Preparing for Crisis:

An evaluation of an interprofessional elective for undergraduate health students on primary care preparedness for health emergencies

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Disclosures

Presenter's Name: Dr Kaitlyn Watson

- I have no current or past relationships with commercial entities.
- I am the Founder and CEO of Disaster Pharmacy Solutions. We provide education and training to the pharmacy workforce on disasters and health emergencies.

- This program has received no financial or in-kind support from any commercial or other organization.

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Background

- Disasters overwhelm healthcare systems.
- Primary care professionals must adapt their everyday roles to meet unique demands.
- This study describes a novel interprofessional elective (IPE), *"Health Emergency Preparedness for Primary Care,"* impact on health students' knowledge, skills, and attitudes regarding primary care and disaster-response roles.

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Course Development

- Parameters:

  6-week blended course; asynchronous modules + live simulation

- Development team spent 6 months creating content & scenario
  - Nursing - Dr. Maya Kalogirou (planetary health)
  - Nursing – Dr. Holly Symonds-Brown (community resilience)
  - Medicine – Dr. John Gunawan (ER and family medicine physician)
  - Medicine – Dr. Oksana Babenko (health professions education)
  - Pharmacy – Dr. Kaitlyn Watson (disaster health management & primary care)

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Objectives

The overall course objectives were:

- To apply the disaster management cycle and the prevention/mitigation, preparedness, response, and recovery phases.
- To contrast primary care roles and responsibilities of key personnel and adapt to the evolving needs of disasters and emergencies.
- To collaborate and communicate with others across the health system to improve health and social outcomes during a disaster mitigation, preparedness, response, and recovery.
- To scaffold healthcare preparedness for ongoing engagement in community resilience

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First cohort

- The IPE was piloted in November 2025 for a multidisciplinary cohort of pharmacy, medicine, and nursing students
- There were 24 students (8 per discipline)
- Students provided feedback we are integrating into the next offering of the course

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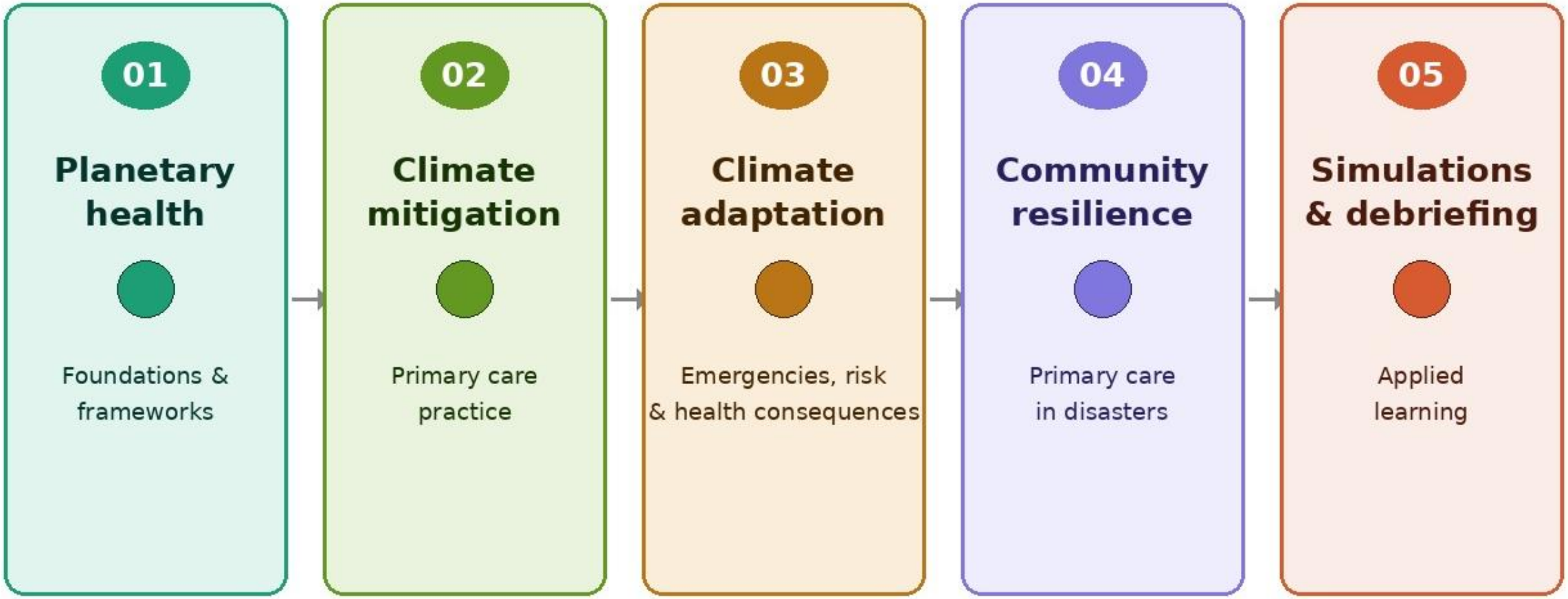
Content



