

# The Progress and Promise of Interprofessional Collaboration in Athletic Training

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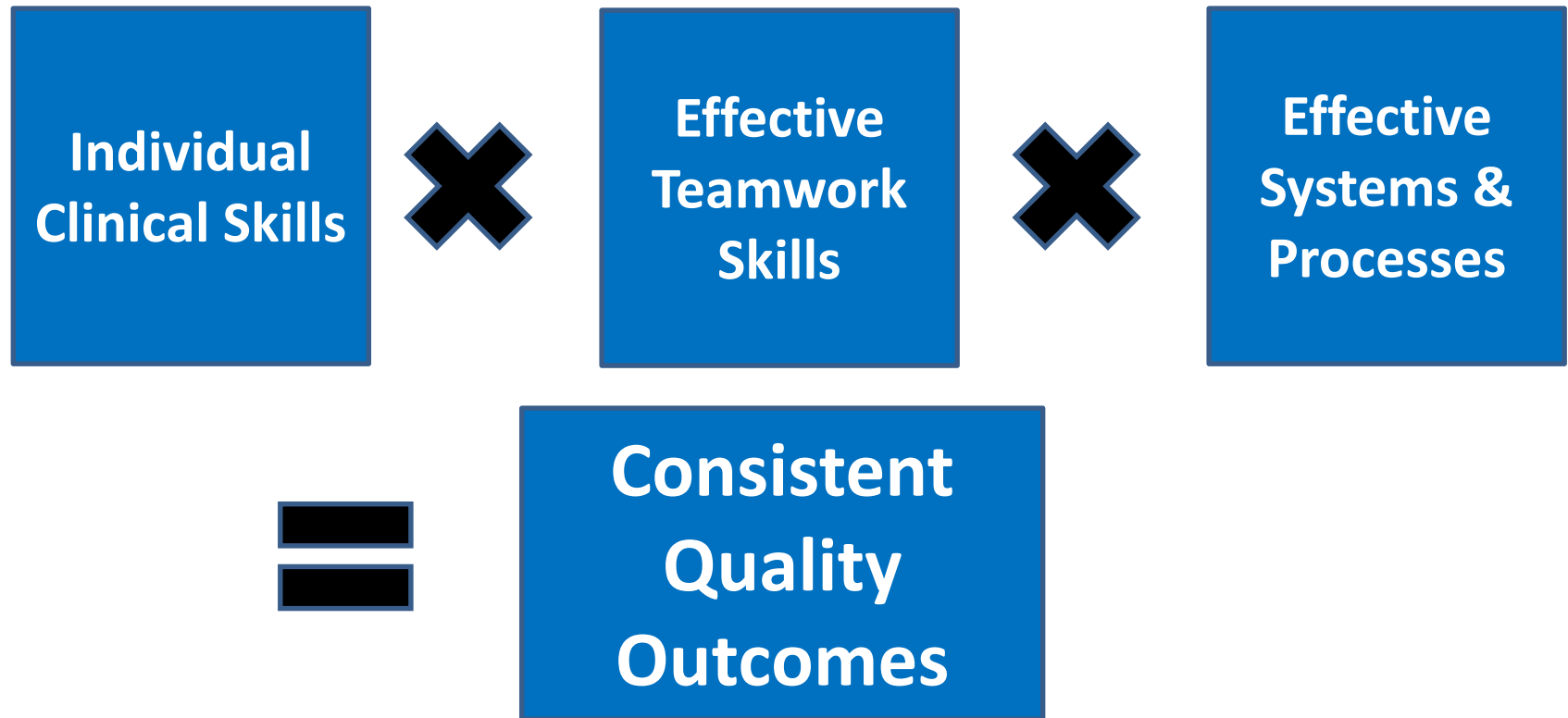
# Learning Objectives

- At the end of this presentation, participants will be able to:
  - Describe how IPE prepares athletic trainers for collaborative patient-centered care.
  - Describe how inclusion of Athletic Training faculty and students can enhance IPE initiatives.
  - Describe specific examples of how Athletic Training programs have included IPE into the professional preparation of their students.

# Interprofessionalism

- Not a new concept!
- "The best interest of the patient is the only interest to be considered, and in order that the sick may have the benefit of advancing knowledge, union of forces is necessary."  
— Dr. William Mayo, 1910

# Factors Impacting Outcomes



**SOURCES:** SLU Model of Interprofessional Practice. Pole, D. Rottnek, F. 2014  
Riley, et.al. 2010, *Journal of Nursing Management* 18, 556-563

# Definitions of IPCP

- **Interprofessional Collaborative Practice (IPCP)** helps strengthen the health care system and improves outcomes
- When multiple health workers from different professional backgrounds **work together** with patients, families, care givers, and communities to deliver the highest quality of care
- **Collaboration-ready** members of **interprofessional health care teams** are able to optimize the skills of team members, share in care management, and provide better health services to patients and communities – become change agents

**SOURCE:** WHO Framework for Action on Interprofessional Education & Collaborative Practice , 2010

# WHO Framework for Action

- 3 levels of implementation
  - Advancing IPE for improved health outcomes.
  - Advancing IPCP for improved health outcomes.
  - Supporting IPE and IPCP at the systems level

