

The Time for Transformational Change in IPE is Now

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Heartland Interprofessional Education Conference
University of Nebraska Medical Center
Omaha, Nebraska | July 28, 2023



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Objectives

1. Explain why now is the most opportune time in recent memory for large-scale change in IPE
2. Describe how to utilize contemporary resources to advance individual and institutional IPE efforts



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Objective #1

Explain why now is the most opportune time in recent memory for large-scale change in IPE



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Historical Context

1999
To Err Is Human



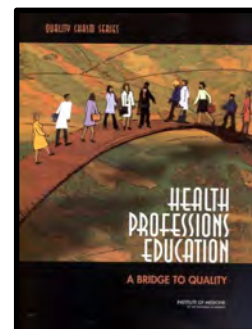
Poor teamwork leads to increased errors, morbidity, and mortality

2001
Crossing the Quality Chasm



Train in teams those who are expected to work in teams

2003
A Bridge to Quality



Teamwork is a core competency for all health professional students

Institute of Medicine (now National Academy of Medicine), Quality Chasm Series, 1999-2003.

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IOM Core Competencies

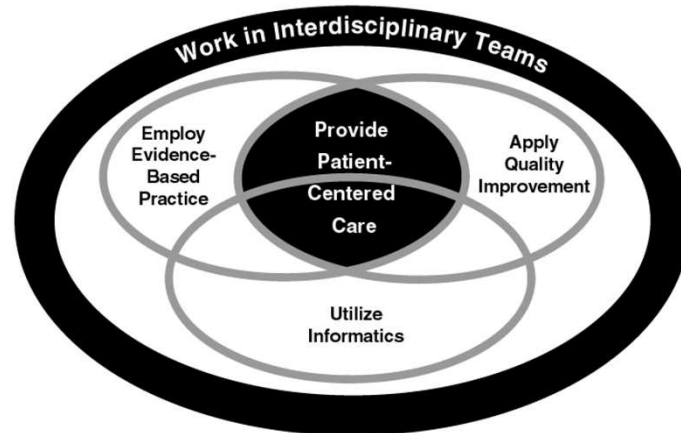


Figure 3-1 Relationship among core competencies for health professionals.



IOM (2003), *Health Professions Education: A Bridge to Quality*.

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Accreditation Insights



Chapter 5 Health Professions Oversight Processes: What They Do and Do Not Do, and What They Could Do

- Accreditation as a leverage point
- Descriptive vs. outcomes-based models
- Extensive collaboration across accreditation organizations is needed



IOM (2003), *Health Professions Education: A Bridge to Quality*.

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2003 Recommendations

Recommendation 1: DHHS and leading foundations should support an interdisciplinary effort focused on developing a common language, with the ultimate aim of achieving consensus across the health professions on a core set of competencies that includes patient-centered care, interdisciplinary teams, evidence-based practice, quality improvement, and informatics.

Recommendation 3: Building upon previous efforts, accreditation bodies should move forward expeditiously to revise their standards so that programs are required to demonstrate—through process and outcome measures—that they educate students in both academic and continuing education programs in how to deliver patient care using a core set of competencies. In so doing, these bodies should coordinate their efforts.

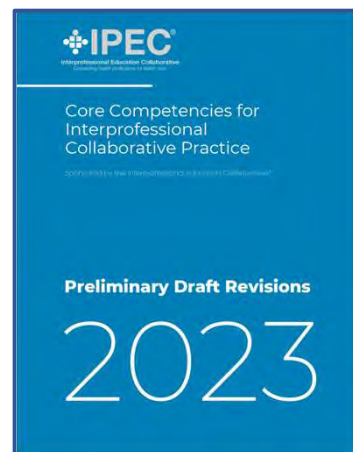
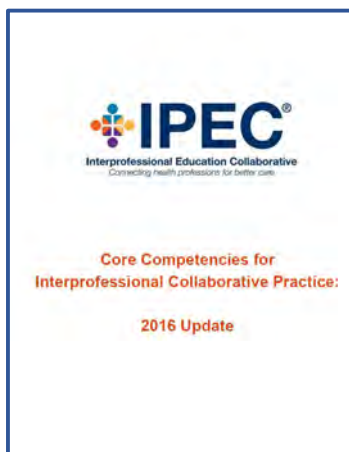
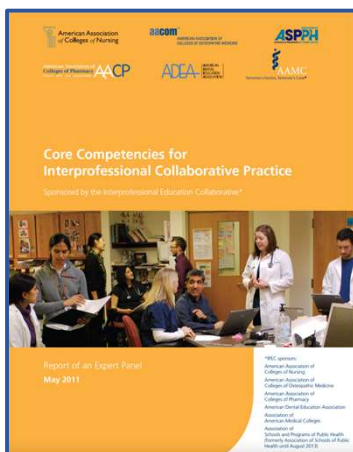
healthprofessionsaccrreditors.org
ipeccollaborative.org

IOM (2003), *Health Professions Education: A Bridge to Quality*.




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IPEC – Consensus Competencies



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Concepts

Several constructs based on collective feedback from the open Town Halls and survey data.

- Diversity, Equity, Inclusion
- Leadership
- One Health
- Wellbeing and Resilience
- Team Science

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A High-level Look

Interprofessional Collaboration remains unchanged

Minor edits made for clarity and/or consistency across the nomenclature

- Values and Ethics (previously Values/Ethics for Interprofessional Practice)
- Roles and Responsibilities (previously Roles/Responsibilities)
- Communication (previously Interprofessional Communication)
- Teams and Teamwork (unchanged)

From 39 (2016) down to 33 (2023) to address concerns about the number of statements

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Examples of Revisions



Combine two sub-competencies.

VE9 (2016) combined into VE6 (2023).

Moved to another domain.

RR4 (2016) moved to "Communication" to become CC7 (2023).

Standardize terms throughout.

Replaced "individual" with "person" and defined "person" in glossary.

Reword for measurability and/or focus.

Replaced "express" in C3 (2016) to "promote" in C4 (2023).

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2003 Recommendations

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healthprofessionsaccreditors.org
ipccollaborative.org

IOM (2003), *Health Professions Education: A Bridge to Quality*.



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Accreditation Landscape Circa 2011

Journal of Interprofessional Care, 2013, 27: 123–130
 © 2013 Informa UK, Ltd.
 ISSN 1356-1820 print/ISSN 1469-9567 online
 DOI: 10.3109/13561820.2012.718295

informa
healthcare

ARTICLE

Interprofessional education accreditation standards in the USA: A comparative analysis

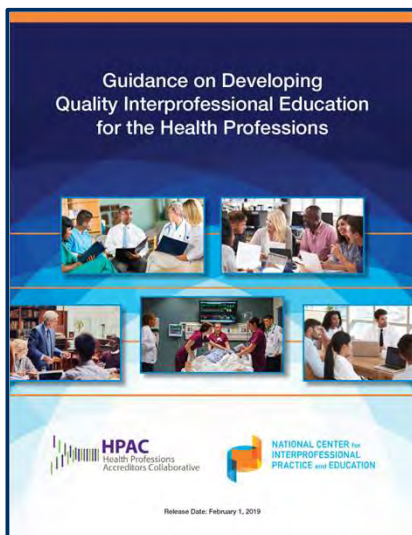
Joseph Zorek and Cynthia Raehl

Texas Tech University Health Sciences Center, School of Pharmacy, Amarillo, TX, USA



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HPAC – Consensus Expectations



EVERY health professional education program should:


- Develop a competency-based IPE plan that includes strategically sequenced classroom, extracurricular, and clinical IPE activities

EVERY academic institution should:

- Appropriately resource IPE plan development
- Ensure all profession-specific IPE plans articulate with one another




