Innovative Strategies for Leading Evidence-Based Practice Change

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30th International Nursing Research Congress
Calgary, Alberta, Canada
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Overview

1. Evidence-Based Practice Development for Practicing Nurses Across the Career Continuum

2. EBP Change Champion Program Creation and Evaluation

3. Empowering Frontline Clinicians as EBP Change Champions Improves Clinical Outcomes

Questions

?
Evidence-Based Practice Development for Practicing Nurses Across the Career Continuum

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30th International Nursing Research Congress
Calgary, Alberta, Canada
July 28, 2019
OBJECTIVE: Describe building a foundation for evidence-based practice (EBP) and creating EBP development for practicing nurses across the career continuum.

DISCLOSURES:

• No sponsorship or commercial support was given to the author for this presentation
• Kirsten Hanrahan and Michele Farrington are co-authors of *EBP in Action: Comprehensive Strategies, Tools and Tips from University of Iowa Hospitals and Clinics*. Authors do not receive royalties, they are used to support work in the Office of Nursing Research, Department of Nursing Services and Patient Care, University of Iowa Health Care
Building on a strong foundation for EBP development across the career continuum

• 811-bed academic medical center
• Annually
  ▪ 37,000 in-patients
  ▪ 58,000 ED visits
  ▪ 1 million clinic visits
• Over 3,000 nurses
• 4 times Magnet designated
• 2014 Magnet Prize
  ▪ Blazing New Trails in EBP

KABOB Evaluation

EBP Foundation

Novice Expert
Nurses must provide, lead, and sustain evidence-based high quality healthcare

... by the year 2020, 90 percent of clinical decisions will be supported by accurate, timely, and up-to-date clinical information, and will reflect the best available evidence

Institute of Medicine, 2010

80% of nurses be prepared with baccalaureate degrees by 2020

Nurses should be prepared to lead change to advance health.

IOM Future of Nursing, 2010

Academic preparation provides foundational knowledge, skills, and attitudes supporting adoption of EBP across a spectrum of degrees and specialties.

EN, 2018
Currently there are gaps in EBP preparedness

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Gap in EBP training

EBP Content

EBP Knowledge

Gap experience

Experience

Leadership preparation by start date

Amount
Culture, structure, and process are the foundations for EBP

EBP Foundation

Culture  Structure  Process
Culture is created by leadership and owned by frontline staff

Identify Triggering Issues/Opportunities
- Clinical or patient identified issue
- Organization, state or national initiative
- Data/new evidence
- Regulatory agency requirements/regulations
- Philosophy of care

Vision

UI Hospitals and Clinics Nursing Research & Evidence-Based Practice
World-Class Inquiry, Innovation, and Implementation

Department of Nursing Services and Patient Care
Strategic Plan 2017-2020

The Best People
Collaborative Learning and Care Models
Nimble Structure and Accountable Culture
Diversified Financial Resources
Strong Partnerships
Structure is used to support EBP
Process provides a clear path for EBP
EBP training across the career continuum

Novice to Expert

Orientation & Preceptors

Residency

EBP Projects

Experienced Nurse Fellowship

EBP Internship

Small Grants

CLDA
Clinical Leadership Development Academy

Advanced EBP

Leadership Partner

Staff Nurse

Leaders

BSN

MA

DNP
Use process and outcome metrics to demonstrate return on investment for EBP

**Knowledge**
- Practice
- Technique

**Perception**
- Importance
- Support
- Resources

**Behavior/skills**
- Technique
- Compliance checks

**Outcomes**
- Patient
- Staff
- Cost

**Risks**
- Patient
- Staff
- Adverse events

**PROCESS**

**OUTCOMES**
Use program metrics to demonstrate value to the organization

**IOWA MODEL REVISED**
- 3,086 Requests
- 50 States
- 42 Countries

**EBP INTERNSHIP**
- 9 Programs
- 50 Participants
- 93% Completed
- 80% Sustained
- Presentations
  - 47 Local
  - 34 National
  - 4 International
  - 16 Peer-reviewed publications