**SOURCE:** WHO Framework for Action on Interprofessional Education & Collaborative Practice , 2010

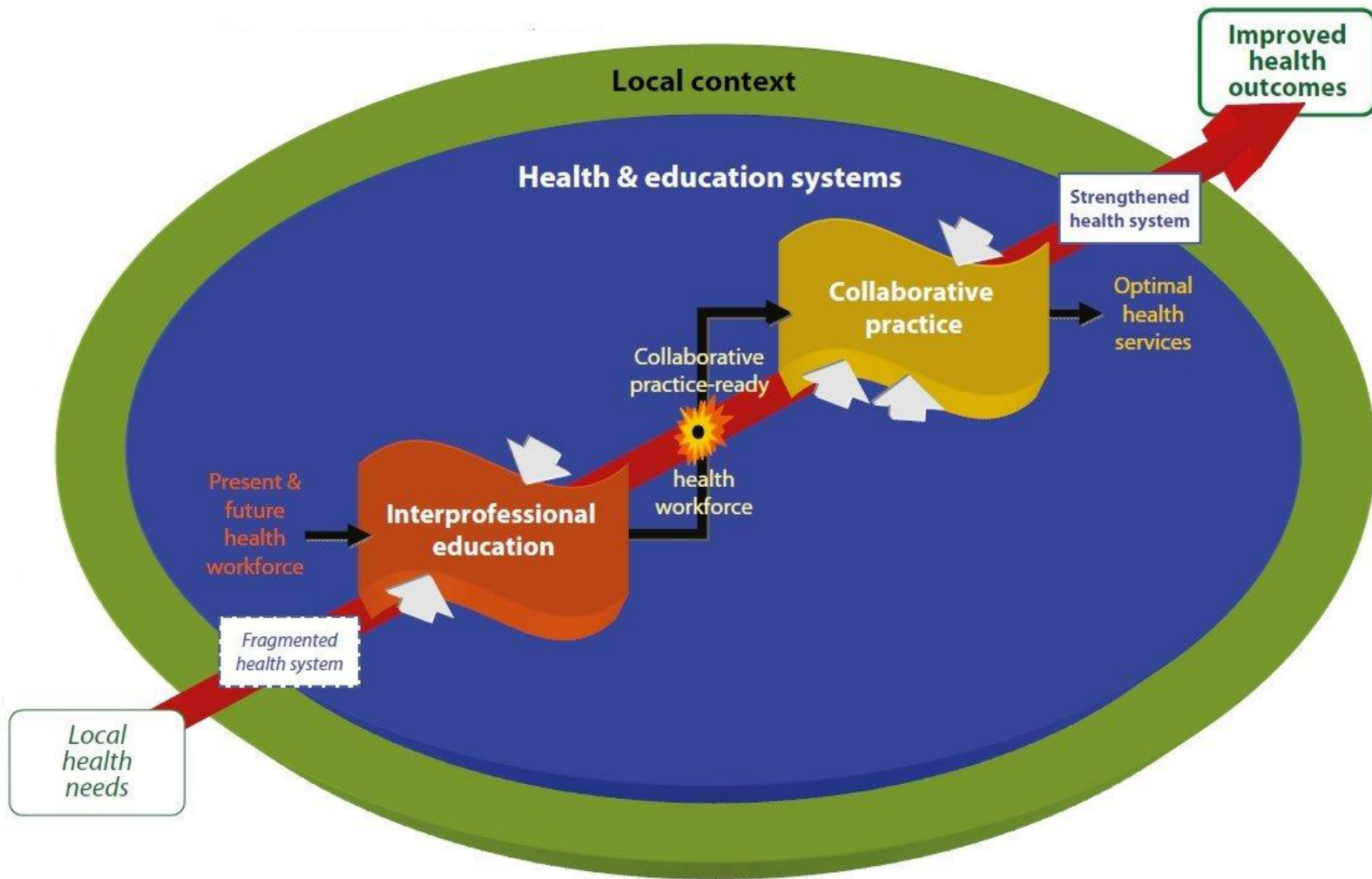


# WHO Framework for Action

- Wide range of stakeholders
  - Patients/clients
  - Health professionals
  - Researchers
  - Administrators
  - Government officials
  - Communities
- Levels of Engagement
  - Contextualize
  - Commit
  - Champion

