

ABSTRACT: 2014 ELAM Institutional Action Project Poster Symposium

Project Title: High Value Care Curriculum to Impact Medical Student Training and Medical Center Culture

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Background/Challenge or Opportunity:

Spiraling healthcare costs pose an excess burden on society, represent a higher proportion of the US gross domestic product than most developed countries, result in increasing costs for employer-sponsored health insurance, and are a primary cause of Americans declaring bankruptcy. Physician behaviors drive a significant portion of these costs; students should be trained as stewards of healthcare resources. However, physician-trainees receive limited or no education on High Value Care (HVC), defined as the provision of the best care while reducing unnecessary costs. Academic medical centers face diminishing financial resources and must engender a cost-conscious culture for medical decision-making. This project, a component of a larger health systems curriculum at Penn State funded through an AMA grant, will stimulate medical students to apply HVC principles and serve as change agents.

Purpose/Objectives: Create a longitudinal HVC medical school curriculum designed to:

- Improve students' HVC knowledge, attitudes, behaviors and skills
- Promote students' sense of agency as stewards of limited resources
- Impact culture at Penn State Milton S. Hershey Medical Center

Methods/Approach:

We brought education and systems experts from Penn State and the community together through the creation of a Quality-Safety Education Committee and an AMA Advisory Board. Other collaborators include the American College of Physicians, Clerkship Directors in Internal Medicine, the Shapiro Institute, and three medical schools (Harvard, Case Western, and Dalhousie). Conceptual frameworks include the Dreyfus model, "Novice to Expert." Kern's 6-step approach is used for curriculum development. A targeted needs analysis was performed using, 1) a convenience sample of 21 third-year medical students via mixed methods approach with surveys and focus groups; 2) analysis of the AAMC Graduation Questionnaire; and 3) meetings with systems and education leaders at Penn State.

Outcomes and Evaluation:

Nineteen third-year students completed surveys and group interviews. Responses to open-ended questions were analyzed for content and themes using a grounded theory approach for data analysis. Students perceived their education in HVC as inadequate and expressed interest in learning. They observed much modeled behavior that is *not* high value: they noted that cost frequently does not enter medical decision-making discussions and when considered, it is often in the framework of how it impacts the individual patient but not the local or broader healthcare system.

The Penn State HVC longitudinal curriculum will include:

- *"Foundations Phase"*: learn basic principles of HVC through problem-based learning
- *"Clinical Clerkship Phase"*: apply HVC principles to patient cases; use a SOAP-V tool, which uses a cognitive forcing function to incorporate value into patient management discussions
- *"Discovery Phase"*: develop HVC projects in student teams with awards for best projects as judged by systems leaders. Some projects will be instituted on a systems level
- *"Residency Preparation Phase"*: reflect on change agent role in residency

Initial components start in AY 2014 with full implementation in AY 2016. Program evaluation will include student perceptions of agency, student and faculty attitudes about HVC, student knowledge, frequency of use and value of SOAP-V tool, responses on GQ, and institution's implementation of student-created value projects.



High Value Care Curriculum to Impact Medical Student Training and Medical Center Culture

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Background

Spiraling healthcare costs pose an excess burden on society. As we move from volume-based to value-based integrated delivery systems, we must teach our future physicians the necessary skills and attitudes to be effective stewards of healthcare resources. Yet, physician-trainees receive limited or no education on High Value Care (HVC), defined as the provision of the best care while reducing unnecessary costs. This project, a component of a health systems curriculum at Penn State funded through an AMA grant, will stimulate medical students to apply HVC principles and serve as change agents.

