

June 14, 2018

Nursing Knowledge: Big Data Science Meeting

Interprofessional Practice and Education in Turbulent Times

Barbara F. Brandt, PhD, FNAP
Director and Associate Vice President

Interprofessional Education and Collaborative Practice

The “New IPE” – Interprofessional Practice and Education

Interprofessional education “occurs when two or more professions learn with, about, and from each other to enable effective collaboration and improve health outcomes.”

Interprofessional, collaborative practice “occurs when multiple health workers **and students and residents** from different professional backgrounds provide comprehensive health services by working with patients, their families, carers (caregivers), and communities to deliver the highest quality of care across settings.”

Adapted from:

The Centre for the Advancement of Interprofessional Education, UK, 1987

World Health Organization, Framework for Action on Interprofessional Education and Collaborative Practice, 2010.



Topics

- Describe the National Center for Interprofessional Practice and Education
- Discuss the background and today's context and landscape of IPE
- Summarize what we are learning about national trends in policy and implementation of IPE
- Describe why and how the National Center is creating a Big Data approach to interprofessional practice and education



Interprofessional Education and Collaborative Practice: Welcome to the Acceleration of the “New” Fifty-Year Old Field

Canad. Med. Ass. J.
May 23, 1964, vol. 90

SPECIAL ARTICLE: EDUCATION OF PHYSICIANS IN CANADA 1215

SPECIAL ARTICLE

The Education of Physicians in Canada

JOHN F. McCREARY, M.D., F.R.C.P.[C],* Vancouver, B.C.

THE provision of health services to Canadians is a subject which has been of considerable interest to legislators in recent years. Although much has been written concerning the extent of such services, how they are to be instituted and what their effect will be on the overall Canadian economy, little attention has been directed towards ensuring a sufficient supply of competent physicians

expect this source of supply to continue. Many of these immigrant physicians were unhappy under some form of health insurance that existed in their own country. As the years go by, the number of such malcontents will become less, in part because physicians have adapted to the new system and in part because types of prepaid health insurance in other countries have improved as the difficulties

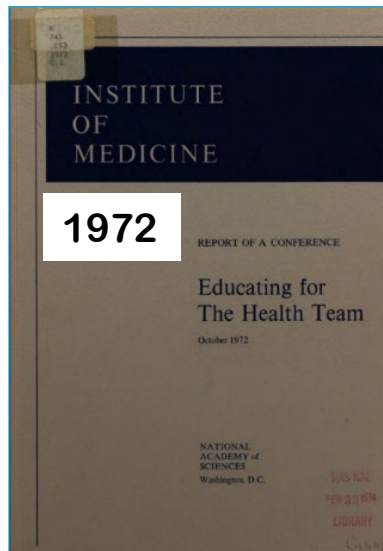
It has long been accepted that no physician, however able and however highly motivated, possesses all of the skills required to provide complete health services for a population group. Such services can only be provided by a team: the physician, dentist, pharmacist, nurse, physiotherapist, occupational therapist, social worker, clinical psychologist and others. Although lip service has been paid to the team approach to health care, little has been done to form the above-mentioned group into a team. They have been educated in isolated parts of the campuses of universities, using different teachers, teaching different vocabularies and building up artificial barriers between the various disciplines. All of these diverse members of the health team should be brought together during their undergraduate training years, taught by the same teachers, in the same classrooms and on the same patients. Under these circumstances, with students studying together, working together, reading together, eating together, it should be possible for the various disciplines to be welded into a true health team such that each can contribute, with full respect for what the other has to offer, his share of the health services. So, according to this concept, the small university Health Sciences Centre for health team.



Meanwhile in the United States: 1972

The purpose of a group or team approach is to optimize the special contribution in skills and knowledge of the team members so that the needs of the persons served can be met more efficiently effectively, competently, and more considerately than would be possible by independent and individual action. Without question, the patient himself is a member of the team and, in a democratic society, can be expected increasingly to exert his prerogatives to participate in decisions that affect his well-being.

A major deterrent to our efforts to fashion health care that is efficient, effective, comprehensive, and personalized is our lack of a design for the synergistic interrelationship of all who can contribute to the patient's well-being. We face, in the next decade, a national challenge to redeploy the functions of health professions in new ways, extending the roles of some, perhaps eliminating others, but more closely meshing the functions of each than ever before.



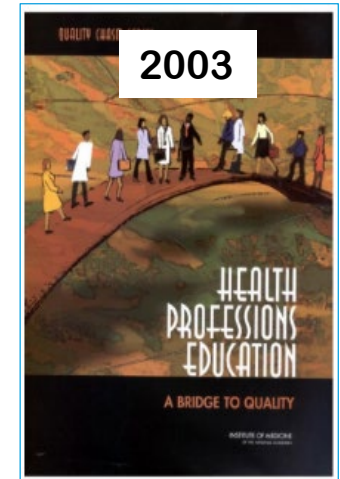
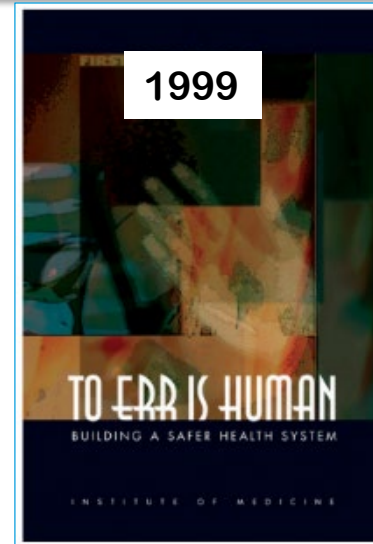
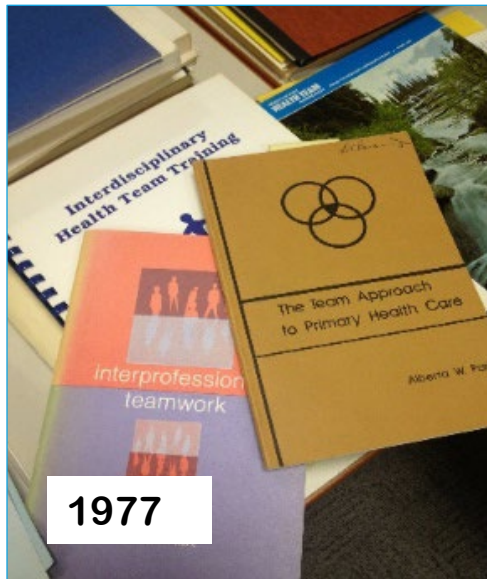
University of Minnesota: 1970s