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Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Journal of Interprofessional Education & Practice

journal homepage: www.elsevier.com/locate/jiepe






Development and validation of the IPEC Institutional Assessment Instrument

Joseph A. Zorek^{a,*}, Kelly Ragucci^{b,c}, Jens Eickhoff^d, Ghaidaa Najjar^e, James Ballard^f, Amy V. Blue^g, Laura Bronstein^h, Alan Dowⁱ, Tina P. Gunaldo^j, Heather Hageman^k, Kelly Karpa^l, Barret Michalec^m, Devin Nickolⁿ, Janice Odiaga^o, Patricia Ohtake^p, Andrea Pfeifle^q, Janet H. Southerland^r, Frances Vlasses^s, Veronica Young^t, Meg Zomorodi^u

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^c Interprofessional Education Collaborative, Washington, DC, USA
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^g University of Florida, Gainesville, Florida, USA
^h Binghamton University, Binghamton, NY, USA
ⁱ Virginia Commonwealth University, Richmond, VA, USA
^j Louisiana State University Health Sciences Center at New Orleans, New Orleans, LA, USA
^k Washington University Medical Campus, St. Louis, Missouri, USA
^l East Tennessee State University, Johnson City, TN, USA
^m Arizona State University, Phoenix, AZ, USA
ⁿ University of Nebraska Medical Center, Omaha, NE, USA
^o Rush University, Chicago, IL, USA
^p University at Buffalo, Buffalo, NY, USA
^q Ohio State University, Columbus, OH, USA
^r University of Texas Medical Branch, Galveston, TX, USA
^s Loyola University Chicago, Chicago, IL, USA
^t University of Texas at Austin, Austin, TX, USA
^u University of North Carolina at Chapel Hill, Chapel Hill, NC, USA



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High-Quality Programmatic IPE

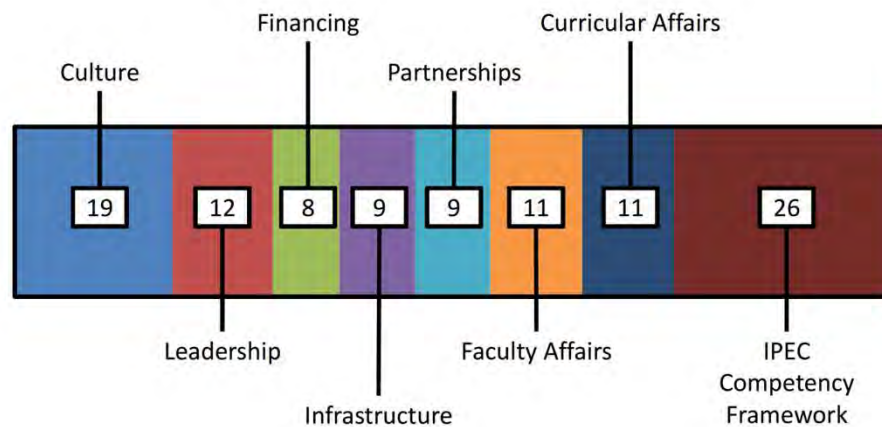
- 105 expert consensus statements were generated describing ***institutional characteristics associated with high-quality programmatic IPE:***

“IPE that is integrated into curricula and spans its entire length, from early didactic IPE experiences to advanced clinical IPE experiences, which collectively result in meaningful outcomes.”

Zorek et al. *J Interprof Educ Pract.* 2022;29:100553.

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Expert Consensus Statements



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Instrument Development

- The expert panel transformed the 105 consensus statements into a pool of 48 pilot items that, along with operational definitions, were administered to a convenience sample of 158 designated IPE leaders
- Exploratory factor analysis was then utilized to identify a preliminary model structure consisting of 20 items distributed across 3 factors (i.e., subscales)
 - Institutional Infrastructure – 5 items
 - Institutional Commitment – 5 items
 - IPEC Competency Framework – 10 items



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IPEC Institutional Assessment Instrument

Factor 1: Institutional Infrastructure [2021 Factor Score: 2.0 (2.0)] (Response Scale: 0=no; 1=yes)	
1.	Does your institution have a formal institution-wide organizational structure, such as an IPE office or center, to advance IPE? [2021: 0.49 (0.50)]
2.	Does your institution's formal institution-wide IPE organizational structure, such as an IPE office or center, have clearly dedicated leadership? [2021: 0.49 (0.50)]
3.	At your institution, does responsibility for IPE budget management reside within the formal institution-wide organizational structure, such as an IPE office or center? [2021: 0.37 (0.49)]
4.	At your institution, does responsibility for the collection, analysis, reporting, and quality improvement of IPE-related efforts reside within the formal institution-wide organizational structure, such as an IPE office or center? [2021: 0.43 (0.50)]
5.	At your institution, does the formal institution-wide organizational structure, such as an IPE office or center, perform IPE teaching/facilitation evaluations for faculty and staff? [2021: 0.22 (0.42)]
Factor 2: Institutional Commitment [2021 Factor Score: 14.3 (5.3)] (Response Scale: 1=Not at all; 2=Small; 3=Moderate; 4=Large; 5=Very Large)	
6.	To what extent has your institution demonstrated a long-term commitment to enhancing collaboration across schools and programs? [2021: 3.0 (1.2)]
7.	To what extent does your institution's mission, vision, or goals include commitments to advancing interprofessional collaboration? [2021: 3.1 (1.2)]
8.	To what extent does your institution demonstrate its commitment to interprofessional collaboration by intentionally recruiting administrative leaders and faculty who value it? [2021: 2.4 (1.1)]
9.	To what extent does your institution deliberately foster interprofessional inclusivity by composing committee and workgroup memberships that reflect a variety of administrative leaders and faculty from diverse health professions? [2021: 3.0 (1.3)]
10.	To what extent does your institution demonstrate its commitment to interprofessional collaboration by consistently promoting IPE activities and accomplishments to internal audiences? [2021: 2.8 (1.1)]

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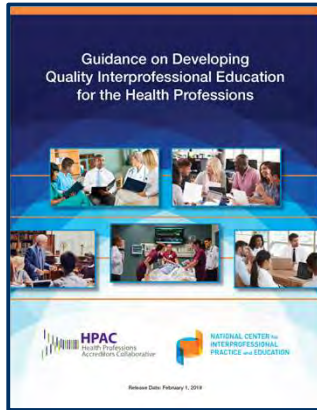
IPEC Institutional Assessment Instrument

Factor 3: IPEC Competency Framework [2021 Factor Score: 26.8 (8.5)] (Response Scale: 1=Not at all; 2=Small; 3=Moderate; 4=Large; 5=Very Large)	
11.	To what extent does the quantity of IPE activities offered at your institution meet the needs of health professions students? [2021: 2.9 (0.9)]
12.	To what extent does the variety of IPE activities offered at your institution meet the needs of health professions students? [2021: 2.9 (0.9)]
13.	To what extent do IPE activities offered within schools and programs at your institution increase in depth and complexity across the continuum of didactic, experiential, and clinical learning? [2021: 2.8 (1.0)]
14.	To what extent does your institution use an overarching framework such as the IPEC competencies to guide development and evaluation of IPE across schools and programs? [2021: 3.5 (1.3)]
15.	To what extent does your institution track IPEC competencies targeted by IPE activities and map them to accreditation mandates? [2021: 2.9 (1.3)]
16.	To what extent does your institution generate IPE outcomes data across schools and programs based on an overarching framework such as the IPEC competencies and use it in a systematic way to identify best practices and improve quality over time? [2021: 2.2 (1.2)]
17.	To what extent does your institution develop, implement, and sustain IPE programming to achieve IPEC competencies for students across schools and programs? [2021: 2.8 (1.2)]
18.	To what extent does your institution leverage frameworks such as the IPEC competencies to align learners across schools and programs according to knowledge and skill level? [2021: 2.5 (1.2)]
19.	To what extent does your institution leverage frameworks such as the IPEC competencies to align strategic goals of the institution with strategic goals of individual schools and programs? [2021: 2.1 (1.1)]
20.	To what extent does your institution leverage frameworks such as the IPEC competencies to monitor learner progress throughout their educational programs? [2021: 2.2 (1.1)]

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Resources for Transformational Change