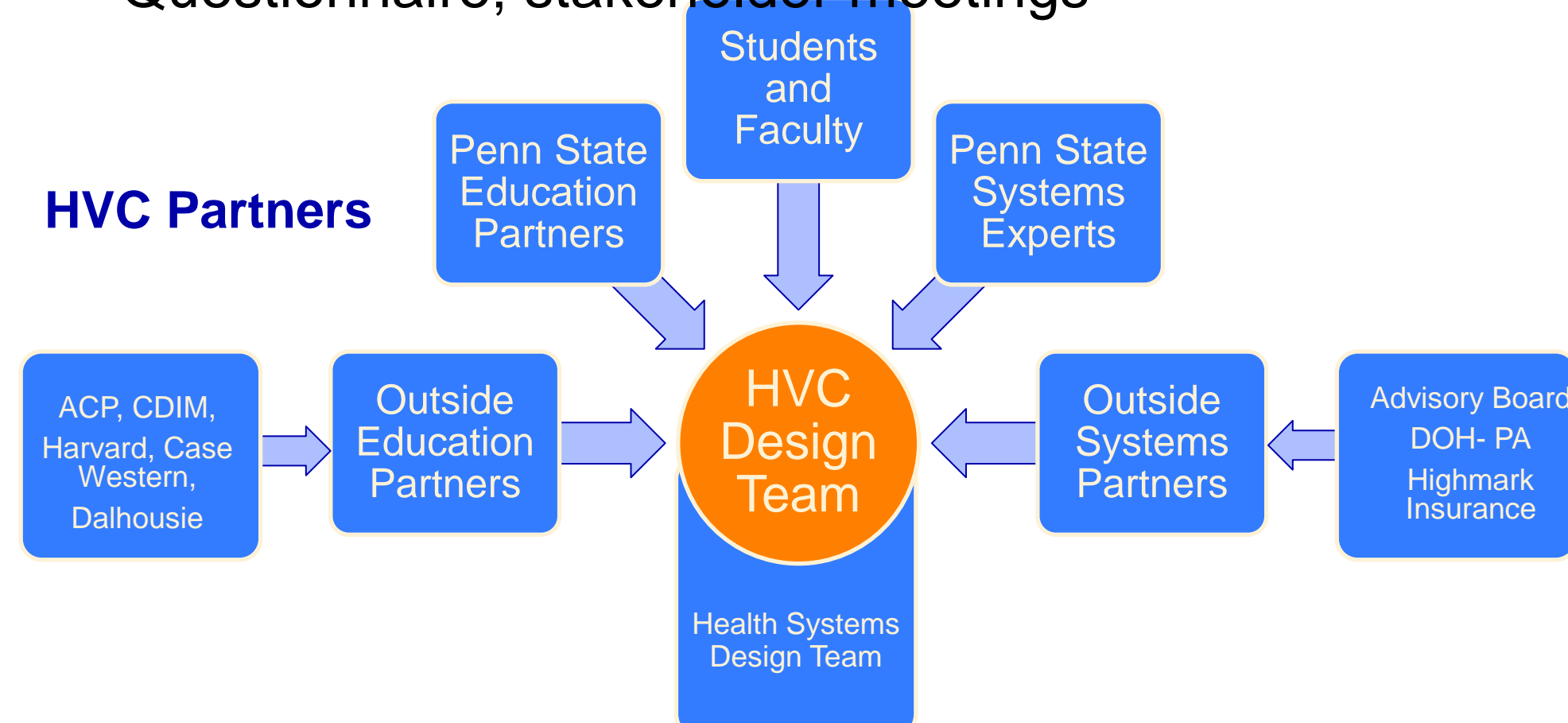
Purpose

Create a longitudinal HVC medical school curriculum to:

- Improve students' HVC knowledge, attitudes, behaviors and skills
- Promote students' sense of agency as stewards of limited resources
- Impact culture at the Medical Center