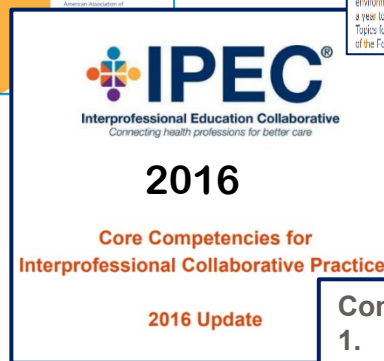
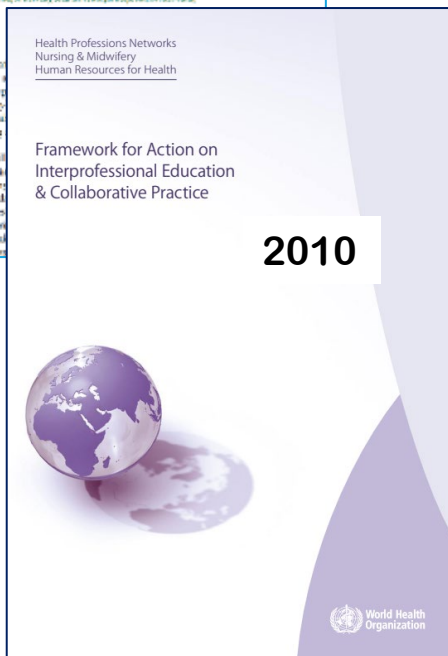
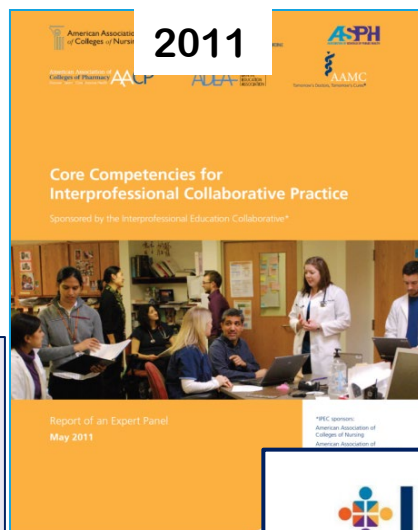
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Interprofessional Education and Collaborative Practice: Welcome to the Acceleration of the “New” Fifty-Year Old Field



Interprofessional Education and Collaborative Practice: Welcome to the Acceleration of the “New” Fifty Year Old Field



The National Academies of SCIENCES ENGINEERING MEDICINE

Today HEALTH AND MEDICINE DIVISION

ABOUT US PUBLICATIONS ACTIVITIES MEETINGS

Explore by Topic Keyword Search

Activity

Global Forum on Innovation in Health Professional Education

Type: Forum

Topics: Education, Global Health, Health Care Workforce

Board: Board on Global Health

Activity Description

Social Media Hashtag: #IPECF

The Global Forum on Innovation in Health Professional Education (Global Forum) is an ongoing, continuing activity of the National Academies of Sciences, Engineering, and Medicine that brings together stakeholders from multiple nations and professions to network, discuss and illuminate issues within health professional education. Currently, there are 56 appointed members to the Forum who are academic experts and health professionals representing 19 different disciplines from 9 countries. Of these members, 45 are sponsors.

Since its inception in 2012, the Global Forum has used its guiding principles to direct much of the work of the Forum. These principles emphasize engaging students, being patient- and person-centered, and creating an environment of learning with and from partners outside of the United States. Members of the Forum gather twice a year to attend Forum sponsored events that consider these principles during the agenda planning process. Topics for these activities are selected and developed by the Forum members themselves at separate meetings of the Forum.

Publications

Future Financial Economics of Health Professional Education: Proceedings of a Workshop
Released: April 5, 2017

Exploring the Role of Accreditation in Enhancing Quality and Innovation in Health Professions Education: Proceedings of a Workshop
Released: October 5, 2018