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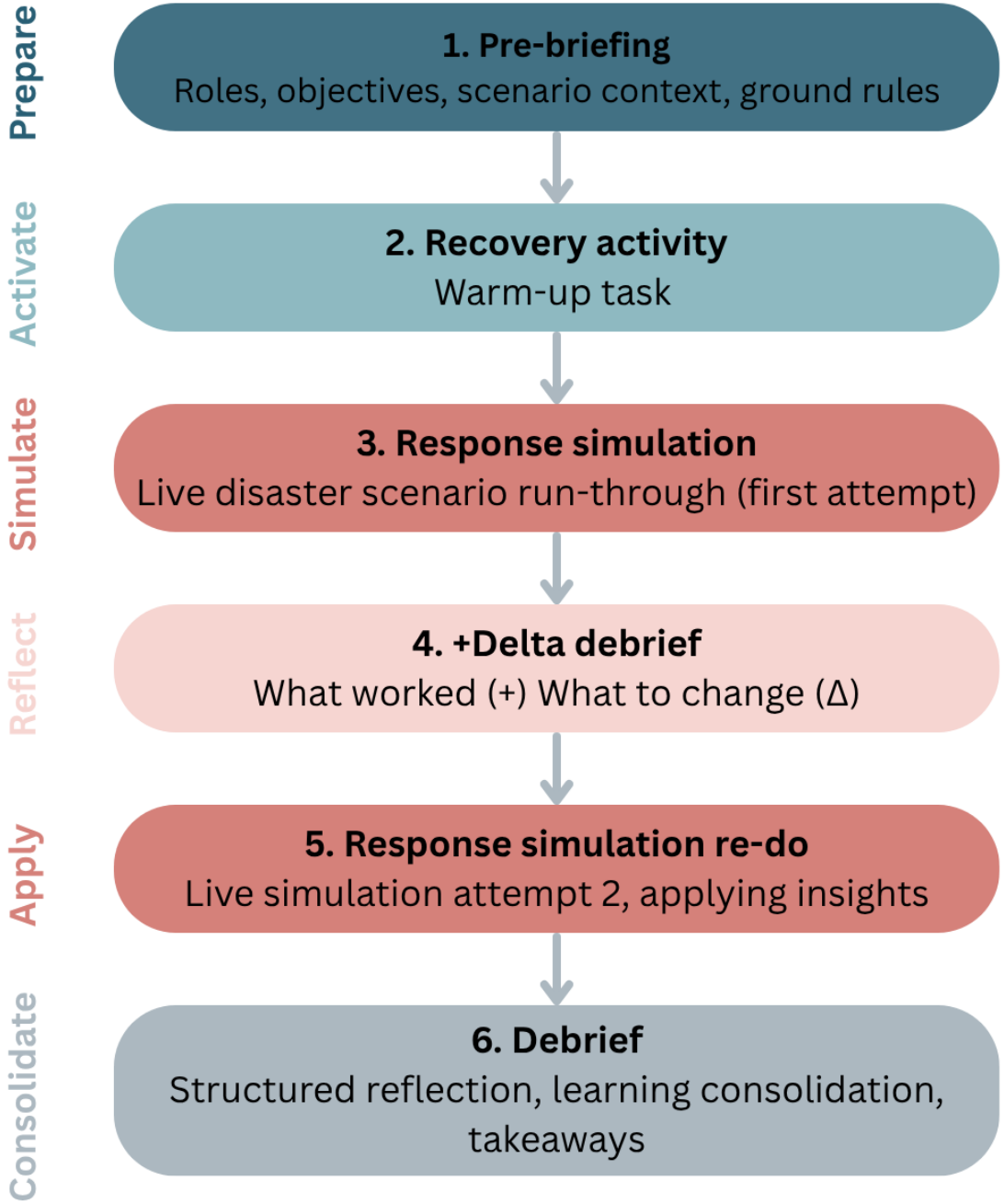
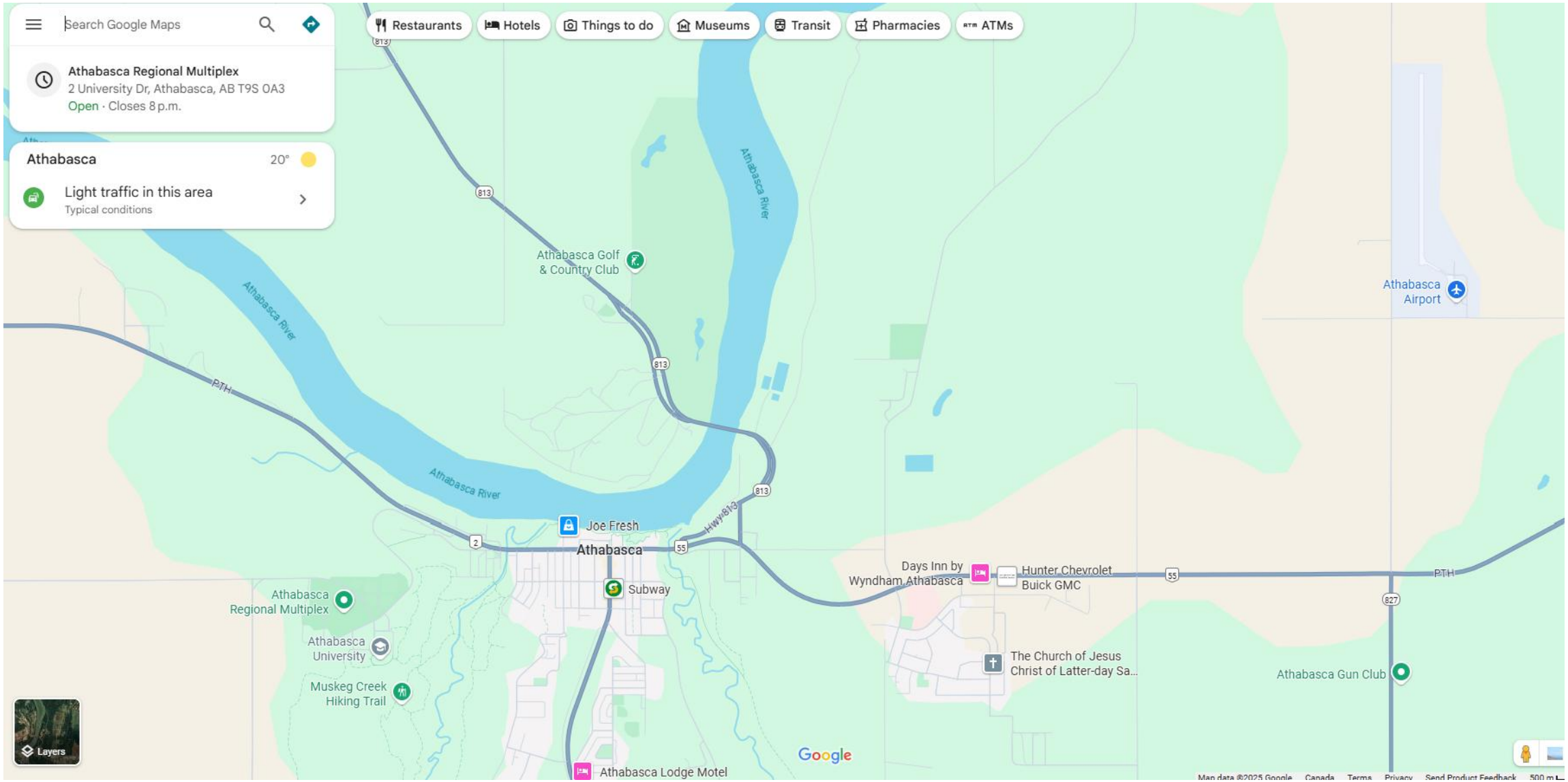
Simulation Outline