**EBP IN ACTION BOOK**
- 647 Books sold
- 76 ebooks
- 5,057 Chapter tools downloaded

**AWARDS**
- Magnet Designation + 3 re-designations
- 2014 Magnet Prize®
- Academic Partnership Awards: AACN, MNRS

**EBP CHANGE CHAMPIONS**
- 2 Programs
- 58 Direct Care Nurses
- 8 Additional Participants
- 55 Leaders
- 14 Topics

**EBP CONFERENCE**
- 26 Programs
- 5,346 Participants
- 48 states + Washington DC
- 16 countries

**ADVANCED EBP TRAINING**
- 910 Total participants
- 323 Unique organizations

**Internal**
- 39 Programs
- 91 Participants

**External**
- 18 Programs
- 819 Participants
- 43 States + DC
- 9 Countries
Implications and Conclusion

• Culture, structure and process are foundational for EBP success

• EBP training spanning the career continuum builds organizational EBP capacity

• Process and outcome data including return on investment are key to EBP evaluation

• Nurses are ideally positioned to provide, lead, and sustain evidence-based high quality healthcare

• There is a need for innovative programs that fill the current gaps in EBP preparedness
References


EBP Change Champion Program Creation and Evaluation

Michele Farrington, BSN, RN-BC
Program Manager
University of Iowa Health Care

30th International Nursing Research Congress
Calgary, Alberta, Canada
July 28, 2019
Objective and Disclosures

Objective
Describe a program that provides frontline nurses with a professional development opportunity, operationalizing the role of an EBP change champion to improve priority organizational outcomes

Disclosures
Michele Farrington, BSN, RN-BC, Program Manager, University of Iowa Health Care, has no conflicts of interest or disclosures to report, and she did not receive sponsorship or commercial support
Background

• Development of EBP champions as effective change agents – may improve integration of clinical practice recommendations through peer influence

• Current literature describes the change champion role – but gives little guidance for application

• Empirical evidence on impact is lacking

Breckenridge-Sproat et al., 2015; Bruheim, Woods, Smeland, & Nortvedt, 2014; Cullen et al., 2018; Dogherty, Harrison, Graham, & Keeping-Burke, 2014; Mello et al., 2014; Robinson, Tilford, Branney, & Kinsella, 2014; Shifaza, Evans, Bradley, & Ullrich, 2013
Program Planning

- Identify the opportunity
- Program planning team
- Clarify the purpose
- Organizational support
  - Funding
  - Approval
  - Announcements
- Develop program plan
- Expand the team
- Facilitator preparation
- Offer program
- Evaluate to guide learning

Iowa Model Collaborative, 2017
Team

• Topic Facilitators
  – Linda Abbott, DNP, RN, AOCN, CWON
  – Robert Anderson, DNP, ARNP, CNP
  – Angela Baker, MSN, RN, CNL
  – Dana Cook, MSN, RN-BC
  – Renee Gould, MS, RN-BC
  – Joseph Greiner, MSN, RN, CPHQ
  – BJ Hannon, MSN, RN, CPHQ
  – Jacqueline Nelson, DNP, RN, NEA-BC
  – Anne Smith, MSN, RN-BC

• Planning Group
  – Robert Anderson, DNP, ARNP, CNP
  – Laura Cullen, DNP, RN, FAAN
  – Michele Farrington, BSN, RN-BC
  – Kirsten Hanrahan, DNP, ARNP, CPNP-PC
  – Kristen Rempel
Purpose

Pilot program created and launched in 2017 to provide nurses with a professional development opportunity, operationalizing the role of an EBP change champion to improve priority organizational outcomes.
Program Objectives

• Assist frontline nurses to function as a unit/clinic change agent applying evidence-based care in daily practice

• Expand infrastructure support for local unit/clinic nurse leaders serving as change agent

• Foster professional growth of frontline nurses and interprofessional teams and promote retention of experienced nurses at UI Health Care
Priority Topics

- CAUTI
- CLABSI
- Clinical alarms
- Early mobility
- Falls
- Pain
- Pressure injury
- Purposeful rounding
- Restraints
Program

• Prerequisites
  – Readings: role, implementation, and clinical topic
  – Online EBP module with CE credits

• Schedule
  – Change theory
  – Implementation
  – Role
  – Panel of staff nurses with expertise in the role
  – Clinical topic – evidence summary, learning activities, and development of a plan with nurse leader partner
  – Develop action plan

Cullen & Adams, 2012; Dogherty, Harrison, Graham, & Keeping-Burke, 2014; Iowa Model Collaborative, 2017
Participants

• Participant selection (21 frontline nurse & nurse leader pairs)
• Application
  – Select clinical topic
  – Establish partnership with Nurse Manager and nurse leader
• Partner with Nurse Manager
  – Facilitate work/work time
  – Schedule non-patient care time
  – Keep a unit-based focus
  – Connect with resources
  – Trend practice and data
EBP Change Champion Role

• Assist with adapting practice recommendations

• Tailor implementation plan and materials to fit local setting

• Share knowledge, rationale, and resources with peers

• Train, demonstrate, use, and role model practice change

Abdullah et al., 2014; Cullen & Adams, 2012; Cullen et al., 2018; Fleuren, van Dommelen, & Dunnink, 2015; Hauck, Winsett, & Kuric, 2013; Kaasalainen et al., 2015
EBP Change Champion Role (cont.)

