



Transcending Boundaries to Transform Healthcare through Intervention Research and Evidence-based Practice

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**In God We Trust,
Everyone Else Must
Bring Data!**



The State of U.S. Healthcare and Health

- There are up to 200,000 unintended patient deaths per year (more than auto accidents & breast cancer)
- Patients only receive about 55% of the care that they should when entering the healthcare system
- Poor quality healthcare costs the United States about 720 billion dollars every year
- The U.S. healthcare system could reduce its healthcare spending by 30% if patients receive evidence-based healthcare
- One in 2 Americans have a chronic condition and 1 in 4 have multiple chronic conditions
- One in 4 Americans have a mental health disorder



Current State of Health in Nurses

Chronic Health Problems Among Physicians, Nurses, and Other Workers

	Physicians	Nurses	Other workers
% Obesity	13	25	25
% High Blood Pressure	16	22	22
% High Cholesterol	21	20	20
% Diabetes	4	7	7
% Depression	7	14	13
% Heart Attack	2	1	2
% Asthma	9	11	10
% Cancer	6	5	4

Jan. 2, 2011 to Aug. 31, 2012

Gallup-Healthways Well-Being Index

GALLUP®



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What Will the Last 10 Years of YOUR Life Look Like?



Every day, we make behavioral choices that influence our health and wellness outcomes



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Based on Evidence

What Do We Know?

People who have the following behaviors have 66% less diabetes, 45% less heart disease; 45% less back pain, 93% less depression, and 74% less stress

- **Physical activity**- 30 minutes 5 days per week
- **Healthy eating**- 5 fruits and vegetables per day
- **No smoking**
- **Alcohol in moderation**- 1 drink per day for women, 2 drinks per day for men



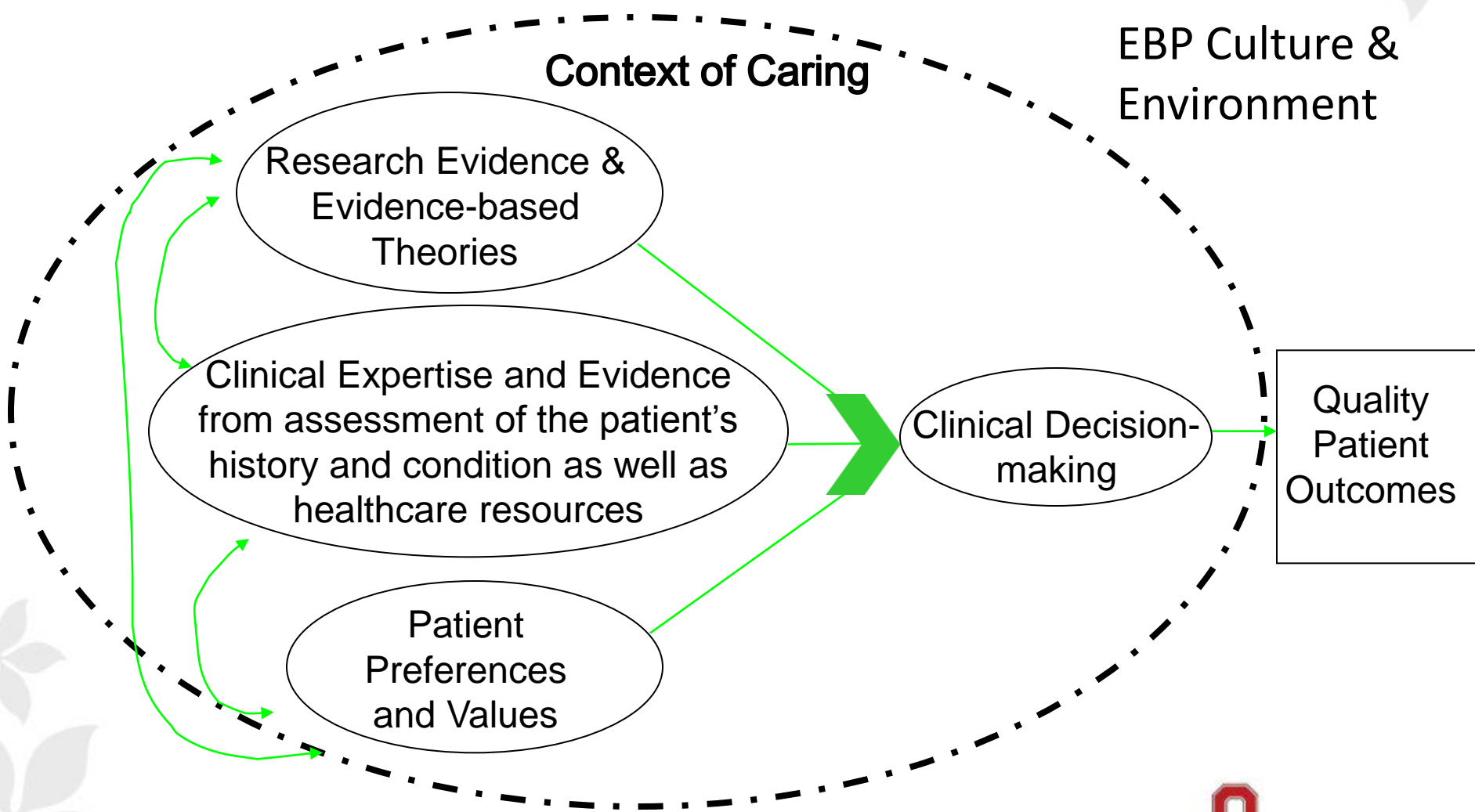
Kaylin's Story: Australian Dream Trip Turned Nightmare



From Melnyk, B.M., & Fineout-Overholt, E. (2011).
Implementing EBP: Real World Success Stories



The Merging of Science and Art: EBP within a Context of Caring & EBP Culture and Environment Results in the Highest Quality of Patient Care



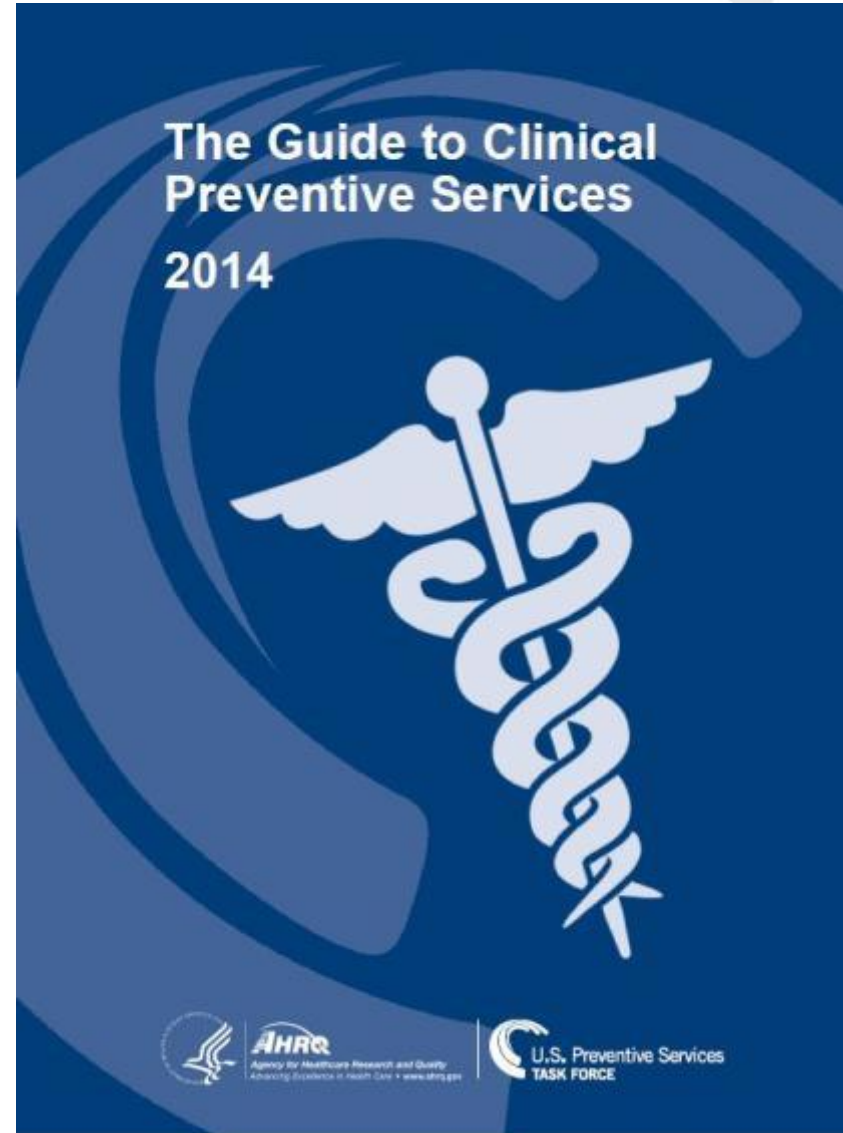
Acting on the Evidence

- Strength of the Evidence + Quality of the Evidence = Confidence to Act!