**SOURCE:** WHO Framework for Action on Interprofessional Education & Collaborative Practice , 2010



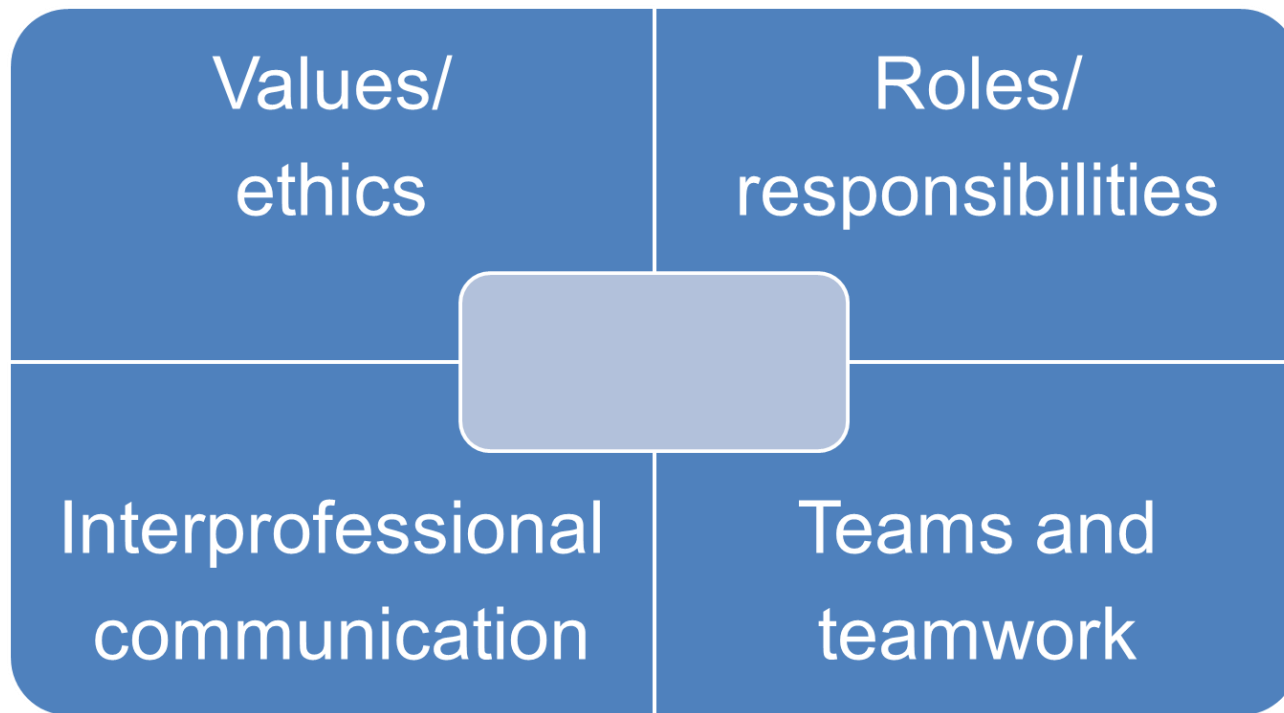




# IPEC Core Competencies & Collaboration Ready

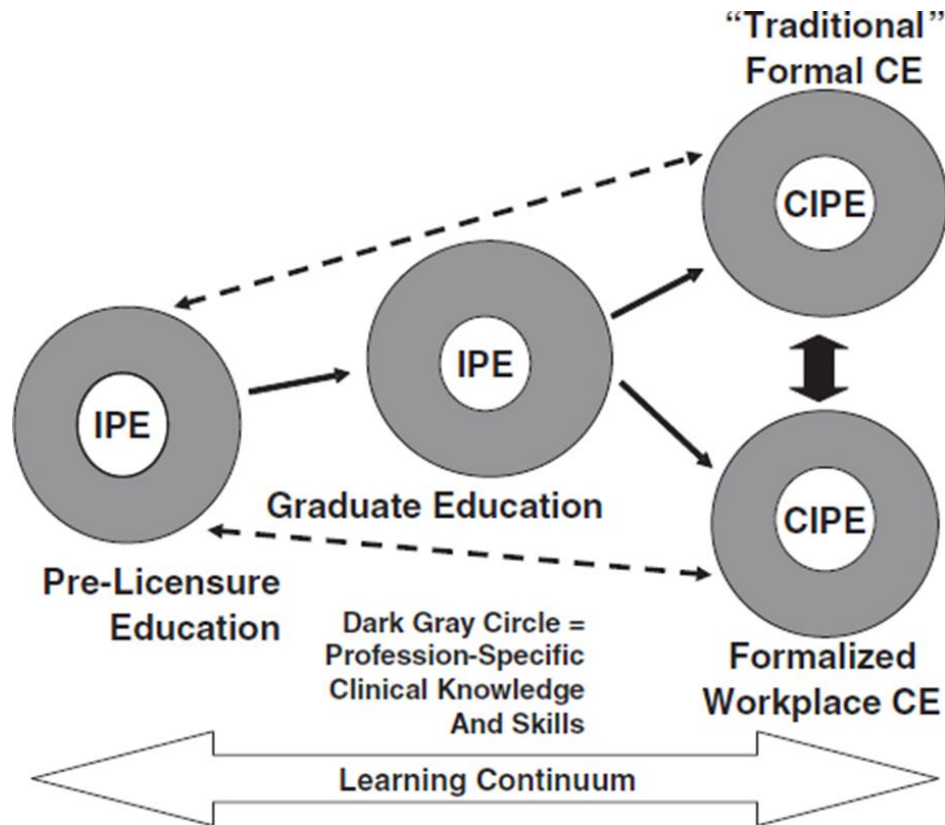
- Focus on transformation of health professions education
- Interactive learning outside one's profession (about, from, with)
- Prepare health professions for deliberate work together to improve care and outcomes

# Interprofessional Collaborative Practice Competency Domains



**SOURCE:** Interprofessional Education Collaborative (IPEC) Expert Panel. Core competencies for interprofessional collaborative practice: Report of an expert panel. Washington DC: Interprofessional Education Collaborative; 2011.

# Learning Continuum



**SOURCE:** Owen and Schmitt, 2013. The Alliance for Continuing Education in the Health Professions, the Society for Academic Continuing Medical Education, and the Council on Continuing Medical Education, Association for Hospital Medical Education.

# IPCP in AT

- AT's have been engaged in IPCP for decades.
- The traditional Intercollegiate Athletic Health Care facility functions like a Patient Centered Medical Home.



# If you were a scissors...

*Would you rather be this?*



*Or this?*



# Definition of IPE

- “Interprofessional education (IPE) occurs when students (learners) from two or more professions learn **about, from, and with** each other to **enable effective collaboration** and **improve health outcomes**” (WHO, 2010)

# Multidisciplinary vs. Interprofessional



# IP Terminology

## Uniprofessional Practice

One provider working independently to care for a patient. There is little awareness or acknowledgment of practice outside one's own discipline. Practitioners may consult with other providers but retain independence.