Standardized patients/evacuees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Athabasca
20°
Light traffic in this area
Typical conditions
Restaurants
Hotels
Things to do
Museums
Transit
Pharmacies
ATMs
Athabasca River
Athabasca Golf & Country Club
Athabasca Airport
PTH
Joe Fresh
Athabasca
Hwy 813
Days Inn by Wyndham Athabasca
Hunter Chevrolet Buick GMC
Subway
Athabasca Regional Multiplex
Athabasca University
Muskeg Creek Hiking Trail
The Church of Jesus Christ of Latter-day Sa...
Athabasca Gun Club
Athabasca Lodge Motel
Layers
Google


TRIAGE

Debrief Reflective Statements

"The skills refined today would be quite difficult to ascertain in a lecture-style environment"

"The skills learned in simulation are …translatable to the real world and vice versa."

"During the SIM and throughout the modules my existing knowledge of how involved pharmacists can be in the community was reinforced and built upon."

"It provided me with practice and experience as to what I would do when this scenario (or one similar to this) occurs in my future practice."

"We had to identify a system for managing … problems, communicate when we needed help…and work very hard with the understanding that we were part of a team."

Questions?

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NI Centre for Pharmacy Learning & Development

Student pharmacists take action on the social determinants of health

Bronagh White and Kingston Rajiah

Introduction

- Since publishment of The Marmot Review in 2010 life expectancy has failed to increase across the United Kingdom (UK) and for 10% of women in most deprived neighbourhoods it has actually declined (Michael Marmot, 2020). Since 2010 health inequalities have widened overall, and the amount of time people spend in poor health has increased. While it is widely accepted that the United States ranks low among high income countries with regard to population health, the stalling of life expectancy improvement in the UK is striking in comparison to other European countries (Tanne, 2023; Turner, Miller and Lowry., 2023).
- Fit for the future outlines the vision for neighbourhood health with the aim of having 200 neighbourhood health centres by 2035 in England starting in communities where life expectancy is lowest to improve population health. Effective neighbourhood care is co-designed within communities and includes the community and voluntary sectors as a strategic partner in both building and providing services for communities (Department of Health, 2025).

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Michael Marmot, J. A., Tammy Boyce, Peter Goldblatt, Joana Morrison. (2020) *Health Equity In England:The Marmot Review 10 Years On*, London: Institute of Health Equity. Available at: https://www.instituteofhealthequity.org/resources-reports/marmot-review-10-years-on.
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Turner, A., Miller, G. and Lowry., E. (2023) 'High U.S. Health Care Spending: Where is it all going?'. Available at: https://doi.org/10.26099/r6j5-6e66.

Introduction

- A core element of the Health and Social Care NI Reset Plan is the proposal to shift to a neighbourhood model of care where integrated teams have a core focus on optimizing care within communities through collaboration by neighbourhood teams. Pharmacy services whether in community, hospital, general practice or specialist settings are the bedrock to improving health and wellbeing including development of care pathways and services to meet the needs of the population (Royal Pharmaceutical Society, 2023)
- A recent perspective by O'Neill and Rajiah (2025) indicated that there are persistent gaps in public health training during the initial education and training of pharmacists where student pharmacists report limited opportunities for engaging meaningfully in communities not only to contribute and deliver community-based initiatives and public health programmes but also to be advocates for change by empowering people to gain better control in decisions and actions involving their health.

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Department of Health, Department of Health and Social Care (2025 *Health and Social Care NI reset plan:* Department of Health and Social Care.
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Funding Application to CW Young Fund @ Pharmacy Forum

- Collaborative project between NICPLD, Healthy Living Centre Alliance (HLCA), and Northern Ireland universities to create strategic opportunities for improving health at the community level
- The vision of this project is to shape future development of Experiential Learning (EL) for student pharmacists in Northern Ireland and agree an ambitious core public health element, which will prepare student pharmacists to generate social and physical environments that promote all-inclusive health, poised to promote stronger legacies for healthier communities.

NI Centre for Pharmacy Learning & Development

Pharmacy forum ni

Leading Promoting Supporting

Healthy Living Centre Alliance

QUEEN'S UNIVERSITY BELFAST

Ulster University

Aim

Student pharmacists to champion local policies and initiatives to address health inequalities through prevention of ill- health

Deepen student pharmacist understanding of how pharmacy teams together with HLCA can deliver innovative approaches to improve outcomes and promote equality in access to healthcare.

