



VILLANOVA
UNIVERSITY
M. Louise Fitzpatrick
College of Nursing



Wendy Hansbrough,
PhD, RN, CNE

Kimberly Dunker, DNP,
RN, CNE, CNEcl

Jennifer G. Ross, PhD,
RN, CNE

Marilyn Ostendorf,
DNP, RN

Background

- Nurse educators have been called upon to effectively integrate the use of technology and informatics into the prelicensure curriculum, recognizing the demand for newly graduated registered nurses (RNs) to be prepared to use EHRs and eMARs upon entry to the workforce
- Informatics is identified as a prelicensure Quality and Safety Education for Nurses (QSEN) competency for nursing students
- The National Council of State Boards of Nursing (NCSBN) includes the utilization of information technology related to promoting a safe and effective care environment in the nursing licensure examination (NCLEX-RN) test blueprint.⁶

Problem & Study Purpose

- Problem: Anecdotally reported restricted access to clinical sites training limits pre-licensure student training and threatens the quality of students' clinical preparation.
- Purpose: To describe current state of student nurses clinical education from view of nursing faculty.

Study Design

Human Subjects Protections

Methods

- Inclusion criteria: Clinical Faculty teaching in pre-licensure programs in U.S.
- Snowball sampling:
 - Nursing organization networks
 - SON Deans & Directors
- N= 193 Nursing school clinical faculty
- 25 States represented
- Survey Date: 5/15/2018 – 9/15/2018

Clinical Assignments

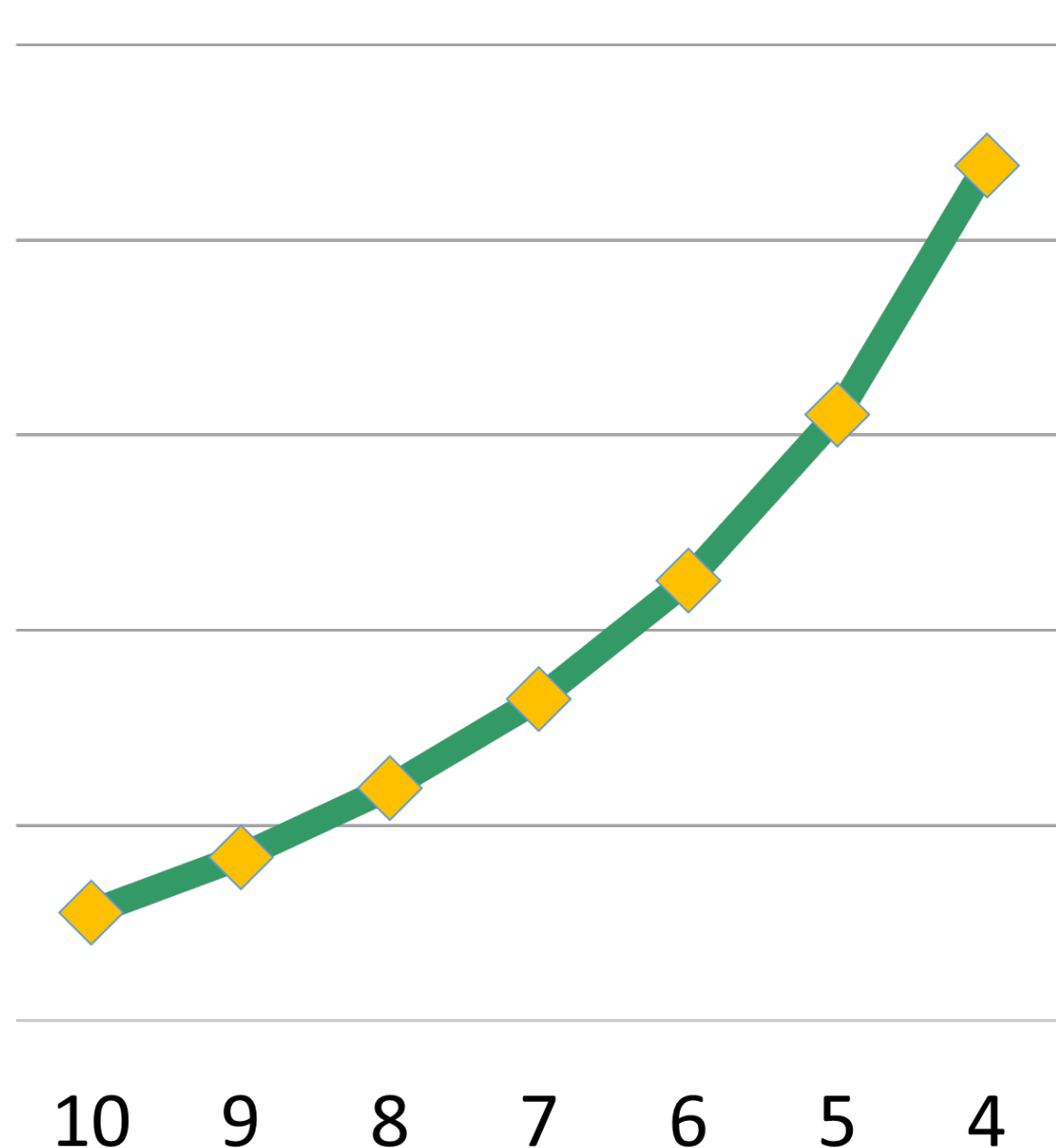
Extrapolated Faculty Cost Per Semester by Clinical Group Size

