Evaluating of the Implementation of the ACGME Milestones in General Surgery

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Background

- ACGME mandated the general surgery Milestones with minimal guidance for implementation
- Lack of data for efficacy of different approaches to implementing a Milestones rating system limits development of best-practice guidelines for training programs
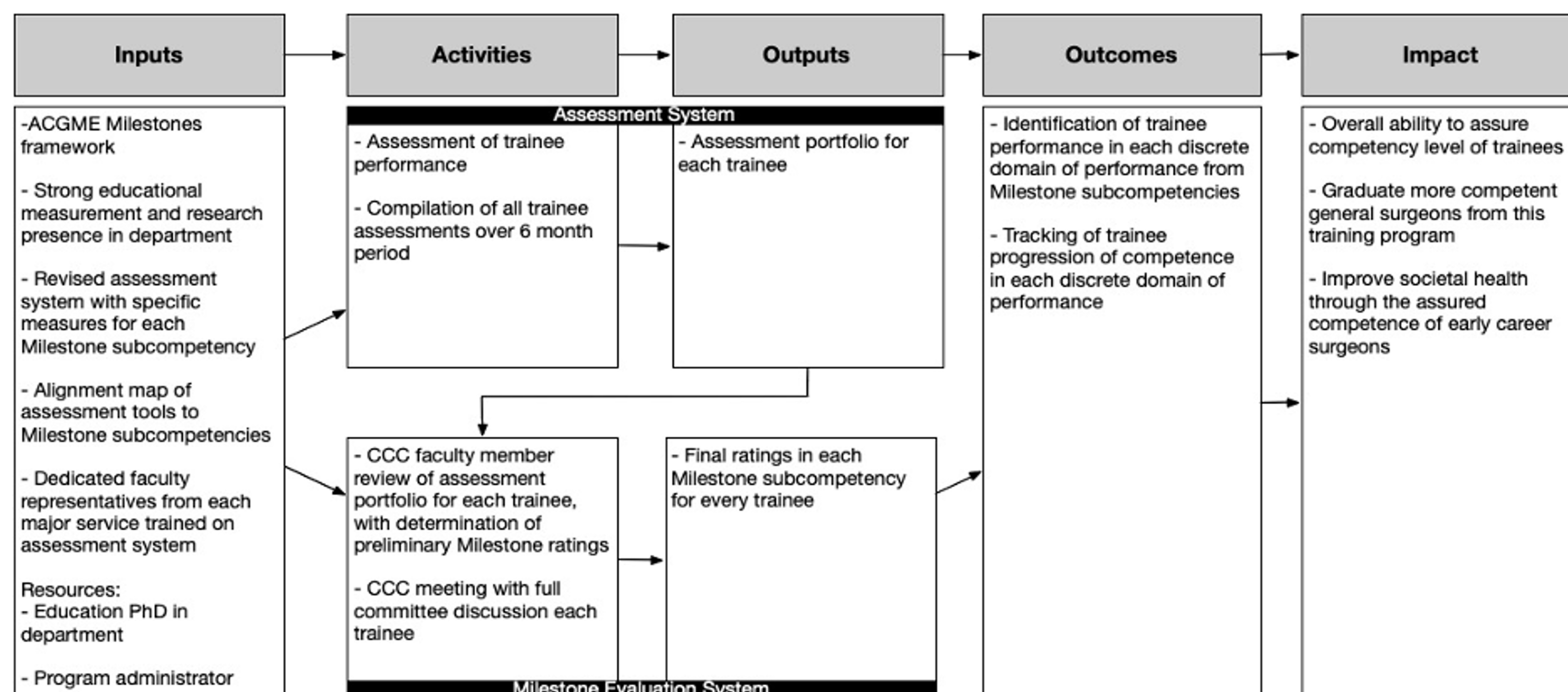
Aim

- Use a logic model framework to evaluate the implementation and early outcomes of the general surgery Milestones at the program level

