Building an Infrastructure for Research at Magnet Hospitals

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Objectives

- Describe vertical infrastructure that assists all nurses with nursing research
- Discuss horizontal structure that will *build* and *sustain* research momentum
- State "tips" learned from 1 hospital system about building infrastructure

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- Main campus in Cleveland OH- 1400 beds
- 8 hospitals in NE Ohio
  - 2 large community sites; ~ 500 beds each
  - 1 faith based site; ~ 300 beds
  - 5 small community hospitals; < 250 beds
- 2 affiliate site in NE Ohio
- 1 hospital in Weston FL; ~ 150 beds
- 18 regional medical/ACS practices
- 2 stand alone EDs
- 1 new hospital will open in NE Ohio (2016)
- 1 hospital in Abu Dhabi (opened March 2015)

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WHEN DO BEDSIDE NURSES CONDUCT & USE RESEARCH?

NONE OF THE ABOVE

- ...gets ill and they ...ook up" data on the topic
- Time is given to do it
- C. Its time to show clinical ladder experiences
- D. The goal is optimal patient care
- E. Need evidence for "Magnet" designation

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WHY DO RESEARCH?

- We need creative approaches to old and new health problems
  - To make a difference in the health status of the patients we serve
  - To match or integrate the rapidly expanding evidence-based knowledge about biological, behavioral and environmental influences on health

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EVIDENCE-BASED PRACTICE

- Half of what you are taught in ~~medical~~ nursing school will be proved to be wrong in 10 years, and the trouble is, none of your teachers know which half. *S. Burwell, Harvard Medical School*
  - We double our medical information every 3-5 years

  Do we change nursing practices every 3-5 years to match medical knowledge?

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Cultivate a spirit of inquiry
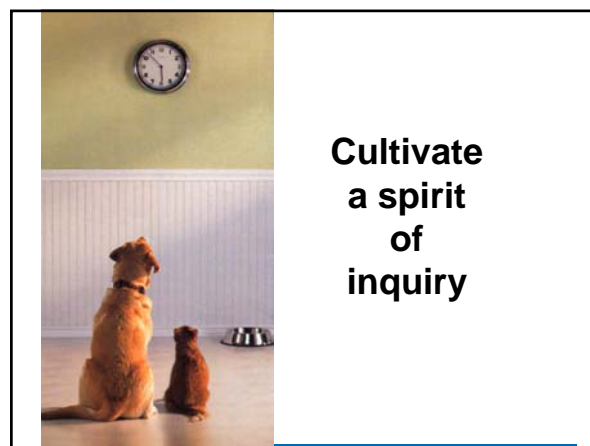
DEVELOPING an INFRASTRUCTURE

- Why are YOU developing a research program and infrastructure?
- What are your long and short term goals?
- What are the immediate needs?
  - We can only get better
  - Make research happen
  - More research

VERTICAL INFRASTRUCTURE

- Available to all nurses who choose to use or meet criteria for using
- Global in nature
- May change over time based on nursing needs

| Other Resources |
| Intranet Resources |
| Database |
| Personnel |

Infrastructure

Vertical Infrastructure - Personnel

Nurses trained in nursing research with:

- Publication history in peer-reviewed journals as 1st author
- Grant writing history
- Mentoring history
- Desire to be a coach, cheerleader, educator

Time:

- ~40% own research program
- ~40% coaching others
- ~20% meeting Office goals
  - Annual research conf.
  - Annual innovation summit
  - Research and Pub Edu. Workshops/sessions
  - Award, abstract reviews

Personnel

Infrastructure

Vertical Infrastructure - Personnel

Minimum Expectations – APR:

- 2 publications/year as 1st author in peer-reviewed journals
- Mentoring nurses in ~~~~~~~~~~~~~~~~~
- Grant ~~~~~~~~~~~~~~~/awards for self and
- Abstract submission to CCF/national meetings

~ 9750 RNs/6.0 FTEs = 1625 RNs each

Personnel

- Leadership within national organizations
- Interdisciplinary and/or multicenter collaborations