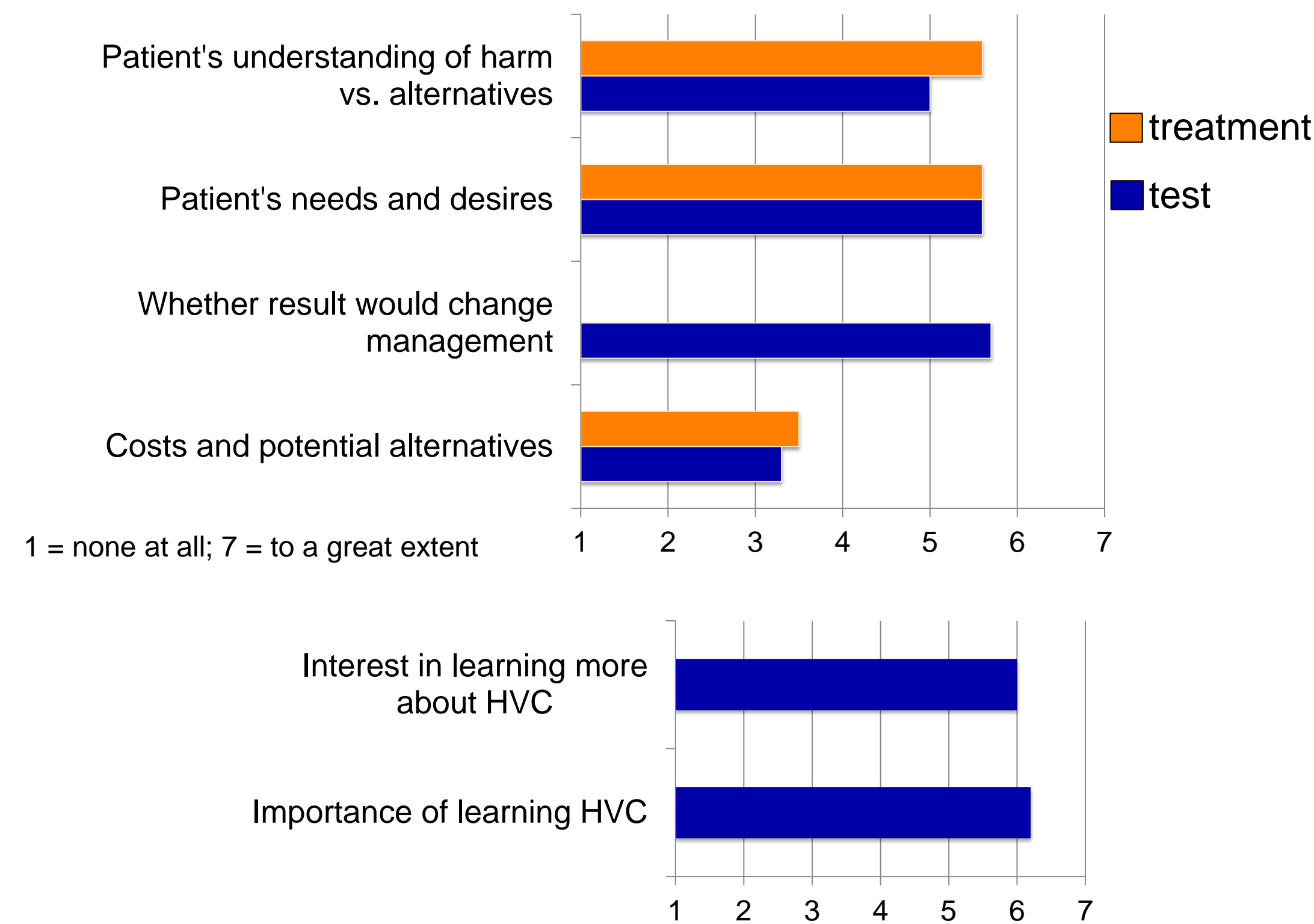
Methods

- Conceptual framework-Dreyfus model, "Novice to Expert." Kern's 6-step approach used for curriculum development.
- Targeted needs analysis: convenience sample of 21 third-year medical students via mixed methods (surveys and focus groups); Graduate Questionnaire; stakeholder meetings



Medical Student Observed Team Behaviors

"Before ordering a costly or potentially harmful test or treatment, the team discussed..."



Penn State Longitudinal HVC Curriculum



Outcomes

19 third-year students completed surveys and group interviews. Students:

- Perceived their HVC education as inadequate
- Expressed interest in learning about HVC
- Observed modeled behavior that is *not* high value
- Noted cost frequently does not enter medical decision-making discussions and when considered, it is often in the framework of how it impacts the individual patient but not the local or broader healthcare system