Methods

- Using framework for CBME evaluation, we developed a logic model to evaluate the implementation of the general surgery Milestones at the University of Michigan
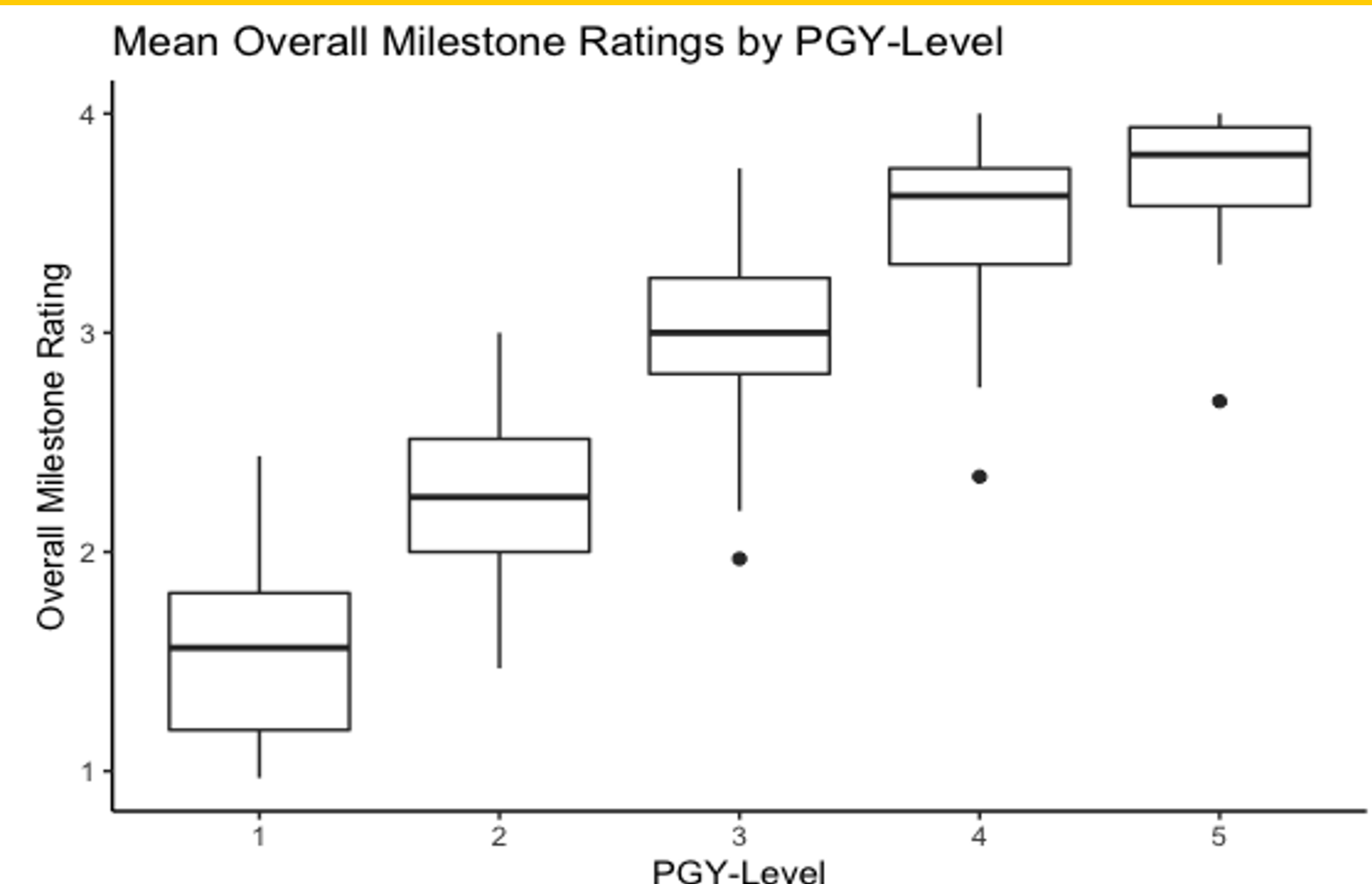- Examined achievement of activities, outputs, and outcomes of the program, including:

  1. **Assessment System**: whether the assessment system was implemented as intended through evaluation the assessment mapping and utilization

  2. **CCC Process**: the process of synthesizing the generated assessment data to determine Milestone ratings through observing CCC meetings and interviewing members

  3. **Trainee Performance**: the ability of the Milestones to discriminate discrete areas of trainee performance through factor analysis of ratings from 188 residents over 5 years.

Logic Model for ACGME Milestones Implementation in General Surgery at the University of Michigan

Results

1. **Assessment System:**
   - Each Milestone subcompetency mapped to at least one assessment tool
   - On average, residents received slightly fewer Global Rating Scale of Operative Performance assessments and slightly more Clinical Performance Evaluations and Peer-to-Peer Evaluations than intended

2. **CCC Process:**
   - Carried out as intended with consistent use of assessment data, robust discussion of trainees, and collaborative decision making
   - All members noted the share-decision making process as highly valuable

3. **Trainee Performance**:
   - Milestones tracked overall trainee progression by post-graduate year
   - Single dominant factor explained 84% of variance in Milestone ratings
   - Milestones unable to specifically discriminate across different subcompetencies of trainee performance

Mean Overall Milestone Ratings by PGY-Level

Lessons Learned

Logic model framework is a robust evaluative approach for examining implementation of the ACGME general surgery Milestones at the program level. Specific lessons learned include:

1. Significant resources needed to implement the Milestones at the program level

2. Group discussion is critical in synthesizing diverse assessment data into ratings

3. General surgery Milestone ratings may not discriminate performance across different competencies

Future Direction and Next Steps

- Efforts across general surgery programs and ACGME needed to understand how to build assessment that measure discrete domains of trainee competence

- Developing best-practice guidelines for evidence-based assessment systems in competency-based medical education

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