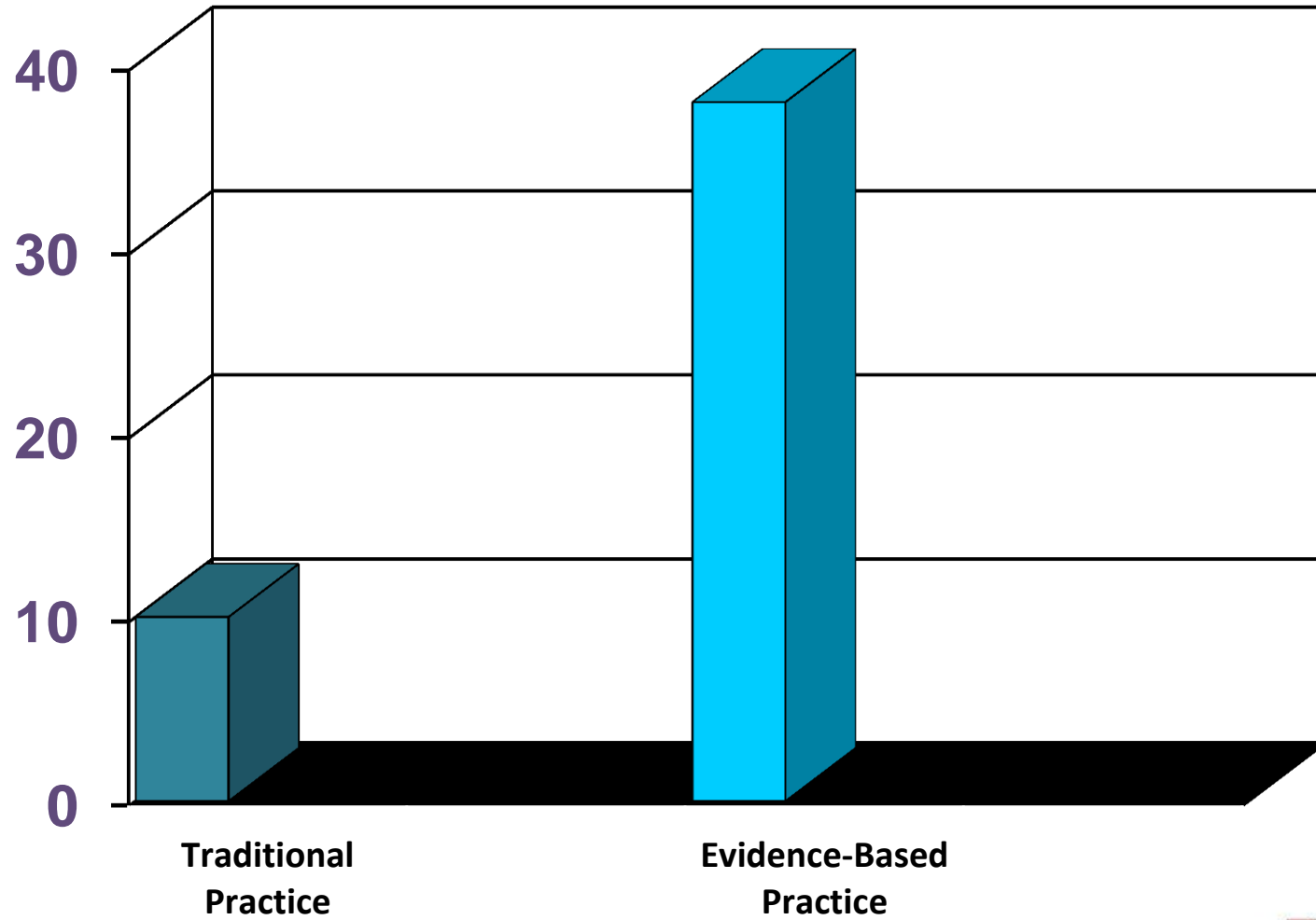


Annual Guide to Clinical Preventive Services

- Evidence-based gold standard recommendations adapted for a pocket-sized book
- Formatted for clinicians to consult for clinical guidance in their daily practice
- Recommendations are presented in an indexed, easy-to-use format with at-a-glance charts



Patient Outcomes With and Without Evidence-Based Practice



Why Must We Accelerate EBP?

Despite an aggressive research movement, the majority of findings from research often *are not* integrated into practice to improve outcomes

The gap between the translation of research into practice and policy is huge; It often takes decades to translate research findings into practice and po



Why Must We Accelerate EBP?

Practices rooted in tradition are often outdated and do not lead to the best patient outcomes

- ❖ **Daily changing of IV dressings**
- ❖ **Mayonnaise for head lice**
- ❖ **Sugar paste for pressure ulcers**
- ❖ **Albuterol delivery with nebulizers**
- ❖ **Checking placement of NG tubes with air**
- ❖ **Vital signs every 2 or 4 hours**
- ❖ **12 Hour Shifts for Nurses**



Why Must We Accelerate EBP?

❖ Tongue Patch for Weight Loss



The Steps of EBP

Step 0:

- Cultivate a Spirit of Inquiry & EBP Culture

Step 1:

- Ask the PICO(T) Question

Step 2:

- Search for the Best Evidence

Step 3:

- Critically Appraise the Evidence

Step 4:

- Integrate the Evidence with Your Clinical Expertise and Patient Preferences to Make the Best Clinical Decision

Step 5:

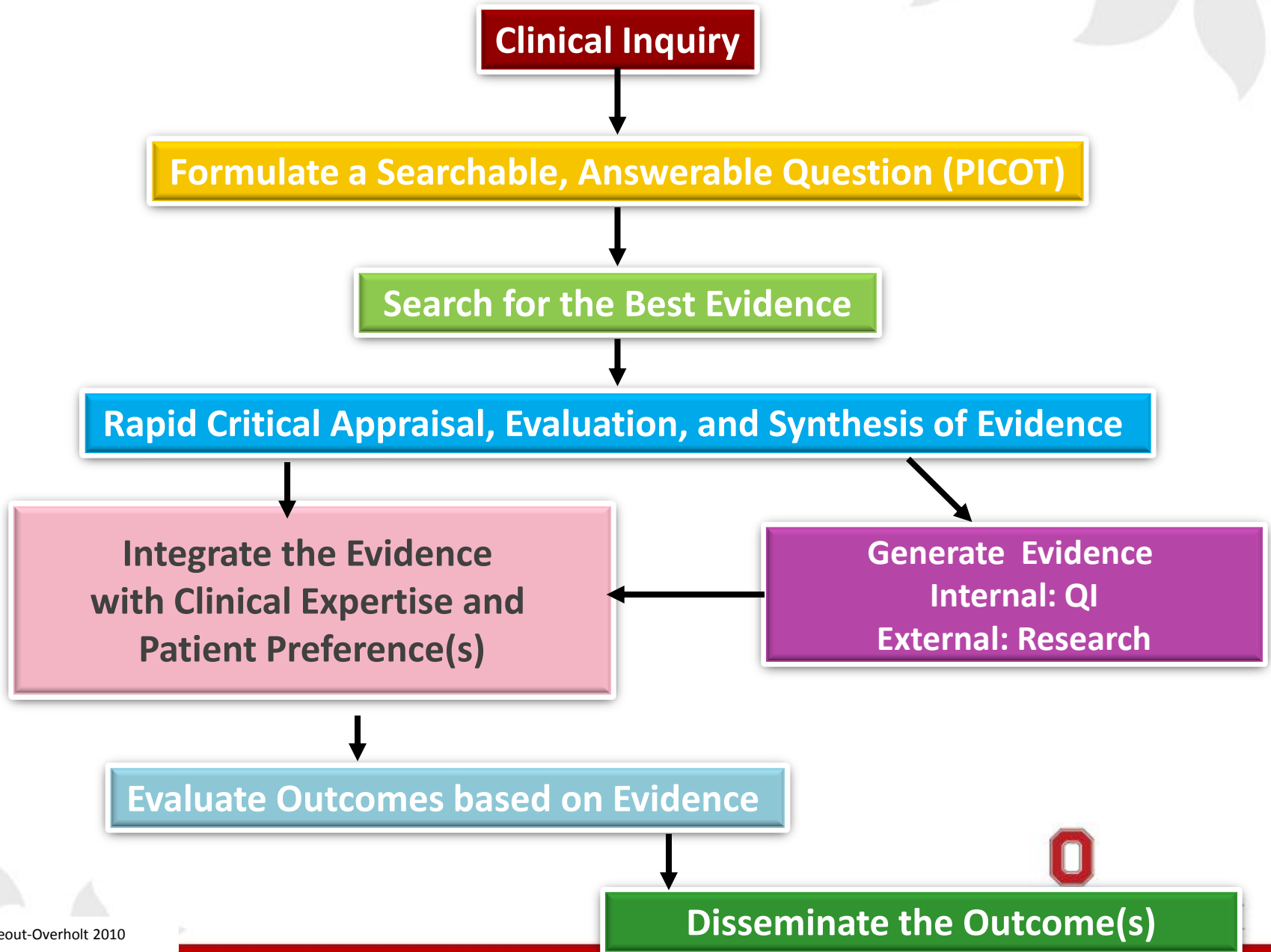
- Evaluate the Outcome(s) of the EBP Practice Change