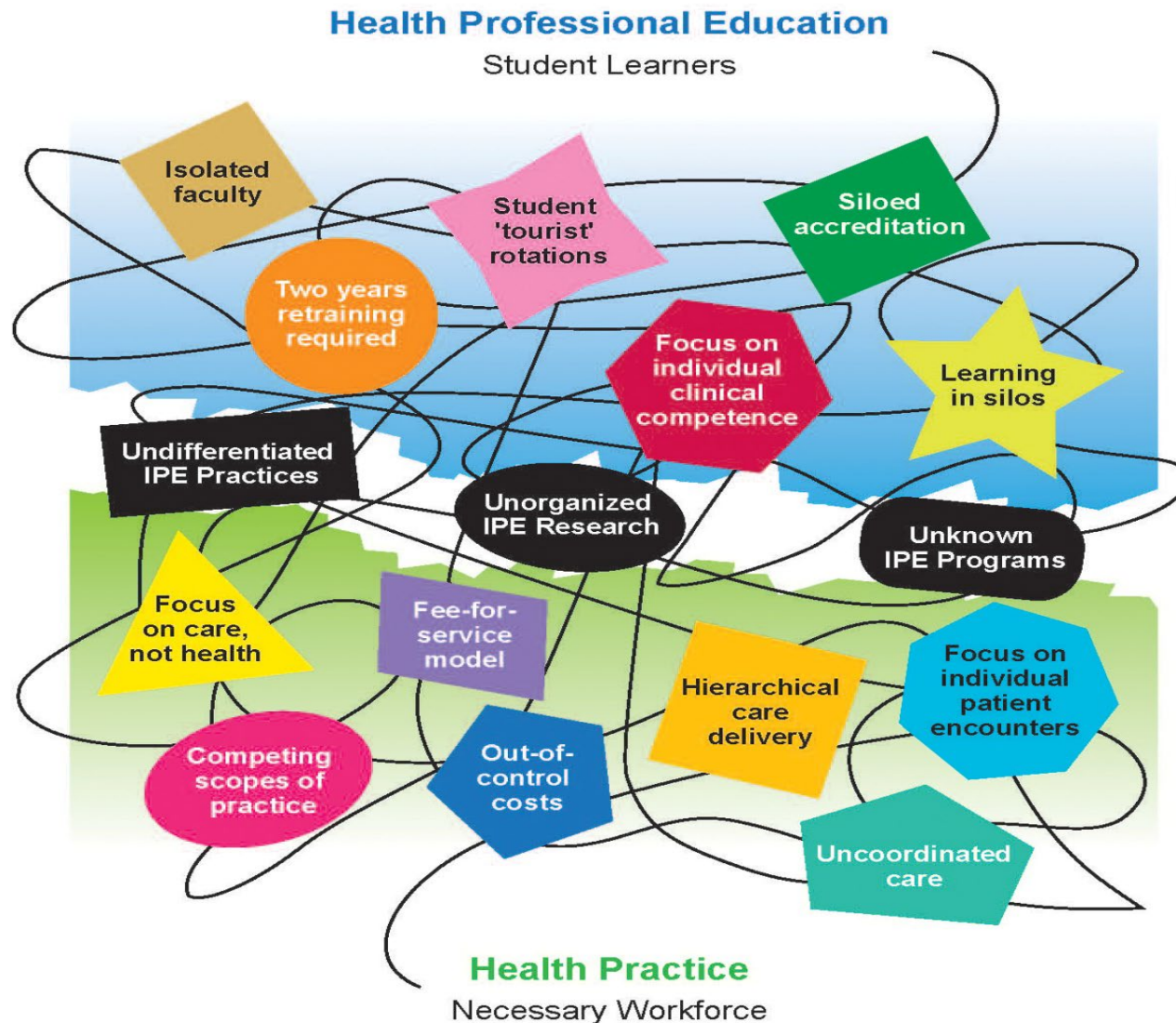
View All Publications from this Activity

Forum Members

- Competency Domains
1. Values/Ethics
 2. Roles/Responsibilities
 3. Interprofessional Communication
 4. Teams and Teamwork



After fifty+ years, what do we know about Interprofessional Practice & Education?



National Center for Interprofessional Practice and Education: A Public-Private Partnership (2012)

We believe **high-functioning teams** can improve the experience, outcomes and costs of health care.

National Center for Interprofessional Practice and Education is studying and **advancing the way stakeholders in health work and learn together.**

National Center Founders and Funders

Health Resources and Services Administration Cooperative Agreement
Award No. UE5HP25067 (2012-2017)

Robert Wood Johnson Foundation

Gordon and Betty Moore Foundation

Josiah Macy Jr. Foundation

John A. Hartford Foundation



A little bit about the National Center: The Nexus

Creating a deeply connected, integrated learning system to transform education and care together

N E  U S



National Center Strategic Areas of Focus

LEADING
WITH PURPOSE



**Thought
Leadership**



**Knowledge
Generation**

ADVANCING
WITH PURPOSE

LEARNING
WITH PURPOSE

**Education
and Training**



**Nexusipe.org
+ Resource
Center**



SHARING
WITH PURPOSE



Resource Center – Nexusipe.org



NATIONAL CENTER for
INTERPROFESSIONAL
PRACTICE and EDUCATION

Search

LOG IN/REGISTER

Informing

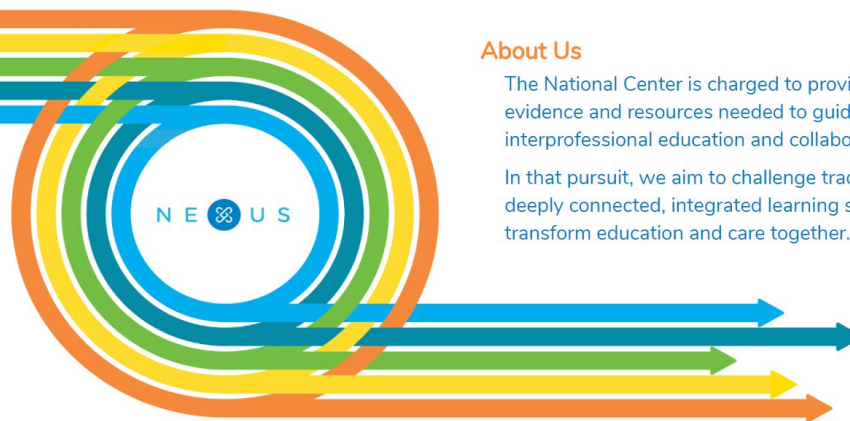
Connecting

Engaging

Advancing

NEXUS SUMMIT | JULY 29 - 31, 2018 | MINNEAPOLIS
CREATING RESULTS: INTERPROFESSIONAL VISION TO ACTION

[Learn more](#)



About Us

The National Center is charged to provide the leadership, evidence and resources needed to guide the nation on interprofessional education and collaborative practice.

In that pursuit, we aim to challenge tradition and create a deeply connected, integrated learning system that will transform education and care together.