Provide insight into how the community and voluntary sector can be integrated into EL programme for student pharmacists

Methods

Ethical approval granted by UU FCBMS-25-087-B and approval affirmed by faculty rec MHLS . Students informed of the projects vision and aims during live lectures held as part of their year 1 pharmacy practice module indicating the voluntary nature of participation and their ability to withdraw at any point

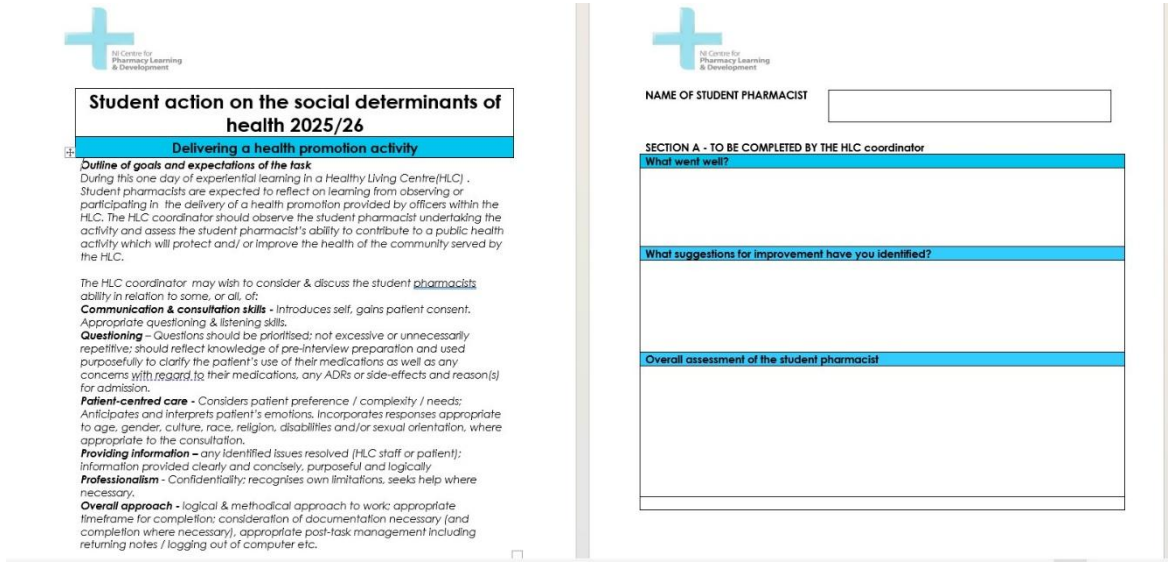
Student pharmacists who would like to undertake one day of EL in HLC were invited to complete an expression of interest (EOI) form, circulated to all student pharmacists in September 2025.

The EOI form provided details of the HLCs throughout Northern Ireland who are participating in the project. The 40 places were allocated to students on a first-come, first-served basis, with 20 students from each university allocated to the HLCs.

Following the completion of experiential learning and reflection on their entrustable professional activity (EPA) a focus group discussion (FGD) was conducted to gather in-depth feedback from participants.

Separate FGDs held with student pharmacists and HLCA practice supervisors to allow each group to share their perspectives in a comfortable and open environment.

Health Promotion Activity



Student action on the social determinants of health 2025/26

Delivering a health promotion activity

Outline of goals and expectations of the task

During this one day of experiential learning in a Healthy Living Centre(HLC) . Student pharmacists are expected to reflect on learning from observing or participating in the delivery of a health promotion provided by officers within the HLC. The HLC coordinator should observe the student pharmacist undertaking the activity and assess the student pharmacist's ability to contribute to a public health activity which will protect and/ or improve the health of the community served by the HLC.

The HLC coordinator may wish to consider & discuss the student pharmacists ability in relation to some, or all, of:

***Communication & consultation skills** - Introduces self, gains patient consent. Appropriate questioning & listening skills.*

***Questioning** – Questions should be prioritised; not excessive or unnecessarily repetitive; should reflect knowledge of pre-interview preparation and used purposefully to clarify the patient's use of their medications as well as any concerns with regard to their medications, any ADRs or side-effects and reason(s) for admission.*

***Patient-centred care** - Considers patient preference / complexity / needs; Anticipates and interprets patient's emotions. Incorporates responses appropriate to age, gender, culture, race, religion, disabilities and/or sexual orientation, where appropriate to the consultation.*

***Providing information –** any identified issues resolved (HLC staff or patient); Information provided clearly and concisely, purposeful and logically*

***Professionalism** - Confidentiality; recognises own limitations, seeks help where necessary.*

***Overall approach** - logical & methodical approach to work; appropriate timeframe for completion; consideration of documentation necessary (and completion where necessary), appropriate post-task management including returning notes / logging out of computer etc.*