Step 6:

- Disseminate the Outcome(s)



The EBP Process



The Typical Progression of Research

Qualitative Research → *Descriptive Research* → *Predictive Research* → ***Experimental Research***



The Strongest Experimental Design

Two Group Randomized Controlled Trial with Pre-test/Post-test Design and Structurally equivalent comparison group

R	O1	X1	O2
R	O1	X2	O2

Advantages

Strongest design for testing cause and effect

Comparison intervention controls for time spent with experimental group

Pre-test may sensitize subjects to testing

Disadvantages

Expensive and time consuming



The State of Intervention Studies

- **Determining effects of interventions is currently a top research priority**
- **Only approximately 20-25% of studies test interventions**
- **Common problems in intervention studies**
 - **Lack of a theoretical framework to guide interventions**
 - **Lack of sufficient power to detect differences between study groups**
 - **Lack of an appropriate attention control intervention**
 - **Failure to limit sources of error**



The Role of DNPs and PhDs in Generating External and Internal Evidence

- PhDs should be the best generators of “external evidence” from rigorous research
- DNPs should be the best generators of “internal evidence” from quality improvement, outcomes management and evidence-based practice projects



Findings from our EBP Survey with U.S. Nurses

Melnyk et al., 2012, JONA

- Over 1000 randomly sampled nurses from the American Nurses Association
- The more years in practice, the less nurses were interested in and felt it was important to gain more knowledge and skills in EBP



Percent of Respondents from the ANA Survey Who Agreed or Strongly Agreed with the Following Statements

	%
EBP is consistently implemented in my healthcare system	53.6
My colleagues consistently implement EBP with their patients	34.5
Findings from research studies are consistently implemented in my institution to improve patient outcomes	46.4
EBP mentors are available in my healthcare system to help me with EBP	32.5
It is important for me to receive more education and skills building in EBP	76.2



The One Thing That Prevents You From Implementing EBP

	Total Responses
1. Time	151
2. Organizational culture, including policies and procedures, politics, and a philosophy of “that is the way we have always done it here.”	123
3. Lack of EBP knowledge/education	61
4. Lack of access to evidence/information	55
5. Manager/leader resistance	51
6. Workload/staffing, including patient ratios	48
7. Nursing (staff) resistance	46
8. Physician resistance	34
9. Budget/payors	24
10. Lack of...	

Chief Nurse Survey Demographics

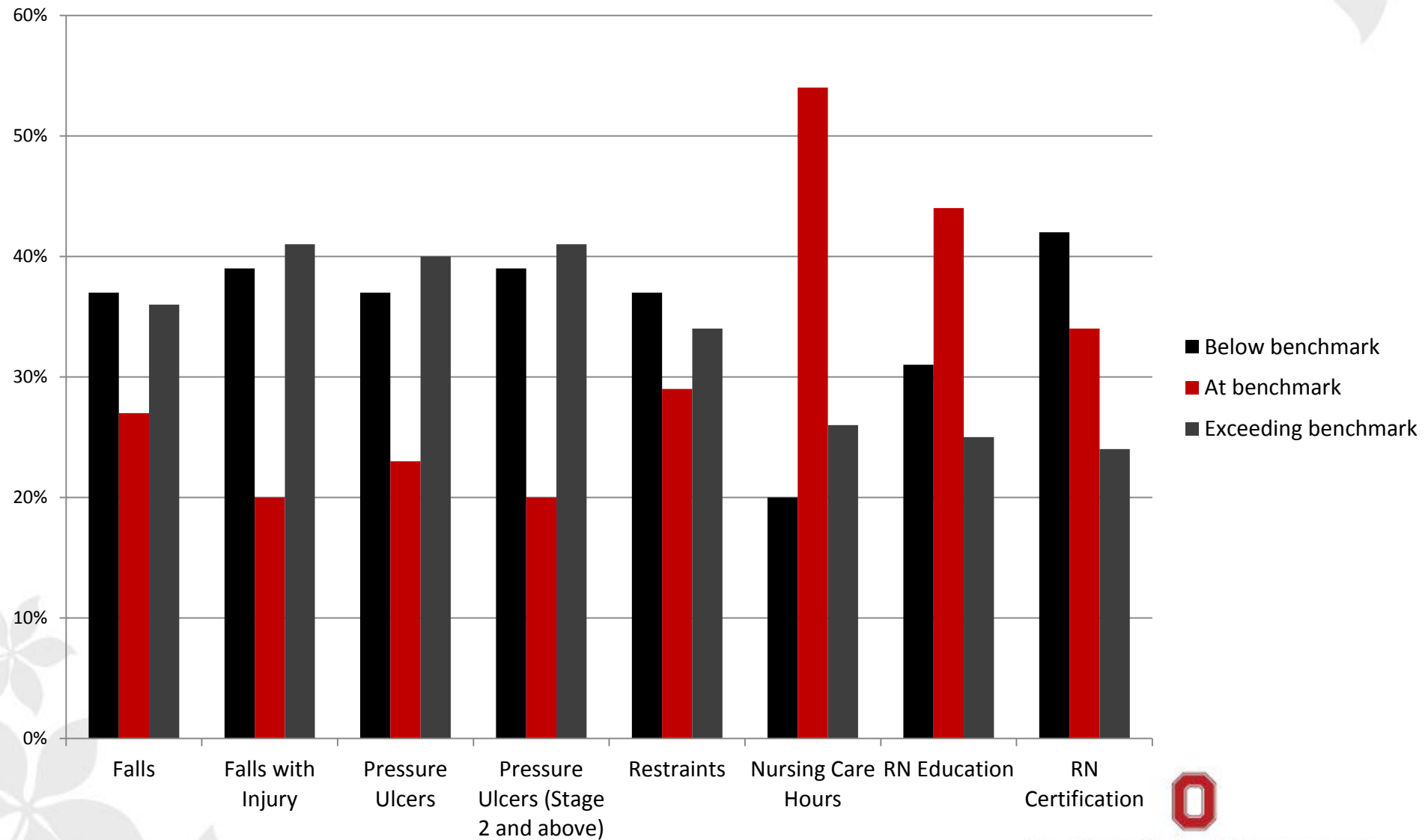
- 93% currently in the CNO role
- Ages ranged from 32-68 (M= 55 years)
- Years in practice ranged from 8-47 (M=31 years)
- Years as a CNO ranged from <1- 32 (M= 9 years)
- 92% female; 94% White
- 6% bachelor's degree; 69% master's degree;
- 8% PhD prepared; 10% DNP prepared
- 45 States and DC represented
- 18% work in Magnet facilities
- 55% reported having clinical ladder systems
- 47% had no ongoing nursing research projects

Organization Related Questions

What % of your annual operating budget do you spend on building and sustaining EBP in your organization?	Frequency	Percent %
0	41	15%
1 to 10	162	59%
11 to 25	49	18%
26 to 50	15	5%
51 to 100	6	2%

