

IMPLEMENTING SYSTEMS ENGINEERING TECHNIQUES INTO HEALTH CARE:
AN INVESTIGATION INTO USING PROBLEM BASED LEARNING IN MEDICAL
SCHOOLS TO TEACH SYSTEMS ENGINEERING

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ABSTRACT

Health care delivery in the United States needs improvement. Each year, between 44,000 and 98,000 people die as a result of medical errors in the United States. Systems engineering tools can help improve health care.

A unique way to implement systems thinking in health care is to educate future caregivers in systems thinking. The implementation of systems skills into medical school curriculum was tested at the University of Missouri-Columbia School of Medicine, which has a PBL (Problem Based Learning) curriculum. The lack of a resource for medical students to research health care systems engineering prompted the creation of a handbook entitled “Handbook of Health Care Systems Engineering for Medical Students.”

The students did not respond as expected to the introduction of systems engineering concepts. They need to see the terms more often to place importance on them and start to use them.