

# **Going Big:**

## **Integrating Interprofessional Curricula across Programs on Large Campuses**

### **Presenters:**

Gundy Sweet, PharmD, University of Michigan

Sharon Lanning, DDS, Virginia Commonwealth University

Mark Earnest, MD, PhD, University of Colorado

### **Moderator:**

Alan Dow, MD, MSHA, Virginia Commonwealth University

# Learning objectives

- To describe some successful integrations of curriculum across large populations of learners
- To illustrate some approaches to overcoming barriers to integrating interprofessional curriculum
- To compare and contrast successful approaches between institutions



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**Gundy Sweet, PharmD**

Clinical Professor of Pharmacy  
University of Michigan, Ann Arbor

# University of Michigan Health Sciences Infrastructure

- Large university with over 43,000 students
- 7 health-science schools
  - Dentistry
  - Kinesiology (undergrad program)
  - Medicine
  - Nursing (undergrad and grad programs)
  - Pharmacy
  - Public Health
  - Social Work
- Strong relationship with University of Michigan Health System (~1000 bed, extensive ambulatory clinics/infusion areas)

# Evolution of IPE

## University of Michigan

- IPE Steering Committee formed by HS Deans in 2012
  - Representatives from the 7 HS schools
  - Charge: develop a strategic proposal for large-scale implementation of IPE/IPP
- Phase I: improve IPE offerings by HS schools
  - Grass roots level
  - Pilot programs implemented
    - Elective coursework
    - Faculty development
    - Clinical experiences
  - Limited resources allocated to IPE efforts, not all pilots sustainable
- Phase II: major didactic instructional effort in January 2015

# Evolution of IPE

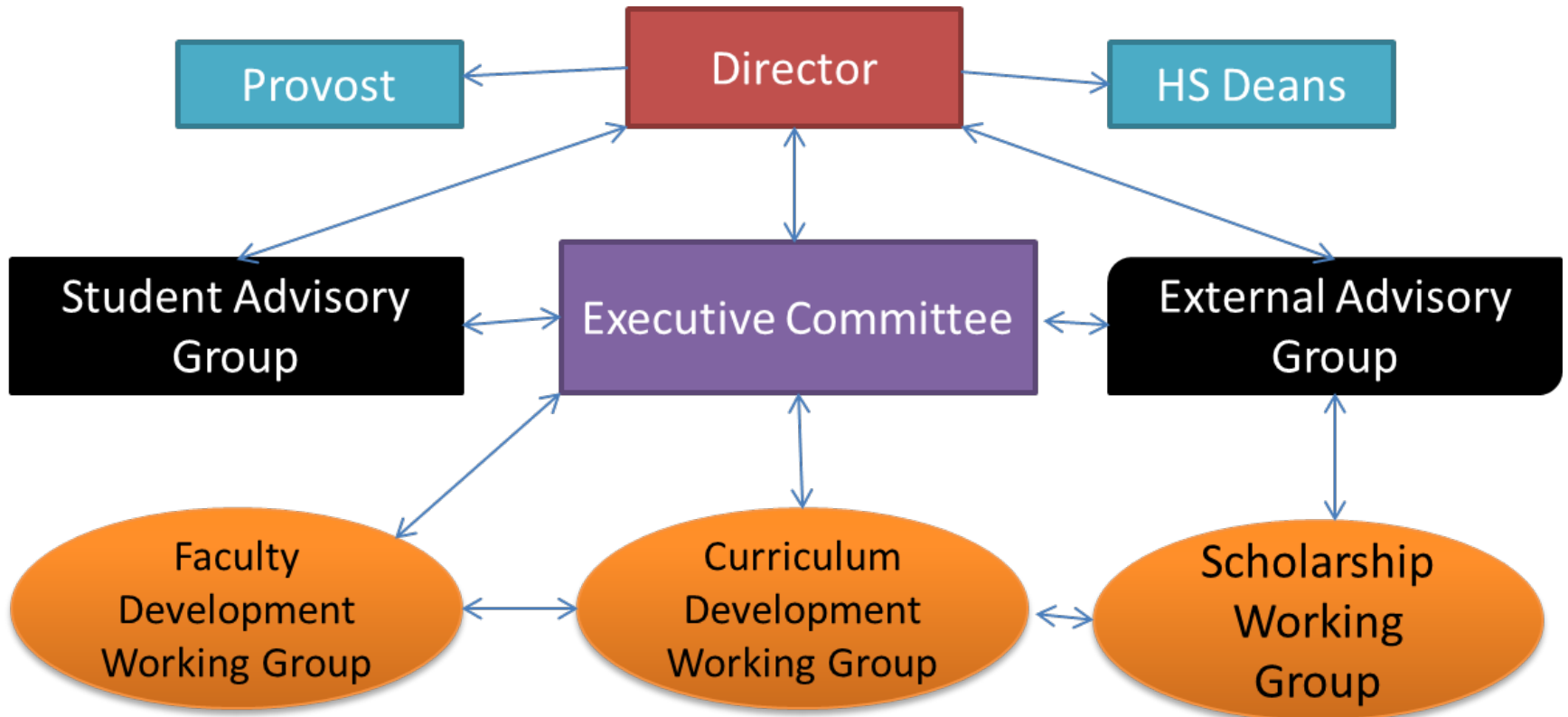
## University of Michigan

### University Support in 2015

- Third-Century Initiative (TLTC grant)
  - \$3M grant from Provost
  - \$3M matching funds from HS deans
  - UM Center for IPE officially launched in July 2015

University support developed in parallel with the roll out of the BIG course.

# IPE Center Organizational Structure



Administrative and Research Staff Support  
Outsourced Support (e.g., CRLT; Academic IT; Simulation Centers)

# Support for Going 'Big' - Large-Scale Course Across 5 HS Schools

- HS deans committed to share support for a staff member
- Each health science school had to commit to:
  - Offering the class at a set time in the schedule
  - Providing 2 faculty members to teach the course
  - Teaching space to hold up to 70 students
  - Ensuring a minimum number of students (not required for all)
- Course launched in January 2015