Latest Nexus News



Promoting Nursing Leadership in
Interprofessional Education in



CAIPER Interprofessional By Design:
What You Need to Know to Advance



Unbiased, Neutral Convener: Macrosystem Impact Thought Leader in Two Policy Initiatives



FOR IMMEDIATE RELEASE

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May 2, 2017

Health Professions Accreditors Collaborative Welcomes 17 New Member Organizations

Chicago, IL – The Health Professions Accreditors Collaborative (HPAC) is pleased to welcome 17 accrediting organizations as new members of the Collaborative. The new members join the six founding members of HPAC: Accreditation Council for Pharmacy Education, Commission on Collegiate Nursing Education, Commission on Dental Accreditation, Commission on Osteopathic College Accreditation, Council on Education for Public Health, and the Liaison Committee on Medical Education. This move expands the composition of HPAC to 23 organizations committed to working together to advance interprofessional education (IPE), practice, and quality, as well as working together on other educational and research issues of common interest. The new accretor members are:

- [Accrediting Bureau of Health Education Schools](#)
- [Accreditation Commission for Education in Nursing](#)
- [Accreditation Commission for Midwifery Education](#)
- [Accreditation Council for Education in Nutrition and Dietetics](#)
- [Accreditation Council on Optometric Education](#)
- [Accreditation Review Commission on Education for the Physician Assistant](#)
- [American Psychological Association Commission on Accreditation](#)
- [Commission on Accreditation of Allied Health Education Programs](#)
- [Commission on Accreditation of Athletic Training Education](#)
- [Commission on Accreditation for Health Informatics and Information Management Education](#)
- [Commission on Accreditation in Physical Therapy Education](#)
- [Commission on Accreditation for Respiratory Care](#)
- [Council on Academic Accreditation in Audiology and Speech-Language Pathology](#)
- [Council on Accreditation of Nurse Anesthesia Educational Programs](#)
- [Council on Chiropractic Education](#)
- [Council on Podiatric Medical Education](#)
- [Council on Social Work Education](#)

NCICLE NATIONAL COLLABORATIVE
FOR IMPROVING THE CLINICAL
LEARNING ENVIRONMENT

Envisioning the Optimal
Interprofessional Clinical
Learning Environment:

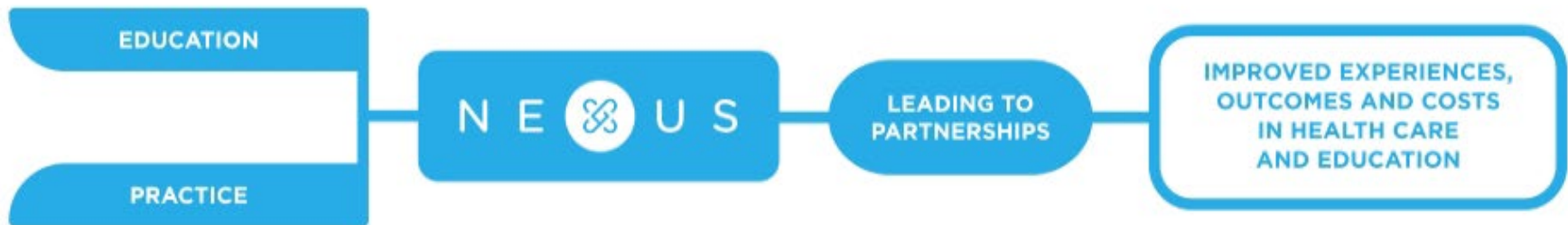
INITIAL FINDINGS FROM AN
OCTOBER 2017 NCICLE SYMPOSIUM

<u>PROFESSION/ FIELD OF STUDY</u>	<u>ACRONYM</u>	<u>NAME</u>
<u>Allied Health</u>	<u>CAAHEP</u>	<u>Commission on Accreditation of Allied Health Education Programs</u>
<u>Athletic Training</u>	<u>CAATE</u>	<u>Commission on Accreditation of Athletic Training Education</u>
<u>Audiology/Speech-Language Pathology</u>	<u>CAA-ASHA</u>	<u>Council on Academic Accreditation in Audiology and Speech-Language Pathology</u>
<u>Chiropractic</u>	<u>CCE</u>	<u>Council on Chiropractic Education</u>
<u>Counseling</u>	<u>CACREP</u>	<u>Council for Accreditation of Counseling and Related Educational Programs</u>
<u>Dentistry</u>	<u>ADA-CODA</u>	<u>Commission on Dental Accreditation</u>
<u>Health Education Schools</u>	<u>ABHES</u>	<u>Accrediting Bureau of Health Education Schools</u>
<u>Health Informatics and Information Management</u>	<u>CAHIIM</u>	<u>Commission on Accreditation for Health Informatics and Information Management Education</u>
<u>Medical Education</u>	<u>LCME</u>	<u>Liaison Committee on Medical Education</u>
<u>Midwifery</u>	<u>ACME</u>	<u>Accreditation Commission for Midwifery Education</u>
<u>Nurse Anesthesia</u>	<u>COA-NA</u>	<u>Council on Accreditation of Nurse Anesthesia Educational Programs</u>
<u>Nursing</u>	<u>ACEN</u>	<u>Accreditation Commission for Education in Nursing</u>
<u>Nursing</u>	<u>CCNE</u>	<u>Commission on Collegiate Nursing Education</u>
<u>Nutrition and Dietetics</u>	<u>ACEND</u>	<u>Accreditation Council for Education in Nutrition and Dietetics</u>
<u>Optometry</u>	<u>ACOE</u>	<u>Accreditation Council on Optometric Education</u>
<u>Osteopathic Medicine</u>	<u>AOA-COCA</u>	<u>Commission on Osteopathic College Accreditation</u>
<u>Pharmacy</u>	<u>ACPE</u>	<u>Accreditation Council for Pharmacy Education</u>
<u>Physical Therapy</u>	<u>CAPTE</u>	<u>Commission on Accreditation in Physical Therapy Education</u>
<u>Physician Assistant</u>	<u>ARC-PA</u>	<u>Accreditation Review Commission on Education for the Physician Assistant</u>
<u>Podiatric Medicine</u>	<u>CPME</u>	<u>Council on Podiatric Medical Education</u>
<u>Psychology</u>	<u>APA-CoA</u>	<u>Commission on Accreditation of the American Psychological Association</u>
<u>Public Health</u>	<u>CEPH</u>	<u>Council on Education for Public Health</u>
<u>Respiratory Care</u>	<u>CoARC</u>	<u>Commission on Accreditation for Respiratory Care</u>
<u>Social Work</u>	<u>CSWE</u>	<u>Council on Social Work Education Commission on Accreditation</u>