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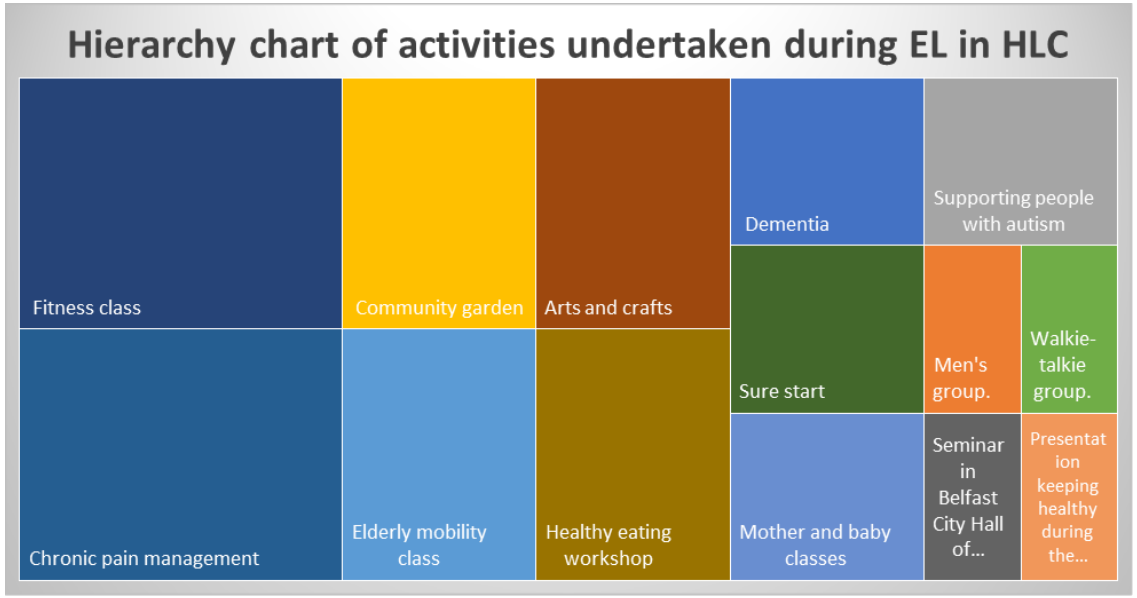
NAME OF STUDENT PHARMACIST

SECTION A - TO BE COMPLETED BY THE HLC coordinator

What went well?

What suggestions for improvement have you identified?

Overall assessment of the student pharmacist



Participants

Student Participants	Student Participants	HLC Co-ordinators
Monday 27th October	Tuesday 28th October	Wednesday 29th October
11	10	7

Student Pharmacist Themes

Making public health real through EL in the community and voluntary sector

Developing professional identity through engagement

Learning Beyond Medicines- reframing the role of the pharmacist in public health

Reflecting on learning within structural and educational constraints

Project Co-ordinator Themes

Affirming	Affirming the Value and Visibility of Community-Based Public Health Practice
Delivering	Delivering Public Health Through Relational and Person-Centred Care
Educating	Educating Future Pharmacists Through Tacit and Experiential Community Knowledge
Balancing	Balancing Educational Value With Structural and Time Constraints

Discussion

- This project highlights the importance of experiential learning to ensure that student pharmacists are fully equipped to assume roles in public health and population health management
- The project has provided a valuable opportunity for student pharmacists to apply and cultivate their knowledge on the population health model in a community and voluntary setting, seeing the positive outcomes for participants firsthand and observing how the multidisciplinary team undertake social interventions.
- This project identifies an undeniable need and yearning from student pharmacists and HLA to develop experiential learning to include a core public health model element within the MPharm programme
- The study illustrated that there is limited knowledge and training around the delivery of brief interventions for first year student pharmacist at such an early stage in their programme

Conclusion

- Throughout the focus groups both student pharmacists and project co-ordinators from the healthy living alliance had a positive perception and grasped the gravity of the neighbourhood model and the relevance it has for them in supporting people within their communities.
- The project demonstrates a positive response with unanimous agreement that an awareness of population health should be one of the areas of experiential learning for student pharmacists integrated into the initial education and training of pharmacists.

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& Development

Thank you for listening

Preparing for Real-World Collaboration: Lessons for IPE Curricula from Pharmacy Students and Practicing Pharmacists

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Professor

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University of British Columbia

No Conflicts of Interest

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Social Sciences and Humanities Research Council of Canada

Conseil de recherches en sciences humaines du Canada

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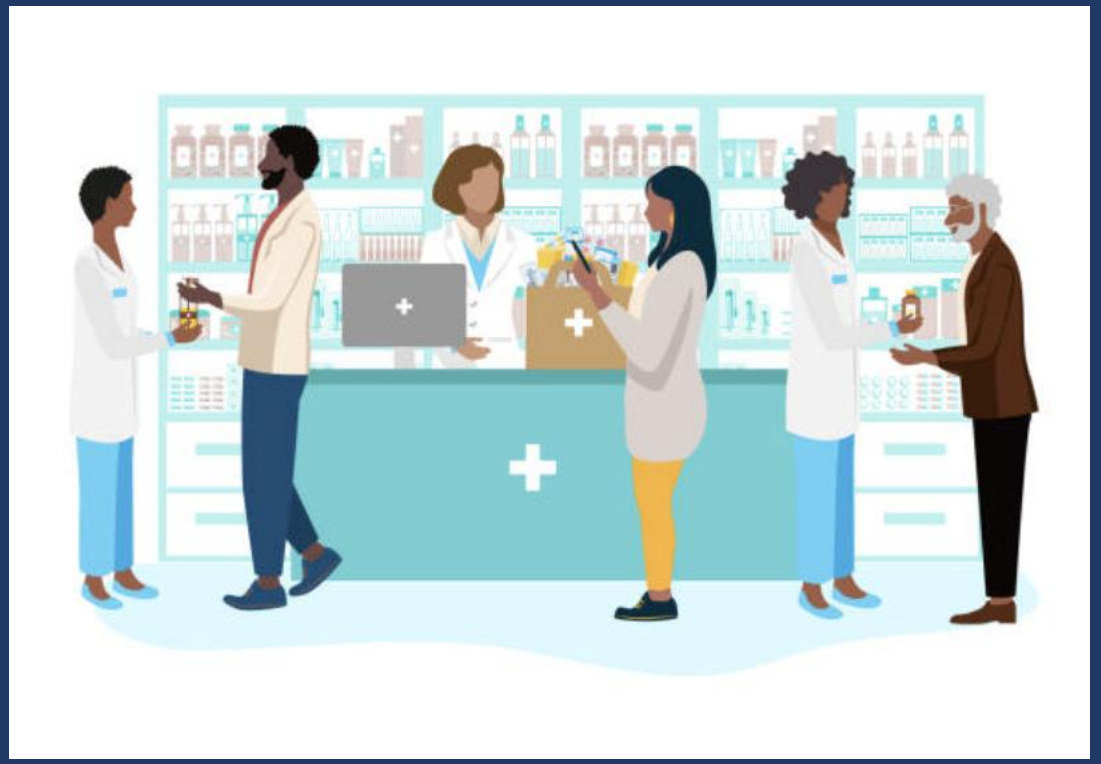