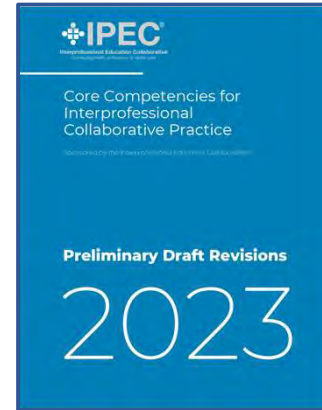
HPAC 2019



JIEP 2022



IPEC 2023



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Objective #2

Describe how to utilize contemporary resources to advance individual and institutional IPE efforts



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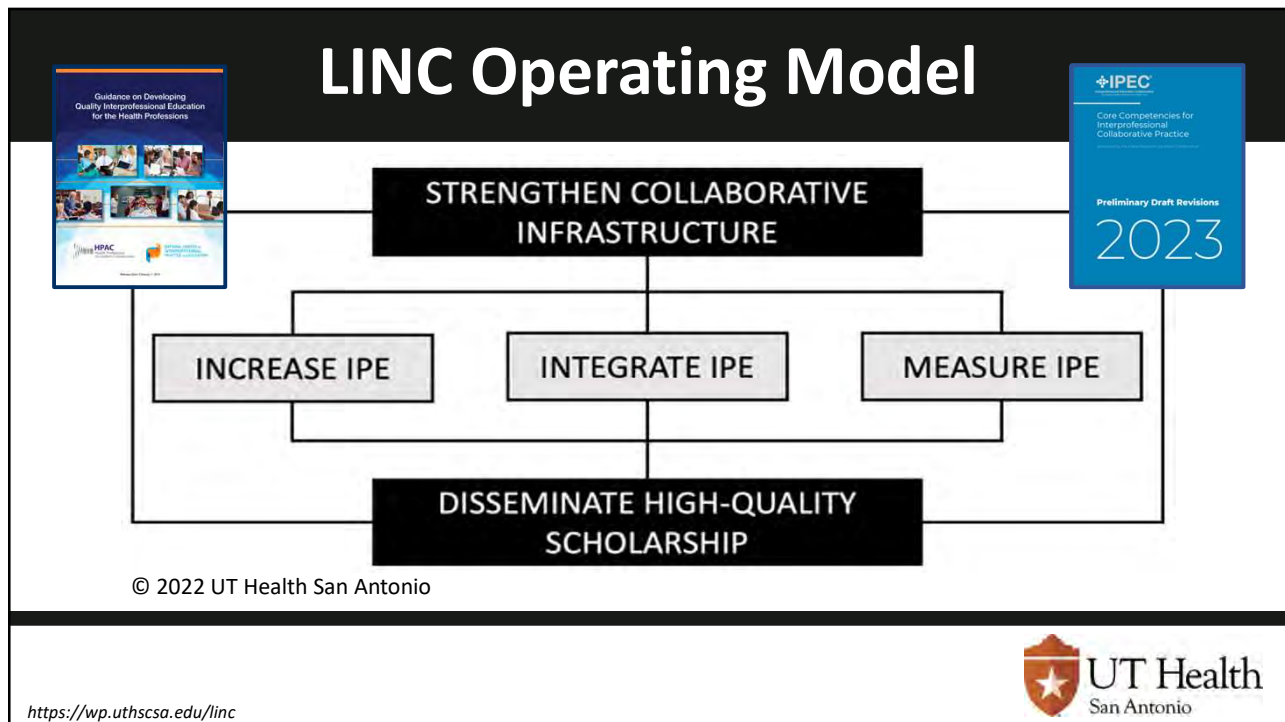
Quality Enhancement Plan Overview

- Relevant historical context – “A confluence of accreditation events”
- Key Elements:
 - Advance UT Health’s strategic plan while meeting growing accreditation expectations
 - Measure outcomes systematically and share our experiences
- Primary Goals:
 - Cultivate IPE knowledge and skills of faculty, staff, and students
 - Increase IPE opportunities for students
 - Strengthen curricular integration of IPE