• Provide just-in-time encouragement and troubleshoot problems at the point-of-care

• Provide continuous feedback to frontline nurses

• Engage and update leaders to work through issues

• Collaborate with interprofessional team members

• Make documentation system changes to support EBP

Abdullah et al., 2014; Cullen & Adams, 2012; Cullen et al., 2018; Fleuren, van Dommelen, & Dunnink, 2015; Hauck, Winsett, & Kuric, 2013; Kaasalainen et al., 2015
Immediate Post-Program Evaluation

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- Program materials useful
- Prepared to be EBP Change Champion
- Understand implementation strategies to use to implement and sustain change
- Sufficient topic information provided to develop implementation plan
- Stimulated innovative thinking
Immediate Post-Program Evaluation (cont.)

Most useful – “group work and getting to share ideas in a relaxed, small setting”

Most useful – “meeting in teams to discuss areas needing attention/change”

Most useful – “great information presented in an effective way – activities/game”

Need now – “deadlines and goals to stay focused”

Need now – “time and ability to support change”

Need now – “encouragement to approach co-workers with change”

General comment – “this program was very helpful in understanding how we implement change at UI Hospitals and Clinics”
1-2 Month Post-Program Evaluation

Themes – Change Champion Role
• Need to connect with Nurse Manager to plan non-patient care time
• Identify early adopters
• Collect baseline data
• Recruit others to participate

Themes – Topic
• Review available evidence
• Observe clinicians to determine current practice
Themes – Post-Program Assistance Needed

- Secure access to data
- Locate policies/procedures/protocols
- Additional follow-up meeting in a few months as a whole group
Implementation Strategies in Use

**Create Awareness & Interest**
- Highlight advantages
- Slogans & logos
- Staff meetings
- Unit newsletter
- Unit in-services
- Distribute key evidence
- Posters and postings/fliers
- Announcements

**Build Knowledge & Commitment**
- Education
- Pocket guides
- Link practice change & stakeholder priorities
- Disseminate credible evidence
- Make impact observable
- Gap assessment/gap analysis
- Clinician input
- Focus groups for planning change
- Resource manual or materials
- Teamwork
- Inform organizational leaders
- Action plan

Cullen & Adams, 2012; Cullen et al., 2018
Implementation Strategies in Use (cont.)

Promote Action & Adoption
- Educational outreach/academic detailing
- Reminders or practice prompts
- Demonstrate workflow or decision algorithm
- Try the practice change
- Troubleshooting at the point-of-care
- “Elevator speech”
- Change agents
- Role model
- Provide recognition at the point-of-care
- Audit key indicators
- Actionable and timely data feedback
- Rounding by unit/organizational leadership
- Link to organizational priorities
- Unit orientation

Cullen & Adams, 2012; Cullen et al., 2018

Pursue Integration & Sustained Use
- Personalize the messages to staff based on actual improvement data
- Peer influence
- Review policy, procedure or protocol
Conclusions

• Patients and families benefit when nurses lead EBP changes in collaborative teams to improve outcomes

• The EBP Change Champion pilot program provided an innovative approach to support nurse-led EBP improvements

• Formal training is one of the key elements in a comprehensive EBP program to facilitate nurse-led EBP across the care continuum
References


References (cont.)