Health Professions Accreditors Collaborative



National Center Nexus: Our Vision for Health - nexusipe.org



Triple Aim of Alignment

Improving quality of experience for patients, families, communities and learners

Sharing responsibility for achieving health outcomes and improved learning

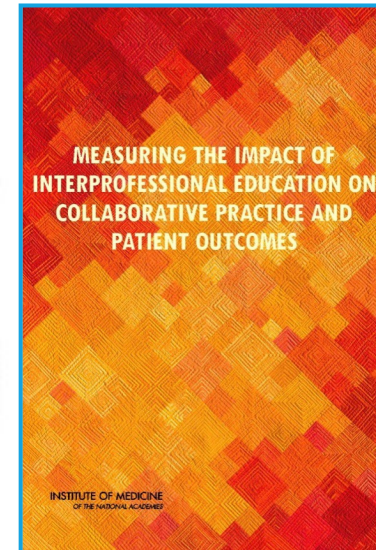
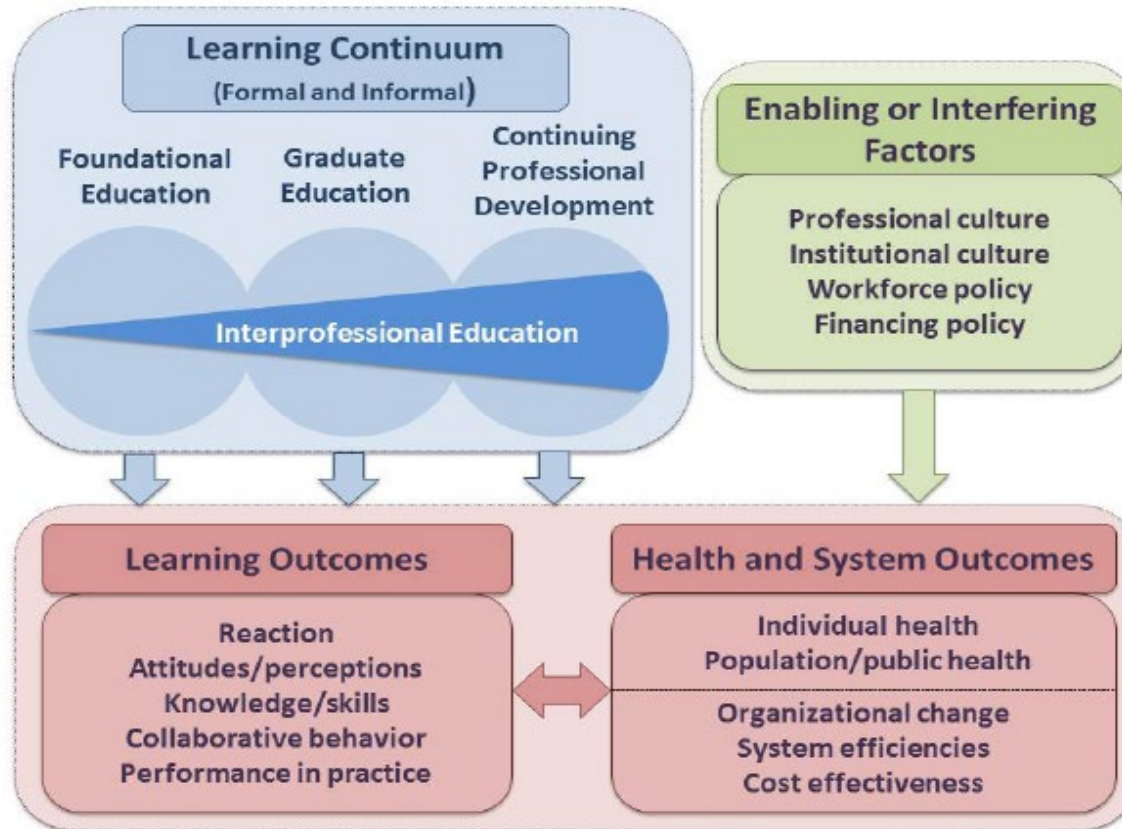
Reducing cost and adding value in health care delivery and education

Quadruple Aim response



Interprofessional Learning Continuum Model Program Development and Knowledge Generation