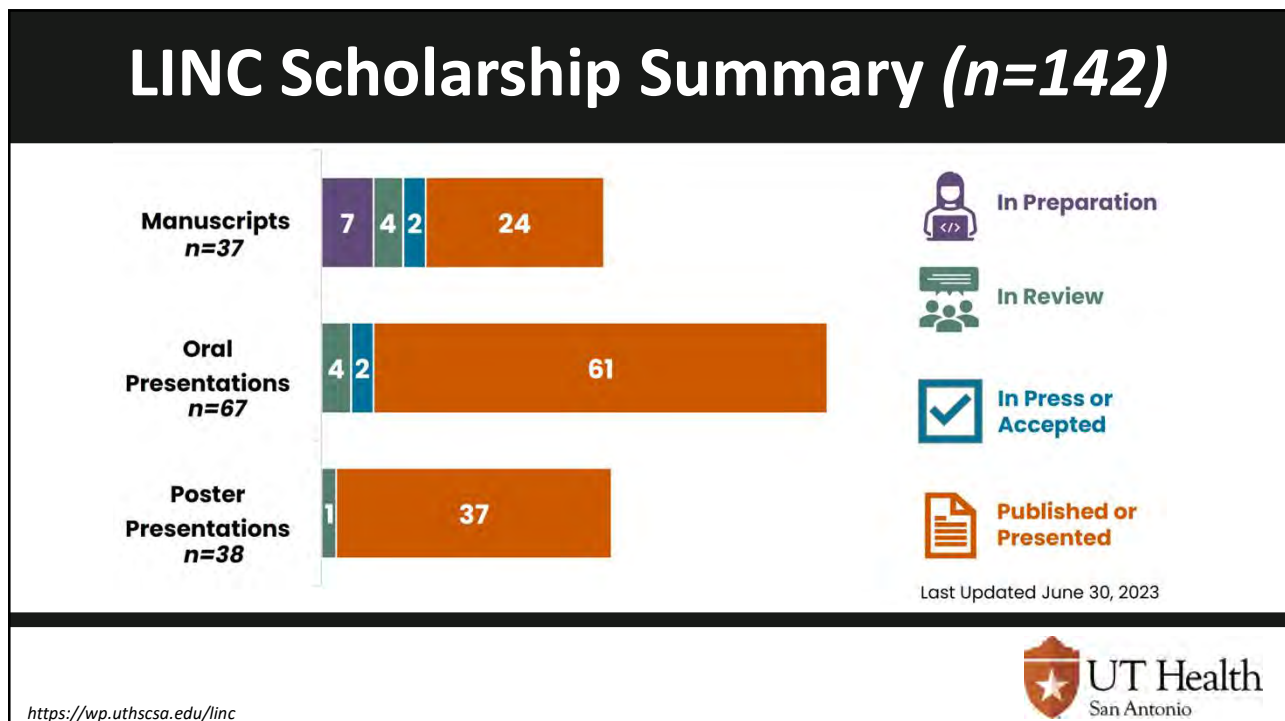
<https://wp.uthscsa.edu/linc>



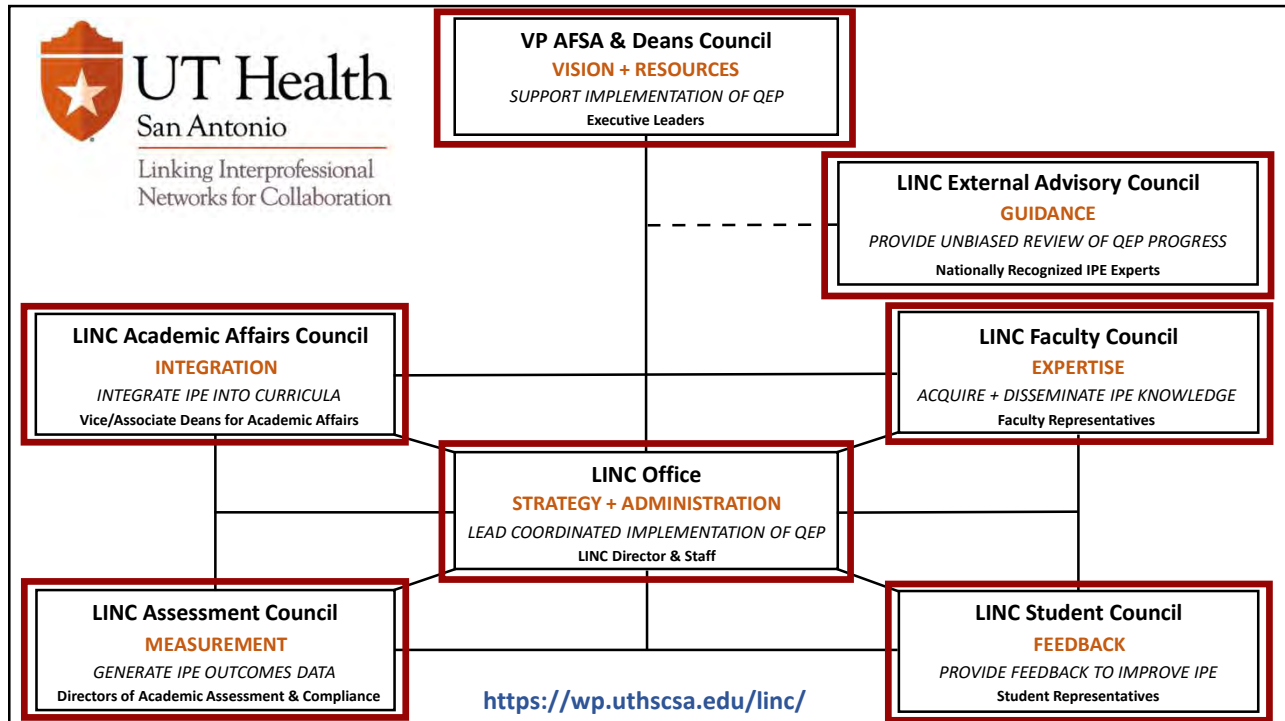
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Table 1. LINC Programs & Projects

Name of Program/Project	Description	Impact
LINC Seed Grant Program	Competitive funding opportunity for innovations in IPE offered annually for interprofessional teams of faculty/staff	22 novel IPE activities funded since 2019 totaling \$100,509
LINC Common IPE Experience	Collaborative online learning offered annually for all incoming students	3,071 students from 26 different educational programs since 2020
LINC Interprofessional Case Competition	Annual competition for interprofessional teams of students to develop collaborative solutions to vexing problems in health care	55 student teams representing all schools since 2021
LINC IPE Faculty & Staff Development Program	Train-the-trainer-style program offered annually to inform and empower IPE educators	143 faculty/staff participants since 2020
LINC Writers' Workshop	Blended learning-style short course offered annually to strengthen faculty/staff IPE publication efforts	26 faculty/staff participants since 2022
LINC Interprofessional Education Plans	University-wide implementation of HPAC guidelines to integrate IPE activities and IPE measurement processes into curricula via annually updated IPE Plans	12 school- and program-specific IPE Plans updated annually and submitted to LINC since 2020
LINC Annual Workplan & Priorities	Annual process to systematically study school- and program-specific IPE Plans to identify and take advantage of opportunities to advance IPE at the institutional level	2022 & 2023 priorities identified 2 new university-wide IPE activities that will be integrated into curricula: the LINC Simulation IPE Experience and the LINC Clinical IPE Experiences
LINC Simulation IPE Experience	Collaborative online learning coupled with a telehealth IPE simulation involving a standardized patient offered annually for all clinical students at/near the middle of their degree program	769 students from 11 different educational programs since 2023
LINC Core IPE Measurement Plan	University-wide administration of 4 IPE measurement instruments with strong validity and reliability evidence	Piloted in 2020-2021 with refined administration processes implemented in 2022 to improve response rates
LINC IPE Symposium	Annual symposium offered to explore trends in IPE, celebrate IPE advances at UT Health San Antonio, and identify new IPE champions throughout the institution	263 registrants in 2022; 604 registrants in 2023

UT Health San Antonio

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IPE Plans

- 12 school-/program-specific IPE Plans submitted annually to LINC
- Each IPE Plan:
 - Developed according to HPAC recommendations
 - Approved via faculty governance processes according to school culture/precedent
 - Includes a list of IPE activities in the program
- University-wide commitment to longitudinal approach and incorporation of all HPAC-recommended IPE Plan components

<https://wp.uthscsa.edu/linc>



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Consensus IPE Plan Template

- Program-level accreditation mandates/expectations
- All HPAC IPE Plan components incorporated: Rationale, Outcome-based Goals, Deliberate Design & Assessment/Evaluation
- Shared elements: university-wide use of IPEC competencies, IOM Interprofessional Learning Continuum Model, and **LINC Longitudinal IPE Program & LINC Core IPE Measurement Plan**
- Catalogue of existing IPE activities in program mapped to IPEC competencies; including classroom, simulation, community, and clinical IPE

<https://wp.uthscsa.edu/linc>



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Annual Workplan & Priorities

- Independent study of all 12 IPE Plans by LINC Academic Affairs Council members in late fall
- Annual retreat to discuss synergies, deficiencies, and opportunities identified through independent study in winter
 - IPEC competency mapping completed to inform discussion
 - Individual completion of IPEC Institutional Assessment Instrument to inform discussion
- Production of consensus document to guide LINC stakeholders for the next year, published each January

<https://wp.uthscsa.edu/linc>



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IPE Plan Retreats to Produce Annual Workplan & Priorities Documents

2021



Academic Year 2021-2022 IPE Plan Study Retreat on November 18, 2021. Left to right: Meagan Rockne, MPA, LINC Office; Deborah Conway, MD, Long School of Medicine; Timothy Raabe, PhD, Graduate School of Biomedical Sciences; Joseph Zorek, PharmD, BCGP, FNAP, LINC Office; David Henzi, EdD, School of Health Professions; Cynthia O'Neal, PhD, RN, School of Nursing; Sara Gill, PhD, RN, FAAN, School of Nursing; Adriana Segura, DDS, MS, School of Dentistry

2022



Photo (from left to right): Members of the LINC Academic Affairs Council at their annual retreat on November 10, 2022—Dr. David Henzi, School of Health Professions; Dr. Adriana Segura, School of Dentistry; Dr. Joseph Zorek; Dr. Deborah Conway, Long School of Medicine; Dr. Cynthia O'Neal and Dr. Sara Gill, School of Nursing; and Dr. Timothy Raabe, Graduate School of Biomedical Sciences.

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Annual Workplan & Priorities

Sample from 2022

This process yielded the group's inaugural workplan and priorities document, published in January 2022. Five priorities emerged, including the ambitious goal to:

"... initiate development of a longitudinal series of IPE activities intended for all students that progresses along a continuum of learning from basic to intermediate to advanced."

Sample from 2023

- Support successful implementation and evaluation of the LINC Simulation IPE Experience
- Support successful implementation and evaluation of the LINC Clinical IPE Experience
- Collaborate with the LINC Faculty & Staff Development Initiative to increase the impact and sustainability of LINC seed grant projects
- Implement events and opportunities to facilitate interaction, engagement, and collaboration across LINC Councils



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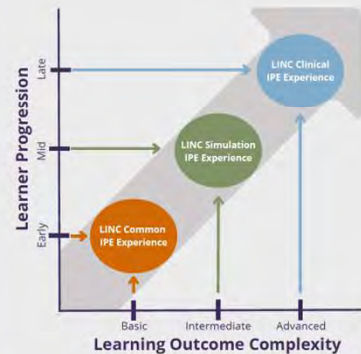
LINC Longitudinal IPE Program




COMING IN 2023!

In 2022, three LINC teams agreed to develop a longitudinal IPE program intended for all learners at UT Health San Antonio. As depicted in the figure to the right, this series of progressively developmental IPE activities will include didactic, simulation, and clinical IPE experiences.