- 48 Student Cohort
- \$39.40 Mean Faculty Hrly Wage
- 9 Hour Clinical Shift
- 15 Week Semester

\$70,000
\$60,000
\$50,000
\$40,000
\$30,000
\$20,000

10 9 8 7 6 5 4

Students per Clinical Group



Students in Clinical Group

Mean

7.96

SD

1.799

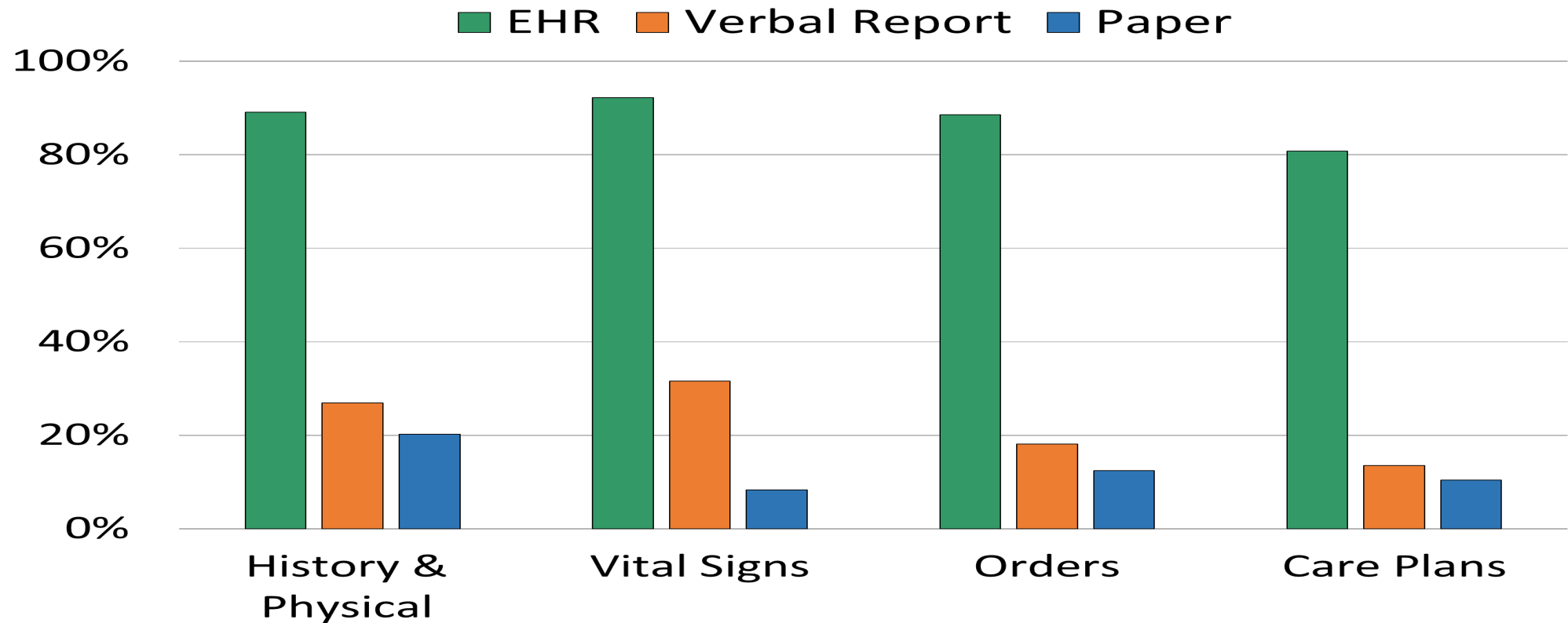
Range

4 - 14

| Documentation Type | Personal and Faculty or RN EHR Access, % | Personal EHR Access, % | Faculty or RN EHR Access, % |