## Multiprofessional Practice (MPP)

Appropriate experts from different professions handle different aspects of a patient's care independently. The patient's problems are subdivided and treated separately, with each provider responsible for his/her own area.



# IP Terminology

## Interprofessional Collaborative Practice (IPCP)

The provision of health care by providers from different professions in a coordinated manner that addresses the needs of the patient(s). Providers share mutual goals, resources, and responsibility for patient care.

## Transdisciplinary Approach

Requires each team member to become familiar enough with the concepts and approaches of his/her colleagues to "blur the lines" and enable the team to focus on the problem with collaborative analysis and decision-making.

# IP Terminology

## Shared Course

A cross-listed or co-listed course attended by multiple disciplines.

## Shared placement

Multiple disciplines co-located at a clinical or community placement site which may or may not include integrated learning opportunities.

## Parallel Learning

Similar to parallel practice in which students from different professions contribute to patient care but with minimal communication among them; parallel learning exists when there are similar educational activities but minimal cross-disciplinary student contacts.

# IP Terminology

## Uniprofessional Education

Members or students of a single profession learning together interactively or in parallel.

## Multi-professional Education (MPE)

Members or students of two or more professions associated with health or social care, learning alongside one another; parallel learning, rather than interactive learning.

## Interprofessional Education (IPE)

An educational approach that occurs when students (learners) from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes.

# Why does IPE matter?

- We are health professionals!
- We must learn and practice teamwork and collaboration as a student, so it becoming a part of our practice as a health professional.
- Health professions have embedded IPE into their standards.
- Health care reform is transitioning to interprofessional practice and outcome based models.

# Professional Socialization

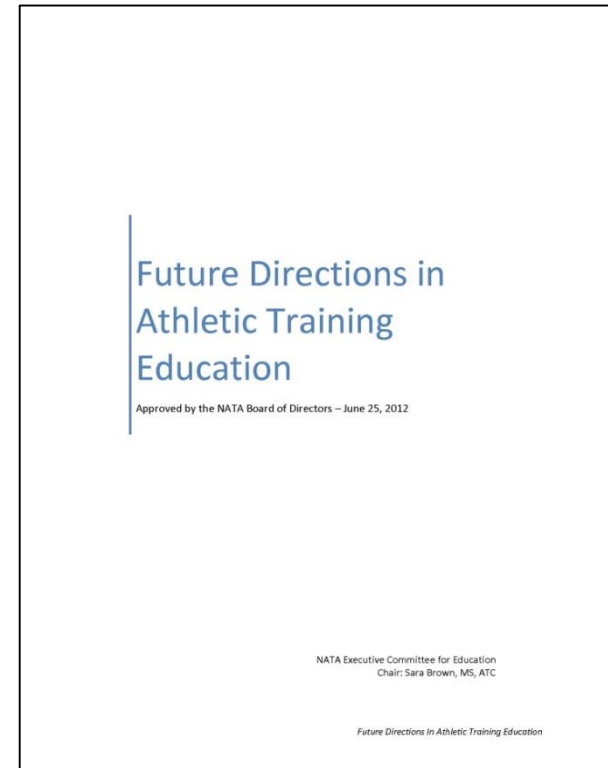
- AT students often do not know where they “fit”.
  - Their professional preparation and practice standards are that of health care providers.
  - They identify with the coaches and athletes with whom they interact daily.
  - Unless this conflict is resolved, it will carry on into clinical practice.
  - Peer professions are socialized as health care providers beginning with their admission process to their programs.

# Growth of IPE/IPCP in AT

- In 2012, the Executive Committee for Education of the National Athletic Trainers' Association authored "Future Directions in Athletic Training" which made recommendations regarding the evolution of AT.
- IPE was included and a strategy for formal inclusion of IPE into AT was developed.

# Future Directions in AT Education

- Recommendation #3
  - Interprofessional education (IPE) should be a required component in professional and post-professional education programs in athletic training.



# Goals of Recommendation

- For IPE to become embedded in AT programs.
- To explicitly identify the interprofessional nature of the athletic trainer's traditional role.
- For athletic trainers to become valuable members of interprofessional teams positively contributing to improved patient/client outcomes.



# IPE/IPP in AT White Paper

- To inform the profession
  - regarding IPE and IPP, including appropriate terminology, definitions, best evidence and the important role it plays in the future of health care.
- To inform institutions, academic units and other professions
  - about our profession and the advantages of including AT in IPE and IPP initiatives.
- To inform educators and clinicians
  - regarding best practice, giving practical examples of how to get involved in IPE and IPP.
- To inform the CAATE
  - providing evidence for inclusion of IPE and IPP in accreditation standards.

# Benefits and Barriers for Students

Benefits	Barriers
Provides a vehicle to introduce foundational behaviors and codes of ethics in the greater context of interprofessional core competencies.	Clinical experiences in uni-professional settings can affect student attitudes toward IPE.
Enables deconstruction of negative stereotypes and socialization of students to their future roles as health care professionals.	Students' desire to identify with chosen profession can affect willingness to collaborate with students from other professions.
Recognizes common content knowledge and skills needed by all health care providers. (eg: musculoskeletal and emergency medicine)	Students view extra coursework outside of professional curriculum as unnecessary.