Photo (clockwise): Dr. Temple Ratcliffe (★) and members of the LINC Clinical IPE Initiative (blue); Dr. Sadie Trammell Velásquez (★) and members of the LINC Simulation IPE Initiative (green); and Dr. Meredith Quinene (★) and members of the LINC Didactic IPE Initiative (orange).



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Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Currents in Pharmacy Teaching and Learning

journal homepage: www.sciencedirect.com/journal/currents-in-pharmacy-teaching-and-learning



IPE Reports


A co-curricular interprofessional education activity to facilitate socialization and meaningful student engagement

Rebecca Moote^{a,b,c}, Charlotte Anthony^d, Lark Ford^e, Le'Keisha Johnson^f, Joseph Zorek^{g,*}

^a The University of Texas at Austin College of Pharmacy, Austin, TX, United States
^b University Hospital System, San Antonio, TX, United States
^c Pharmacy Education and Research Center, Long School of Medicine, University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive – MC 6220, San Antonio, TX 78229-3900, United States
^d Graduate School of Biomedical Sciences, The University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78229, United States
^e School of Nursing & Linking Interprofessional Networks for Collaboration Faculty Council, The University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78229, United States
^f Office of Student Life, The University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78229, United States
^g Linking Interprofessional Networks of Collaboration (LINC), Office of the Vice President for Academic, Faculty and Student Affairs, and School of Nursing, The University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78229, United States



2021: Currents in Pharmacy Teaching and Learning



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LINC Common IPE Experience

Purpose

- Introduce students to IPE at UT Health San Antonio using the IPEC framework;
- Facilitate interprofessional socialization; and
- Prepare students for IPE activities they will experience as part of program-specific IPE plans, including the LINC Simulation IPE Experience and the LINC Clinical IPE Experience

Targeted IPEC Sub-Competencies

- TT1: Describe the process of team development and the roles and practices of effective teams
- TT8: Reflect on individual and team performance for individual, as well as team, performance improvement
- TT10: Use available evidence to inform effective teamwork and team-based practices
- CC4: Listen actively, and encourage ideas and opinions of other team members
- CC6: Use respectful language appropriate for a given difficult situation, crucial conversation, or conflict

Student Participation

- **2020:** 977 students from 26 programs; **2021:** 1040 students from 25 programs; **2022:** 1054 students from 25 programs – **[3,071 students total to date]**



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OVERWHELMED: AN ILLUSTRATED CASE STUDY

BASED ON AWA'S HISTORY AND EXAM, WE ARE CONSIDERING CEREBRAL PALSY AS A POTENTIAL DIAGNOSIS.

LET'S SCHEDULE A TEAM CARE PLAN MEETING AND START DISCUSSING SOLUTIONS.

OUR BIGGEST CONCERNS ARE HER SWALLOWING AND VISION.

Jones Care Plan Meeting

- Family Needs/Concerns
- Team Needs/Concerns
- Goal Development

YES, I'LL BRING THIS TODAY TO MEASURE FOR HER BRACE.

YES, IT INTERACTS NEGATIVELY WITH HER SEIZURE MEDS.

YES, I'LL BRING THIS TODAY.

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RELIEVED: AN ILLUSTRATED CASE STUDY

OH NO, NOT ANOTHER SEIZURE. GO GET HER MEDICATION!

WITH AWA'S INCREASED SEIZURE FREQUENCY, I'D LIKE TO REQUEST POSSIBLE ENROLLMENT IN THAT CLINICAL TRIAL.

I SEE TOOTH FRACTURES FROM HER SEIZURES. IT ALSO LOOKS LIKE SHE MAY HAVE CAVITIES. LET'S SCHEDULE A DENTAL VISIT.

NOTHING THAT I NEED TO RE-APPLY FLUORIDE VARNISH NEXT TIME.

PLEASE REQUEST SUGAR-FREE MEDICATIONS FROM YOUR PHARMACIST.

JUST FOLLOWING UP TO CONFIRM ENROLLMENT IN THE CLINICAL TRIAL.

I DON'T KNOW THAT DROOLING, DRY MOUTH, AND CAVITIES WERE ALL RELATED TO DIFFICULTY SWALLOWING.

YES, PREVENTION IS KEY AND THESE FLUORIDE APPLICATIONS WILL HELP.

THRILLED TO HEAR HER SWALLOWING IS IMPROVING.

I DIDN'T KNOW THAT DROOLING, DRY MOUTH, AND CAVITIES WERE ALL RELATED TO DIFFICULTY SWALLOWING.

YEAH, I FEEL LIKE I COULD GIVE A LECTURE ON SWALLOWING, FLUORIDES, AND CLINICAL TRIALS.

I KNOW, IT'S EXHAUSTING, BUT COMPENSATING TO HAVE SUCH A STRONG TEAM TO RELY ON.

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Interprofessional Matters: A Video Case Study

Medical Team

Easterseals

Early Childhood Intervention

Children's Rehabilitation Institute of Teleton

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BACK-UP: AN ILLUSTRATED CASE STUDY

OH MY GOODNESS, WHAT HAPPENED?

GRAMS, ARE YOU OKAY??

THREE WEEKS LATER...

OK, MRS. SMITH, DR. BLIZ WILL SEE YOU SHORTLY.

I'D PREFER TO SEE MY DOCTOR, TO RATHER NOT SEE A PA.

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SETBACK: AN ILLUSTRATED CASE STUDY

I RECOMMEND SHE BE SEEN IMMEDIATELY, CALL 9-1-1.

RADIO THE E.D. TO MAKE SURE THERE'S RESPIRATORY SUPPORT WHEN WE ARRIVE.

SHE WAS DOING GREAT AFTER THE SURGERY.

TWO DAYS LATER...

IN TM MRS. SMITH'S NURSE FROM WARD 1B, TM CALLING ON BEHALF OF THE TEAM FOR CLARITY RESULTS.

OUR PRELIMINARY RESULTS INDICATE THAT A STREP SPECIES IS CAUSING THE INFECTION.

TURN'S OUT I ALSO FRACTURED A TOOTH WHEN I FELL, THAT GOT INFECTED, AND THE INFECTION SPREAD TO MY HEART.

WOW, I'M SO HAPPY THE INFECTION IS RESOLVED, AS SO, ACCORDING TO DR. SMITH'S LAST NOTE, YOUR VERTICAL FUSION IS LOOKING GREAT.

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Interprofessional Matters: A Video Case Study with Dr. Bonnie Blankmeyer

© 2020 UT Health San Antonio

Interview by Joe Zorek. Video production by Lynn Parsons.

BACK-UP: AN ILLUSTRATED CASE STUDY

WE ENVISION MANY NEW USES FOR OUR BONE CEMENT FOR EXAMPLE...

THERE'S STRONG EVIDENCE FOR THE USE OF THIS NEW BONE CEMENT.

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SETBACK: AN ILLUSTRATED CASE STUDY

AND, WE'VE CONTINUED BREATHING TREATMENTS, BUT SHE'S NOT SHOWING IMPROVEMENT.

OKAY, LET'S CONSULT ORAL SURGERY FOR THE DENTAL PAIN, AND OBTAIN A REPEAT CHEST X-RAY.

TWO WEEKS LATER...

WAS YOUR BACK PAIN DECREASED WITH YOUR PT EXERCISES AND HAS IT COMPLETED YOUR HOME VISIT YET??

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TURN'S OUT I ALSO FRACTURED A TOOTH WHEN I FELL, THAT GOT INFECTED, AND THE INFECTION SPREAD TO MY HEART.

WOW, I'M SO HAPPY THE INFECTION IS RESOLVED, AS SO, ACCORDING TO DR. SMITH'S LAST NOTE, YOUR VERTICAL FUSION IS LOOKING GREAT.

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Interprofessional Matters: A Video Case Study with Dr. Bonnie Blankmeyer

© 2020 UT Health San Antonio

Interview by Joe Zorek. Video production by Lynn Parsons.

BACK-UP: AN ILLUSTRATED CASE STUDY

WE ENVISION MANY NEW USES FOR OUR BONE CEMENT FOR EXAMPLE...