# Team-Based Clinical Decision Making

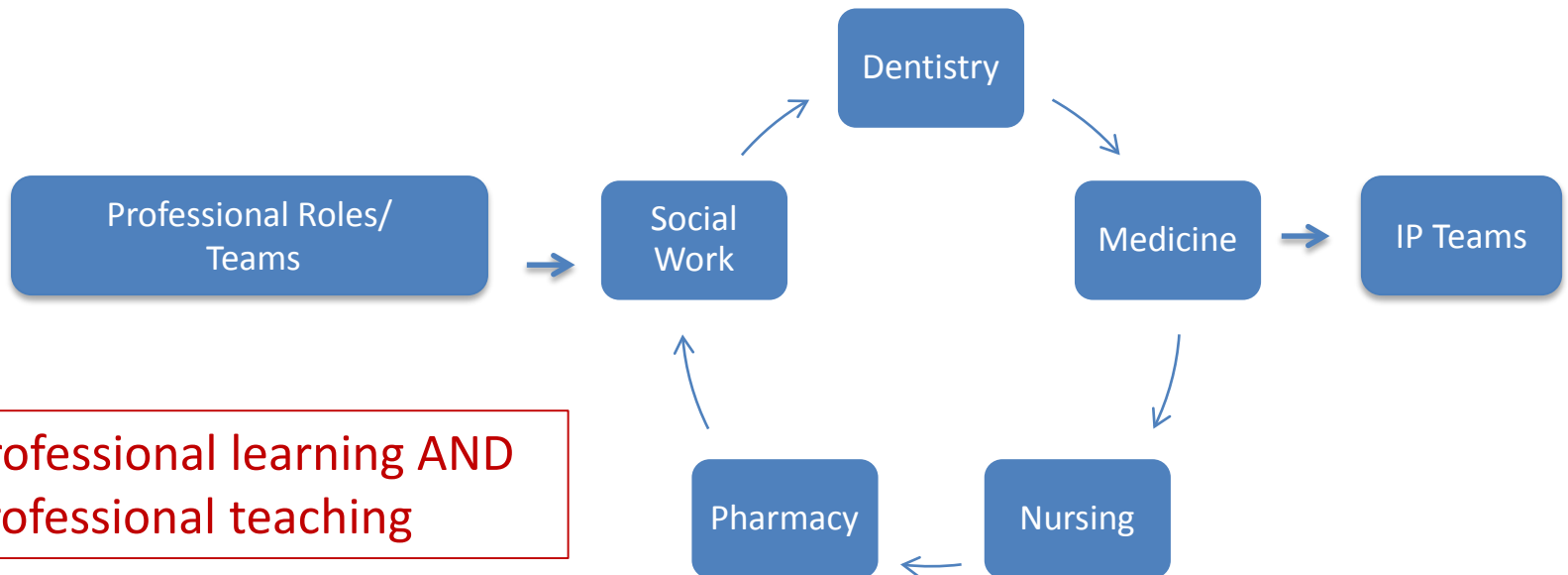
- 5 health science schools
- 257 students
- 11 faculty

Discipline	Level	Number Enrolled
Dentistry*	3 <sup>rd</sup> year	114
Pharmacy*	3 <sup>rd</sup> year	75
Social Work*	Masters	35
Medicine	3 <sup>rd</sup> year	19
Nursing	Advanced practice	14

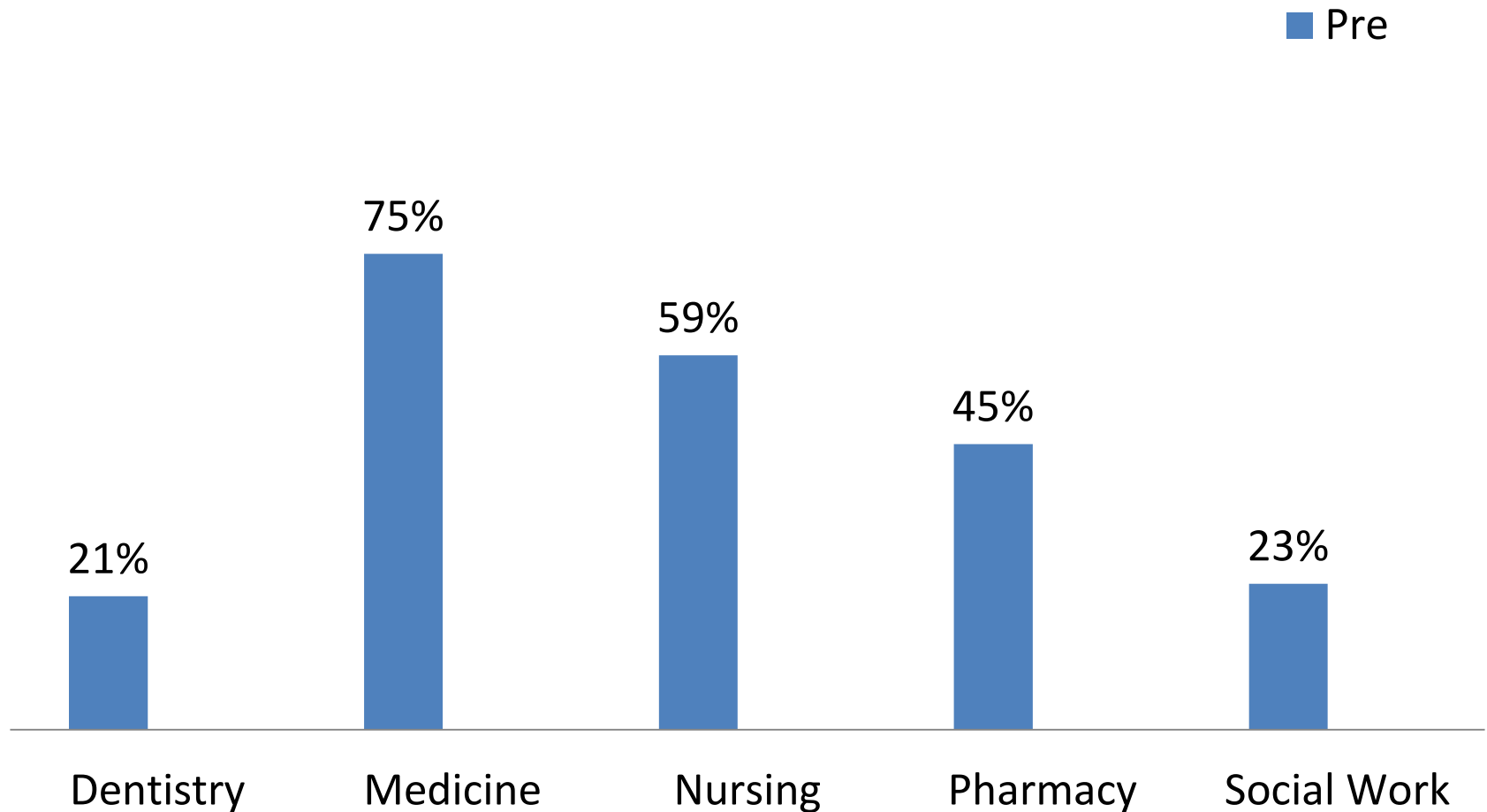
\*Required for all dental and pharmacy students, and some social work students.

