

CHANGING MEDICINE. CHANGING LIVES.

How the Healthcare System Works with the EBP Process

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15th Annual
Methodist
Research Day

uihc.org - 1 - UNIVERSITY OF IOWA HEALTH CARE

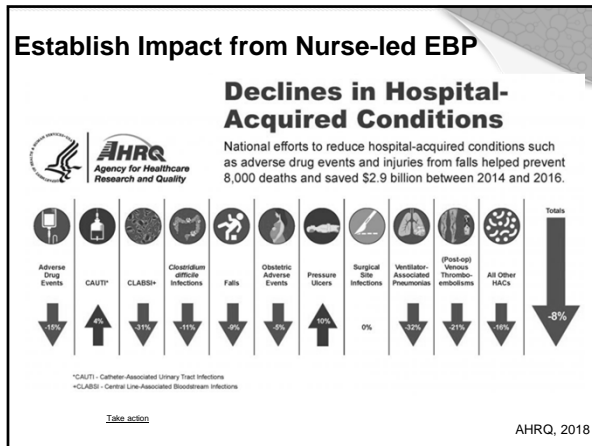
Disclosure

Financial disclosure: 3M

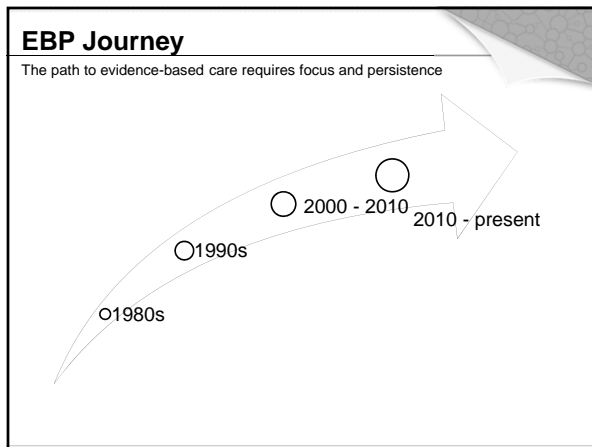
Objectives



- Discuss how a health system can promote evidence-based healthcare
 - Promote a culture, capacity, vision and structure
 - Promote innovation with EBP
 - Capitalize on resources and teams







Steps

Organization

- Mission, Vision, Values
- Strategic plan
- Infrastructure
- Executive leadership

(Duffy et al., 2016; Estabrookset al., 2015; Everett & Sitterding, 2011; Fleischer et al., 2016; Johnson et al., 2015; Lau et al., 2016; Lavoie-Tremblay et al., 2015; Lockett et al., 2014; Melnyk et al., 2016; RNAO, 2013; Reich et al., 2015; Stetler et al., 2014; Taylor et al., 2015; ten Ham et al., 2016)

Organizational Priority

- Is evidence-based practice an organizational priority?
- How would you identify:
 - An organizational priority?
 - A priority in the clinical area?
- Why is it relevant?

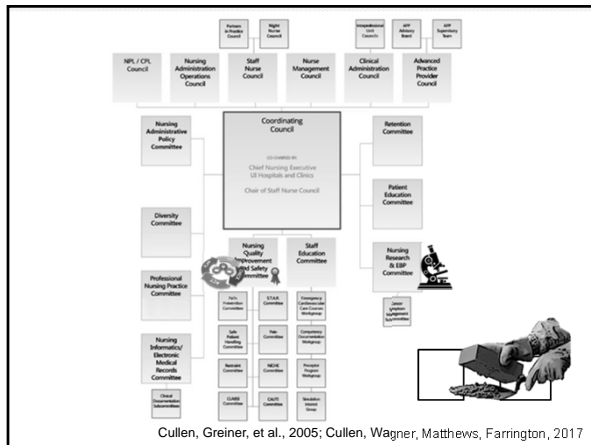
Foundation

- Organization mission, vision and values
- Strategic plan
- Infrastructure
 - Primary accountability – in which group?
 - Sufficient capacity
 - Integrate into practice processes, policies, documentation
- Executive and senior leadership
- Consistently pervasive throughout the system

