



MEDICAL EDUCATION AND RESEARCH GRANT OUTCOME REPORT

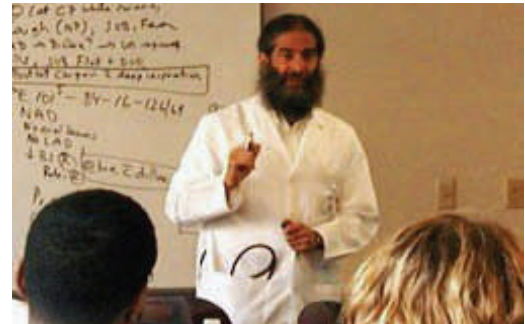
Healthy People/Healthy Systems: The OPTIMISE Model

Engineering better patient outcomes & resident training

Internal Medicine residency program redesign yields better experience for both patients and doctors and creates successes to build upon

► **Description:** OPTIMISE stands for “Outcomes of Patients and Trainees in a Model of Industrial & Systems Engineering.” This project employed the engineering perspective to improve patient care and medical resident learning in the Department of Medicine. The project targeted four specific aims: improving prevention, diagnosis, and management of chronic disease; improving patient safety by standardizing communication; improving medical resident performance; and maximizing evidence-based practice.

► **Results:** This project improved patient outcomes and strengthened the residency program by improving the evidence-based medicine skills of residents and increasing their adherence to national patient outcome measures. Meanwhile, a resident project focusing on transitions in care has led to a lower rate of



Dr. Bennett Vogelman led an overhaul of the of the Internal Medicine residency program, that used industrial and systems engineering methods to improve both patient outcomes and the educational experience for young doctors.

rehospitalization. As part of the internal medicine program, senior residents design a quality improvement project. Of the 47 projects designed during this grant, nearly 60 percent have been implemented, benefitting VA patients by reducing adverse drug reactions, enhancing acute and chronic disease management, improving patient safety, and facilitating interdisciplinary collaboration. Six of these practices have been published.

► **Timeline for Application of Results:** Less than 3 years

► **Next Steps:** Innovations have been incorporated into residency program. Staff members are in place to improve research competency of residents. Efforts are now underway to copy successes in fellowship programs.

GRANT FACTS

Principal Investigator: Bennett S. Vogelman, MD, Professor, Department of Medicine, UWSPH

Grant Program: Collaborative Health Sciences Program

Grant Type: Education

Grant Award: \$274,411 over three years

Research Keywords: systems-based practice, evidence-based medicine, quality improvement, self-reflection, commitment to change