# Team-Based Clinical Decision Making

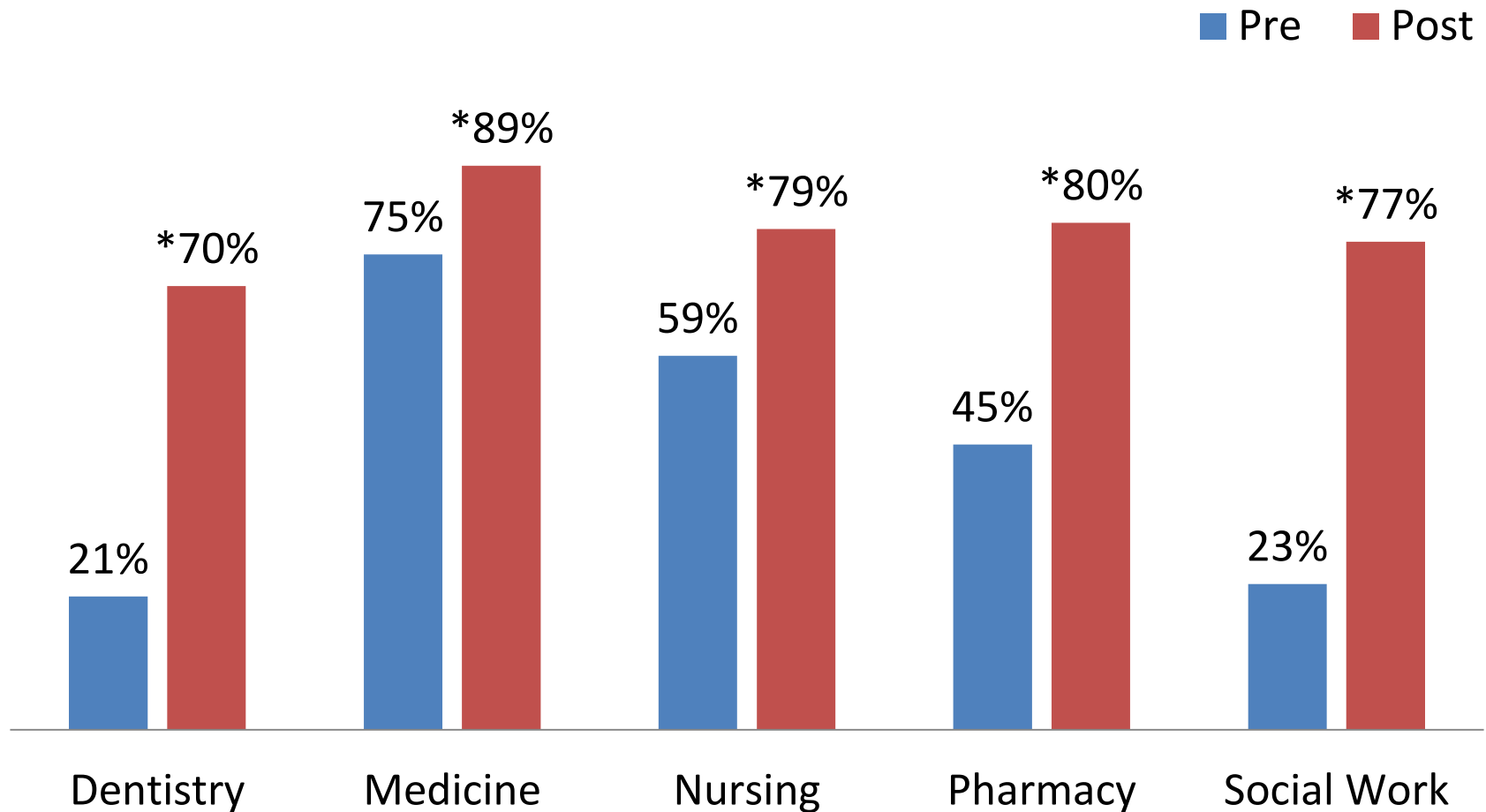
- IPE Competencies
  - Understanding professional **ROLES**
  - Acquiring effective **TEAMWORK** skills
- Pedagogy: students teach each other