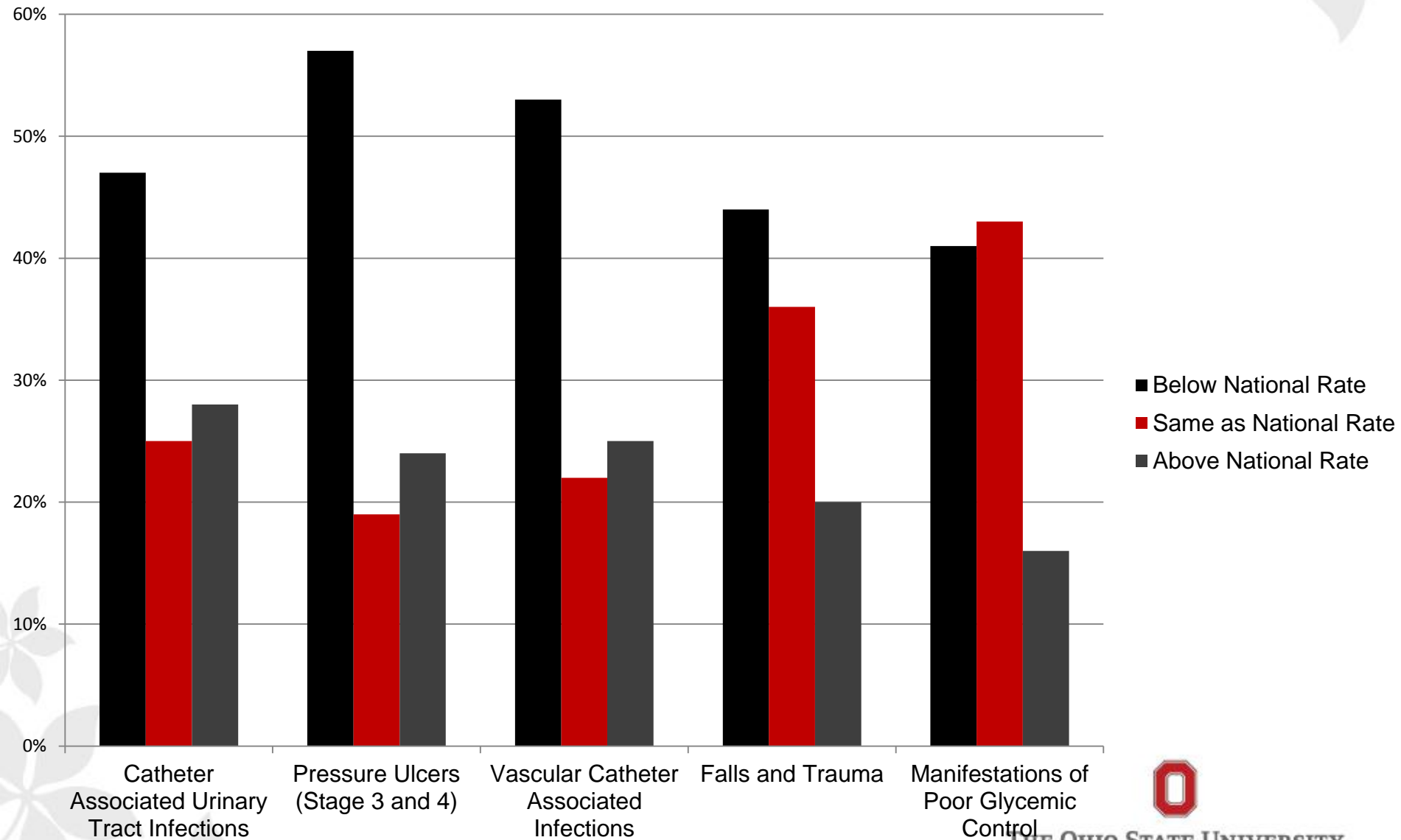
Performance Metrics

NDNQI Metrics

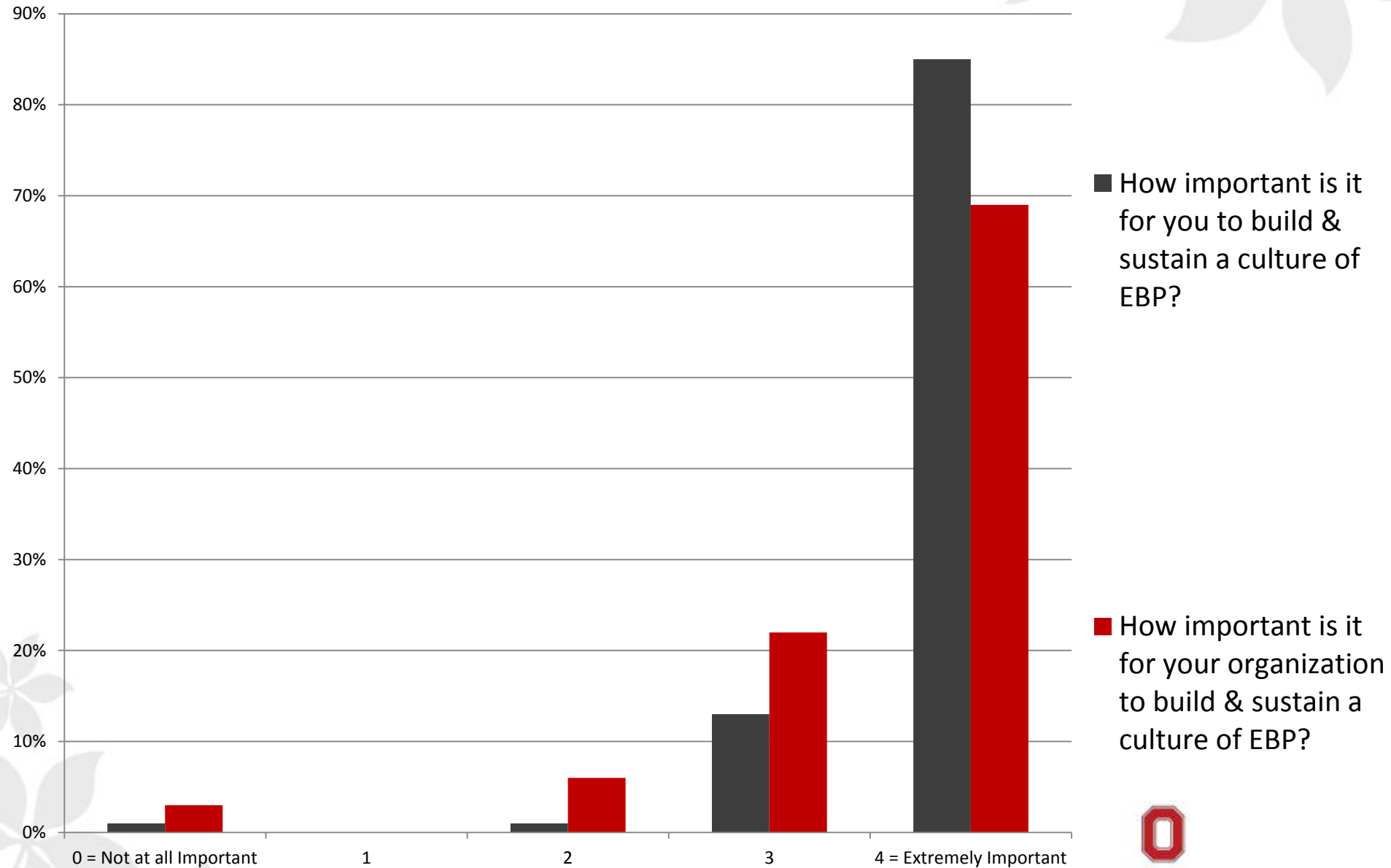


Performance Metrics

Core Measures

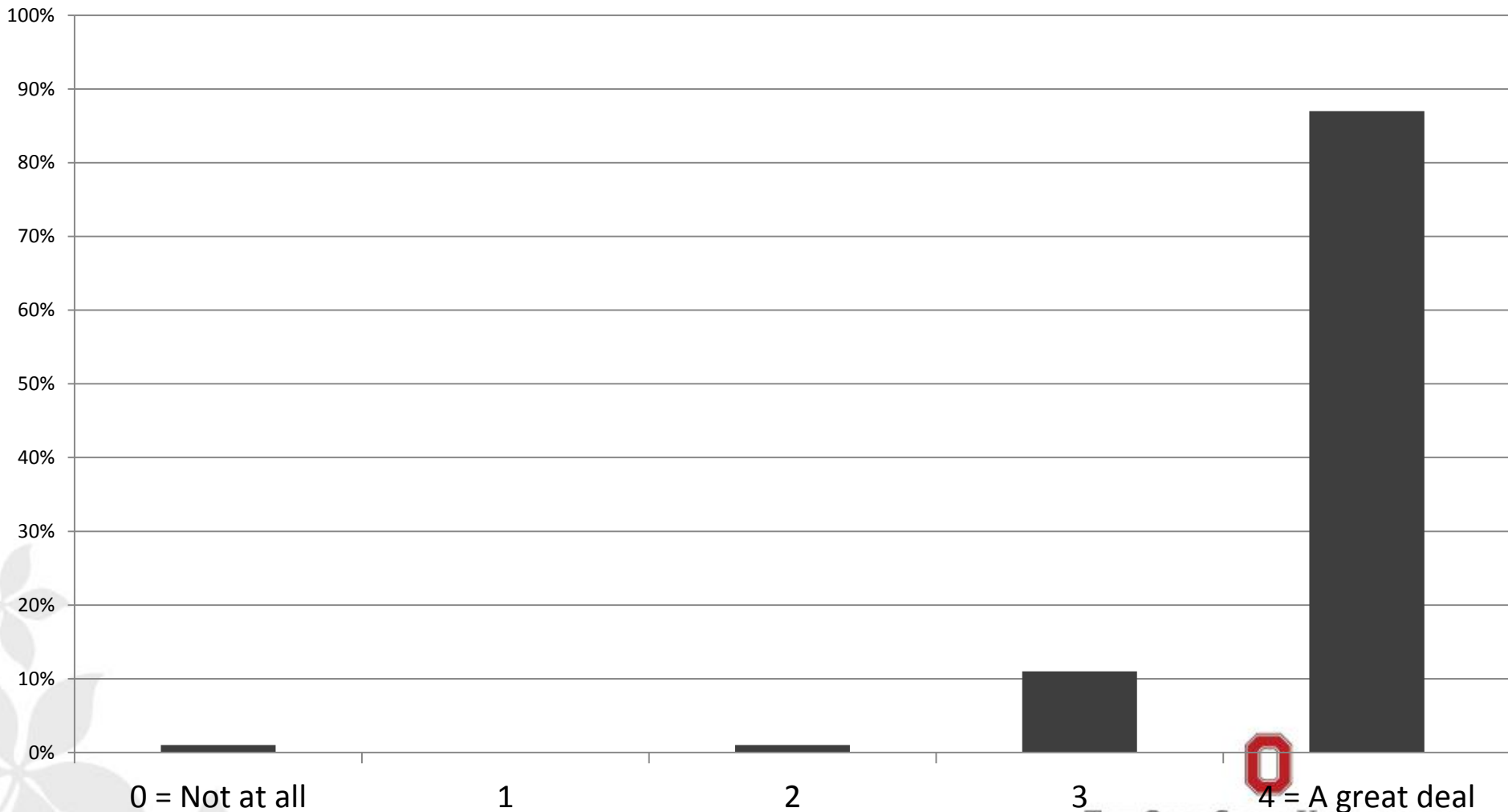


EBP Priorities



EBP Priorities

How much do you believe implementation of EBP improves quality & patient outcomes?



EBP Beliefs, EBP Implementation, EBP Culture

