

# Implementation of resident-driven, quality-based improvement projects at a single academic institution: Resident value and institutional outcomes

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## Significance

Finding a viable and sustainable methodology for resident involvement in surgical quality improvement is not only a GME requirement, but also imperative to patient care.

### POSITIVE RESULTS

- Colorectal SSI reduction bundle resulted in a decrease in our rate (12.3% to 4.6%,  $p=0.03$ ) and decile ranking (9<sup>th</sup> to 1<sup>st</sup>).
- Pulmonary project won best proposal at institutional QI poster competition.
- Increased resident participation in institutional forums i.e. CLABSI working group, Infection Control, and OR Committee.
- Surveys revealed improved awareness of QI initiatives and their impact on patient care.
- Six resident abstracts submitted and accepted at ACS NSQIP; 2 from a partner institution (DuPont Pediatrics).

### CHALLENGES

- Some residents remain resistant to adding more educational topics and requirements into an already busy academic schedule.
- Some projects stalled due to early barriers that residents found difficult to overcome.
  - UTI – miscommunication by resident team leadership
  - Lab ordering reduction – stalled in the IRB process
- Projects were led mostly by early adopters but residency-wide engagement was difficult to determine/accomplish.
- Formal quality improvement education/training remained inadequately structured.

## Population and Methods

From July 2013 through June 2015, thirty-nine general surgery residents at our institution were divided into 6 teams to design and implement resident driven quality improvement projects.

## Results

Outcomes of our curriculum were mixed. We have assessed challenges through resident feedback sessions and surveys to redesign this year's curriculum based on the QITI handbook—adding additional support through structured workshops and an online project management portal.

## Lessons Learned

- Proper education in QI principles and unending support along the project continuum are key to effectively integrating quality improvement into the surgical residency curriculum.
- Pre- and post-implementation assessments of residents' level of attitudes, exposure and knowledge are necessary for continued curricular quality improvement.

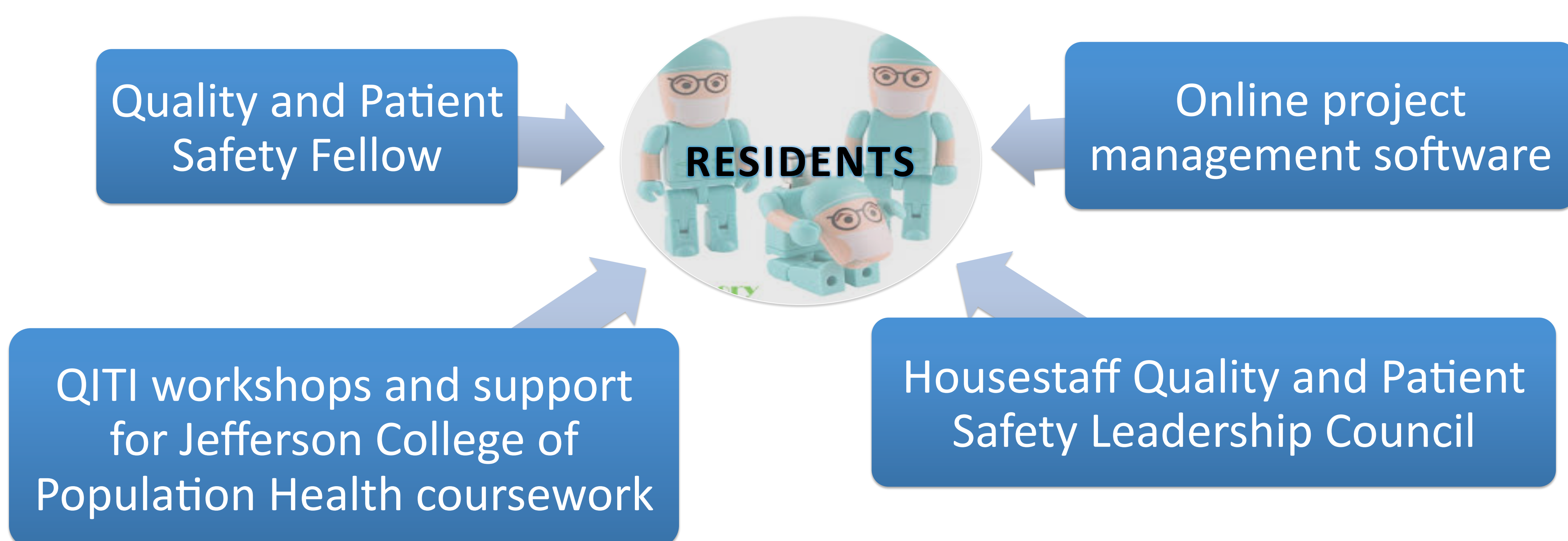


Figure 1: Additional resident resources starting July 2015