# Students' Learning Gains: Familiarity with ROLES of other disciplines

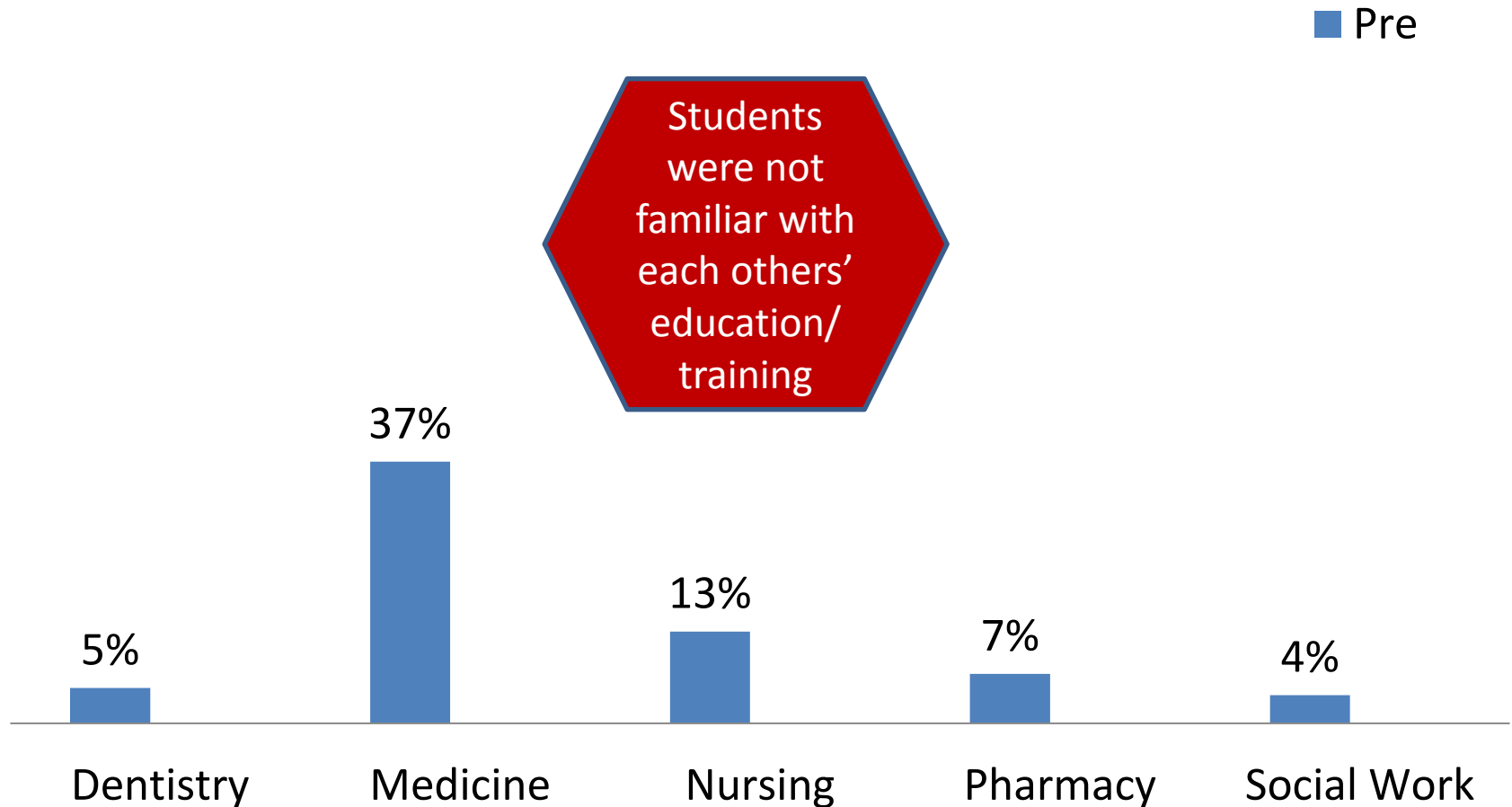


# Students' Learning Gains: Familiarity with ROLES of other disciplines

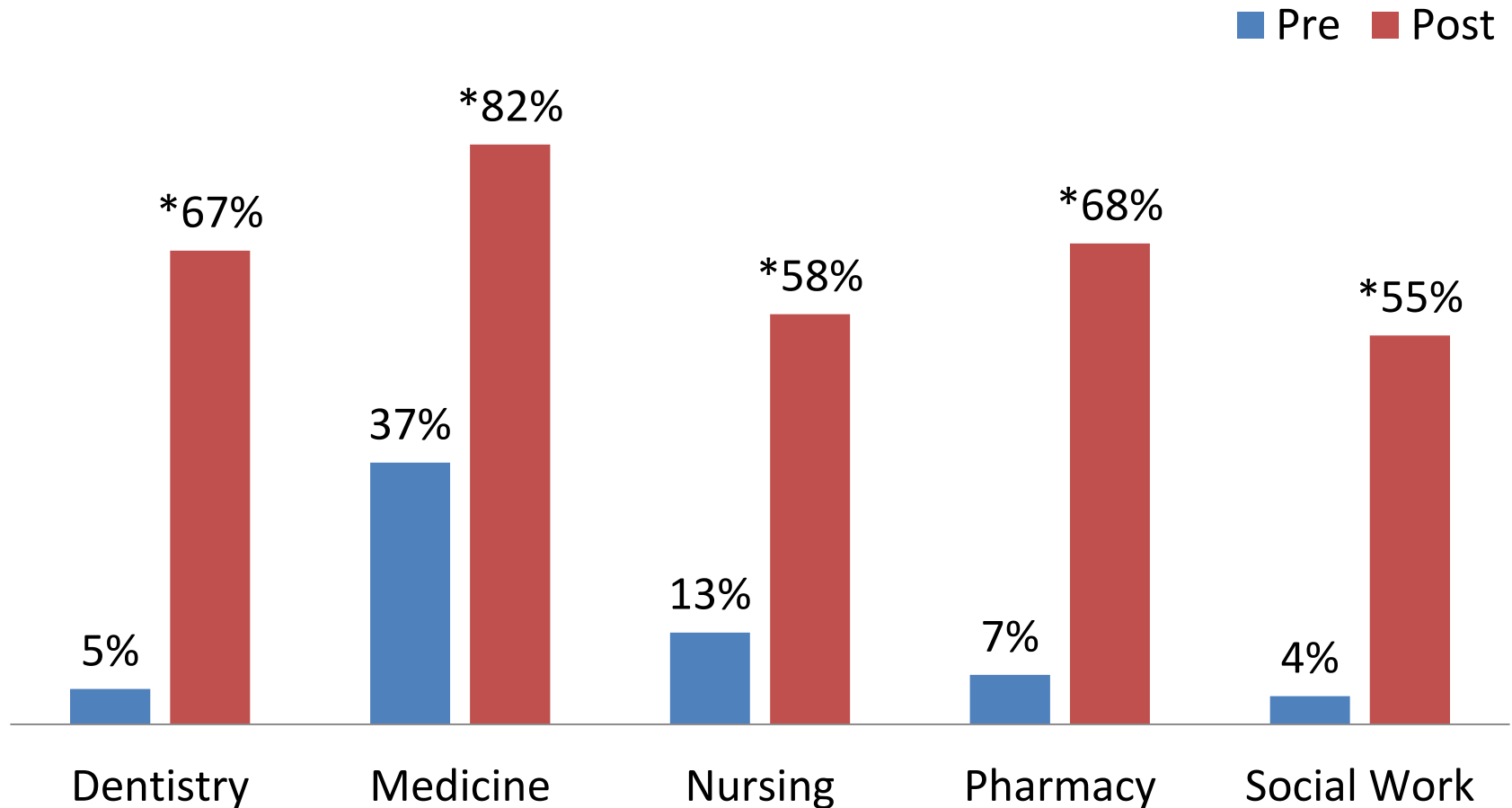


\*Significant increase in familiarity with the roles of other disciplines.

# Familiarity with EDUCATION/TRAINING of other disciplines



# Familiarity with EDUCATION/TRAINING of other disciplines

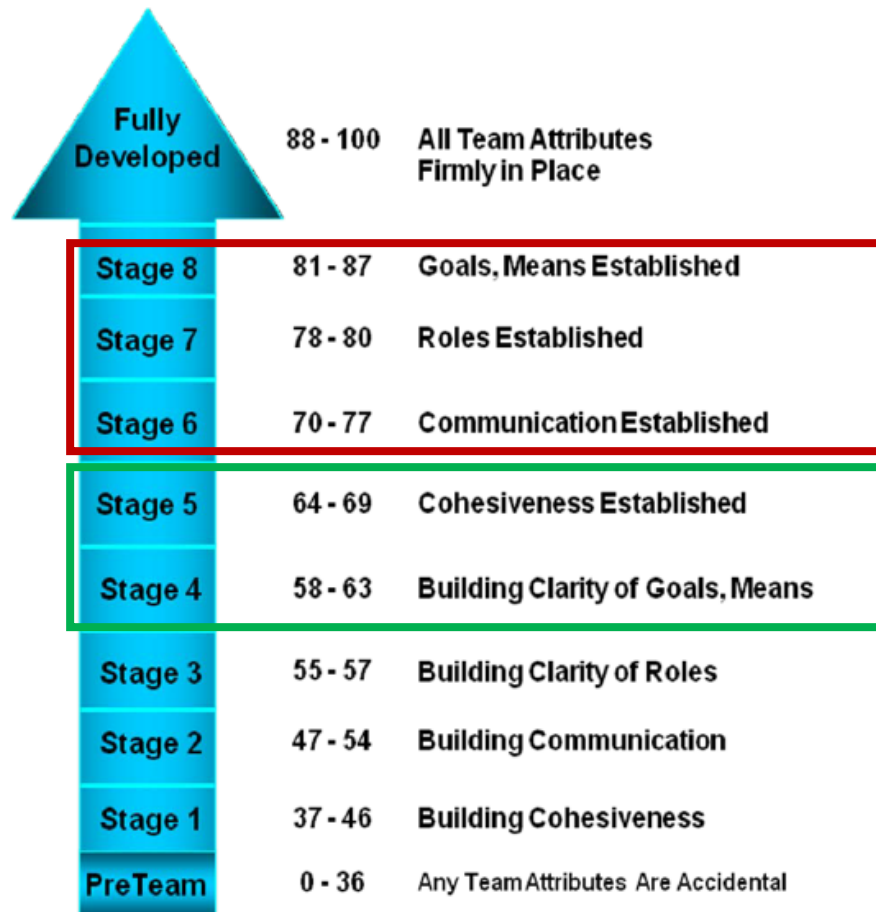


\*Significant increase in familiarity with the education of other disciplines.

# Assessment of Team Functioning: Team Development Measure (TDM)

- Background
  - Validated tool based on literature specific to TEAMS and HEALTHCARE
  - Has been used for teams ranging from 3-43 members across settings (executive teams, clinical care teams)
- What it shows
  - Where a team stands along the measure of team development
  - Team development over time
- 8 stages of development based on 4 components
  - Cohesion
  - Communication
  - Clarity of roles
  - Clarity of purpose

# What happened with teamwork?



## Overall Change:

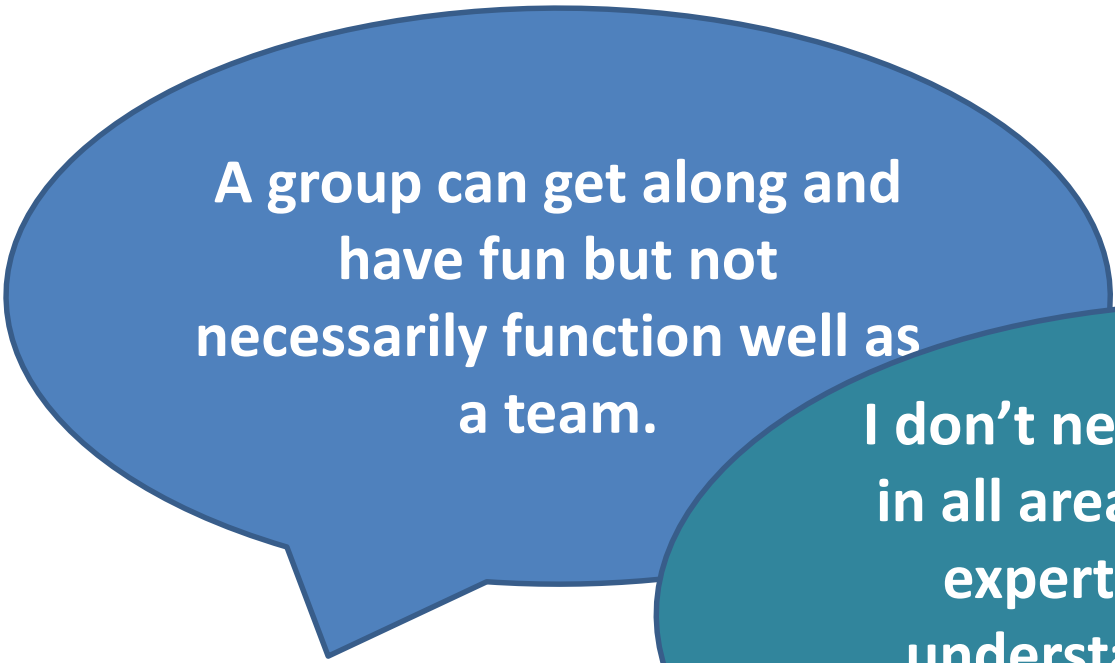
**Post:** 34% of teams were at stage 6 or above (vs 9% at baseline)