THERE'S STRONG EVIDENCE FOR THE USE OF THIS NEW BONE CEMENT.

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SETBACK: AN ILLUSTRATED CASE STUDY

AND, WE'VE CONTINUED BREATHING TREATMENTS, BUT SHE'S NOT SHOWING IMPROVEMENT.

OKAY, LET'S CONSULT ORAL SURGERY FOR THE DENTAL PAIN, AND OBTAIN A REPEAT CHEST X-RAY.

TWO WEEKS LATER...

WAS YOUR BACK PAIN DECREASED WITH YOUR PT EXERCISES AND HAS IT COMPLETED YOUR HOME VISIT YET??

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INTERPROFESSIONAL EDUCATION

Innovation in Collaborative Online Learning Yields Sustainable Model for University-wide Interprofessional Education

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BACKGROUND: Growing health professional accreditation mandates and expectations for interprofessional education (IPE) have led to heightened interest amongst health professions educators and administrators in the creation and development of effective and sustainable IPE programming. **IPE ACTIVITY:** At the University of Texas Health Science Center at San Antonio, an institution-wide initiative called Linking Interprofessional Networks for Collaboration (LINC) was initiated to strengthen IPE knowledge and skills, increase IPE offerings, and integrate IPE into curricula.

From the ¹School of Health Professions, University of Texas Health Science Center at San Antonio; ²Linking Interprofessional Networks for Collaboration (LINC), Office of the Vice President of Academic, Faculty and Student Affairs, University of Texas Health Science Center at San Antonio; ³School of Nursing, University of Texas Health Science Center at San Antonio; ⁴College of Pharmacy, University of Texas at Austin; ⁵Joe R. and Teresa Lozano Long School of Medicine, University of Texas Health Science Center at San Antonio; ⁶School of Dentistry, University of Texas Health Science Center at San Antonio; ⁷Graduate School of Biomedical Sciences, University of Texas Health Science Center at San Antonio; ⁸Office of Academic, Faculty and Student Ombudsperson and ADA Compliance Office, Office of the Vice President for Academic, Faculty and Student Affairs, University of Texas Health Science Center at San Antonio; and ⁹Office of Student Life, Office of the Vice President for Academic, Faculty and Student Affairs, University of Texas Health Science Center at San Antonio, San Antonio, TX.

In 2020, stakeholders developed, implemented, and evaluated a university-wide IPE activity called the LINC Common IPE Experience, which includes three collaborative online learning modules that students complete synchronously using a videoconference platform without direct faculty facilitation. Mini-lectures, interprofessional discussions, and authentic case studies using innovative media facilitated meaningful engagement of 977 students from 26 different educational programs. **DISCUSSION:** Quantitative and qualitative results from evaluations demonstrated significant student engagement, increased awareness and understanding of teamwork, progress towards interprofessional competency development, and benefits related to professional development. The LINC Common IPE Experience provides a valuable example of a robust, high-impact foundational IPE activity that can serve as a sustainable model for university-wide IPE. *J Allied Health 2023; 52(1):16-23.*

THE NATIONAL ACADEMY OF MEDICINE and the World Health Organization have long identified the critical role of interprofessional education (IPE) and collaborative practice in driving significant health care transformation.¹⁻³ The ultimate goal of IPE and collaborative practice is to achieve the Quadruple Aim; namely, to improve patient care experiences, popula-

2023: *Journal of Allied Health*



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LINC Simulation IPE Experience

Purpose

- Facilitate interprofessional socialization
- Expand interprofessional skills and competencies introduced in the LINC Common IPE Experience
- Prepare students for IPE activities they will experience in clinical practice with an emphasis on LINC Clinical IPE activities

Targeted IPEC Sub-Competencies

- TT3: Engage health and other professionals in shared patient-centered and population-focused problem-solving
- TT4: Integrate the knowledge and experience of health and other professions to inform health and care decisions, while respecting patient and community values and priorities/preferences for care
- TT6: Engage self and others to constructively manage disagreements about values, roles, goals, and actions that arise among health and other professionals and with patients, families, and community members
- CC1: Choose effective communication tools and techniques, including information systems and communication technologies, to facilitate discussions and interactions that enhance team function
- CC2: Communication information with patients, families, community members, and health team members in a form that is understandable, avoiding discipline-specific terminology when possible
- CC6: Use respectful language appropriate for a given difficult situation, crucial conversation, or conflict

Student Participation

- **2022 (Pilot):** 22 students from 9 programs; **2023:** 769 students from 11 programs



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A Hidden Crisis

Sadie T. Velasquez, M.D., James Cleveland, Ph.D., M.S.N., R.N., David O. Diaz, D.D.S., Diane Ferguson, R.N., Rebecca Moote, Pharm.D., Kathryn Parke, D.N.P., R.N., Bridgett Piernik-Yoder, Ph.D., George Folz, B.F.A.,[®] and Joseph A. Zorek, Pharm.D.

7 YEARS AGO...
 YOUR MOTHER TOOK CARE OF EVERYTHING SHE WAS MY ROCK.
 I DON'T KNOW WHAT I'M GOING TO DO. WERE YOU ALL WEREN'T SO FAR AWAY?
 YOU KNOW WE'LL VISIT DAD!
 WE'RE ALWAYS JUST A CALL AWAY.
 ONE YEAR AGO...
 THE KIDS AND SONJA ARE DOING WELL. DID YOU FORGET DAD? I WORK AS A PROJECT MANAGER FOR AN INSURANCE COMPANY. JOANNE IS THE ENGINEER.
 SORRY, I MISPOKE.
 TWO WEEKS LATER...
 MR. BANKS/ ARE YOU OKAY?
 MR. BANKS/ ARE YOU OKAY?
 I THOUGHT I TOOK CARE OF THAT ONE. MINE. MAYBE MY CHECK GOT LOST IN THE MAIL.
 IT'S MY PLEASURE TO HELP, MR. BANKS. THAT'S WHAT NEIGHBORS ARE FOR. WHAT HAPPENED WITH THIS BILL, THOUGH? TWO MONTHS OVERDUE?
 I WONDER IF HE'S TAKING HIS MEDS CORRECTLY.
 I KNEW I SHOULD HAVE HAD SOMEONE CHECK IN ON SON WHEN I WAS OUT OF TOWN.
 WHEN YOU PELL YOU HAD SOME BLEEDINGS INTO YOUR HIP AND YOU MISSED A BLOOD TRANSFUSION.
 REMEMBER NOT TO GET OUT OF BED AND USE YOUR CALL LIGHT IF YOU NEED ME. I PUT YOUR BED ALARM ON.
 I'VE GIVEN THE PATIENT SOME MEDICATION FOR HIS DENTAL PAIN, BUT WE CAN'T DO A PANORAMIC X-RAY!
 OHAY, NO PROBLEM. I'LL SEE HIM IN CLINIC WHEN HE'S DISCHARGED.

2022: *New England Journal of Medicine*

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LINC Clinical IPE Experience

Purpose

- Facilitate interprofessional socialization
- Empower students to evaluate interprofessional clinical learning environments
- Prepare students to navigate real-world interprofessional collaborative practice settings

Targeted IPEC Sub-Competencies

- TT8: Reflect on individual and team performance for individual, as well as team, performance improvement
- TT9: Use process improvement to increase effectiveness of interprofessional teamwork and team-based services, programs, and policies
- RR9: Use unique and complementary abilities of all members of the team to optimize health and patient care
- CC1: Choose effective communication tools and techniques, including information systems and communication technologies, to facilitate discussions and interactions that enhance team function
- CC7: Recognize how one's uniqueness (experience level, expertise, culture, power, and hierarchy within the health team) contributes to effective communication, conflict resolution, and positive interprofessional working relationships.