Shared Governance

Foundational to supporting EBP work and having clear responsibility

- Committees
 - Primary responsibility for EBP
 - Related responsibilities: quality, policy, education, etc.
 - Functional responsibly including EBP
 - Strong links for communication
- Responsibility
 - One EBP method (e.g., Iowa Model)
 - Resource elements of EBP process: evidence synthesis, implementation, evaluation
 - Collaborating, reporting



Membership

Nursing Research and EBP Committee members



Functional Responsibilities

Responsibility and expertise for supporting EBP is outlined in the functional responsibilities of committees

- Provide and support education and consultation regarding EBP
- Collaboratively develop selected areas of interprofessional EBP that are strategically aligned with priorities
- Offer mechanisms for promoting EBP projects
 - Provide leadership for interpreting best evidence – research, synthesis reports, etc. to improve quality care
 - Selection and use of appropriate methods to address the issue
 - Research, EBP, QI
 - Collect, analyze and interpret data
 - Adopt best evidence, applying implementation science
- Assist in obtaining external funding
- Encourage and support disseminate - internal and external
 - EBP reporting in the system, regionally, nationally, and internationally
- Develop expertise and collaborations

EBP Linked to Quality

Iowa Model Collaborative. (2017). Iowa Model of Evidence-Based Practice: Development and Validation of Revisions. *Worldviews on Evidence Based Nursing*, 14(3), 175-182. doi: 10.1111/wvn.12223

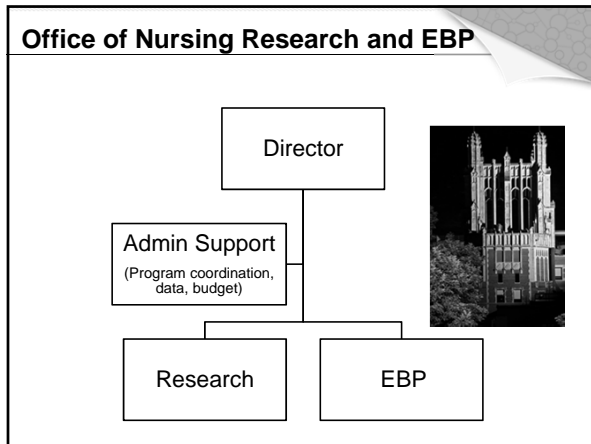
(Cullen, Wagner, Matthews, Farrington, 2017)

Steps

People

- Leaders across the spectrum
- Expert clinicians
- Clear expectations

(Abdullah et al., 2014; Anderson & Titrer, 2014; Adams & Barron, 2009; Breimaier et al., 2013; Dogherty et al., 2013; Estabrookset al., 2005; Fleuren et al., 2015; Flodgren et al., 2011; Greenhalgh et al., 2004; Hauck et al., 2013; Kaasalainen et al., 2015; Ploeg et al., 2010; Rogers, 2003; Rosen et al., 2015; Thompson et al., 2001; Titrer, 2008)



Principles for Collaboration

Focus on improving patient care

Confident risk taker
Don't ask permission or worry about rules

Apply research skills using passion for practice and apply science with a systematic process to improve care

Mentor clinicians
Team synergy, confidence in each other and everyone's ability to learn

Matching skill sets

Friendly competition

Don't get lost in details, focus on end-point

Collaboration with College of Nursing

- Memorandum of Understanding
- Iowa Model Collaborative
- Small grant funding
- Research teams and opportunities
- Practicums (BSN and graduate)
- Student projects
 - Topic list
 - Local sponsor
 - Approval
- Joint committee membership
- Adjunct faculty

AACN
Collaboration Community
2014 Academic-Practice Partnerships

MNRS
MIDWEST NURSING RESEARCH SOCIETY
2017

Collaboration with College of Nursing


Goal:

- Advance nursing science
- Identify areas in need of nursing research
- Encourage scholarship by staff nurses and faculty
- Encourage graduate education for staff nurses
- Share resources