# Benefits and Barriers for Faculty

Benefits	Barriers
Teaching/Collaborating with experienced faculty in other health professions allows for faculty development.	Lack of trust between faculty members are produced by misconceptions about roles between professions.
Faculty teaching students from health professions helps overcome misconceptions about each profession.	Values, cultures and biases develop in siloed uni-professional program curricula.
Supports collaborative interprofessional scholarship opportunities.	Faculty members have no formal training in teamwork and interprofessional teaching, facilitation and practice.
Provides financial benefits to faculty, such as overload pay or reassign time for IPE course involvement.	Interprofessional teaching load not recognized in promotion, rank and tenure process.



# Benefits and Barriers for Programs

Benefits	Barriers
Provides students in the IPE program exposure to health professions with a unique practice setting.	Lack of connection between IPE and clinical practice.
Provides additional faculty resources for the IPE program.	Lack of support for IPE program from administration.
Promotes greater understanding and respect between the health professions involved in the program.	Lack of time available for IPE courses in crowded curricular tracks.
Provides program with a means to meet shared external accreditation standards.	Lack of competency-based assessments in IPE programs.

# Interprofessional Pedagogy Matrix

Time/Resource Demands	Intra-curricular	Extra-curricular
<b>LOW</b>	IPE Competencies Included in Individual Program Courses	One-time Interprofessional Workshop or Orientation
	IPE Modules Embedded into Individual Program Courses	Interprofessional Grand Rounds Sessions
	Cross-listed Courses with IPE Content	Interprofessional Simulation Activities
<b>MEDIUM</b>	Single IPE-prefix Introductory Course	Regularly Scheduled Seminars, Workshops, etc.
	Multiple IPE-prefix Core Content Courses	Interprofessional Capstone Projects, Portfolios, etc.
	Academic Curriculum Including Practicum	Mentored Interprofessional Service Learning Activities
<b>HIGH</b>	Academic Concentration, Major or Minor	Established Clinical Practice Utilizing IPP Teams

# IPE in AT Survey (2012 & 2015)

- Two studies examined the presence of IPE in Athletic Training (AT)
- Program directors of CAATE Accredited AT Programs were surveyed in 2012 and 2015 using the “**Interprofessional Education Assessment and Planning Instrument for Academic Institutions**” in addition to program demographic information and IPE participation.
- Subjects participating:
  - 160 of 367 surveyed (43.6%) in 2012
  - 162 of 380 surveyed (42.6%) in 2015.

# IPE Availability

IPE Availability	Survey Year	
	2012	2015
IPE	32 (23%)	55 (37%)
No IPE	105 (77%)	93 (63%)

\*The proportion of AT programs with access to IPE programs/initiatives has increased significantly from 23% in 2012 to 37% in 2015.

## Odds Ratio

Chi-sq(1) = 6.39  $p < 0.05$

\*Programs surveyed in 2015 were 1.94 (almost twice) as likely to have an IPE program as those surveyed in 2012.

Value	Lower 95% CI	Lower 95% CI	df	Chi-Sq.	p
1.94	1.16	3.26	1	6.39	0.011

# IPE and Accreditation Type

CAATE Accreditation	2012		2015	
	IPE	No IPE	IPE	No IPE
Professional Bachelor's (PB) only	26 (21%)	96 (78%)	39 (33%)	79 (67%)
Professional Master's (PM) only	5 (46%)	6 (55%)	9 (64%)	5 (36%)
PB and PM	1 (25%)	3 (75%)	1 (33%)	2 (67%)
Post Professional (PP) only	-----	-----	3 (75%)	1 (25%)
PB and PP	-----	-----	3 (38%)	5 (63%)
PM and PP	-----	-----	1 (100%)	0 (0%)
Total	32 (23%)	105 (77%)	55 (37%)	93 (63%)

## Likelihood of IPE availability among AT programs based on program type

### 2012

	Value	Lower 95% CI	Upper 95% CI	df	Chi-Sq.	P
Odds Ratio	3.27	0.09	1.16	1	3.26	.13

### 2015

	Value	Lower 95% CI	Upper 95% CI	df	Chi-Sq.	P
Odds Ratio (PM+PP+(PM and PP)/PB only)	3.43	1.26	9.33	1	6.31	.02
Relative Risk – PM+PP+(PM and PP)	1.90	1.24	2.89			
Relative Risk – PB only	0.55	0.30	1.01			



# IPE and Academic Unit

Academic Unit	Survey Year	
	2012	2015
Arts & Sciences	9 (6.2%)	16 (10.5%)
Education/Teacher education	25 (17.4%)	17 (11.2%)
Exercise Science/Phys Ed /Kinesiology/Health&Recreation	32 (22.2%)	35 (23.0%)
Health Professions/Health Sciences/Allied Health	57 (39.6%)	67 (44.1%)
Liberal Arts	5 (3.5%)	0 (0.0%)
Medicine	1 (0.7%)	0 (0.0%)
Other	15 (10.4%)	17 (11.2%)
Total	169(100%)	152(100%)

Likelihood of IPE availability among AT programs based on Academic Unit Type						
2012						
	Value	Lower 95% CI	Upper 95% CI	df	Chi-Sq.	p
Odds Ratio (Health Sciences/Other)	4.40	1.88	10.30	1	12.66	<0.01
Relative Risk – Health Sciences	2.13	1.25	3.63			
Relative Risk – Other	0.49	0.34	0.69			
2015						
	Value	Lower 95% CI	Upper 95% CI	df	Chi-Sq.	p
Odds Ratio (Health Sciences/Other)	3.50	1.74	7.04	1	12.85	<0.01
Relative Risk – Health Sciences	1.83	1.26	2.68			
Relative Risk – Other	0.52	0.37	0.74			

# IPE in AT Survey - Conclusions

- IPE has a greater presence CAATE Programs that reside in health science related academic units and are accredited at the post-baccalaureate level.
- However, less than 50% of the programs participate in IPE.
- There is also a need for greater institutional infrastructure and readiness for IPE.

