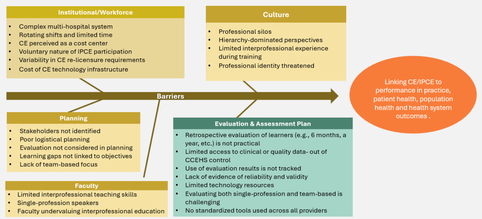
PROBLEM

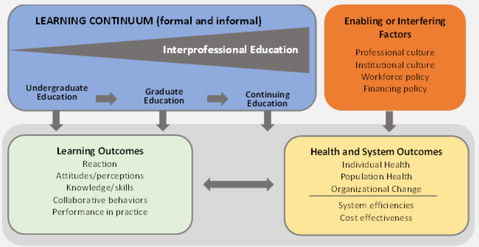
Accredited continuing education (CE), including interprofessional continuing education (IPCE), is designed to build competencies that may be applied in practice to influence performance at the individual level, within health care teams, and ultimately at higher levels, including patient health, population health, and/or health system outcomes. Despite these expectations, objective evidence linking to higher-level outcomes remains limited. This does not suggest that CE or IPCE is ineffective; rather, it highlights a critical gap in evaluation.



CONCEPTUAL FRAMEWORK

Figure 1 presents the Interprofessional Practice Learning Continuum (IPLC) as the foundational model across the educational spectrum. Building on the IPLC, we integrated key components, including the IPEC® core competencies, evaluation and assessment strategies, the expanded Kirkpatrick Model, and the five claims of reliability and validity. As shown in Figure 2, these components form a conceptual framework that supports competencies, identifies factors influencing health and system outcomes and generates reliable and meaningful data to support a link between education and health and system outcomes.

Figure 1 Interprofessional Continuum of Learning Model



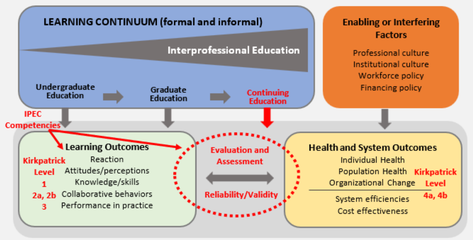
Key Factors

IPEC® Competencies — Define the interprofessional capabilities that are the focus of assessment, including values and ethics (VE), roles and responsibilities (RR), interprofessional communication (IC), and teams and teamwork (TT).

Expanded Kirkpatrick Model — Provides a framework for evaluating outcomes across learning, performance, and health and system impact, including learner reactions, changes in attitudes, acquisition of knowledge and skills, behavioral change, and benefits to patients, families, and communities.

5 Claims of Validity — Provide a structure for ensuring that evaluation data are meaningful and trustworthy by examining content alignment, response processes, internal structure, relationships to external variables, and the consequences of interpretation and use.

Figure 2 *Revised* Interprofessional Continuum of Learning Model



UPMC LIFE CHANGING MEDICINE · University of Pittsburgh

Center for Continuing Education in the Health Sciences (CCEHS)

Beyond Competence: A Logic Model–Driven Evaluation Framework

Authors: Justine Rubino, BS, Ryan Skerda, MHA, PMP, Melinda Splane, MS

ORGANIZATIONAL SYSTEM

CCEHS supports the continuing professional development of health care professionals across UPMC, the University of Pittsburgh Schools of the Health Sciences, and strategic partners aligned with the CCEHS' mission of advancing the integration of best available evidence into the quality and delivery of care. As an integrated health system, UPMC is the largest nongovernmental employer in Pennsylvania, with approximately 100,000 employees across its health services and insurance divisions. UPMC employs a large healthcare workforce to deliver care across more than 40 academic, community, and specialty hospitals and over 800 outpatient sites.

GOAL

To examine limitations in current evaluation practices and identify improved evaluation design strategies that may more effectively link to higher-level patient, population, and health system outcomes.

METHODOLOGY

A logic model approach was used to organize and illustrate the components of a comprehensive program evaluation for accredited continuing education including alignment with the expanded Kirkpatrick Model, IPEC competencies and Modern Validity Theory. The model was applied to analyze and critically assess the current CCEHS Evaluation Plan. Our focus centered on Regularly Scheduled Series (RSS) because they represent 52% of learners, use retrospective evaluation, and include both CE and IPCE.

The results informed a structured crosswalk to map evaluation questions to intended outcomes, identify gaps, and guide revisions to strengthen alignment between expectations and measurement.