Infrastructure

Vertical Infrastructure - Personnel

- **Quality Research Coordinator**
  - Conducts audits of study activities to ensure RNs meet IRB policies
  - New study start-up activities
- **Part-time RN**
  - Research accounting
  - IRB paperwork
  - Orients students to research practicum work
- **RNs and research coordinators hired to manage funded nursing research studies**

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Vertical Infrastructure - Database

Hardware (Server)? Programmer? Or Excel/Access? to manage research projects:

- **Adding/revising projects**
- **Organizing projects by themes**
- **Warehousing project documents—**
  - in progress
  - after completed
  - when abandoned

Database
Personnel
Infrastructure

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Vertical Infrastructure - Database

Resources at your fingertips
- **Templates**
- **Inter- and Intranet sites**
- **Award applications**
- **Checklists/forms**
- **Research translation**
- **Research dissemination**
- **How to…Getting started**
- **+: SPSS; space; budget (statistician; tools…)**

Intranet Resources
Database
Personnel
Infrastructure

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Nursing Research Center

4 clicks to get to home screen

Reference info/ Useful links on *all pages*

Vertical Infrastructure - Intranet

Clinical Research Proposal Template

Clinical Research Proposal

Nursing Institute
Format and Content

Title / Investigators / Version number
Title should reflect the question (topic) you are addressing. Place on a separate page. Keep as short as possible.

Investigators: Include yourself and ALL other collaborators. First name listed is assumed to be the Principal Investigator (PI). Include your nursing research mentor as well (can place "mentor" in parenthesis, as desired)

Version number: Place the version of your proposal in a footnote. Generally, version 1 is the version that the IRB receives for approval. Anytime you make a change and submit an amendment to the IRB due to protocol revision, the version number is updated.

Abstract
For most proposals, the IRB requires a 250 word abstract that provides an overview of the problem, study methods, data collection methods, sample characteristics and sample size.
- Place the abstract on a separate page

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Internal Budget Worksheet Template

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NURSING INSTITUTE

Office of Nursing Research and Innovation
INTERNAL BUDGET WORKSHEET

Study Title: _____ IRB #: _____

Expense Category Code	Expense Category	Budget Amount	DETAILS – COMMENTS
—	IRB Administrative fee		For company sponsored studies ONLY: $2500 ($2000.00 IRB fee + $ 500.00 fee for IRB OSR paperwork initiation and updating). Note: additional $500.00 fee each year of IRB renewal.
10000	Personnel		
10070	Fringe benefits		
90100	Equipment		
90200	Supplies		
90300	Travel		
90400	Contractual Consultant i.e., Biostatistician costs		
90500	Patient care		
90800	Other expense		
—	Total of all rows above		
90900	Indirect expense		For company sponsored studies ONLY: 30% of total. For NIH governmental studies (check OSR for latest %)
	Total Budgeted Costs:		
	Payments expected		
	Profit/loss		

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Case Study Report Form Template

Cardiovascular Status (continued)
☐ Valves replaced / repaired
(please specify): _____
☐ Other (please specify): _____

RHYTHM STATUS (check all that apply)
☐ Normal sinus   ☐ Paroxysmal Atrial fibrillation
☐ Atrial flutter   ☐ Persistent or Very Persistent Atrial Fibrillation
☐ Sick sinus syndrome   ☐ Paroxysmal event(s)

Aids a novice researcher in seeing:
- **Use of spacing, color highlights, data collection variations (check box, fill in the blank)**
- **Use of words, fonts, font variation (italics, bold)**
- **Level of detail in instructions**

☐ Other (please specify): _____

TRANSPLANT MEDICAL STATUS
Is the heart patient on a transplant waiting list? ☐ Yes   ☐ No
    If YES, specify date placed on heart transplant list: _____
Was this patient taken off the transplant list after receiving an InSync Sentry implant?   ☐ Yes   ☐ No

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Content Validity Testing Template

- **Uses Lynn methodology**
  - *Nursing Research* 1986;35(6):382-385.