|---------------------------|---|-------------------------------|------------------------------------|
| Vital signs | 84.4 | 80.2 | 45.2 |
| Intake and output | 78.1 | 74.4 | 35.7 |
| Patient care | 65.6 | 67.4 | 23.8 |
| Physical assessment | 62.5 | 64 | 21.4 |
| Risk assessments | 51.4 | 61.6 | 16.7 |
| Nurse's notes | 43.3 | 53.5 | 21.4 |

Results

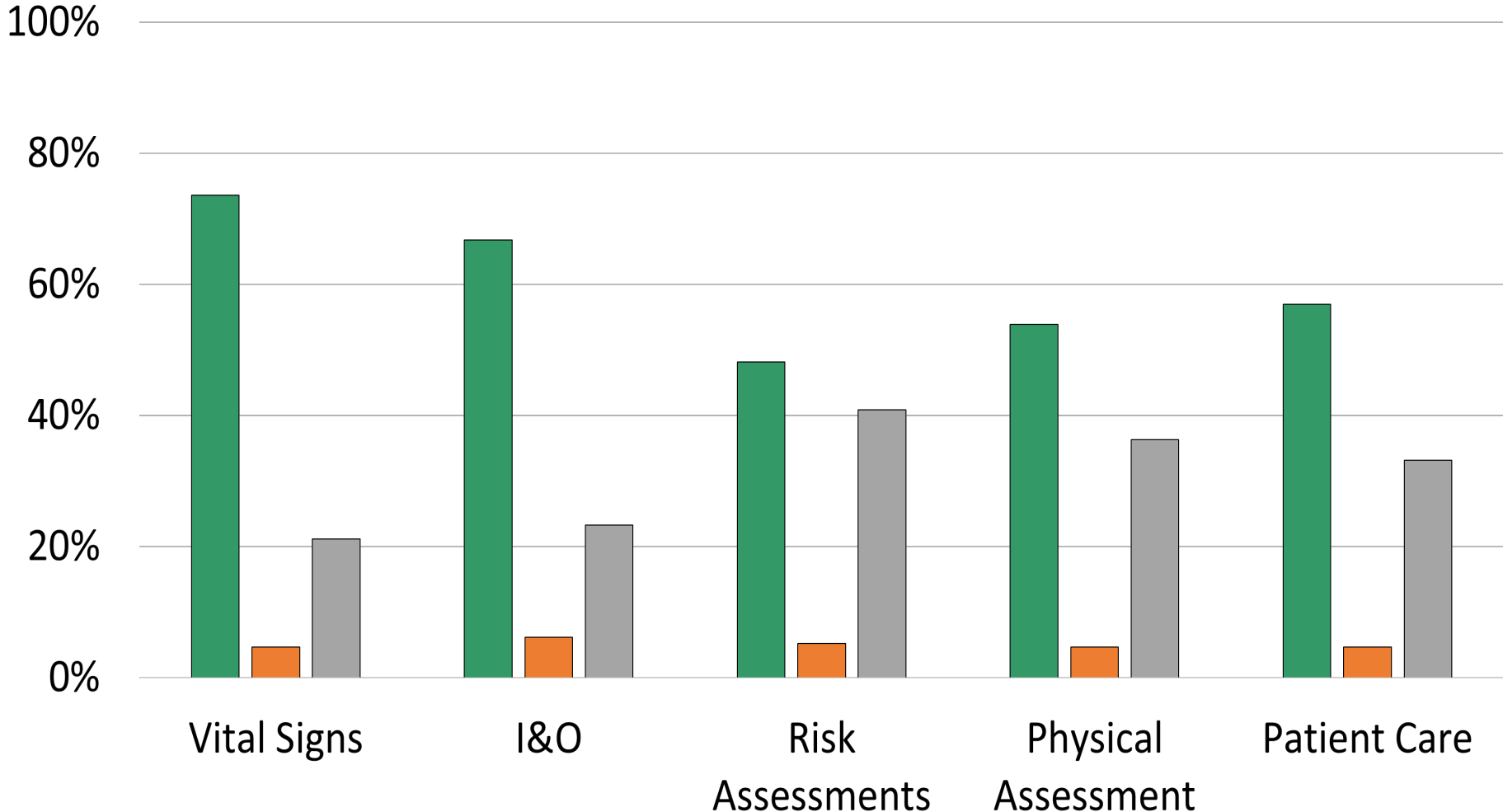
Sources of Patient Data Available to Students