# IPE at Saint Louis University (SLU)

- IPE has become an instrument to improve the understanding of AT among the faculty, staff and students at SLU
- Instrumental in faculty recruitment and development
- Helped AT students become quickly integrated into the culture of the medical campus



# How do we make it work?

- Starts early in student's experience
- Intentionally interprofessional pedagogy
- Common core content taught in IP context
- Application to community and clinical practice
- Embedded in health professions curricula vs. separate from professional education

# SLU Domains of IPE

- The five domains of SLU IPE:
  - Interprofessional Practice
  - Patient Centered Care
  - Wellness
  - Patient Safety and Quality Care
  - Social Justice



# SLU IPE Program

- Undergraduate Curriculum
  - 4 course concentration in IP Practice
  - 6 course minor in IP Practice
- Post-baccalaureate Experience
  - IP Team Seminar
- 5 Domains of SLU IPE Framework guide the curriculum at all levels.

# Conceptual Framework of SLU Minor in Interprofessional Practice (IPP)

(Concentration in IPP:4 courses/9 credits. Minor in IP Practice 7 courses/16 credits)

**IPE 1100\***: Introduction to IP Practice, Roles and Responsibilities of Health Professions; Collaboration Skills, Teams and Teamwork, and the SLU IPE Domains\*\*

1 Cr./ Conc

The IPE and IPCP principles and skills introduced in IPE 1100 are then applied in the various contexts where health professions work together to accomplish the Triple Aim...

**IPE 3500\***: IPCP in the context of the health care system and health promotion

3 Cr./ Conc

**HCE 2010**: Foundations of Clinical Health Care Ethics

3 Cr./ Minor

**IPE 4200\***: IPCP in the context of individual patient care (caring response) decision making

3 Cr./ Conc

**IPE 4900\***: IPCP in the context of community/population health, HP/DP , Comm Practicum

2 Cr./ Conc

**IPE 4905**: IPCP in the context of the clinical care team, Clinical Practicum

2 Cr./ Minor

**ORES 2320**: IPCP in the context research, IP care team and impact on patient care/outcomes

2 Cr./ Minor

David Pole/Irma Ruebling 5/23/14 \*Concentration in IP Practice

\*\* Five SLU IPE Domains include: Interprofessional Practice, Patient-Centered Care, Wellness, Patient Safety & Quality, and Social Justice



# Professions Participating in Undergraduate Curriculum

- Athletic Training
- Communication Sciences and Disorders
- Cytotechnology
- Medical Laboratory Science
- Health Information Management
- MRI
- Nuclear Medicine
- Nursing
- Nutrition and Dietetics
- Radiation Therapy
- Occupational Therapy
- Physical Therapy
- Pre-medicine Students



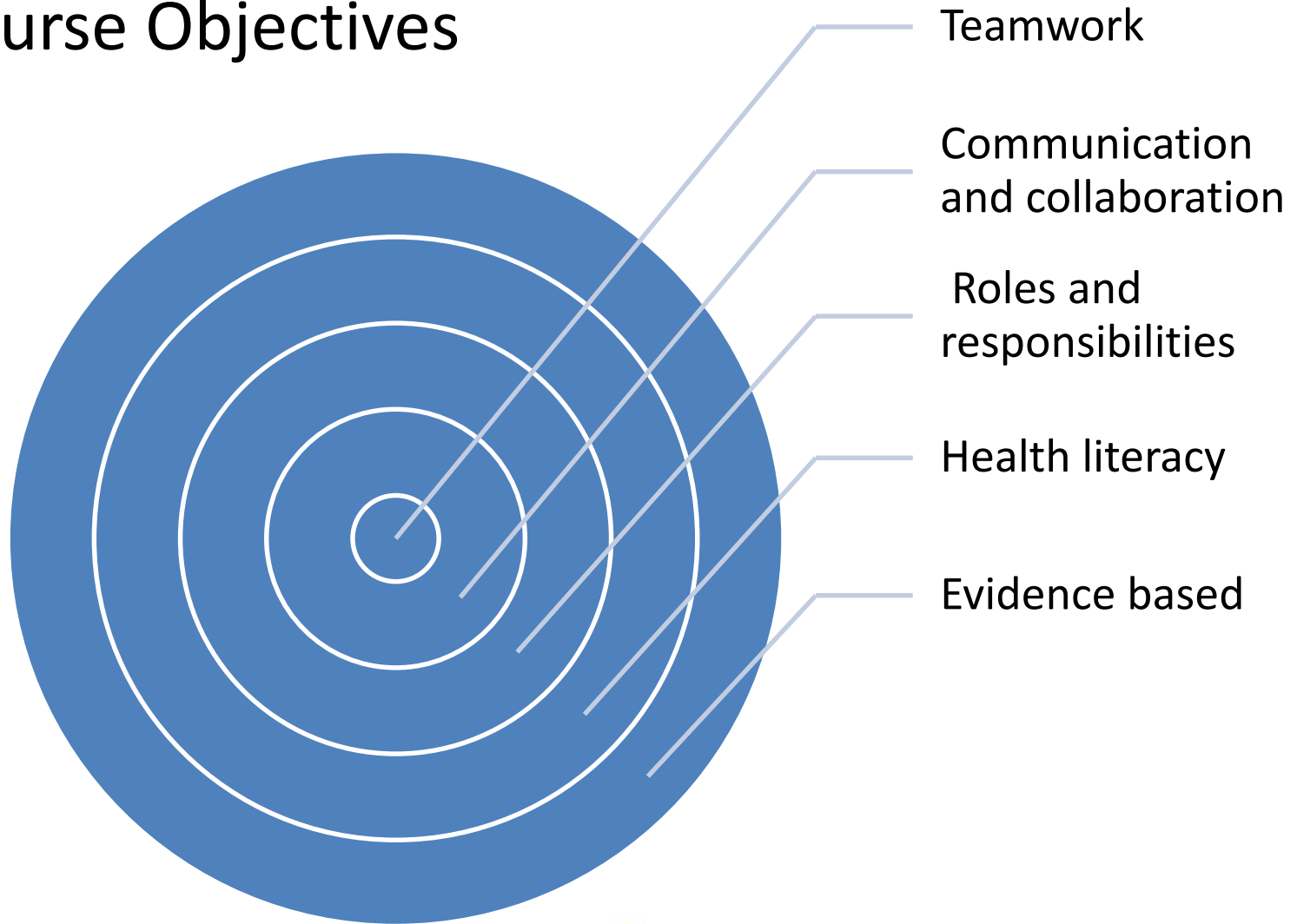
# IPE 1100 – Introduction to Interprofessional Health Care