- Example – pain research

Executive Leadership Role


- Create a vision
- Build the culture
 - Set expectations
 - Track progress
 - Frequent discussions about EBP work
 - Cheerlead and provide recognition
- Build the capacity
 - Access to resources
 - Build expertise



(Cullen, Greiner, et al., 2005)

Leadership Role

- Access to resources
- Set expectations on unit
- Track progress
- Troubleshoot along the way
- Assist with challenging steps in process
- Cheerlead project importance
- Frequent discussions about EBP work
- Maneuvering in the system (key players, committees)
- Help format practice recommendations (e.g., policy)



(Cullen, Greiner, et al., 2005)

Accountability

Leadership for accountability will clear a path for others to easily accomplish the work

- Make certain that everyone in your organization, no matter the task, has a customer (internal or external) they know they serve
- Substantially increase signature authority at all levels
 - Remove or reduce unnecessary approval steps
 - Eliminate as many rules as possible
- Provide greater freedom of access, vertically and horizontally, inside and outside
- Support exercise of independent judgment
- Decrease the amount of routine work
 - Automate routine work wherever possible
 - Assign non-routine jobs
- Encourage creative solutions
- Define jobs more broadly-as projects, not tasks

(Kouzes & Posner, 2012)

Opportunity to Expand Leadership




Create Opportunity

- Be watchful
 - Workarounds, near misses
 - Workflow challenges
- Build leaders
 - Formal training
 - Informal training
 - Across roles – EBP Change Champions
 - Life long learners
- Reporting
 - Internal
 - National




Look for Practice Variation



(Madsen, Sebolt, Cullen, Folkedahl, Mueller, Richardson, & Titler, 2005)

What drives you crazy?
What makes your work difficult; what do you spend too much time doing?



Persistence



Steps

Resources

- Education
- Experts
- Tools
- Access to e-resources
- Library

Resources

- Internet resources
- Intranet resources/tutorials
- Tools and clear process
- Programs
 - Local to National
 - Introductory to advanced – across the career continuum
 - Orientation to experienced nurses & leaders
- Access to experts
 - NPL - knowledge and skills to promote EBP with staff nurses
 - CNL
 - Educator
 - Quality professionals
 - Infection preventionist
- Know process to follow

EBP Resources

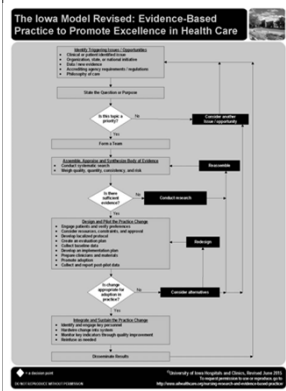
- Training programs:
 - Advanced Practice Institute: Promoting EBP
 - EBP Internships
 - EBP Change Champions Program
 - EBP Change Champion
- EBP to Go® (booklets)
- EBP in Action book and tools
- EBP online CEU course
- Models:
 - Iowa Model Revised: EBP to Promote Excellence in Healthcare
 - EBP Implementation Framework
- Consultations
- National EBP Conference
- National and international presentations
- Publications
- Student project reviews

Current Evidence

Staying current on practice updates and know how to critique and synthesis evidence to make practice recommendations



The Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care

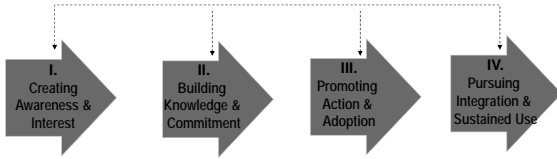


Iowa Model: Step-by-step

Iowa Model Collaborative, et al., 2017, Worldviews on Evidence-Based Nursing

Implementation Phases


Implementation occurs over time



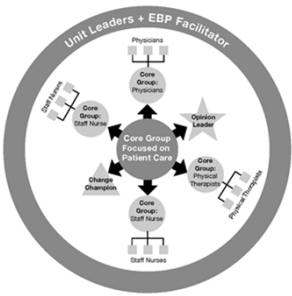
Cullen, L. & Adams, S. (2012). Planning for Implementation of Evidence-Based Practice. *Journal of Nursing Administration*, 42(4), 222-230.