Data sources included:

- Learner evaluation data from 2025 CCEHS-accredited CE/IPCE activities, analyzed for reliability and validity
- A survey sent to 575 RSS course directors examined expected impacts on the care environment, healthcare system, and changes in participants' practice or role to inform the evaluation tool review

SUMMARY OF RESULTS

RSS Learner Evaluation	Course Director Survey
High reliability (α = 0.986); moderate validity (r = 0.601), indicating misalignment	A total of 575 surveys distributed, yielding a 46% response rate
Nonclinical series scored lower than all other types, suggesting item-intent misalignment	Performance (82%) and patient outcomes (85%) expected
Practice-change items scored lower, limiting sensitivity to KP Level 3	73% of expected outcomes not assessed, reflecting technology/data access gaps
High scores with limited variability suggest ceiling effects	Expected outcomes varied by RSS type, supporting distinct outcome pathways
Evaluation data infrequently accessed or used for continuous improvement	Strong expectations for system and process improvement

Key Takeaways

- RSS are designed to impact practice, patient outcomes, and systems of care, not learning alone.
- Current evaluation methods are better aligned with lower-level outcomes
- Closing the expectation–measurement gap requires improved evaluation design and more intentional use of results.

REVISED EVALUATION FRAMEWORK

LOGIC MODEL

This logic model functions as an ongoing evaluation framework for accredited CE/IPCE, linking program inputs, activities, and outputs to intended learning, performance, and health and system outcomes.

Inputs

Technology
LMS

Accreditation and Planning
Needs Assessment, Planning Committee, Faculty, Target Audience, IPEC competencies

Developing Content
Valid, Evidence-based

Implementation

Deliver
Types of credit: CME, CNE, CPE, ASWB, APA, AAPA
Formats: Live, Virtual-live, Enduring
Types: RSS, Live Course Enduring

Participate
Participation is generally from a regional audience of health care professionals with most learners employed by UPMC

Outputs

Accredited Activities
RSS: 333 CE 235 IPCE
Courses: 542 CE 593 IPCE
Enduring: 772 CE 159 IPCE
Total Hours of Instruction: 35,750

Participation
RSS: 204,287
Courses: 34,831
Enduring: 21,622

Impact

Knowledge/Skills
KP Level 1
Perceptions of the quality, relevance, and effectiveness
KP Level 2a
Modification of attitude/perceptions
KP Level 2b
Acquisition of Knowledge/Skills

Performance in Practice
KP Level 3
Individual and/or Team Performance

Health & System
KP Level 4a
Organizational change
KP Level 4b
Patient health
Population health
Healthcare System

Continuous Improvement
- Improve planning
- Better decision making

Evaluation Plan

Evaluate
RSS: Annually - retrospective
Courses and Enduring: Post-activity

Evaluation Results
Available to course directors and planners

Evaluation Outcomes
Expanded Kirkpatrick Model

5 Claims of Validity

Content
Mapped to IPEC Competencies + KP Level 3

Response Process
Clear retrospective language and consistent response scales

Internal Structure
Questions correlate by item grouping, parallel wording and shared behavior outcomes

Relationship to External Variables (data)
Evaluation questions relate meaningfully to an external criterion

Consequences
- Improve planning
- Better decision making

EVALUATION CROSSWALK

The evaluation crosswalk provides evidence of a methodologically sound approach that maps evaluation questions to outcomes, identifies gaps, and informs alignment-focused revisions.

ORIGINAL QUESTION RISK SCREENING

Original questions screened to identify the risk level.

Low	Action-oriented KP3 behavior; retrospective wording; no patient, system, or population outcome claims.
Low–Moderate	Behavior-appropriate; limited outcome-adjacent language that may require clarification.
Moderate	Outcome- or impact-suggestive wording exceeding what self-reported RSS data can support; revise wording.
High	Implies outcome achievement beyond observable learner actions; likely KP4 misinterpretation; not appropriate.

QUESTION REVISION

Original questions revised to behavior-focused, retrospective wording mapped to KP3 + IPCE competencies

DEFENSIBLE EVALUATION TOOL

Combined behavior revision, justification, and mapping to form a validity-based evaluation design

What Next?

IMPLEMENT

- Launch revised RSS evaluation tool in the next annual RSS cycle to assess usability, data quality, support for continuous improvement, and alignment with higher-level outcomes.
- Leverage technology to enhance access to and use of evaluation data by course directors and planners.
- Implement a structured post-activity follow-up process (e.g., at 6 months) with course directors and planners to identify higher-level outcomes.

MORE INFORMATION