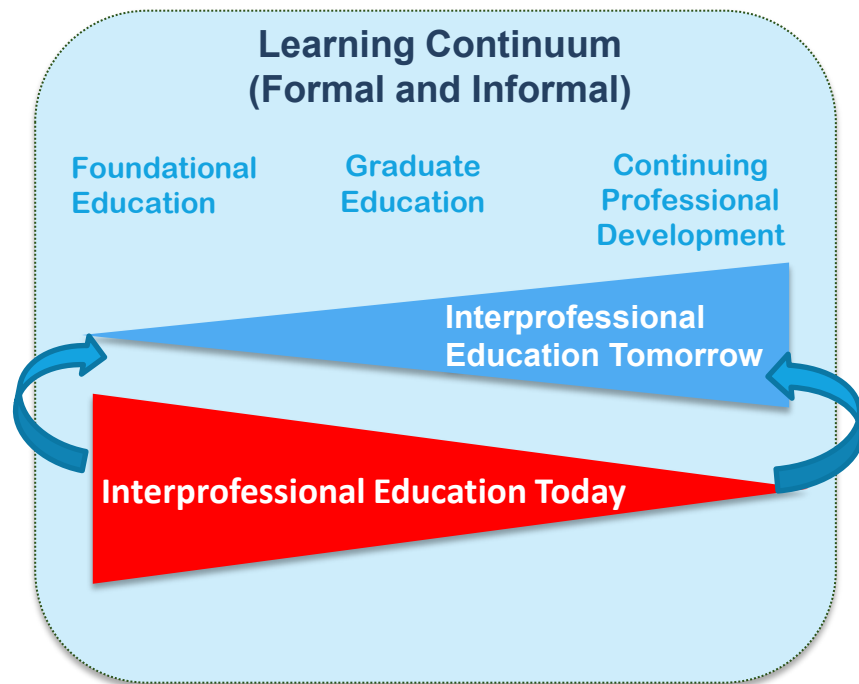
FIGURE: The interprofessional learning continuum (IPLC) model



NOTE: For this model, "graduate education" encompasses any advanced formal or supervised health professions training taking place between completion of foundational education and entry into unsupervised practice.



The 'Reverse Megaphone' Effect



- The majority of IPE efforts today occur early in the learning continuum (Foundational Education) resulting in lower level learning outcomes (reaction, attitudes/perceptions and knowledge skills).
- The greatest opportunity for collaborative practice is when students/trainees are working together in clinical practice, where relationships are formed and interdependence is readily evident.
- If the ultimate goal of IPE is to improve health and system outcomes, education and training should increase across the learning continuum.
- At best, there is only a weak connection between formal classroom-based IPE and improved health or systems outcomes.



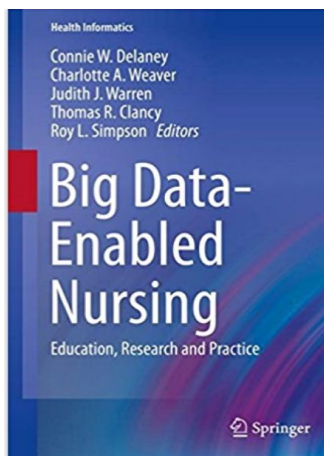
IPE Knowledge Generation and the IPE Core Data Set



Connie Delaney, PhD, RN, FAAN, FACMI, FNAP
Dean, School of Nursing
Knowledge Generation Lead, National Center

Leads an interdisciplinary team to develop research and IPE Core Data Set – MDs health services research backgrounds, PharmD/PhD-education, PhD nurses; informaticists, epidemiologist, staff

Leads and oversees external review council with expertise in informatics and comparative effectiveness research