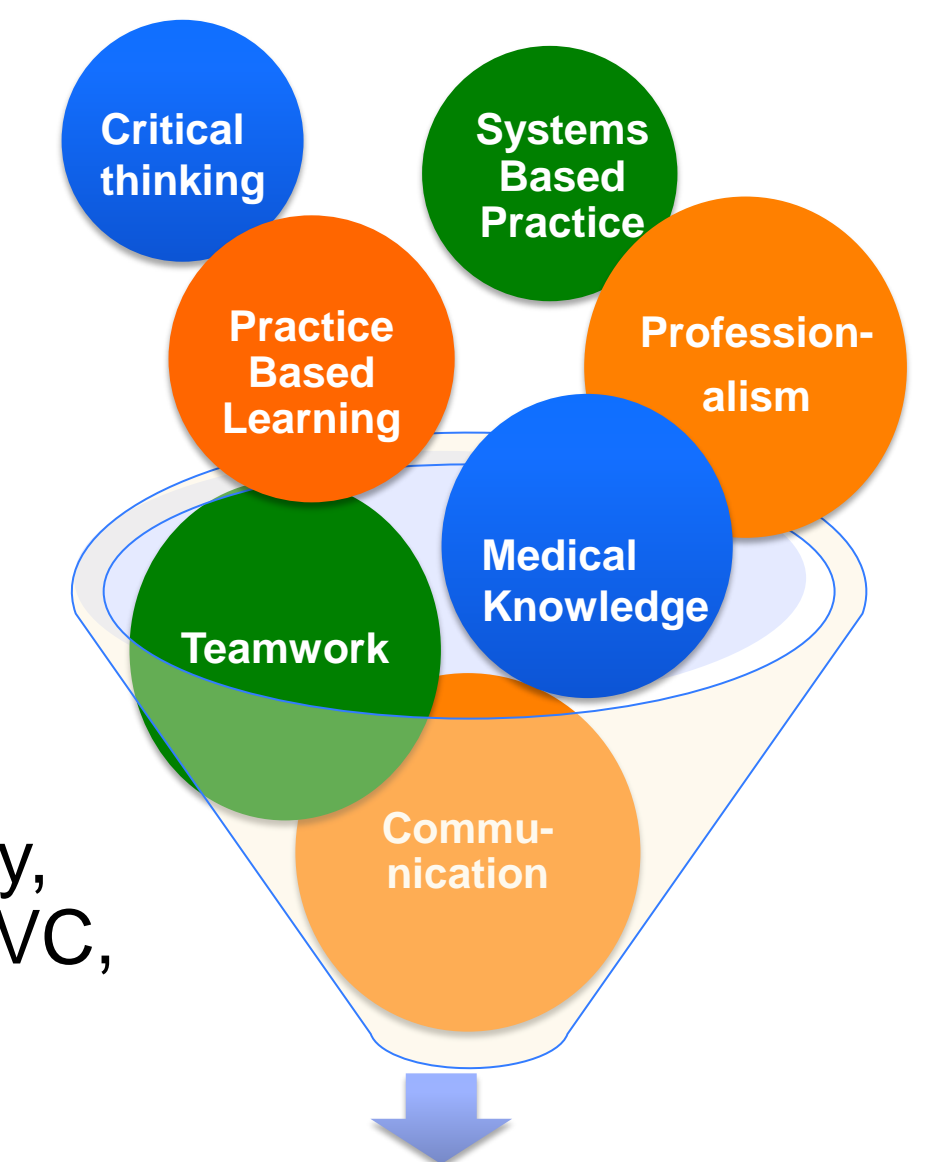
"I noticed a difference at (other hospital) sites.... We had one attending who refused to ever miss a pulmonary embolism, so I think we must have ordered a CT chest every other day."

"The doctors don't know what it costs. We're just – "I'm going to go grocery shopping. I'm going to buy a bunch of stuff but I don't know what it costs and someone else is going to pay for it."

The HVC curriculum is outlined.

Discussion

HVC Entrustable Professional Activity (EPA) encompasses multiple competencies, so a variety of pedagogies and assessment tools will be used. Initial components start in AY2014 with full implementation by AY 2016. Program evaluation will include student perceptions of agency, student and faculty attitudes about HVC, student knowledge, frequency of use and perceived value of SOAP-V tool, responses on GQ, and institution's implementation of student-created value projects.



HVC EPA
 Identify methods to decrease cost of care while improving health outcomes and contribute to a culture of HVC

Next Steps

- Continued development of educational materials and assessments (OSCEs, oral presentation rubric, note review rubric, reflection statements)
- Faculty development video and tools
- Program Evaluation
- Monitor the "Hidden Curriculum"