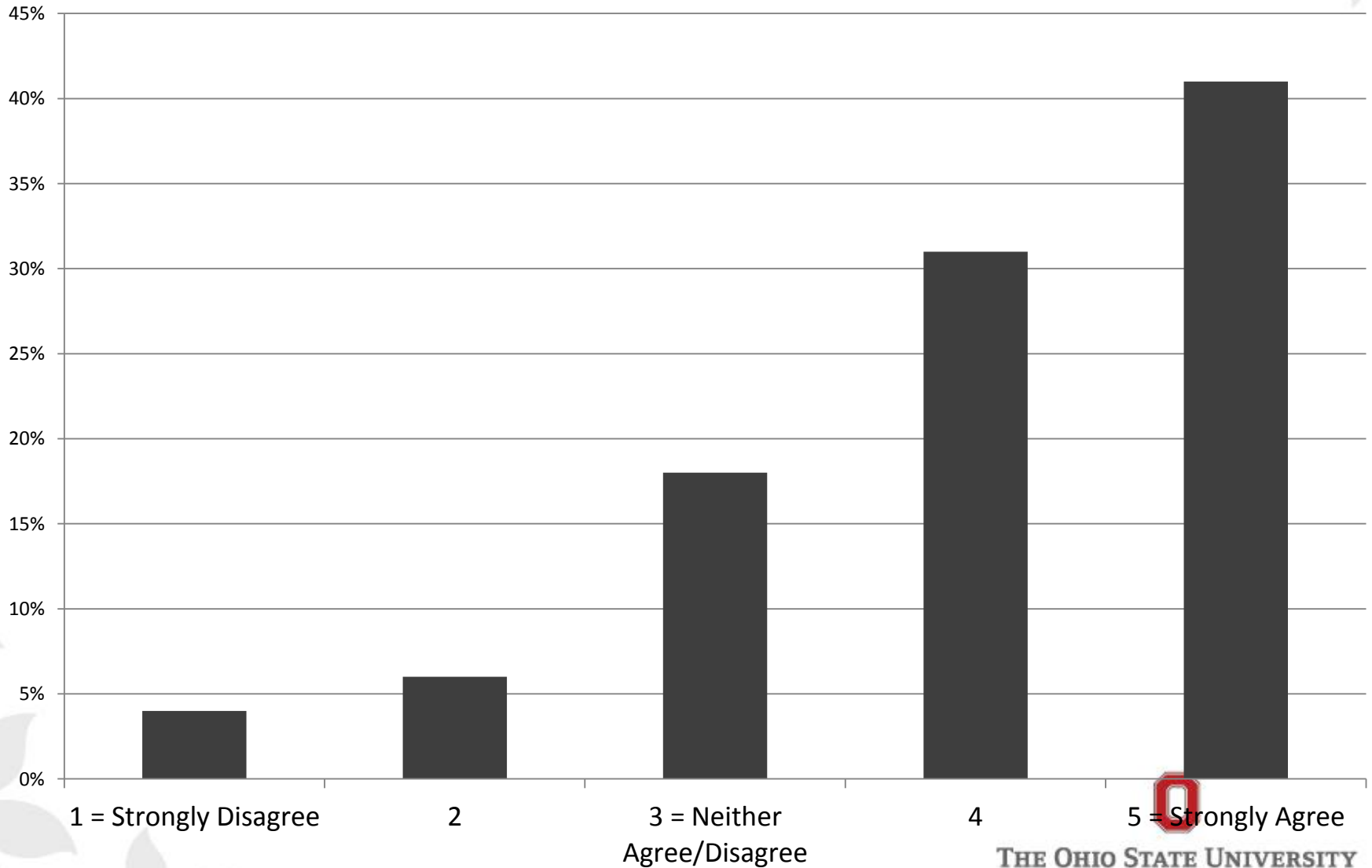
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
EBPPractice_Beliefs_SUM	275	16.00	80.00	60.2	11.2195
EBPPractice_Implementation_SUM	276	.00	72.00	27.8	14.9707
ORG_CULT_READINESS_SUM	276	14.00	70.00	41.9	11.8030
EBP_READINESS	276	1	5	3.41	1.180
Valid N (listwise)	275				