Student Participation

- **2023 (Pilot):** 16 students from 9 programs to date

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Temple A. Ratcliffe, MD, Angela Kennedy, SLP-D, Rebecca Moote, PharmD, Elena Riccio Leach, DDS, Marta Vives, DNP, George Folz, BFA, Joseph Zorek, PharmD*

IN THIS TOGETHER: AN ILLUSTRATED CASE STUDY

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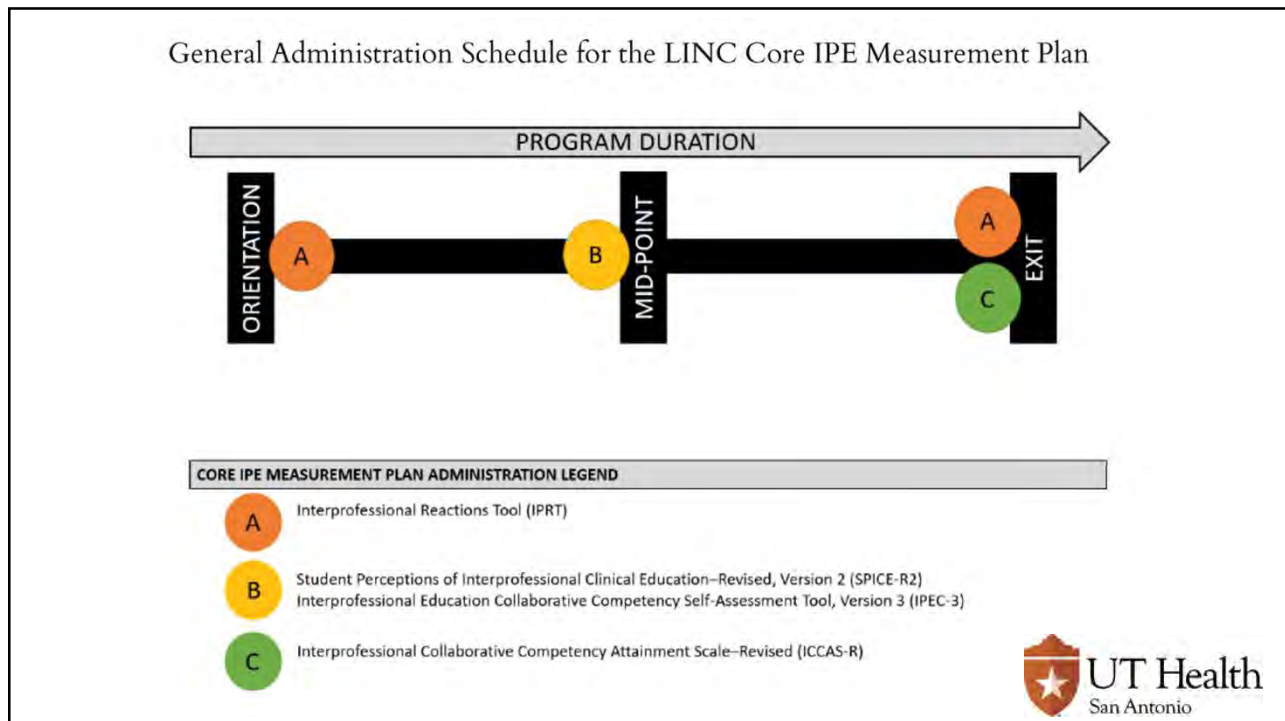
CLINICAL MICROSYSTEM ASSESSMENT TOOL

Instructions: Each of the "success" characteristics (e.g. leadership) is followed by a series of three descriptors. For each descriptor the assessor can choose "yes", "no", or "not sure".

Characteristic	Descriptions
1. Leadership: The role setting and reaching collective individual autonomy and accountability, knowledge, respectful action, and	...ers struggle to find the right balance between reaching outcome goals and setting and empowering the
2. Organization: organization look microsystem and microsystems.	...to predictable in when, resources needed
3. Staff Focus: kind of people. To integrate new staff. Expectations of staff continuing education	...and member but I don't see it doing all part education workload.
4. Education: microsystems has education and training microsystems has students.	...er training reflect the system, but we change yet situation is
5. Interdependence: characterized by each other, appreciation and recognition after all common purpose.	...e we are not together as
6. Patient Focus: The patient needs — caring, listening responding to special requests needs, and smooth service flow	...re actively working to be patient centered care and in making progress toward effectively and consistently about and meeting of needs.

2023: *The Clinical Teacher* [In Press]

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**LINC Core IPE Measure B [MID-POINT]
SPICE-R2 & IPEC-3 Composite Subscale and Total Instrument Scores**

UT Health [N = 603]	BEFORE You Started Your Program		RIGHT Now		<i>t (p)</i>	<i>Cohen's d</i>
	Mean	SD	Mean	SD		
LINC Core IPE Measure B – SPICE-R2 Subscales / Total						
Patient Outcomes (Items 3, 6, 9; Sum ranges from 3-15)	12.19	2.32	13.18	2.19	-14.24 ***	.34
Roles/Responsibilities (Items 2, 5, 8; Sum ranges from 3-15)	10.76	2.67	12.50	2.30	-18.72 ***	.70
Teamwork/Team-Based Practice (Items 1, 4, 7, 10; Sum ranges from 4-20)	16.55	3.03	17.58	3.07	-10.10 ***	.35
SPICE-R2 Total Score (Items 1-10; Sum ranges from 10-50)	39.50	6.88	43.26	6.77	-16.02 ***	.55
LINC Core IPE Measure B – IPEC-3 Subscales / Total						
Interprofessional Interactions (Odd number items; Sum ranges from 8-40)	31.13	6.15	35.24	5.32	-20.45 ***	.71
Interprofessional Values (Even number items; Sum ranges from 8-40)	34.61	5.54	37.09	4.79	-15.50 ***	.48
IPEC-3 Total Score (Items 1-16; Sum ranges from 16-80)	65.74	11.00	72.33	9.77	-19.19 ***	.63

Note. Dependent t-tests were performed to compare mean scores from “Before You Started Your Program” responses to mean scores from “Right Now” responses. *** = $p < .001$. SPICE-R2 and IPEC-3 items use a 5-point Likert-type scale in which 1 = Strongly disagree, 2 = Somewhat disagree, 3 = Neither agree nor disagree, 4 = Somewhat agree, and 5 = Strongly agree. Cohen's d interpretation: **Small (d = 0.2), Medium (d = 0.5), Large (d = 0.8), and Very Large (d = 1.00).**



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**LINC Core IPE Measure C [EXIT]
ICCAS-R Composite Subscale and Total Instrument Scores**

UT Health [N = 718]	BEFORE You Started Your Program		RIGHT Now		<i>t (p)</i>	<i>Cohen's d</i>
	Mean	SD	Mean	SD		
LINC Core IPE Measure C – ICCAS-R Subscales / Total						
Collaboration (Items 6-8; Sum ranges from 3-15)	8.69	2.60	11.57	2.37	-29.23 ***	1.15
Communication (Items 1-5; Sum ranges from 5-25)	14.70	4.14	19.23	3.70	-30.06 ***	1.16
Conflict Management/Resolution (Items 16-18; Sum ranges from 3-15)	9.31	2.63	11.89	2.39	-26.91 ***	1.03
Patient/Family Centered Approach (Items 13-15; Sum ranges from 3-15)	8.48	2.73	11.74	2.39	-31.31 ***	1.27
Roles/Responsibilities (Items 9-12; Sum ranges from 4-20)	11.81	3.41	15.52	3.16	-28.32 ***	1.13
Team Functioning (Items 19-20; Sum ranges from 2-10)	5.59	1.87	7.57	1.54	-28.80 ***	1.12
ICCAS-R Total Score (Items 1-20; Sum ranges from 20-100)	58.58	15.92	77.51	14.64	-31.62 ***	1.24

Note. Dependent t-tests were performed to compare mean scores from “Before You Started Your Program” responses to mean scores from “Right Now” responses. *** = $p < .001$. Items 1 through 20 on the ICCAS-R use a 5-point Likert-type scale in which 1 = Poor, 2 = Fair, 3 = Good, 4 = Very Good, and 5 = Excellent. Cohen's d interpretation: **Small (d = 0.2), Medium (d = 0.5), Large (d = 0.8), and Very Large (d = 1.00).**