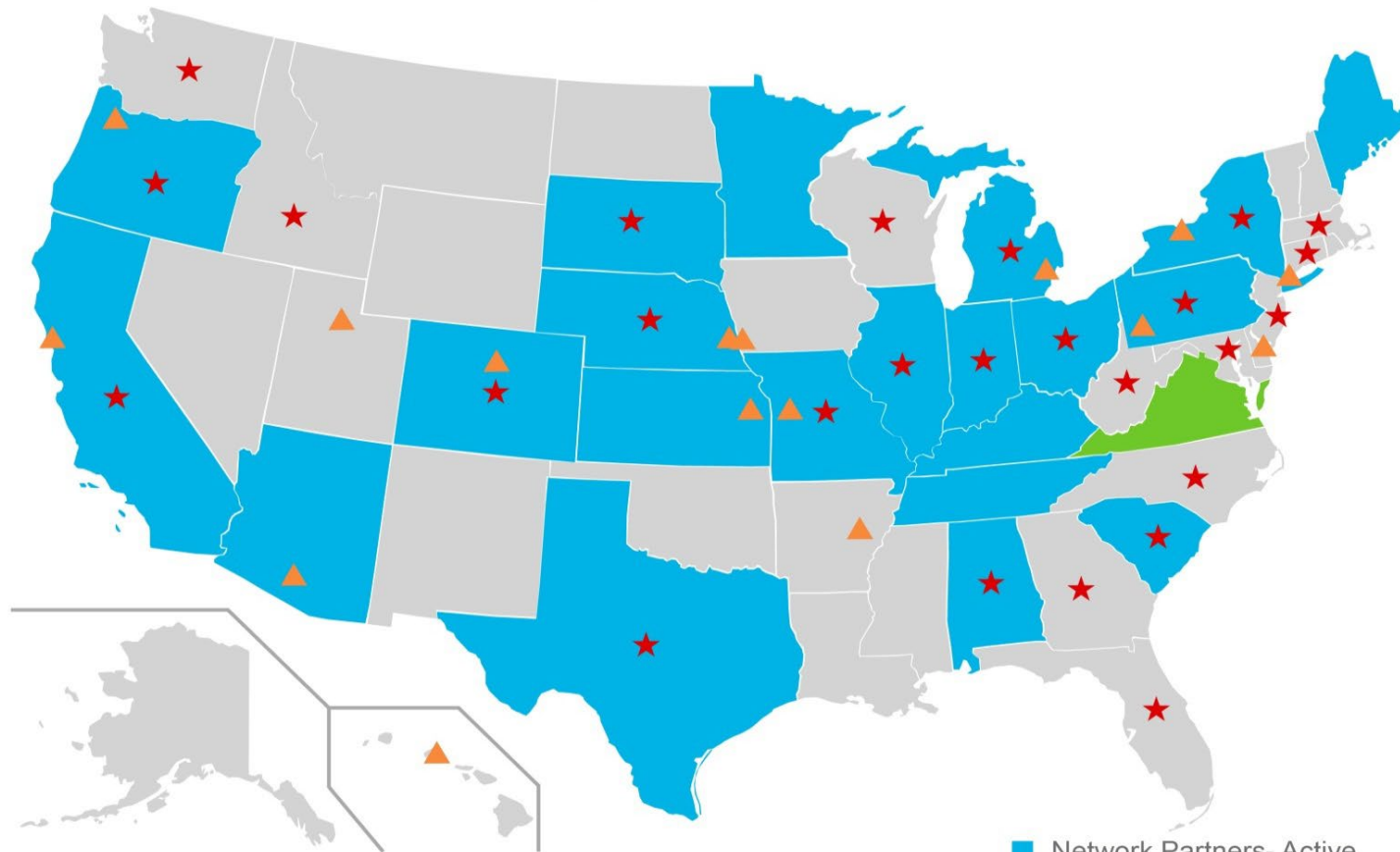


Nexus Innovations Network: Participation Map

As of March 2017

Nexus Innovations Network

A growing community of practice and education collaborations



- Network Partners- Active
- Network Partners- In Development
- ★ NEPQR Grantees
- ▲ Accelerating Grantees



What We've Learned: Emerging Critical Success Factors



Process of care redesign is about changing culture.



Compelling vision is required.



IP+E resourcing is critical.



Senior leadership is essential.



Impressions of team training effectiveness are mixed.



Onboarding Process

Nexus Project Proposal

IPE Core Data Set

Nexus Innovations Network Onboarding Path

Explore:
Cultivate your local Nexus

9

- Align resources to achieve the vision
- Organize your team
- Learn about National effort to generate IPECP transformation
- Access Nexus resources to support local development

Learn:
Interprofessional Practice AND Education (Nexus)

Learn about interprofessional practice and education



Define your Nexus workplan and desired outcomes

Introduction to National Center surveys and metrics

19

Align workplan with national vision

Real-time resources to support development

Design:
Network engagement to optimize outcomes

Legal Agreement of membership in the Nexus Innovations Network

Plan for data collection and IRB

Implement:
Generating new knowledge

2

Using data to tell your story

Sustain: Nexus transformation for improved education and practice outcomes

77

Scholarship and Publications



Why an IPE Core Data Set?



Standard measures that are applicable and comparable across environments.

IPE data set needed to advance our collective understanding of what works and what doesn't work in interprofessional education and collaborative practice.



Why Focus on IPE Core Data?

standardized

sharable

comparable data

uses existing collected data when possible

empowers state-of-the-art analytics for knowledge discovery



Components of the IPE Core Data Set

Education

Education Environment

Interprofessional
Collaborative
Competencies (ICCAS)

Nexus

Quadruple Aim
Outcomes

Critical Incidents

Clinical Practice

Clinical Environment

Collaborative
Environment
(ACE-15 Nexus Version)



Mapping IPE Core Data Set

Components	Interprofessional Learning Continuum Element (IPLC)	Quadruple Aim Outcome
Education Learning Environment	Learning, Health and System Outcomes	Provider/student wellbeing, Cost of care
Interprofessional Collaborative Competencies (ICCAS)	Learning Outcomes	
Clinical Learning Environment	Learning, Health and System Outcomes	Provider wellbeing, Cost of care
Collaborative Environment (ACE-15)	Provider/Staff wellbeing	Provider/Staff wellbeing
Quadruple Aim Outcomes	Health and System Outcomes	Patient Experience, Population Health, Cost
Critical Incident	Enabling and Interfering Factors	Provider wellbeing, Cost of care

Education Learning Environment and Clinical Learning Environment Domains

Organizational
Structure for
IPE

Organizational
Culture for
IPE

Organizational
Investments
in IPE

Nexus Project
Teams and
Processes

Professional
Development
Opportunities

Managing the
Nexus Project



Purpose of Education and Clinical Learning Environment Focus

- To understand descriptive data on characteristics of the environment
- To assess the broader organizational culture/climate/amount of support for IPE
- To assess the intensity (dosage) of the intervention
- To assess challenges and opportunities associated with implementing the Nexus



For Learners: Interprofessional Collaborative Competencies (ICCAS)

Communication

Collaboration

Roles and
Responsibilities

Collaborative
Family, Patient-
Centered
Approach

Conflict
Management/
Resolution

Team
Functioning



For Providers: Collaborative Environment (ACE-15 – Nexus) Domains

Shared Goals

Clear Roles

Mutual Trust

Effective
Communication

Measurable
Processes and
Outcomes

Organizational
Support



At the Nexus: Quadruple Aim Outcomes

Population
Health

Cost

Patient
Experience

Provider
Well-Being



At the Nexus: Critical Incidents

Informing enabling and interfering factors

A **critical incident** is any event that produces a fork in the road or is a turning point for a project



Critical incidents can have a positive, negative, or neutral effect on a project

Is a normal part of project implementation



At the Nexus: Critical Incidents

What we have learned from 100+ critical incidents



Onboarding Process

Nexus Project Proposal

IPE Core Data Set

Nexus Innovations Network Onboarding Path

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Legal Agreement of membership in the Nexus Innovations Network

Data collection and analytics

Plan for data collection and IRB

Implement:
Generating new knowledge

2

Using data to tell your story

Sustain: Nexus transformation for improved education and practice outcomes

77

Scholarship and Publications





Launching Summer 2018: Nexus Project Proposal

Nexus Project Proposal is intended to support the Nexus project design and its implementation.

- Study design
- Who - learners, patients, care team
- What - educational/clinical intervention
- When – timeline
- Where – setting
- Why – project outcomes
- Sustainability plans
- Dissemination of results



Nexus Project Proposal and IPE Core Data Set Review



Led by Connie Schmitz, Ph.D.