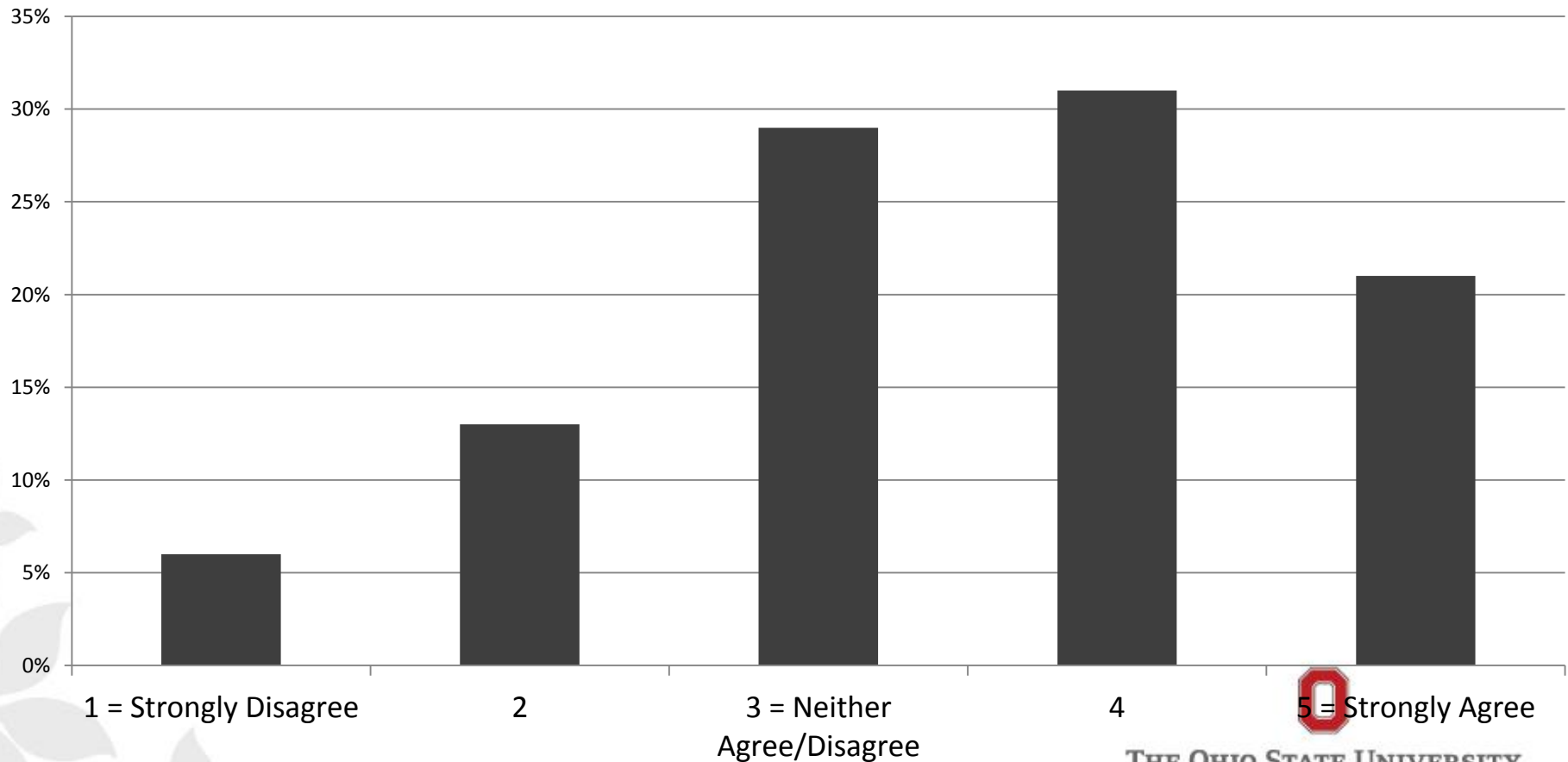
CNOs EBP Beliefs

I am sure that I can implement EBP



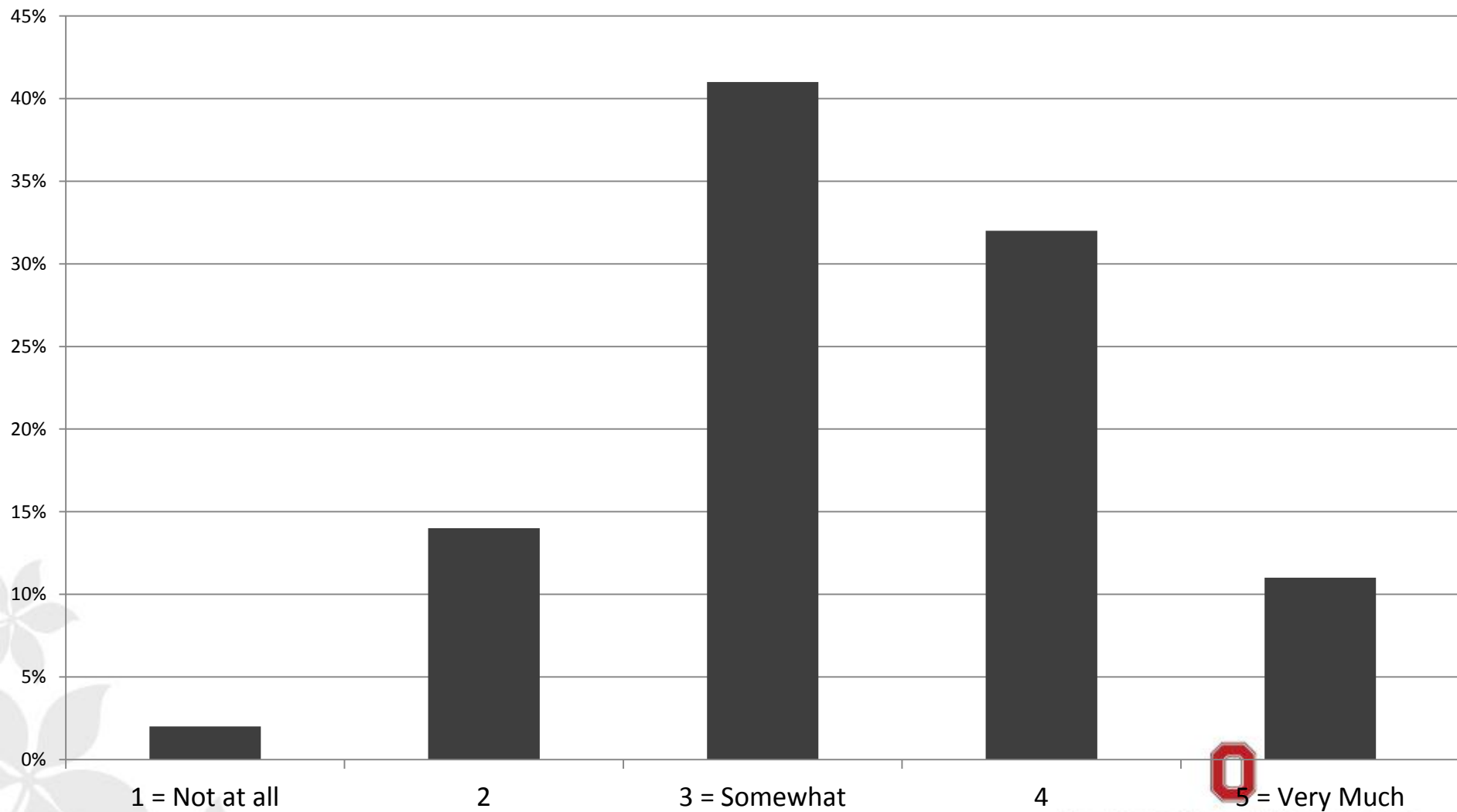
CNOs EBP Beliefs

I am sure about how to measure the outcomes of services provided to patients



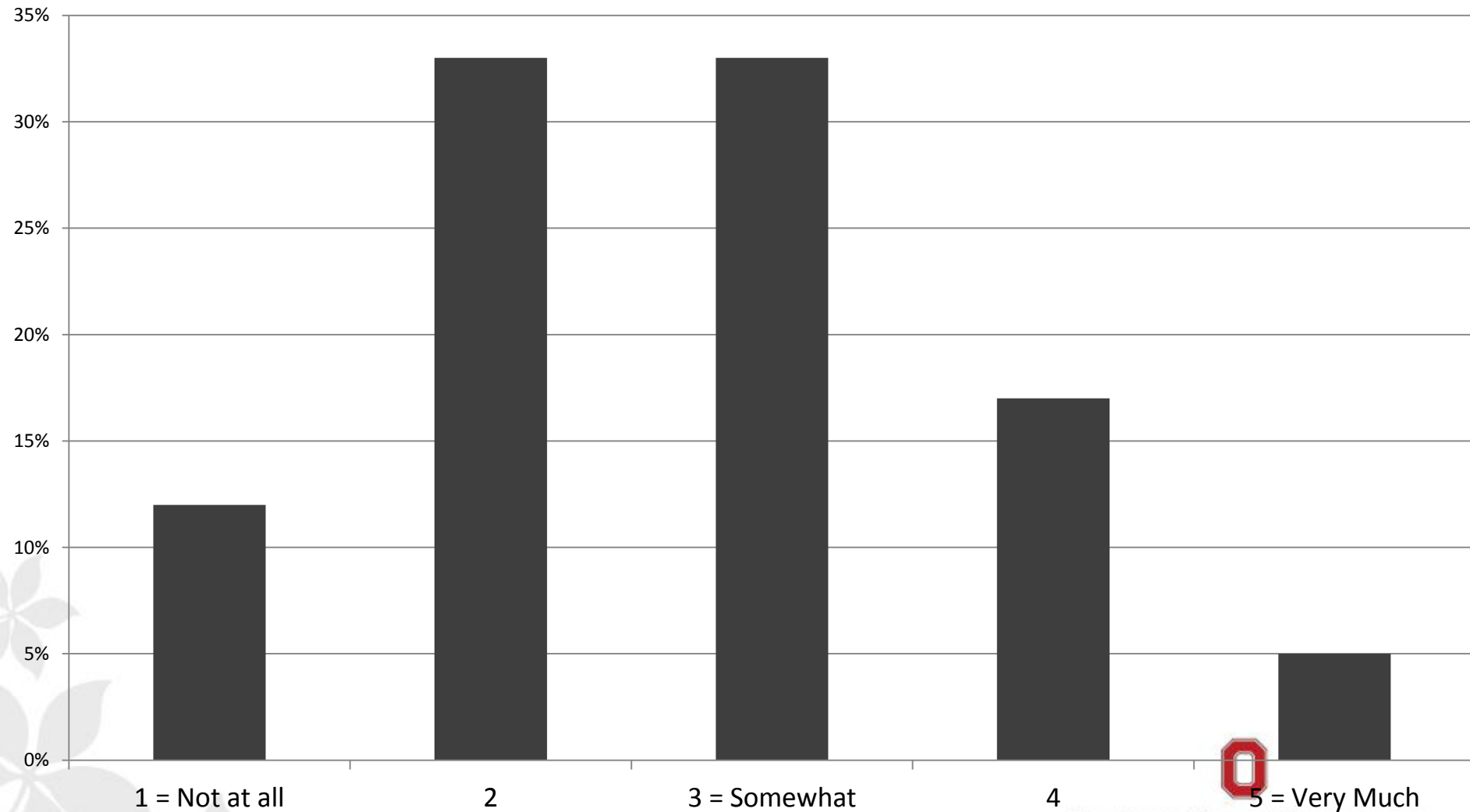
Organizational Readiness for EBP

To what extent do you believe that EBP is practiced in your organization?