How is **collaborative care** enacted in community pharmacy practice

Year 4 Pharmacy Students

N=25*
Longitudinal Diary
Interview

*12% of eligible population

At weeks 2, 6, 8 of community clerkship:
Diary prompt: *What specific opportunities have you had to develop collaborator skills so far?*

Follow-up interview drawing upon student-specific diary entries to understand further

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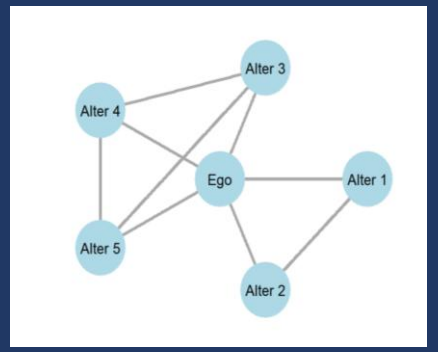
Primary Care Pharmacists

N=11
Social Network Analysis
Interview

*79% of eligible population



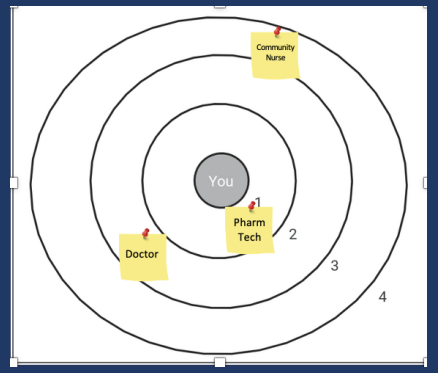
sociogram visualization

Consider 2-3 patients in your care the past year (draw):

- *the collaborators*
- *the relationships*
- *how you collaborate*

Community Pharmacists

N=30
Social Network Analysis
Interview



concentric circle visualization

Who do you collaborate with in daily practice? (position):

- *what are the relationships*
- *how do you form ties*
- *who are closest ties & why*

Diverse **patient-centric** networks

Collaborative Relationships:

- driven by referral
- derived by circumstance

Tie Formation and Maintenance:

- navigate communication
- ensure positive outcomes
- practice agility

Diverse **prescriber-centric** networks

Collaborative Relationships:

- mean network size 9
- 46 member types represented

Tie Formation and Maintenance:

- supported by accessibility
- shared expert care
- workforce, time impediments

Primary Care Pharmacists

Year 4 Pharmacy Students

Narrow **physician-centric** networks

Collaborative Relationships:

- reactive, prescription-related
- high reliance on fax

Collaborative Work:

- developing communication skills
- exercising full scope
- miss point-of-care contribution

Community Pharmacists

Optimizing Collaborative Care in Community

SYSTEM

- Shared electronic health record
- Formally supported pathways for communication and collaboration
- Compensation

INDIVIDUAL

- Curious and Proactive
- Adaptive and Pragmatic
- System Navigators
- Excellent Communicators

How can these lessons be leveraged?

Preparing Graduates for Community Collaboration

Learning Together: Working Apart

- Multi-phase project to better support pharmacy student preparation for collaborative care in community practice environments

1 **Identify essential skills for collaboration in community**

Drawing upon existing research data, literature review, and document analysis

2 3 **Script & Film short-form videos ("social media reels")**

Creating instructional media simulating essential skills' action in practice

4 5 **Deploy for Learners/Preceptors & Evaluate**

Embed into experiential preparation materials for review and uptake

References

Interprofessional Collaboration in Pharmacist-Led Primary Care Clinics

Can Pharm J 2025;158:72–179

Determining How Pharmacy Students Enact Collaborative Care in Experiential Training

Am J Pharm Educ 2026; 90

Community Pharmacist Networks for Collaborative Patient Care

J Interprof Care under review

A scoping review of interprofessional education in healthcare: evaluating competency development, educational outcomes and challenges

Patel et al, BMC Med Educ 2025

copper

www.copper.pharmsci.ubc.ca

Advancing a Future-Ready Workforce: Longitudinal Interprofessional Education Assessment Strategies Involving Multiple Health Professions Education Programs