- Associate professor (retired) UMN Medical School
- National Center Evaluation Consultant
- Chair, National Center Measurement Collection Advisory Board
- Educational psychologist
- Consultant in education measurement, assessment, evaluation
- Workshop leader on Program Evaluation
- Lead author of Practical Guide 5

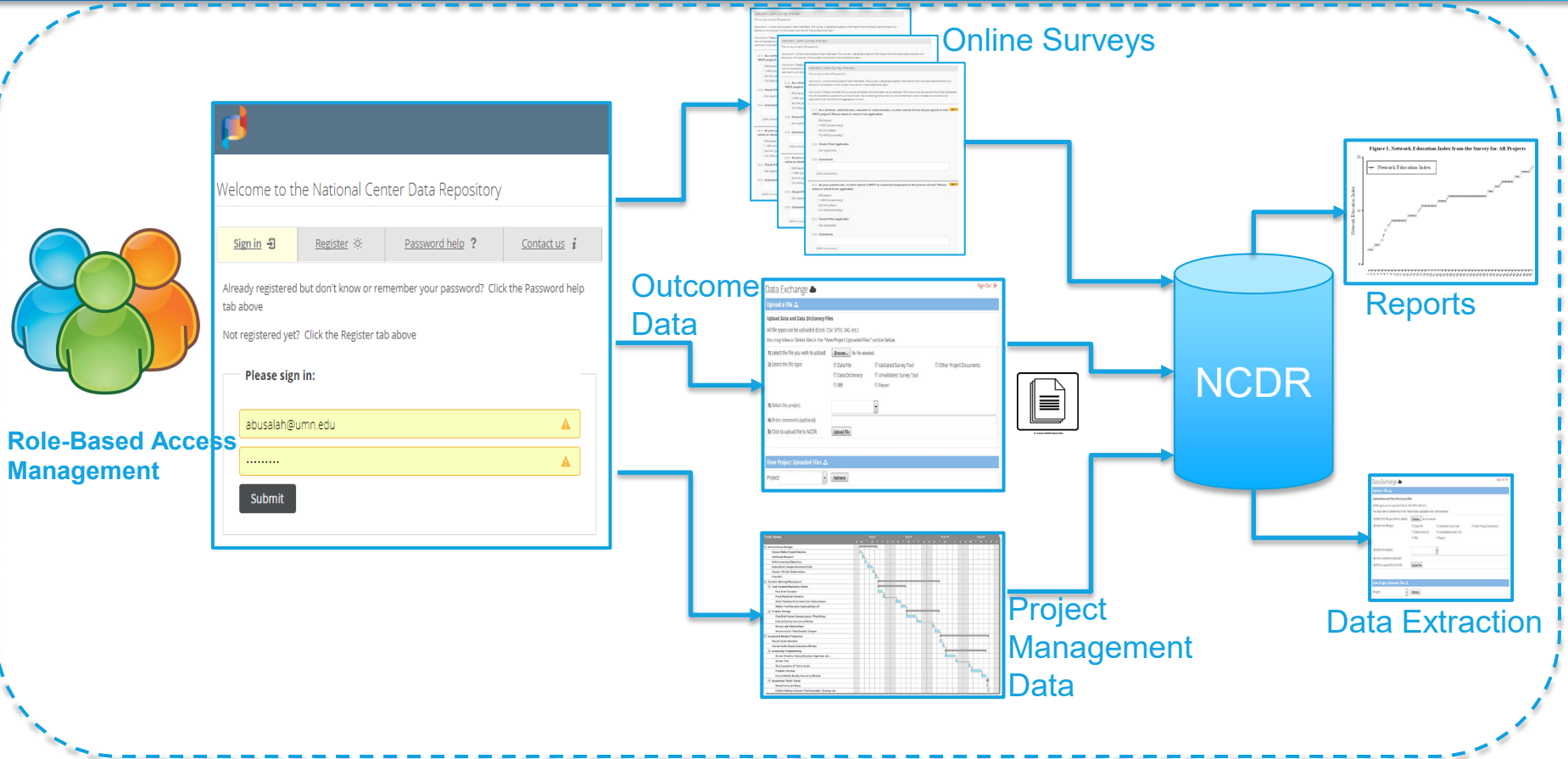


National Center IPE Information Exchange

State of the art infrastructure
and data sharing
among members
to support interprofessional
practice and education
knowledge generation



National Center IPE Information Exchange



PHI Compliant Environment || Secure Data Transfer & Storage || Role-Based Access || Encrypted DB
Compliant with IRB || Health Info Privacy & Compliance Office || Center of Exc. for HIPAA Data



National Center IPE Information Exchange



National Center Data Repository

Secure, HIPAA compliant platform and first of its kind data repository focused on interprofessional practice and education, housed at the University of Minnesota.



IPE Core Data Set

Standard measures applicable and comparable across environments exploring key elements of education, practice and the Nexus



Informatics Driven Dashboard

Easy access to data through dashboards and standardized reports; additional analysis available through advanced analytics, big data and comparable data sets



Data Collection Tools

Standardized tools accessed online through the National IPE Information Exchange. Authorized users have timely access to their project data.



Project Management

Authorized users have the ability to manage users access, review project status, and send invitations to other users to join their projects.



Register at Summit.nexusipe.org

Watch the Clip!

Features include:

- 10 intensive short courses on cutting-edge topics
- 38 skills-based workshops
- More than 75 peer reviewed posters
- Student programming – designed by students for students
- Nexus and Pioneer Awards for excellence in IPE
- Nexus Fair
- And much more!



New this year:

- A focus on the patient
 - Patient experience art gallery
 - Patient rounding during skills-based workshops
 - Patient responder panel
- Special student programming and Student Interprofessional Innovation Award



Discussion

