

BACKGROUND

As part of their new curriculum, St.. Louis College of Pharmacy requires Public Health Fundamentals in Pharmacy in the first year of the professional pharmacy program.

OBJECTIVE

This project was designed to: 1) determine what students already knew about public health; 2) demonstrate an increase in knowledge over the semester; and 3) determine areas where students struggled with content.

METHOD

Participants were students taking the required public health course. (Enrollment: Fall = 129; Spring = 127) In the Fall, students completed a 20-question pretest on the first day of class. The same questions were incorporated into the final exam for credit so students were motivated to perform. Pretest and final exam scores were compared. Students also took the pretest in the Spring and a comparison was done to the Fall.

Some questions assessed information initially covered in the College's Introduction to Healthcare class – a required course for all freshman and transfer students – which included a few introductory public health lectures. These topics are then covered in greater depth as part of the P1 public health course.

RESULTS

EXAMPLES OF TOPICS COVERED AS PART OF PRETEST AND FINAL

- Definitions of health and the World Health Organization
- Disease prevention and health promotion
- Incidence and prevalence
- Statistical significance
- Components of a hypothesis
- Environmental and occupational health
- The role of Department of Health and Human Services
- The role of Healthy People 2020 as it relates to pharmacy
- Health insurance program
- Pharmacoeconomics
- Pharmacovigilance
- Evidence-based public health
- Emergency preparedness
- PEPFAR
- The polio eradication campaign
- Sustainable Development Goals
- Universal health coverage
- Cultural competency

- While both semesters received the same pretest, due to slight differences in content coverage each semester, there were 20 questions as part of the Fall semester final exam and 19 questions as part of the Spring semester final.

RESULTS CONTINUED

PRE & POST TEST SCORES

	Pre test	Post test	Significance
All 20 questions	49.17%	84.48%	p<0.01
Subset:			
Related to Introduction to Healthcare (7 questions)	72.26%	90.81%	p<0.01
New Material (13 questions)	39.68%	82.25%	p<0.01

- Pretest scores were partially determined by knowledge retained on topics previously covered in the Introduction to Healthcare course (7 questions; 5 of which had pretest scores $\geq 77\%$), and continued improvement was noted on the final.
- Pretest scores were similar both semesters (Fall = 50.6%; Spring = 55.9%; $p=0.23$) with minimum scores Fall = 25%; Spring = 0% and maximum scores Fall = 80%; Spring = 80%.
- Final scores were similar both semesters (Fall = 84.5%; Spring = 86.7%; $p=0.97$).
- Combining Fall and Spring semesters, students showed improvement in knowledge (pretest = 49.2%; final = 84.5%; $p<0.01$).

RESULTS CONTINUED

- Areas that students found challenging included research methods and analytic epidemiology.

IMPLICATIONS

- These results show the need for public health education in the curriculum.
- Content can be designed to complement objectives of the total curriculum including research methods, healthcare systems, and evidence based approaches.
- Research methods material was included in this P1 course to address a gap in the student knowledge of research, and while scores improved in this area, it is still a challenge for students.
- At the class level, improvements can be documented in areas where pre-test scores were high.
- Some students in the P1 year are challenged to apply the public health perspective, but can improve in content areas over the course of a semester.