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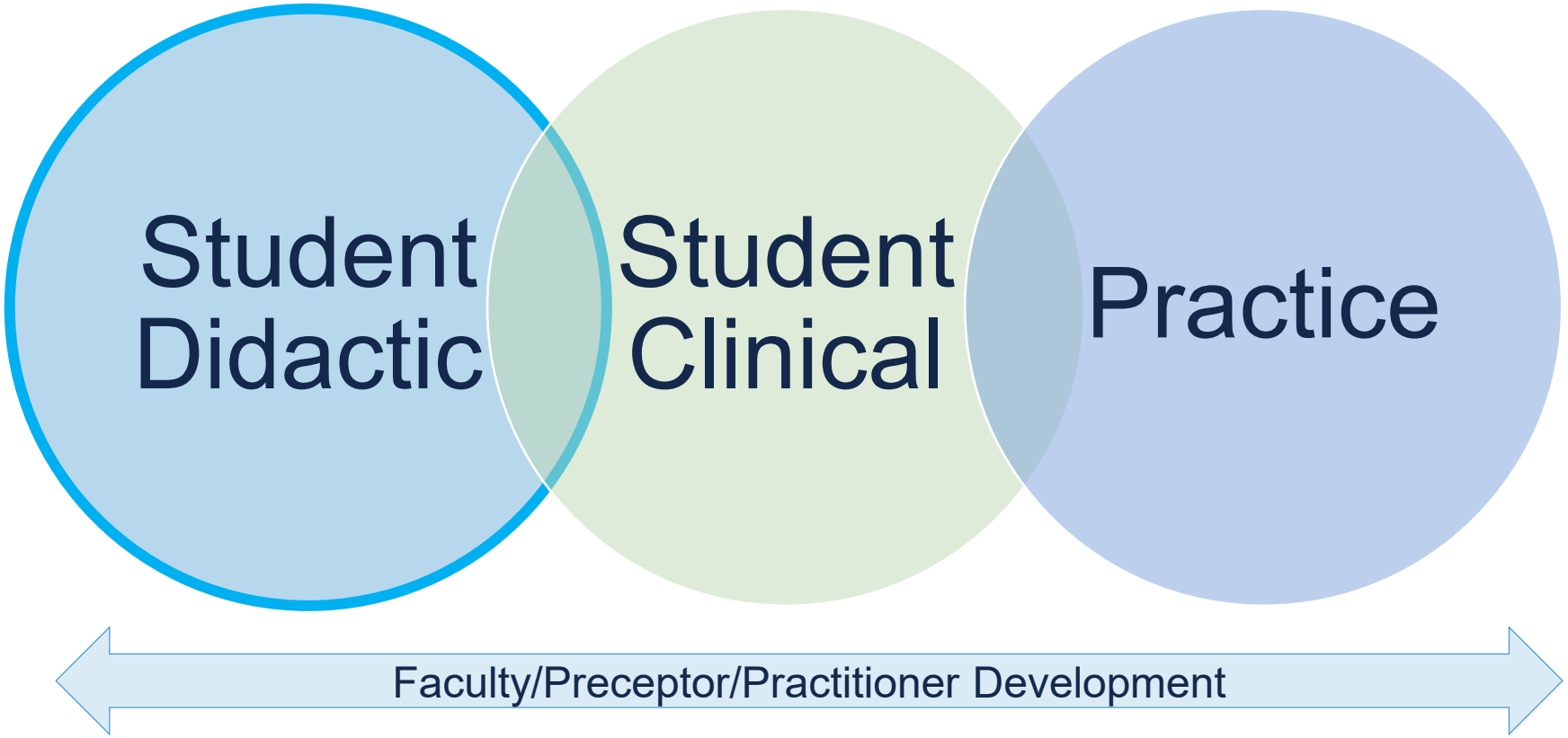
Eshelman School of Pharmacy

Developing Collaborative-Practice Ready Graduates



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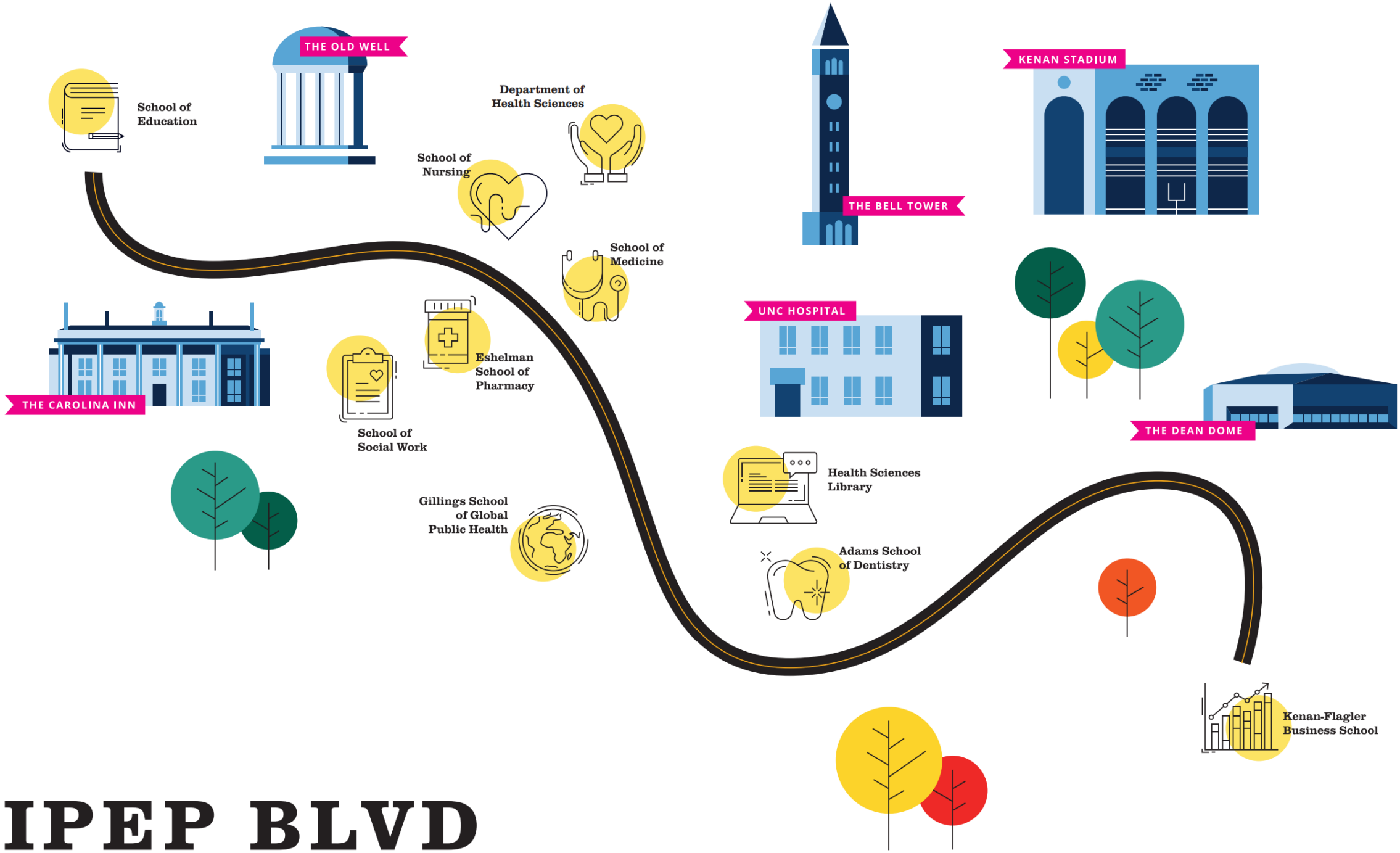
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UNC HOSPITAL
THE CAROLINA INN
Eshelman School of Pharmacy
School of Social Work
THE DEAN DOME
Health Sciences Library
Gillings School of Global Public Health
Adams School of Dentistry
Kenan-Flagler Business School