What EBP Champions Need

- Clear procedure
- Link to colleagues with expertise
- Link to colleagues to influence (scheduled to work together)
- Right Equipment
- Resource Materials
- Decision support and practice prompt
- Time to do the work



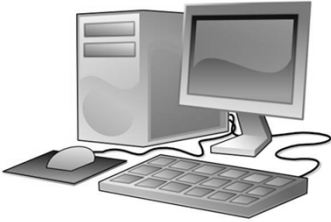
Team



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EVIDENCE-BASED PRACTICE IN ACTION

Cullen, L., Hanrahan, K., Farrington, M., DeBerg, J. Tucker, S., & Kleiber, C. (2018). *Evidence-based practice in action: Comprehensive strategies, tools and tips from the University of Iowa Hospitals and Clinics*. Indianapolis, IN: Sigma Theta Tau International.

Patient Record



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EVIDENCE-BASED PRACTICE IN ACTION

Steps

- Organization
- People
- Resources
- Reporting
- Recognition

Recognition

- Meaningful, genuine
- Public
- Timely

(Al-Tawfiq, Abed, Al-Yami, & Birrer, 2013; Gillespie & Marshall, 2015; Kelly et al., 2011; Khan, Mehta, Gowda, Saachi, & Vasavada, 2004; Larson et al., 2016; Mayer et al., 2011; Nelson, 2016; Neufeld, Fernández, Christo, & Williams, 2013; Stigley et al., 2015; Winter, Coban-Ballis, Lazar, Uroo, & Dunn, 1999)


Business Case for EBP

“Marketing EBP”

- Demonstrate return on investment (ROI)
- Make EBP work visible
- Communicate with CEO and senior leadership
- Present and nominate staff for excellence awards
- Publish externally – success stories and learning from failure
- Be a risk taker

Building Business Case for EBP


- Recognize value of investing in upfront costs
- May not show immediate return
- Consider links:
 - Strategic vision and national initiatives
 - Alignment initiatives with institutional/mission and priorities
 - Demonstrated benefits of EBP
 - Systematic evaluation
 - Business case for employer, stakeholders, investors, patients



(Houser & Oman, 2011; MacKinnon Schifalacqua, Mamula, & Mason, 2011; Sadler, Joseph, Keller, Rostenberg, 2009; Tucker, 2014)

UIHC EBP Program ROI

- Improved quality and safety
 - Improve patient and staff safety
 - Improve clinical outcomes
 - Improve patient and staff satisfaction
 - Provide innovative care
- Innovations
- Cost avoidance
- Funding
 - Grants or revenue sources
- Reach
 - Clinician and patient engagement
 - Dissemination: abstracts, publications & presentations
 - Strategic internal dissemination





(Dembe, Lynch, Gugliu & Jackson, 2014)

Precision Implementation Approach

Data guided approach

- Process
 - Knowledge
 - Perceptions
 - Behaviors
- Outcome
 - Patient
 - Clinician
 - Organizational
 - Unintended consequences






Cullen & Hanrahan, in press, AJN



Purpose Statement

The purpose of this evidence-based practice project was to initiate an early mobilization program in the PICU to determine safety and improve pediatric patient outcomes.