## Baseline:

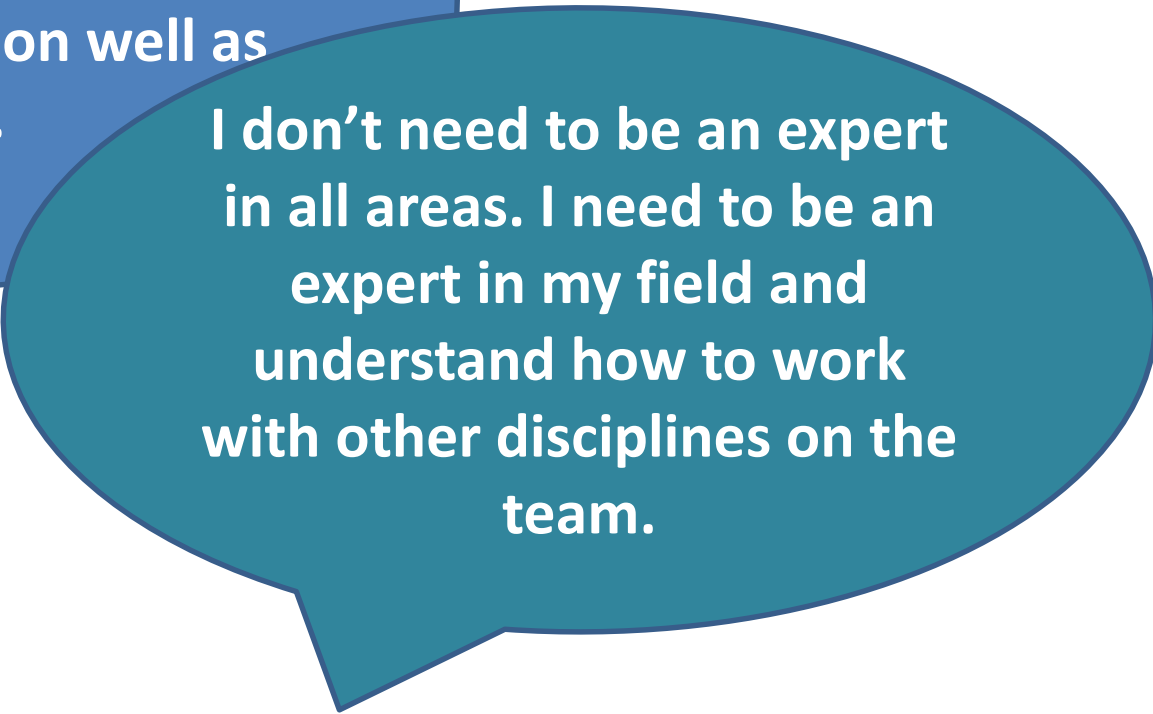
83% of teams were at stage 4 or 5

# Student Quotes:

## Learning About Team Functioning



A group can get along and have fun but not necessarily function well as a team.



I don't need to be an expert in all areas. I need to be an expert in my field and understand how to work with other disciplines on the team.

**>70% reported increased confidence in representing their profession to the team**

# Current IPE Programs at Michigan

- Team-Based Clinical Decision Making (didactic)
  - Required for dentistry, pharmacy, subset of SW; elective for nursing and medicine
- Service Learning (didactic/experiential)
  - Required for pharmacy; elective for all HS students
- Collaborative Care Rotation (experiential)
  - Elective for dentistry, nursing and SW students
- Residential MOOC - Introduction to Health Policy (online +)

# Key Successes with IPE

- University support (with funding) for IPE Center
- Large-scale IPE course successfully implemented
- Recent commitment from deans to require:
  - IPE credits in curricula
  - A common time across schedules for IPE
- Next Steps: Window for Selectives
  - Menu of IPE offerings from students to choose from

# Current Challenges

- Curricular/Course Challenges
  - Space/credits in the different curricula
  - Elective vs required
  - Crediting, attendance, grading – different definitions
- Logistical Challenges
  - Common time across school schedules
  - Teaching space for active learning
  - Faculty time and staff support
  - Tuition stream
  - Registration process – not all schools use the University system
- Faculty Challenges
  - Limited number of faculty involved – concerns with burnout
  - Recognition of scholarship of teaching as scholarship for promotion
  - Faculty development for different type of teaching (facilitation)



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Center for Interprofessional Education  
and Collaborative Care

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**Sharon K. Lanning, DDS**  
Associate Professor of Dentistry

# Virginia Commonwealth University

- 53 acre Health Science campus
- 5 health professional schools: allied health, dentistry, medicine, nursing, pharmacy
- Tertiary academic medical center
- 3200 clinical learners



- Monroe Park campus
- School of social work, departments of psychology and health & human performance, others
- Distant training sites
- > 700 faculty who train health professionals

**VCU**

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## Center for Interprofessional Education and Collaborative Care