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LINC Core IPE Measurement Plan – Measure A2 [EXIT] [Interprofessional Reactions Tool]		UT Health [N = 833]	
		Mean	SD
LINC Core IPE Measure A2 [Interprofessional Reactions Tool]			
Q1. Based on my interprofessional education experiences at UT Health, I feel more prepared now to collaborate with health professionals and scientists outside of my profession than I did at the start of my program.	4.30	.86	
Q2. Based on my interprofessional education experiences at UT Health, I feel more prepared now to contribute meaningfully to the team-based care of patients and/or populations than I did at the start of my program.	4.31	.85	
<i>Preparation [Q1 + Q2]</i>		$\alpha = .91$	
Q4. The interprofessional education experiences at UT Health were relevant to my future profession.	4.90	.74	
Q5. The interprofessional education experiences at UT Health highlighted the relevance of interprofessional teamwork to my future profession.	4.28	.89	
<i>Relevance [Q4 + Q5]</i>		$\alpha = .92$	
Q7. Interprofessional education is important for my profession.	4.60	.74	
Q8. Interprofessional teamwork is important for my profession.	4.64	.71	
<i>Importance [Q7 + Q8]</i>		$\alpha = .94$	
Q10. I am satisfied with the variety of interprofessional education experiences I have had at UT Health (e.g., IPE group discussions, IPE simulations, clinical IPE experiences).	3.99	1.07	
Q11. I am satisfied with how challenging my interprofessional education experiences were at UT Health.	3.96	1.08	
Q12. Overall, I am satisfied with my interprofessional education experiences at UT Health.	4.09	1.03	
<i>Satisfaction [Q10 + Q11 + Q12]</i>		$\alpha = .95$	
Total Composite Score (minimum score = 9 and maximum score = 45)		29.83	5.29
<i>Total Reliability</i>		$\alpha = .94$	

Note. Items 1, 2, 4, 5, 7, 8, 10, 11, and 12 used a 5-point Likert-type scale in which 1 = Strongly disagree, 2 = Somewhat disagree, 3 = Neither agree nor disagree, 4 = Somewhat agree, and 5 = Strongly agree. Items 3, 6, and 9 were open-ended items. 833 of 999 exiting students from 5 schools at UT Health participated in the LINC Core IPE Measure A2 (86.8% response rate).

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Conclusions & Questions

- The time for transformational change in IPE is now
- Use the IPEC Institutional Assessment Instrument and corresponding consensus statements to generate institutional buy-in, support, investment, and infrastructure development
- Use the HPAC guidance to institutionalize IPE integration and measurement
- Use the IPEC competencies to support design, evaluation, leveling, and mapping efforts across programs
- Lean on the HPAC guidance and IPEC competencies to develop meaningful clinical IPE in the years to come

Send additional questions to: zorek@uthscsa.edu



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Presentation Appendix

For reference, the 2023 draft IPEC competencies and sample consensus statements from the IPEC Institutional Assessment Instrument project—presented in 2023 at the National Academies of Practice’s inaugural journal club webinar—are included in this presentation appendix.



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VALUES AND ETHICS

DRAFT

Work with team members to maintain a climate of shared values, ethical conduct, and mutual respect.

<p>VE1. Promote the values and interests of persons and populations in health care delivery, One Health, and population health initiatives.</p>	<p>VE2. Advocate for social justice and health equity of persons and populations across the life span.</p>	<p>VE3. Uphold the dignity, privacy, identity, and autonomy of persons while maintaining confidentiality in the delivery of team-based care.</p>	<p>VE4. Value diversity, identities, cultures, and differences.</p>
<p>VE5. Value the expertise of health professionals and its impacts on team functions and health outcomes.</p>	<p>VE6. Collaborate with honesty and integrity while striving for health equity and improvements in health outcomes.</p>	<p>VE7. Practice trust, empathy, respect, and compassion with persons, caregivers, health professionals, and populations.</p>	<p>VE8. Apply high standards of ethical conduct and quality in contributions to team-based care.</p>
<p>VE9. Maintain competence in one's own profession in order to contribute to interprofessional care.</p>	<p>VE10. Contribute to a just culture that fosters self-fulfillment, collegiality, and civility across the team.</p>	<p>VE11. Support a workplace where differences are respected, career satisfaction is supported, and well-being is prioritized.</p>	

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ROLES AND RESPONSIBILITIES

DRAFT
as of 4/12/23

Use the knowledge of one's own role and team members' expertise to address health outcomes.

RR1.

Include the full scope of knowledge, skills, and attitudes of team members to provide care that is person-centered, safe, cost-effective, timely, efficient, effective, and equitable.

RR2.

Collaborate with others within and outside of the health system to improve health outcomes.

RR3.

Incorporate complementary expertise to meet health needs including the social determinants of health.

RR4.

Differentiate each team member's role, scope of practice, and responsibility in promoting health outcomes.

RR5.

Practice cultural humility in interprofessional teamwork.

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COMMUNICATION

DRAFT
as of 4/12/23

Communicate in a responsive, responsible, respectful, and compassionate manner with team members.

C1.

Communicate one's roles and responsibilities clearly.

C2.

Use communication tools, techniques, and technologies to enhance team function, well-being, and health outcomes.

C3.

Communicate clearly with authenticity and cultural humility, avoiding discipline-specific terminology.

C4.

Promote common understanding and teamwork towards shared goals.

C5.

Practice active listening that encourages ideas and opinions of other team members.



C6.

Use constructive feedback to connect, align, and accomplish team goals.

C7.

Examine one's position, power, hierarchical role, unique experience, expertise, and culture towards improving communication and managing conflicts.

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TEAMS AND TEAMWORK

Apply values and principles of team science to adapt one's own role in a variety of team settings.

<p>TT1. Describe evidence-informed processes of team development and practices.</p>	<p>TT2. Appreciate team members' diverse experiences, expertise, cultures, positions, power, and hierarchical roles towards improving team function.</p>	<p>TT3. Practice team reasoning, problem-solving, and decision-making.</p>	<p>TT4. Use shared leadership practices to support team effectiveness.</p>
<p>TT5. Apply interprofessional conflict management methods, including identifying conflict cause and addressing divergent perspectives.</p>	<p>TT6. Reflect on self and team performance to inform and improve team effectiveness.</p>	<p>TT7. Share team accountability for outcomes.</p>	<p>TT8. Facilitate care coordination to achieve safe, effective care and health outcomes.</p>
<p>TT9. Operate from a shared framework that supports resiliency, well-being, safety, and efficacy.</p>	<p>TT10. Discuss organizational structures, policies, practices, resources, access to information, and timing issues that impact the effectiveness of the team.</p>	<p>TT11. Support a workplace where differences are respected, career satisfaction is supported, and well-being is prioritized.</p>	

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Culture

C.13. The institution's mission, vision, and goals include commitments to interprofessional teamwork and collaboration.





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Leadership

L.4. Institutional leadership must project long-term commitment to IPE and ensure top-down support and dedication when challenges arise.



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Financing

F.7. The financial model for IPE must be integrated into the overarching institutional financial model.



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Infrastructure

I.3. A formal institution-wide organizational structure is critical to provide an unbiased, neutral space for schools, departments, and programs to collaborate.



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Partnerships

P.6. Formal partnerships with clinical sites, healthcare systems, and community clinics designed specifically to advance interprofessional practice and education models via direct efforts to improve patient outcomes are important to support high-quality programmatic IPE.



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Faculty Affairs

FA.6. Credit on an annual faculty evaluation is a strong incentive for faculty to contribute to the development, implementation, and evaluation of high-quality programmatic IPE.



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Curricular Affairs

CA.10. The presence of a developmentally progressive series of IPE activities that increase in depth and complexity from the beginning to the end of students' professional programs is an indicator of high-quality programmatic IPE.



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IPEC Competency Framework

IPEC.1. Institutional adoption of the IPEC competency framework to guide IPE efforts demonstrates commitment to advance high-quality programmatic IPE.