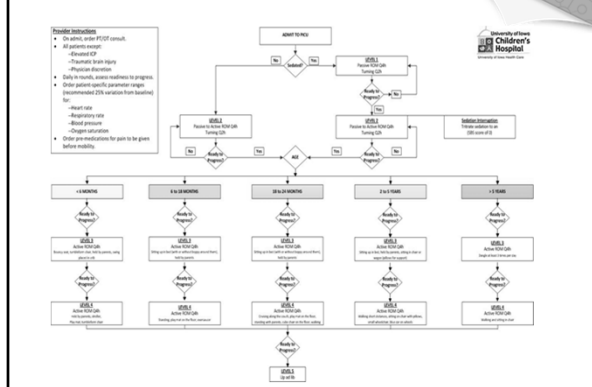


 University of Iowa Stead Family Children's Hospital

Team

- Sameer Kamath, MD, MS
- Michele Farrington, BSN, RN, CPHON
- Laura Cullen, DNP, RN, FAAN
- Kimberly Jordan
- Matthew Reed, RRT
- Kayla Krueger, PT
- Melissa Smith, OT
- Angie Otto, BSN, RN, CNML
- Mandi Houston, BSN, RN, CCRN
- Jen Erdahl, BSN, RN, CCRN
- Paula Levett, MS, RN, CCRN
- Kristen Rempel

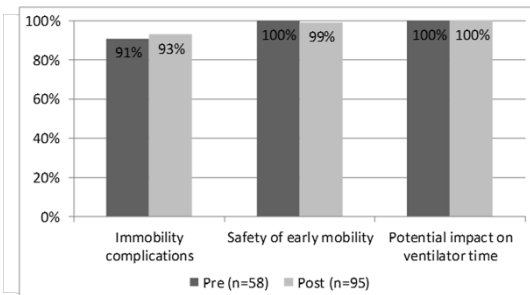
The Algorithm – Nurses and Providers!

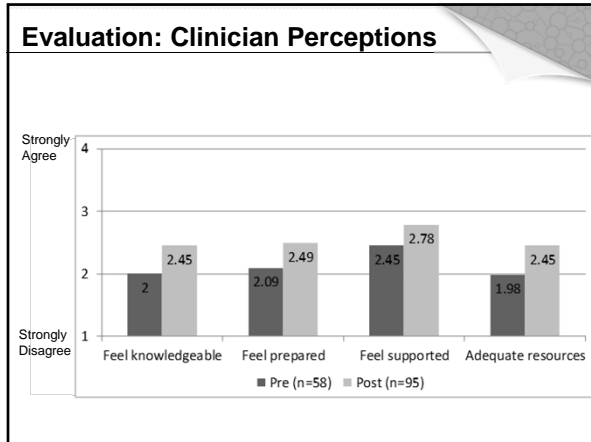


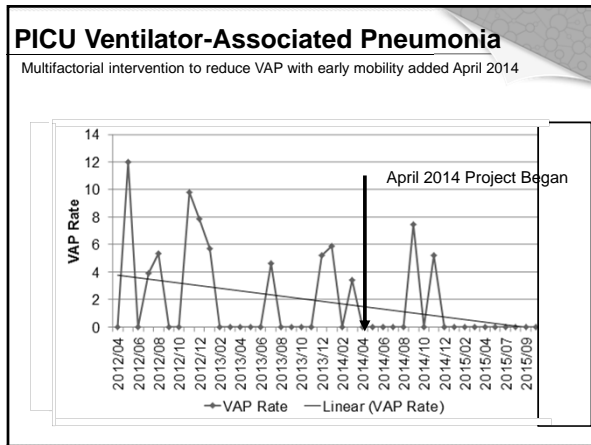
Evaluation: Clinicians

Sample	Pre (n=58)	Post (n=95)
Staff Nurses	43	68
Respiratory Therapists	9	13
Physicians (Attending)	3	6
Nurse Practitioners	1	5
Physician (Fellow)	2	3