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### Our Vision

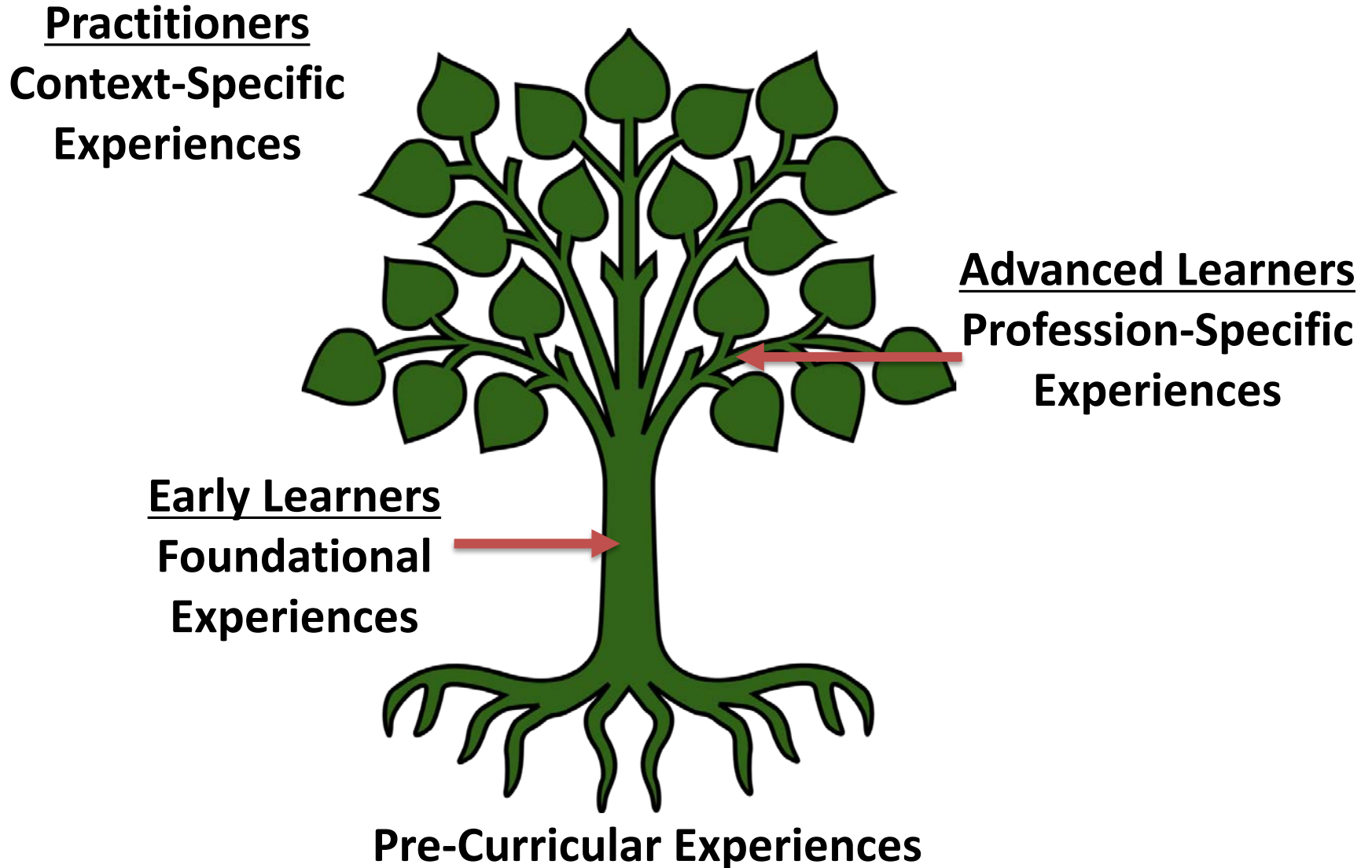
The Center's vision is to become a national model for transforming communities and healthcare through innovations in education, scholarship and practice focused on increasing interprofessional care.

**>>Learn more about the VCU IPE Community.**

**VCU**Center for Interprofessional Education  
and Collaborative Care

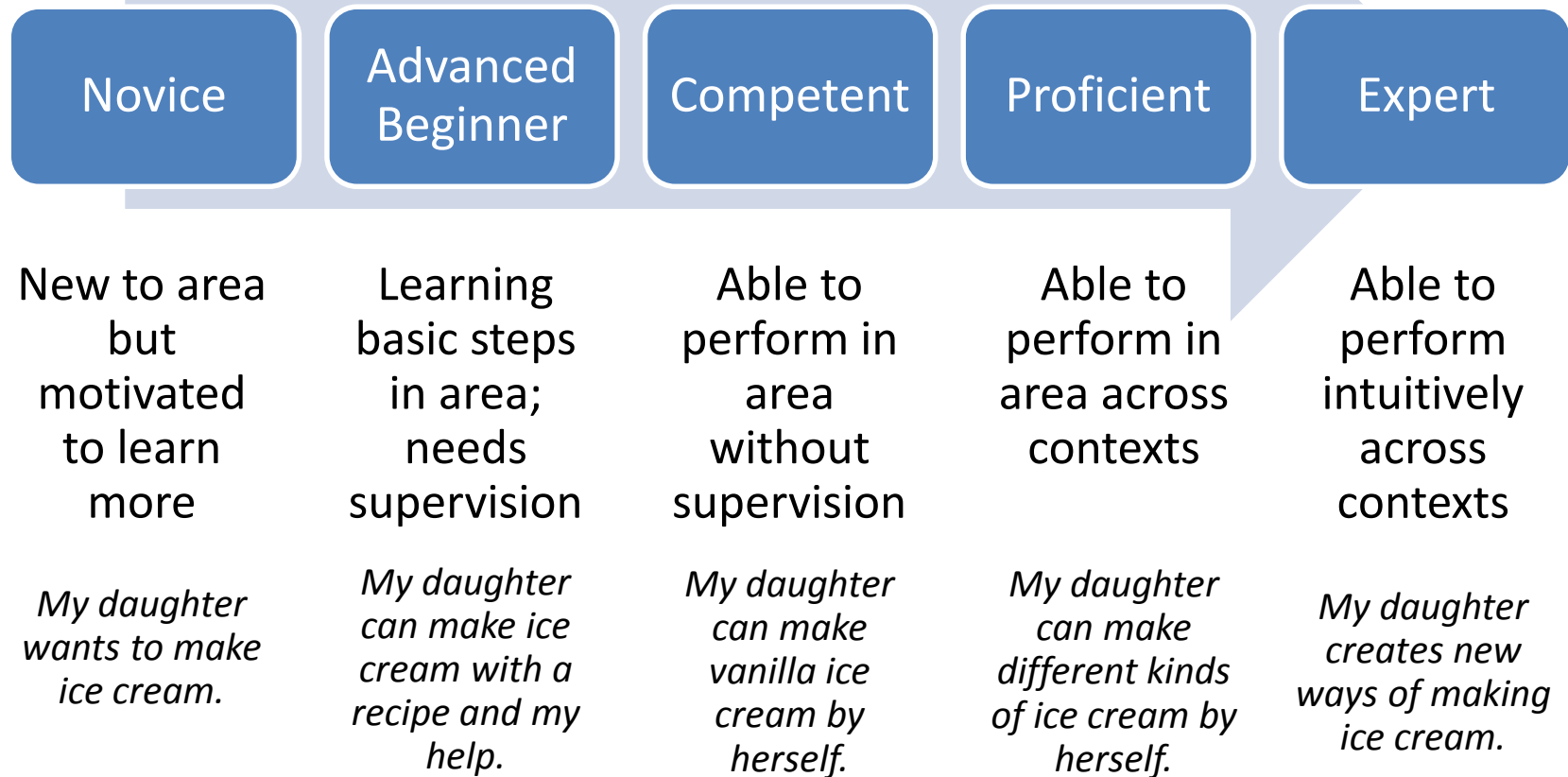
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# Conceptual Framework



# A Developmental Approach

Dreyfus → Benner (and beyond)



**Novice**

**Advanced  
Beginner**

**Competent**

**Proficient**

**Expert**

Recognize the  
value of shared  
problem solving

Know principles of  
effective teams

Engage in shared  
problem solving

Adapt within a  
team framework

*Teams Domain*

Know the roles &  
responsibilities of  
your profession

Know the roles and  
responsibilities of  
other professions

Fulfill your role &  
responsibilities on  
teams

*Roles &  
Responsibilities  
Domain*

Recognize your  
personal &  
professional  
limitations

Use strategies to  
overcome your  
personal  
limitations

Understand the  
perspectives of  
others (listening)

Form team goals

Resolve conflict  
successfully

Voice conflicting  
opinions

Express views with  
clarity

*Communication  
Domain*

Give feedback  
(individual & team)

Respond to  
feedback  
(individual & team)