Organizational Readiness

In your organization, to what extent is there a critical mass of nurses who have strong EBP knowledge & skills?



Creating a Culture and
Environment to
Sustain EBP
What Works



*The only person that likes a change is
a baby with a wet diaper!*



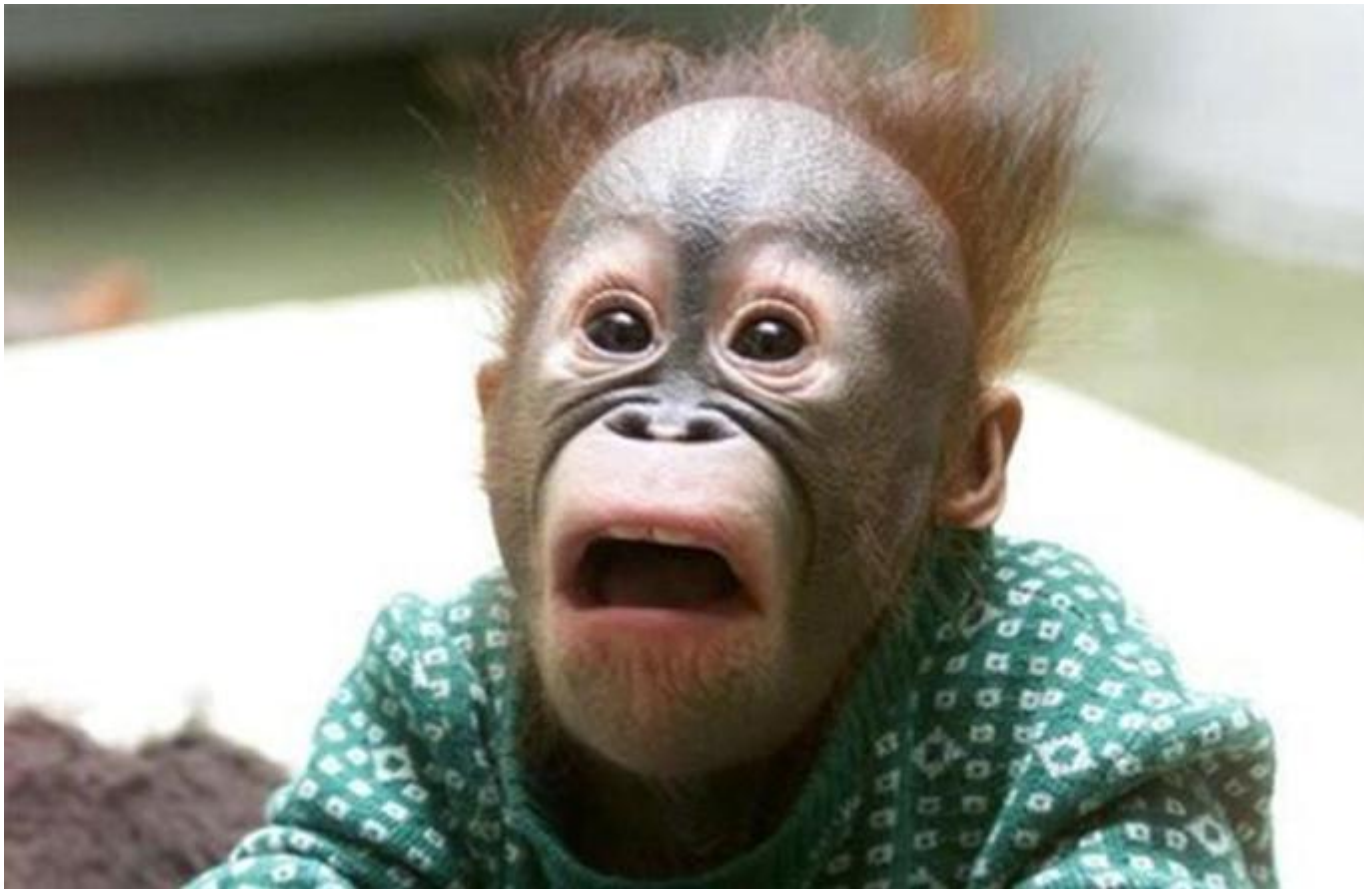
An Essential Element Required for a Successful Change to System-wide EBP

A Vision with Specific Written Goals
We must begin with the end in mind



SHOCK!

“You are asking me to implement EBP on top of everything else that I do?”



Critical Components of an EBP Culture

A Philosophy, Mission and Commitment to EBP:

- there must be commitment to advance EBP across the organization as evidenced in orientation, clinical ladders, evaluations

A Spirit of Inquiry:

- health professionals are encouraged to continuously ask questions, review and analyze practices to improve patient outcomes

EBP Mentors:

- who have in depth knowledge and skills in EBP, mentoring others, and overcoming barriers to individual and organizational change



Critical Components of an EBP Culture

Administrative Role Modeling and Support:

- leaders who value and model EBP as well as provide the needed resources to sustain it

Infrastructure:

- tools and resources that enhance EBP across the organization; computers for searching, up to date data bases, library resources

Recognition:

- individuals and units are rewarded regularly for EBP



EBP Competencies for Practicing Nurses and Advanced Practice Nurses

WORLDviews on
EVIDENCE-BASED NURSINGTM

The Establishment of Evidence-Based Practice Competencies for Practicing Registered Nurses and Advanced Practice Nurses in Real-World Clinical Settings: Proficiencies to Improve Healthcare Quality, Reliability, Patient Outcomes, and Costs 2014

Download free at:

[http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1741-6787/homepage/MostCited.html](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1741-6787/homepage/MostCited.html)

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Making Use of the Competencies

The new EBP competencies should be integrated into healthcare system orientation programs, clinical ladders, and performance appraisals

Incorporating the competencies into real world practice settings will assist healthcare systems in improving quality, safety, and patient outcomes as well as reducing costs!



Return on Investment with EBP

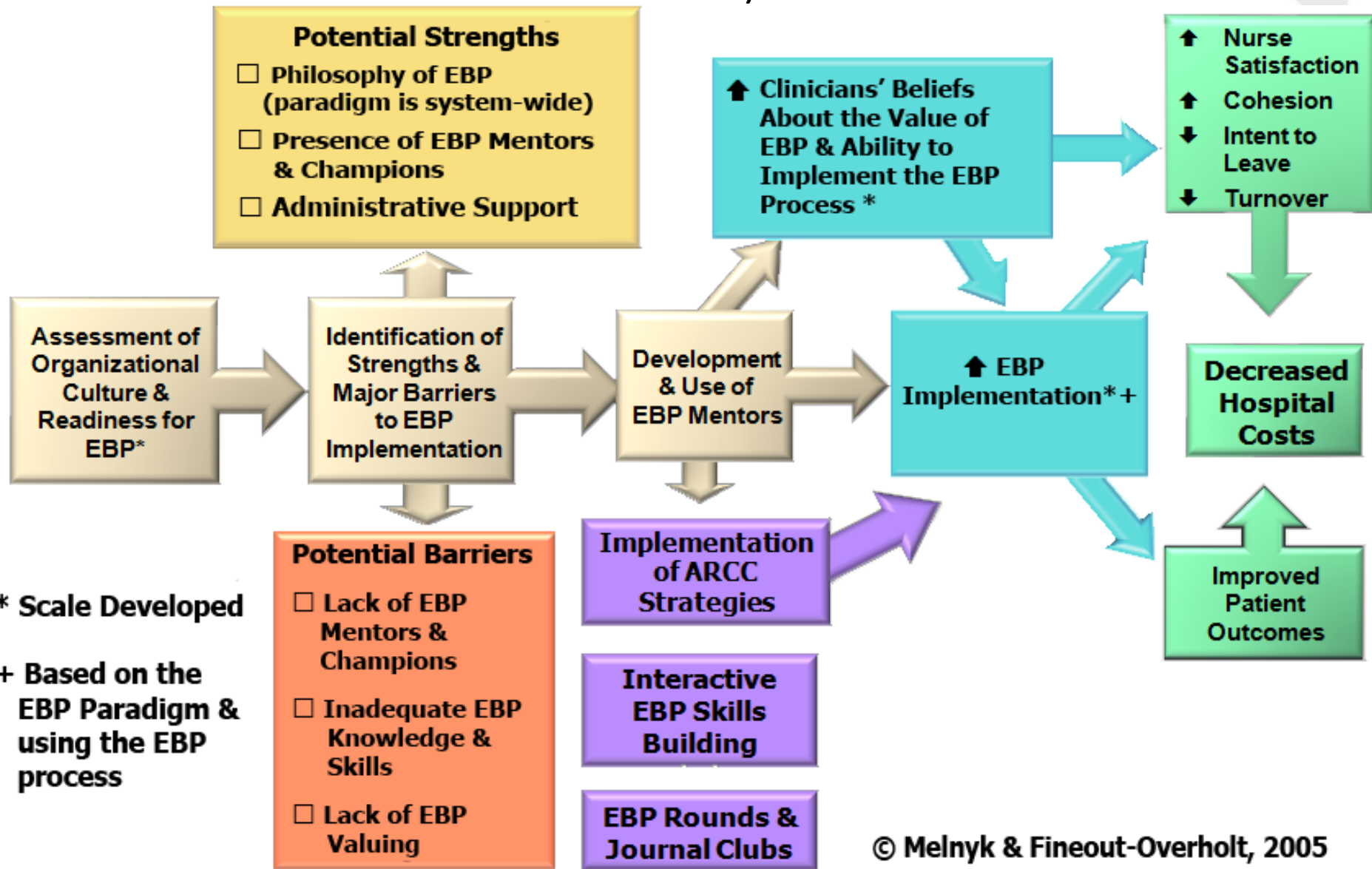
It is critical to establish ROI with EBP projects
ROI helps with sustainability of EBP

