronic survey, and semi-quantitative interviews regarding strengths, opportunities, and relevance.

The program was being tested at 2 sites: an inpatient team at a rural hospital in Maine, USA, and an outpatient sexually transmitted disease clinic in an urban setting. The clinical teams included physicians, medical students, and up to 4 other team members from the allied health sciences (nursing, pharmacy, health educators, and a quality improvement leader).

**Outcomes/Evaluation:** Both clinical teams participated fully in the program. Most participants averaged 2-3 hours weekly reviewing materials. Acceptability and relevance of the content was assessed during site visits and via surveys after each module. The medical students reported that the majority of the content was not taught elsewhere in their curriculum. They thought 3rd year was an ideal time to introduce these concepts. Other (non-student) participants reported particular interest in hearing the applied knowledge of the faculty in these topics. None of the participants had seen prior small area reports of practice variation and population health. Additionally, they had considered how these factors might contribute to care delivery.

**Discussion:**

Reducing practice variation requires improvements in local understanding of health care delivery as well as policy change. The imperative to improve health care delivery demands innovative ways to educate medical students and inter-professional teams in an efficient manner. This educational model provides an efficient and feasible approach to this problem. The opportunity to apply newly acquired knowledge to the development of an improvement project is a particular strength of the longitudinal design.