Designed to provide students  
in health care professional  
programs with introductory  
knowledge of interprofessional  
teamwork within an evolving  
health care system.

# Course Description

- The purpose of the course is to introduce concepts in interprofessional education to health profession students for **collaborative patient, family, and community health care**.
- The philosophical and theoretical foundations of interprofessional health care are explored.
- Interactive learning experiences provide the opportunity to develop **knowledge and understanding of each profession's contribution** to health care (experience).
- This is a **foundation course for future interprofessional study** of health promotion, issues of health care delivery, evidence-based practice, and clinical application of these concepts.

# Course Objectives



# Learning Experiences

- Team Reports:
  - Posted on Blackboard before each class session.
  - Teams will download the blank team report, complete as a team, and resubmit on Blackboard electronically at the end of each class session.
  - Each team member participating that day must be listed on the team report.
  - Make-up assignment will be available.

# Learning Experiences

- Individual Assignments
  - “My Profession” Assignment
  - “Interprofessional Grand Rounds” Assignment
- Instructions
  - Posted on Blackboard with instructions regarding the completion and submission of the assignment.
  - Must be uploaded on Blackboard by the due date posted on the Assignment

# Learning Experiences

- Team Video Project
  - Each team develops a 1 minute video to serve as a “Public Service Announcement” regarding an assigned health topic.
  - Material presented must be based on scientific research which must be cited in written assignment
  - [SAMPLE VIDEO](#)

# IP Team Seminar (IPTS)

- Experience at the post baccalaureate level.
- Six team sessions with faculty facilitator
  - Same core experiences
  - Maps objectives to activities and IPEC Competencies
  - Applied, experiential, shared learning, critical reflection, application to clinical experiences



# Study Design

- 2013-2014 IPTS course evaluations called for additional “real” patient cases, opportunities to simulate work with changing care teams, and practicing interprofessional communication at transitions of care.
- In 2014, the IPTS curriculum team revised patient cases across three of the six sessions, with one session bringing in AT students in their final semester of the Master of Athletic Training program.



# Case

- The Tommy Mallon case was chosen because it is a real case with full-coverage, live video.
- It is available at:  
[www.injuredathletes.org](http://www.injuredathletes.org)



# Case

- The case highlights the role of AT and enables the discussion to address teamwork and communications across multiple transitions of care.
- Components include AT/EMS response, diagnosis of a C-1 spinal fracture without paralysis, acute care, rehabilitation, and activities of daily living.

# IPTS Module

- Each AT student participated in three sections of IPTS seminar #4 giving them the opportunity to repeat the experience with different teams.
- All students completed individual case-activity worksheets regarding team-based care and significant takeaway points from the seminar.
- The twenty AT students submitted a structured critical reflection paper after the three sessions.

# Student Reflections

- IPTS Students reflected themes of:
  - Increased understanding of the training and role of AT students
  - The importance of communication as the patient transitions to different settings and teams
  - Insight into essential information necessary to assure patient-centered care
  - New appreciation for the mental health needs of a patient and family dealing with traumatic injuries

# Student Reflections

- AT Students reflected themes of:
  - Change in their perception of the value of interprofessional practice
  - Need to advocate and communicate their scope of training and care
  - Impact of teamwork and communication to provide the best, patient-centered care
  - Repeated exposure across three sections increased their skills, confidence, and intent to apply lessons in practice.

# Word Cloud from Student Reflections

### Students in IPTS (n=600)



### AT Students (n=20)



# Quotes from Student Reflections

- “The agreement and affirmation from all the students that athletic trainers are well trained and should be responsible for the management of these injuries on the field was a big confidence boost for me. I get nervous when thinking about managing injuries like this because of the high stress environment that it creates, but after presenting all the information three separate times and getting affirmation from faculty and students that we are well trained in situations like this was uplifting. **I feel that doing this presentation was a confidence boost and a good reminder that I have practiced and prepared for events like this over and over again.**” (AT Student).