Solve problems  
interprofessionally

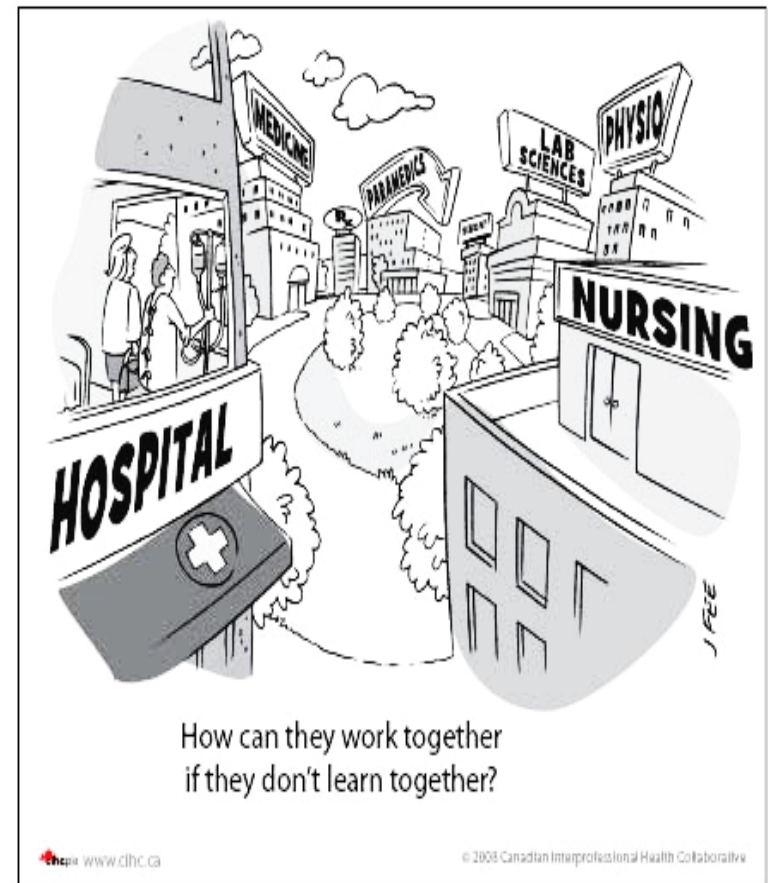
Lead & follow in  
context

Using QI methods to  
improve team  
performance

Change systems of  
care to leverage  
interprofessional  
teams

*Integrative  
Domain*

# The Evolution of a Foundational IPE Experience



Novice

Advanced  
Beginner

Competent

Proficient

Expert

Early Learners

Recognize the  
value of shared  
problem solving

Engage in shared  
problem solving

Know principles of  
effective teams

Adapt within a  
team framework

Know the roles &  
responsibilities of  
your profession

Know the roles and  
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Fulfill your role &  
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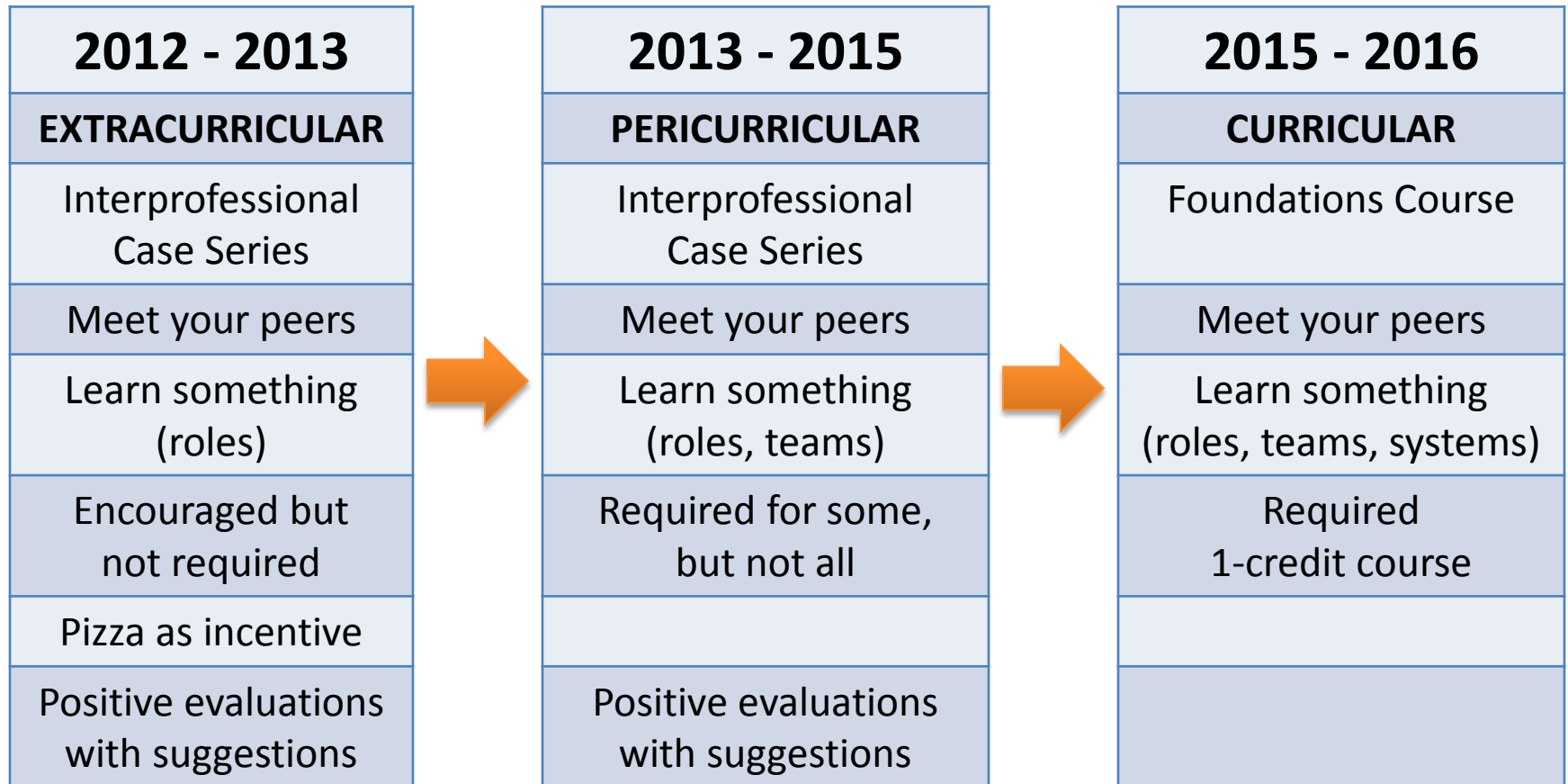
Voice conflicting  
opinions

Express views with  
clarity

Give feedback  
(individual & team)

Respond to  
feedback  
(individual & team)

# Evolution of the Foundational IP Experience



# Foundational IP Course

- Early learners from seven degree programs
- ~130 interprofessional student teams, ~ 6 students each
- 20 interprofessional faculty
- Team-based projects exploring
  - Professional Role & Responsibilities
  - Team & Teamwork
  - Healthcare System



Team & Teamwork

Professional Roles &  
Responsibilities

Healthcare Systems

GOAL

To develop effective  
of team-based skills  
for interprofessional  
collaboration

GOAL

To recognize the  
roles, training,  
licensure, and  
typical practice of  
health professions

GOAL

To characterize  
strengths and  
opportunities for  
improvement in the  
healthcare system

Team & Teamwork

Professional Roles & Responsibilities

Four Types Assessment  
Collective Orientation

What Professional Do  
Standard, Interprofessional Practice\*  
Team/Learning Contract

Healthcare Systems

Ecology of Care

Patient Interview: Summary

Patient Interview: Analysis\*

**Capstone Video-essay: Barriers and Solutions to  
Interprofessional Collaborative Care**

# Assessment at Three Levels

- Program
  - Attitudes about interprofessional collaboration
- Team
  - Faculty assessment of team-based products
- Learner
  - Peer assessment