Content Validity Index for ([place title of survey here] SURVEY

About yourself: Are you a: ☐ NM or ANM   ☐ CI or CNS   ☐ Staff nurse

How long have you worked on your present unit? _____ years.

For each of the statements in the survey below, please assess content validity by providing information about: Item relevance (does the statement belong on a survey of assessment of place theme of survey here), clarity and importance	CONTENT RELEVANCE 1. Item is not relevant 2. Unable to assess relevance without item revision 3. Relevant but needs minor alteration 4. Item is very relevant and succinct.	ITEM CLARITY 1. Unclear 2. Unclear without revision 3. Clear with minor alteration 4. Clear	ITEM IMPORTANCE 1. Not important; remove 2. Somewhat important; keep on survey if room 3. Important; keep on survey 4. Very important; do not remove from survey.
Choose a number for each statement:	Content Relevance score (1-4)	Item Clarity score (1-4)	Item Importance score (1-4)

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Faculty / Student Checklist

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Student check off	Faculty check off	Students and College Faculty: Place a check in each box if not blackened to show that you read content and understand your expectations
		Criteria
		College faculty, you are responsible to provide guidance in the following: • Mentoring/coaching in development of the proposal to meet CC research coach requests and CC IRB requirements • Mentoring/coaching in revisions (beyond minor changes) to the proposal to meet CC research coach requests and CC IRB requirements • Deliver instructions in collecting data (qualitative or quantitative data) • Deliver instructions on developing an electronic database • Deliver instructions on data entry into an electronic database • Deliver instructions on data cleaning/assessment for quality data entry • Assist with or provide resources toward data analysis i.e., provide a statistician • Explain analysis results • Assist in developing an abstract, tables or other post analysis reports
		The research project will automatically be reviewed at some point while "active" by the CC Nursing Institute Quality Research Council representative to assure that all CC IRB rules are being followed.
		Another nurse cannot assist with the student's data collection without prior IRB amendment request and approval.
		If the research coach determines that the CC employee is NOT following IRB rules and/or has carried out research work incorrectly or incompletely, such that it does not meet IRB requirements, the research coach may: (1) ask for a formal teleconference with both parties to discuss expectations and ability to meet them or (2) ask the student to "close" the project with the IRB to prevent further issues in assuring human subjects protection and/or other IRB rules.
		If data is leaving CC, the IRB MUST give approval before any data leaves CC.
		If data leaves CC on a USB drive or a personal computer, the IRB MUST give approval and the USB drive must be assessed to be sure it is encrypted

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Do some nurses need help getting started?

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Miscellaneous
Sample Size
Using Visual Analog Scales

IRB
Cleveland Clinic Institutional Review Board
Common Issues Associated with Research Studies
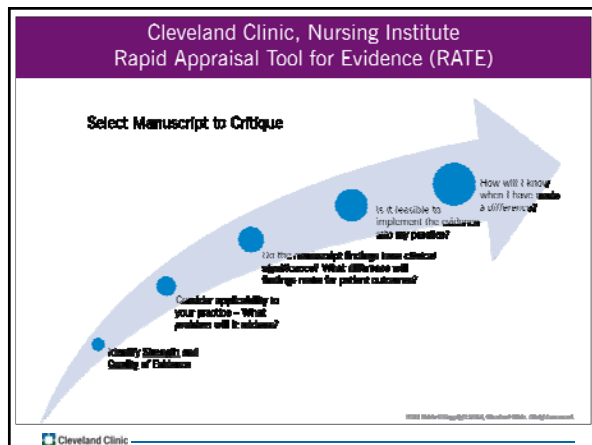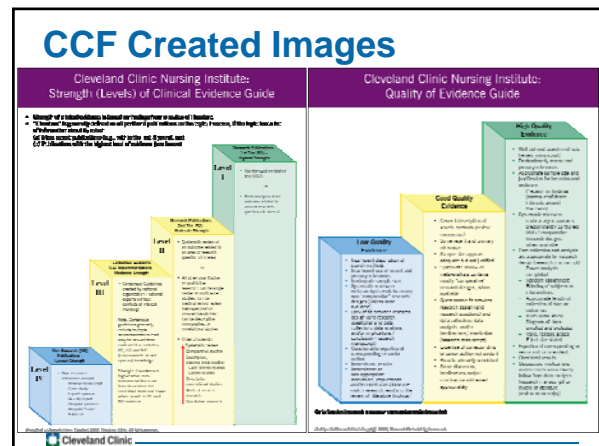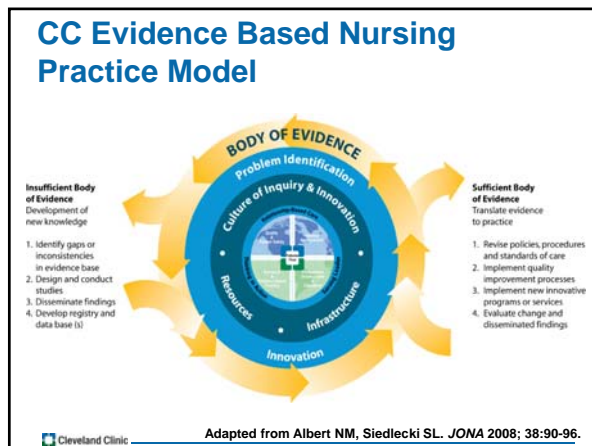Frequently Asked Questions