# Quotes from Student Reflections

- **“I was surprised to learn that the AT is a large player in the IP team... It is important not to just focus on the physical health, but stress and psychological impact is important as well...we all have areas of overlap and need to communicate with each other for the best plan of care”** (IPTS Student).
- **“As a pharmacy student, I think working closely with social work, OT, and PT is important to determine the patients' goals in their therapy and any adjustments to medications...each member of the team plays a vital role in the highest quality of care for the patient”** (IPTS Student).



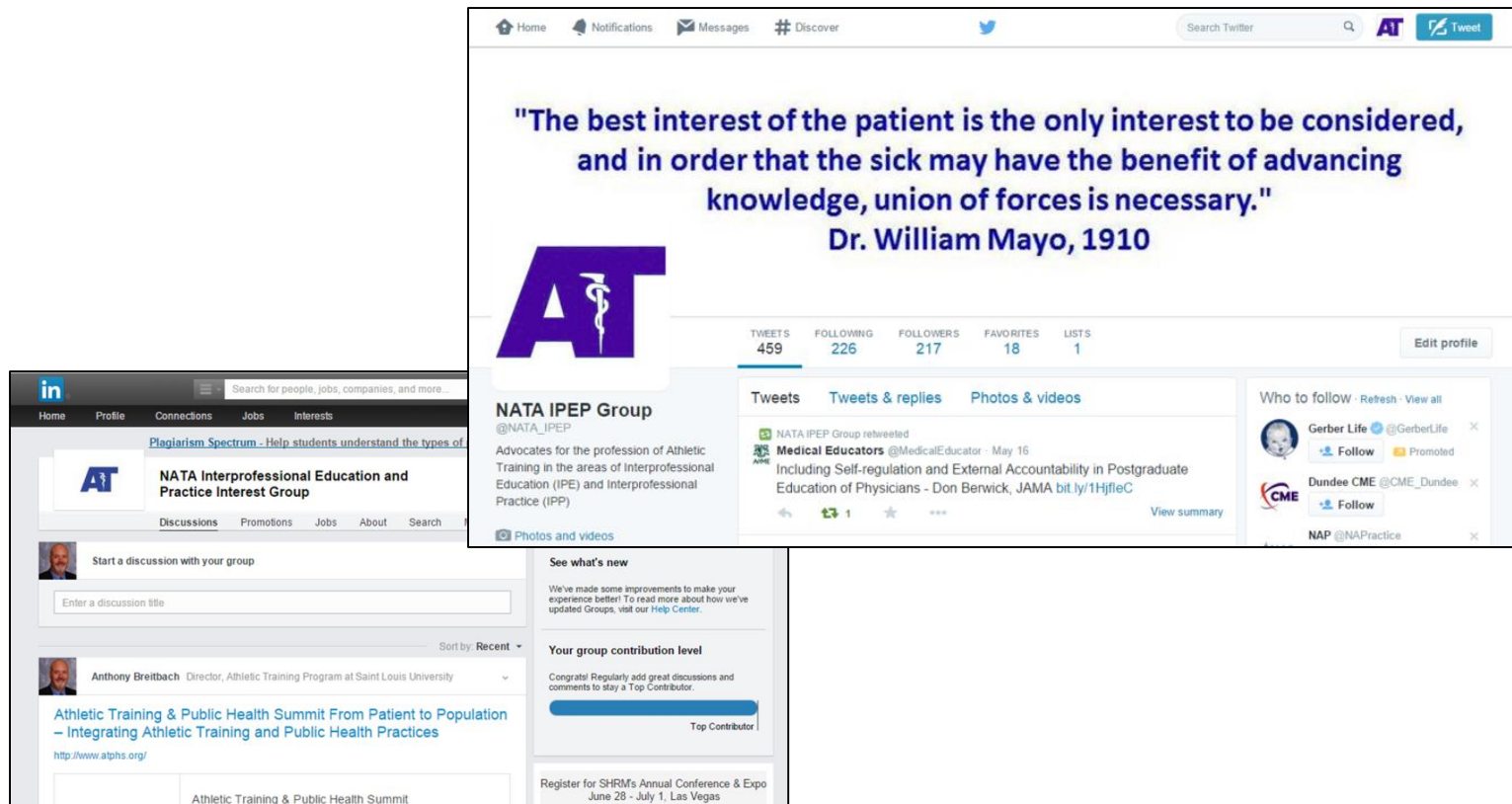
# Outcomes

- Improved appreciation for roles and responsibilities across the professions
- Development of skills at effective communication across care settings
- An appreciation for the complexity of patient care needs during the continuum of care that value of a collaborative, interprofessional approach to achieve optimal patient outcomes

# NATA IPEP Interest Group

- NATA has developed Member Interest Groups
  - The NATA IPEP Interest Group is the first!
  - Based as a LinkedIn group, with a Twitter feed.
- Provides a structure for:
  - Many different groups to have a voice on IPEP.
  - Dissemination and exchange of information on IPEP.
  - Advocacy of AT involvement in IPEP initiatives.

# NATA IPEP Interest Group



LinkedIn: <https://www.linkedin.com/grp/home?gid=8229902>

Twitter: @NATA\_IPEP



# Resources

- Breitbach AP, Richardson R. 2015. Interprofessional Education and Practice in Athletic Training. *Athl Train Educ J*. 10(2):170-182.
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# Questions?

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