Evaluation: Clinician Knowledge



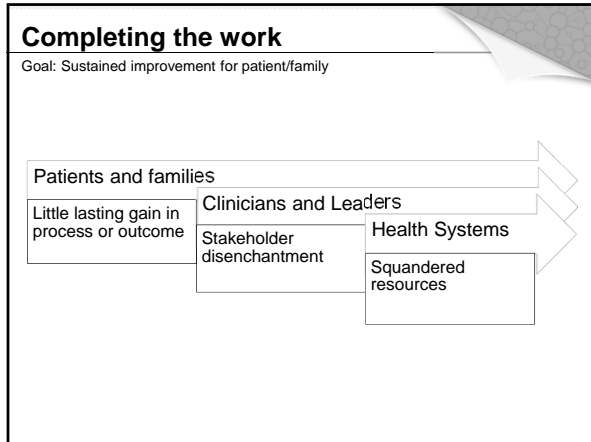




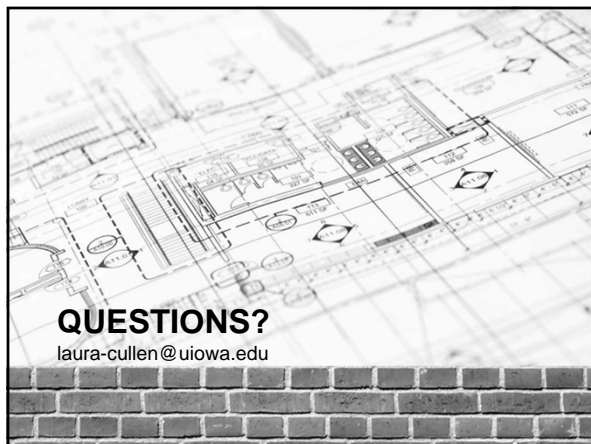
Balancing Measures

Unintended consequences or explanatory data

- Falls
- Unplanned extubation
- Other Lines
 - Inadvertant line removal requiring replacement







Select References - Leadership

- Aarons, G.A., Ehrhart, M.G., Farshtak, L.R. (2014). The Implementation Leadership Scale (ILS): development of a brief measure of unit level implementation leadership. *Implementation Science*, 9(1):45. doi: 10.1186/1746-5908-9-45.
- Birken, S., Clary, A., Tabriz, A.A., Turner, K., Meza, R., Zizzi, A., Larson, M., Walker, J., Chams, M. (2018). Middle managers' role in implementing evidence-based practices in healthcare: a systematic review. *Implementation Science*, 13(1):149. doi: 10.1186/s13012-018-0843-5
- Cranley, L.A., Cummings, G.G., Profetto-McGrath, J., Toft, F., Estabrooks, C.A. (2017) Facilitation roles and characteristics associated with research use by healthcare professionals: a scoping review. *BMJ Open*, Aug 11:7(8):e014384. doi: 10.1136/bmjopen-2016-014384.
- Everett L. Q., & Sitterding, M. C. (2011). Transformational Leadership Required to Design and Sustain Evidence-Based Practice: A System Exemplar. *Western Journal Of Nursing Research*, 33(3), 398-426. doi:10.1177/0193945910383066
- Gifford, W., Graham, I.D., Ehrhart, M.G., Davies, B.L., Aarons, G.A. (2017). *Gifford Model of Implementation Leadership and Implementation Leadership Scale: mapping concepts for developing and evaluating theory-based leadership interventions*. *Journal of Healthcare Leadership*, 9:15-23. doi: 10.2147/JHL.S125558.
- Gifford, W.A., Squires, J.E., Angus, D.E., Ashley, L.A., Brosseau, L., Craik, J.M., Domecq, M.C., Egan, M., Holyoke, P., Juergensen, L., Wallin, L., Wazni, L., Graham, I.D. (2018). Managerial leadership for research use in nursing and allied health care professions: a systematic review. *Implementation Science*, 13(1):127. doi: 10.1186/s13012-018-0817-7.
- Shuman, C.J., Liu, X., Aebersold, M.L., Tschannen, D., Banaszak-Holl, J., Tiler, M.G. (2018). Associations among unit leadership and unit climates for implementation in acute care: a cross-sectional study. *Implementation Science*, 13(1):62. doi: 10.1186/s13012-018-0753-6.
- Tistad, M., Pancoratz, S., Wallin, L., Ehrenberg, A., Olsson, C.B., Tomson, G., Holmqvist, L.W., Gifford, W., Elkh, A.C., (2016) Developing Leadership in Managers to Facilitate the Implementation of National Guideline Recommendations: A Process Evaluation of Feasibility and Usefulness. *International Journal of Health Policy and Management*, Apr 11:5(8):477-486. doi: 10.15171/ijhpm.2016.35.