Empowering Frontline Clinicians as EBP Change Champions Improves Clinical Outcomes

Emily Dimmer, BSN, RN, CMSRN
Staff Nurse
University of Iowa Health Care

30th International Nursing Research Congress
Calgary, Alberta, Canada
July 28, 2019
Objective and Disclosures

Objective
Describe a project, led by an EBP Change Champion, that expands the nursing assistant role in implementing evidence-based interventions to reduce catheter-associated urinary tract infection risk for post-surgical adult patients

Disclosures
Emily Dimmer, BSN, RN, CMSRN, Staff Nurse, University of Iowa Health Care, has no conflicts of interest or disclosures to report, and she did not receive sponsorship or commercial support
<table>
<thead>
<tr>
<th>Name</th>
<th>Role(s)</th>
<th>Shared Governance Committee Link</th>
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<tbody>
<tr>
<td>Emily Dimmer, BSN, RN, CMSRN</td>
<td>Staff Nurse, EBP Change Champion</td>
<td>CAUTI Committee</td>
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<tr>
<td>Becca Miner, DNP, RN-BC, CNML</td>
<td>Nurse Manager, EBP Change Champion Mentor</td>
<td>CAUTI Committee</td>
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<tr>
<td>Emily Rod, MSN, RN, CMSRN</td>
<td>Assistant Nurse Manager</td>
<td>CAUTI Committee</td>
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<tr>
<td>Taylor Suchan, BSN, RN, CMSRN</td>
<td>Assistant Nurse Manager</td>
<td>CAUTI Committee</td>
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Purpose & Rationale

• Expand nursing assistant (NA) role in implementing evidence-based interventions to reduce catheter-associated urinary tract infection (CAUTI) risk on an adult, inpatient, surgical unit

• 32-bed acute, orthopedic and urology post-surgical unit
  – Many patients at high-risk for CAUTI development
  – Role of NA is critical in CAUTI prevention
Evidence-Based Practice Framework

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

- Identify Triggering Issues / Opportunities
  - Clinical or patient identified issue
  - Organizational, state, or national initiative
  - Regulatory agency requirements / regulations
  - Philosophy of care

- State the Question or Purpose

- Is this topic a priority? (No)

- Form a Team

- Assemble, Appraise and Synthesize Body of Evidence
  - Conduct systematic search
  - Weigh quality, quantity, consistency, and risk

- Is there sufficient evidence? (No)

- Contact research

- Design and Pilot the Practice Change
  - Engage patients and verify preferences
  - Consider resources, constraints, and approval
  - Develop localized protocol
  - Create an evaluation plan
  - Collect baseline data
  - Develop an implementation plan
  - Prepare clinicians and implementers
  - Promote adoption
  - Collect and report post pilot data

- In change appropriate for adoption in practice? (No)

- Redesign

- Integrate and Sustain the Practice Change
  - Identify and engage key personnel
  - Embed change into system
  - Monitor key indicators through quality improvement
  - Maintain or renew

- Disseminate Results

EBP Change Champion Program

(Iowa Model Collaborative, 2017)
Synthesis of Evidence

• CAUTI – among most common healthcare-associated infections
  – Estimated 250,000 cases occur annually in U.S. hospitals
  – Associated costs of $250-$450 million

• 75% of hospital-acquired UTIs from urinary catheter

• Common consequences of CAUTI:
  – Increased length of stay
  – Patient discomfort
  – Increased cost
  – Mortality

• >13,000 deaths annually from urinary tract infections; data from 1990-2002

(AHRQ, 2015a, 2015b; Clayton, 2017; Gould et al., 2017; Kaplan & Carter, 2018; Klevens et al., 2007)
Practice Change

• 3 primary areas of focus:
  – Focused 1:1 education with NAs by the EBP Change Champion
  – Discontinuation of routine urinalysis orders unless patient symptomatic with suprapubic pain
  – Change from once to twice daily meatal care for patients with indwelling catheter
### UIHC CAUTI Prevention Bundle

**KEEP it OUT**  
Houdini rules for a Foley Catheter

**KEEP it CLEAN**  
Hand hygiene before you touch!  
MEATAL & PERICARE care every day and when needed

**KEEP it SECURE**  
Use the SafeSecure™ device in the MEDLINE Foley kit or from stores to stop urethral irritation

**KEEP it CLOSED**  
Do not DISCONNECT

**KEEP it LOW**  
Keep the bag and tubing BELOW the bladder with no loops or kinks

**KEEP it CLEAR**  
Culture when symptoms or a CLEAR indication
EBP Change Champion Actions

• Educate unit NAs
  – Supply evidence
  – “Keep it Simple” bundle
  – 7-item pre- & post-education knowledge questionnaire

• Meet with key stakeholders about urinalysis orders on POD#1
  – Regularly ordered by total joint replacement team
  – Work with nursing staff to question urinalysis orders

• Develop educational materials for annual NA competencies

• Develop standardized audit tool
  – Educate nursing staff where to chart cares in electronic health record
Implementation Strategies

Implementation Strategies for Evidence-Based Practice – framework used to create a phased, evidence-based approach for selecting effective implementation strategies

(Cullen & Adams, 2012; Cullen et al., 2018)
### Implementation Strategies (cont.)