Results

Student Documentation

EHR Paper Chart Do Not Document



Results

When Students Get Initial Patient Information

| | |
|----------------------|-------|
| Day/Eve Before Shift | 24.4% |
|----------------------|-------|

| | |
|-----------------------|-------|
| Hour Before RN Report | 38.9% |
|-----------------------|-------|

| | |
|--------------|-------|
| At RN Report | 31.6% |
|--------------|-------|

| | |
|-----------------|------|
| After RN Report | 5.2% |
|-----------------|------|

Results

EHR Access

| | |
|------------------------|-------|
| Faculty: Direct Access | 90.7% |
|------------------------|-------|

| | |
|-------------------------|-------|
| Students: Direct Access | 76.2% |
|-------------------------|-------|

However.....

| | |
|-----------------------------|-------|
| Students Use Faculty Access | 89.1% |
|-----------------------------|-------|

| | |
|-----------------------------|-------|
| Students Use Unit RN Access | 20.0% |
|-----------------------------|-------|

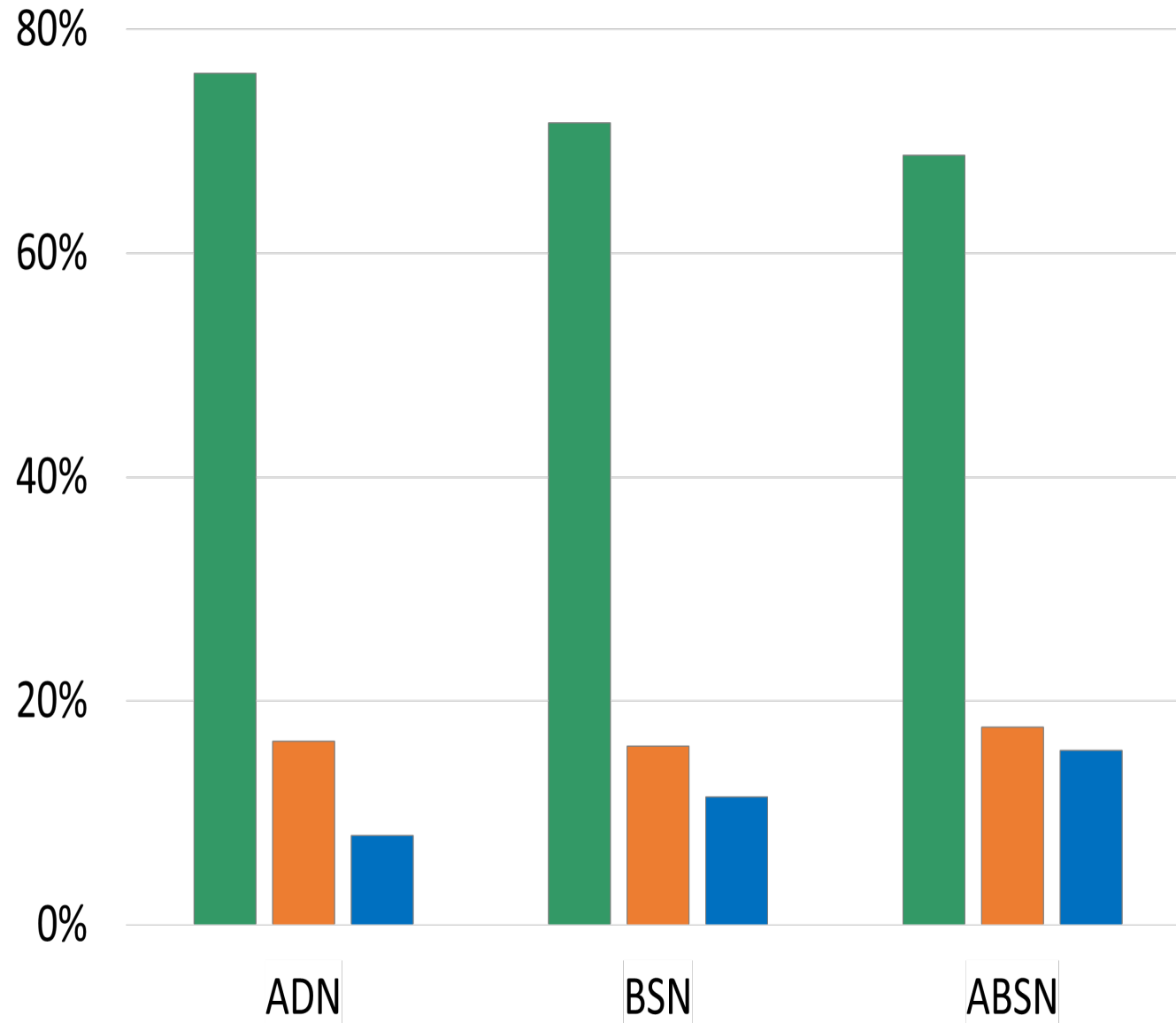
Results

EHR Ease of Access
Range: 1 = Easiest
10 = Most Difficult

| | Students | Faculty |
|------|----------|---------|
| Mean | 5.04 | 4.30 |
| SD | 2.580 | 2.725 |

% Distribution of Clinical Hours

■ Direct Patient Care ■ Lab/Simulation ■ Observation Only



Medication Administration

- 71.1% of Faculty have login access to MAR.
- Student access to MAR
 - 13.9% Own Log in
 - 57.2% Use Faculty Access
 - 28.9% Use LVN/RN Access

Allowed Routes of Medication Administration

| | |
|----------------|-------|
| No limitations | 6.7% |
| SQ Injections | 82.9% |
| IM Injections | 81.3% |
| G-tube | 76.7% |
| IVPB | 74.6% |
| IVP | 39.9% |
| TPN | 36.3% |

Conclusions & Implications

- Students have limited access to:
 - Electronic Health Care Records
 - Direct patient care experiences
- Students are restricted in:
 - Pre-shift preparation time
 - Care documentation
 - Medication administration process
- Smaller clinical group size is costly
- Critical review of program pedagogy is needed
- Alternatives to the long-standing clinical-dependent teaching model are needed

Questions?

Thank you for your time

References

See notes below