## GRADE

P/F Course: Pass  $\geq 70\%$

Individual (40%)

Team (60%)

Pre-work, To Be  
Done BEFORE Class



Team Contract



Assignment



Peer Assessment  
Team Assessment



Quizzes (28%)  
Professional Roles/  
Teamwork (18%)  
Quiz: Healthcare System (10%)



Assignments (60%)  
Interprofessional Practice  
(10%)  
Patient Interview (20%)  
Video-essay  
Barriers/Solutions (30%)



Peer Assessments (12%)  
1<sup>st</sup> (2%)  
2<sup>nd</sup> (4%)  
3<sup>rd</sup> (6%)

# Foundational IP Course

## Enablers

### University-level support

- Interdisciplinary work is encouraged by University's strategic plan
- A Center for IPE
- Funding available to support for this large scale course

### School-level support

- Need to satisfy accreditation standards for IPE

Faculty interested and oriented to IPE for early learners

Facility space to accommodate 500 learners

Evolving competency model grounds curricular advancement

# Foundational IP Course

## Challenges

University-level course approval and scheduling processes

School-level support

- Curricular reform needed to accommodate 1CH IPE course
- Varying academic calendars and course schedules
- Varying ways of “counting” faculty effort towards IPE initiatives

Medical students are not participating

Developing faculty members’ knowledge and skills necessary for this non-traditional course

Securing facility space to accommodate 500 learners

Course learning objectives and content delivery: Getting it right

# Overall Curricular Programs

## Foundational

- IPEC 501: Foundational of Interprofessional Collaborative Practice
  - Interprofessional Case Series
- IPEC 502: Interprofessional Quality & Safety

## Profession-specific

- Interprofessional Web-based Case
- Interprofessional Critical Care Simulations

## Context-specific

- Richmond Health and Wellness Program





# IPE at the University of Colorado

Mark Earnest MD, PhD

Director of Interprofessional Education



University of Colorado  
Anschutz Medical Campus  
Interprofessional Education

# University of Colorado Anschutz Medical Campus

- Schools and Professions

- **School of Medicine**

- MD, PA, PT, Anesthesia Assistant

- **School of Dental Medicine**

- **School of Pharmaceutical Sciences**

- **College of Nursing – Bachelors**

- ***School of Public Health***

- College of Nursing – Graduate

- Graduate School

IPE Requirement

IPE Elective



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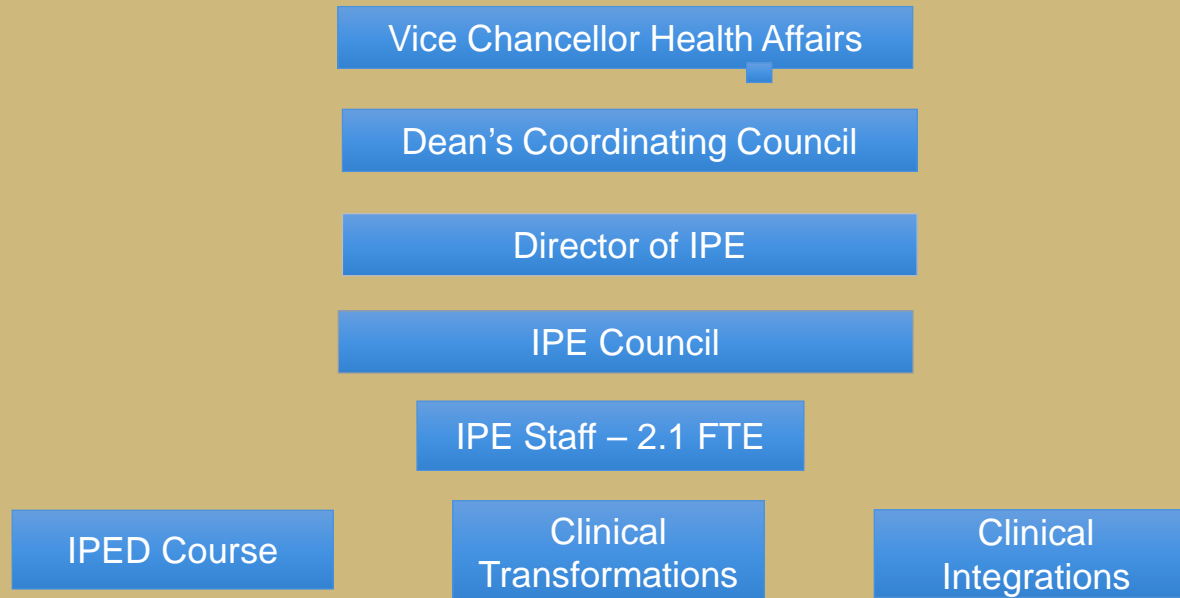
# Evolution

- 1996 – SOM Ethics becomes interprofessional
  - Nursing, Pharmacy, Dentistry, PA, PT joined
- 1999-2007 – Planning and building a new IP campus
- 2009 – Director of IPE named
- 2010 – Grant funding for start-up
- 2010 – 2013 – Ethics and new IPE program run in parallel
- 2013 – present – Ethics merged into IPE, switch to institutional funding



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# Organizational Structure



# IPE Council



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# Curricular Structure

- Foundational Course (IPED) -
  - Teamwork and Collaboration
  - Values and Ethics
  - Quality and Safety
- Simulation (Clinical Transformations)
- Clinical Integrations
  - Nexus project
  - Others in progress



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# Foundational Course

## Interprofessional Education and Development

- 16 two hour sessions divided over 2 semesters
- Team-based learning model
- 700+ students
- 90 student teams in 20 rooms with 40 facilitators



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# Assessments

- Individual
  - Knowledge – weekly iRAT and final exams
  - Collaboration – CATME peer assessment (formative)
- Team Performance
  - tRAT
  - Scoreable application exercises
- Team Development
  - TDM measure



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# Simulation

## Clinical Transformations

- 20-25 students in CAPE each Wed and Friday afternoon
- Menu of scenarios to accommodate any learner permutation
- Reinforcement and practice of skills learned in IPED
- Standardized Patient = coach and assessor
- Each team completes 2 scenarios



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# Clinical Integrations

- Nexus Project
  - Voice of the patient
    - IP student pairs
    - Interview patients
    - Data feeds into hospitals QI process
  - Adverse Event Reporting
  - Collaborative Case Review
- Goal = Menu of options to complete a clinical IPE requirement
- Goal = Leverage existing clinical education resources



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# Key Lessons

Problem	Solution
Aligning Schedules	Designate IPE time weekly (Wed 3-5) & modular design
Faculty Bandwidth	TBL
Standardizing small group learning	TBL
Registrar issues	Cross-listed courses Counts differently in each school
Funding	Each school contributes to program funding
<b>Integration and accountability</b>	<b>Designated representative to Council with protected time</b>



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# Challenges Ahead

## IPED

- TBL – Need increased authenticity/stakes

## Clinical IPE

- Sub-siloed resources (Not just school but departments/divisions...)
- Rotation schedules not aligned
- Clinical culture & hidden curriculum
- “Unconscious competence” in faculty



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# Potential Solutions

## IPED

- More scoreable, game-like applications

## Clinical Integrations

- “Hub and spoke” curricular structure
- Student assignments rather than faculty assignments
- Create value in student learning
  - Student work addresses unmet needs
    - Care transitions
    - Quality improvement



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# QUESTIONS AND DISCUSSION

## Presenters:

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