IPEP BLVD

IPE Developmental Model

Me to We

Individuals have independent goals while beginning to form an appreciation for every member of the team.

We in Teams

Team members work together to achieve a common goal while also remaining focused on independent roles.

Teams in Systems

Team members participate in shared creation of new ideas that could not have been created by individual members.

2025-2026 IPE Core Activities

4,799 **student participations in** IPEP Core Activities AY25-26

473	**827**	**246**	
Better Together Telehealth Clinic	Let's Grow Together: Orientation to IPEP	Interprofessional Geriatric Experience	
955	**797**	**275**	**1,226**
Partnership For Population Health	Can You Hear Me Now?	Teamwork Builds Independence	Meet Your Neighbors

IPE Didactic Evaluation Strategy

Values and Ethics (VE)

Please indicate your confidence in performing each ***Values and Ethics (VE)*** sub-competency:

	BEFORE the activity, I was able to:	**AFTER** the activity, I am able to:
VE2. Advocate for **social justice** and **health equity** of **persons** and **populations** across the life span.		
VE4. Value **diversity**, identities, cultures, and differences.		
VE5. Value the expertise of **health professionals** and its impacts on **team** functions and **health outcomes**.		
VE6. Collaborate with honesty and integrity while striving for **health equity** and improvements in **health outcomes**.		
VE7. Practice trust, empathy, respect, and compassion with **persons, caregivers, health professionals,** and **populations.**		
VE11. Support a **workplace** where differences are respected, career satisfaction is supported, and **well-being** is prioritized.		

- Students complete a **retrospective-pre and post- evaluation** of their self-efficacy on select IPEP Core Competencies emphasized within the IPE core activity.
- **Goal**: assess IPE competencies to develop collaborative practice ready graduates.

Assessing Collaborative-Practice Readiness

Six-Point Scale Key:

COOPERATION

LET'S GROW TOGETHER: ORIENTATION TO IPEP

VE RR C TT

Interprofessional Collaboration

Student self-assessments often start high due to limited experience with interprofessional teams (Dunning–Kruger effect). As students gain exposure, the accuracy of their self-awareness improves.

MEET YOUR NEIGHBORS (MYN)

Roles and Responsibilities

"I learned how important it is to be a good listener and make efforts to understand other peoples' roles." - Biomedical Engineering (Fall 2024)

Assessing Collaborative-Practice Readiness

COORDINATION

CAN YOU HEAR ME NOW? (CYHMN)

VE RR C TT

Values and Ethics

"I was not aware of many of the stereotypes and myths other health professionals encounter. So I leave this experience with a new sense of knowledge and empathy for their experiences." - Pharmacy (Fall 2024)

TEAMWORK BUILDS INDEPENDENCE (TBI)

VE RR C

Communication

"It takes a village comes to mind when coordinating the care of patients. All health care specialties have different understandings and knowledge bases which, when combined, can have the greatest outcome for our patients." - Health Sciences (Spring 2025)

COLLABORATION

BETTER TOGETHER TELEHEALTH CLINIC

VE RR C TT

Teams and Teamwork

"One take away is to use everyone's strengths. In my group, the nurses seemed very well-versed about diabetes so they took on that role, while the dental students were the ones to address oral health and hygiene. It worked really well when everyone played to their strengths." - Dentistry (Spring 2025)

INTERPROFESSIONAL GERIATRIC EXPERIENCE

VE RR C

Roles and Responsibilities

"It's important to come into interdisciplinary team meetings with an open mind, humility, and respect for other practitioners. I think it's easy to get caught up in our own disciplines and forget that other disciplines have incredible strengths to bring to the table." - Social Work (Spring 2025)

Overall, analysis provides compelling evidence that IPEP Core Activities build students' self-reported competency in each IPEC domain.

Reflections: Wins, Challenges, & Future Opportunities

✓Coordinated assessment strategy

✓Competency based education approach

✓Longitudinal assessment and evaluation

- Student self-eval: satisfaction vs. learning

+ Observer-based evaluation to supplement student self-evaluation

+ Resources (eg, time, personnel, institutional commitment)

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Senior Research Associate
Institutional Research and Assessment
UNC Chapel Hill

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