<table>
<thead>
<tr>
<th>Create Awareness &amp; Interest</th>
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<th>Promote Action &amp; Adoption</th>
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<tr>
<td>• Staff meetings</td>
<td>• Education</td>
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<td>• Unit newsletter</td>
<td>• Pocket guides</td>
<td>• Reminders or practice prompts</td>
<td>• Audit and feedback</td>
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<tr>
<td>• <strong>Unit in-services</strong></td>
<td>• Change agents</td>
<td>• Resource materials</td>
<td>• Report to senior leaders</td>
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<tr>
<td>• Announcements &amp; broadcasts</td>
<td>• Educational outreach or academic detailing</td>
<td>• Skill competence</td>
<td>• Report into QI program</td>
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<td>• Integrate practice change with other EBP protocols</td>
<td>• Given evaluation results to colleagues</td>
<td>• Trend results</td>
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<td>• Gap assessment/gap analysis</td>
<td>• Multidisciplinary discussion</td>
<td>• Present in educational programs</td>
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<td>• Match practice change with resources &amp; equipment</td>
<td>• Change agents</td>
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<td>• <strong>Resource manual or materials</strong></td>
<td>• <strong>Role model</strong></td>
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<td>• <strong>Teamwork</strong></td>
<td>• Troubleshooting at the point of care/bedside</td>
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<td>• Action plan</td>
<td>• Recognition at point of care</td>
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<td>• Report to senior leaders</td>
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<td>• Checklist</td>
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<td>• Report into QI program</td>
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(Cullen & Adams, 2012; Cullen et al., 2018)
## Evaluation

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<tr>
<th>CAUTI Pre-Test</th>
<th>CAUTI Post-Test</th>
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<tr>
<td>What does UTI stand for?</td>
<td>What does UTI stand for?</td>
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<tr>
<td>What does CAUTI stand for?</td>
<td>What does CAUTI stand for?</td>
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<tr>
<td>What does HAI stand for?</td>
<td>What does HAI stand for?</td>
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<td>How frequent should pericare and meatal care be performed on a patient?</td>
<td>How frequent should pericare and meatal care be performed on a patient?</td>
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<td>What wipes should be used to perform pericare/meatal care?</td>
<td>What wipes should be used to perform pericare/meatal care?</td>
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<td>What can I do to help prevent a CAUTI on our unit?</td>
<td>What can I do to help prevent a CAUTI on our unit?</td>
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<td>a. Keep it Clean</td>
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<td>b. Keep it Secure</td>
<td>b. ___________________________</td>
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<td>c. Keep it a Closed System</td>
<td>c. ___________________________</td>
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<td>d. Keep it Low</td>
<td>d. ___________________________</td>
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<td>How many deaths from UTI occurred in 2002?</td>
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<tr>
<td>d. 13,000</td>
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Evaluation (cont.)

Nursing Assistant Knowledge
(7-item questionnaire)

- Pre-Education (n = 17): 46%
- Post-Education (n = 17): 92%
• Unit CAUTI Rate
  – 6-months pre-program* – 0.78/1000 patient days
  – 6-months post-program – 0.00/1000 patient days

Infection Rate
Per 1,000 Catheter Days

EBP Change Champion Program Start
NA Competency with Skills

*
Evaluation (cont.)

Unit CAUTI Rate

Infection Rate Per 1,000 Catheter Days


4.7

NA Competency with Skills
Re-Education
Lessons Learned / Next Steps

Lessons Learned
• Commitment and delegation are key
• Keeping the project at the forefront and need to re-educate was critical
• Increase number of champions for best success – focus primarily on NAs

Next Steps
• Continue to review content in annual NA competencies
• Include additional units – convert to group education
• Create a core group of NAs to provide 1:1 teaching
Conclusions

• EBP Change Champion program participation empowered a unit-based emerging nurse leader to direct evidence-based improvements to positively impact patient outcomes

• Empowerment and confidence increased for NAs – ability to make appreciable difference in patient outcomes

• Commitment to project and protected project time for unit-based EBP Change Champion critical for success
References


References (cont.)


Questions/Comments