We must measure quality indicators, which include:

- hospital-acquired conditions (HACs) declared by the Centers for Medicare and Medicaid (CMS) as preventable unless present upon admission to the hospital (Centers for Medicare & Medicaid Services (CMS), 2014); or
- those included in the scoring for the value-based purchasing program (VBP) that CMS began in 2013, whereby incentive payments will be distributed across all hospitals performing in the top 50% on selected quality indicators. These incentive payments are based on how closely hospitals follow best clinical practices and how well they enhance patients' experiences of care (CMS, 2012).



Melnik & Fineout-Overholt's ARCC (Advancing Research and Clinical practice through close Collaboration) Model



Evidence to Support ARCC

- *Study #1*: Descriptive correlational study with 160 nurses
- *Study #2*: A psychometric study of the EBP beliefs and EBP implementation scales with 360 nurses
- *Study #3*: A randomized controlled pilot study with 47 nurses in the VNS
- *Study #4*: A quasi-experimental study with 159 nurses in a clinical research medical center environment
- *Study #5*: A pre-experimental study with 52 clinicians at WHHS



Outcomes of Implementing the ARCC Model at Washington Hospital Healthcare System

- Early ambulation in the ICU resulted in a reduction in ventilator days from 11.6 to 8.9 days and no VAP
- Pressure ulcer rates were reduced from 6.07% to .62% on a medical-surgical unit
- Education of CHF patients led to a 14.7% reduction in hospital readmissions
- 75% of parents perceived the overall quality of care as excellent after implementation of family centered care compared to 22.2% pre-implementation



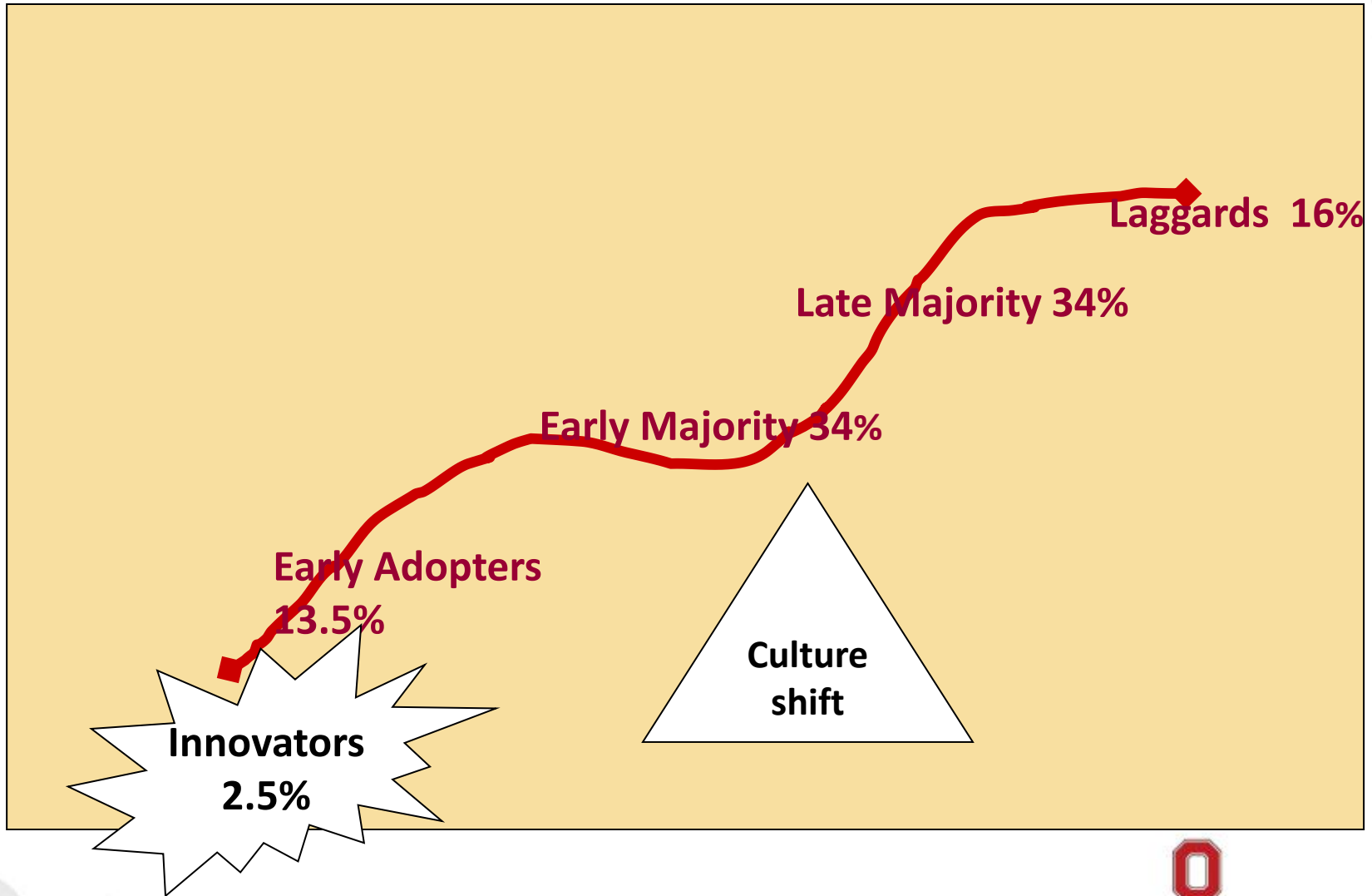
The simple provision of resources and dissemination of information alone will not lead to uptake of EBP



A multi-component active strategy is necessary, including behavior and organizational change strategies



Diffusion of Innovation



A key ingredient for success is persistence as there will be many “character-building” experiences along the way!!



“At least I have found 9000 ways that it won’t work.”

Thomas Edison



Worldviews on Evidence-Based Nursing™

Linking Evidence to Action

Editor

Bernadette Melnyk, PhD, CNPN/PMHNP, FAANP, FAAN

- ✓ Gives readers methods to apply best evidence to practice
- ✓ Global coverage of practice, policy, education and management
- ✓ From a source you can trust, the **Honor Society of Nursing, Sigma Theta Tau International**



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Ask yourself:

- *What will you do if you know you can not fail in the next 2 to 5 years?*
- *What is the smallest EBP change that you can make tomorrow that would have the largest positive impact for your patients' outcomes?*



“...because we’ve always
done it that way.”



Greatest Hitter in the World



Nothing Happens Unless First a Dream!

Carl Sandburg



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The Next 2-5 Years

What can we do together in the next 2 to 5 years if we know that we cannot fail?

Let's shoot for the moon, even if we miss, we will land amongst the stars

-Les Brown

There Is A Magic In Thinking Big!



Contact Information

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