General Information

EPIC Data | Templates | Checklists | EBP | Research vs. Quality | Contacts

Delegation of Responsibility and Study Training Log
Federal or Foundation Grant Checklist
Industry Sponsored Study Checklist (inc. devices)
Overcoming Common Issues Associated with Research Studies
Protocol Feasibility Checklist
Regulatory Binder Checklist
Study Close-Out Checklist
Study Start-Up Checklist for Research Initiated and Sponsored by Industry

Useful Links
Am. Nurses Assoc. Research Toolkit
Center for Clinical Research
CITI Human Subject Course
EBP resources and web links
Libraries, CCHS

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CC Evidence Based Nursing Practice Model

Adapted from Albert NM, Siedlecki SL. *JONA* 2008; 38:90-96.

CCF Created Images

Cleveland Clinic, Nursing Institute
Rapid Appraisal Tool for Evidence (RATE)

Select Manuscript to Critique

Internal Translation and Internal (Poster) and External (Published Paper) Dissemination

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Useful Links

Useful Links

Award Applications

NURF Award -
to fund nurse-led research projects

NURF Lit Award -
to fund nurse-led literature reviews

Vertical Infrastructure - Database

Other Resources:
- **Statistician support**
- **Art department**
  - **Posters**
  - **Figures- slides/papers**
- **Marketing**
  - **Internal sharing of research**
  - **Notable Nursing ext pub.**
- **Library - Librarians**
- **Center for Clinical Research**
- **IRB office**

Other Resources

Intranet Resources

Database

Personnel

Infrastructure

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HORIZONTAL INFRASTRUCTURE

- **Goals:**
  - –**Help clinical nurses understand the importance and power of rigorous data, new knowledge and high strength/quality EBP**
  - –**Sustain nursing research**
- **Specific in nature**
- **Foundational- *should not* change often if applied optimally**

Leader Annual Performance Review	Career Ladder	Shared Governance
Infrastructure		
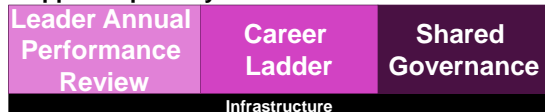
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DEVELOPING a FOUNDATION

Lay a strong foundation for nursing science

Chief Nursing Officer & Other Leadership Support

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HORIZONTAL INFRASTRUCTURE

- **Do physicians and other healthcare providers understand the value of nursing research?**
- **How do nurse leaders visually and verbally advocate for nursing research?**
  - –**Ask for evidence when someone suggests spending $ on products/services?**
  - –**Share /discuss important research papers at meetings?**
  - –**Suggest research to answer important practice questions?**

Leader Annual Performance Review

Chief Nursing Officer & Other Leadership Support

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Example

- **Companies pushed disposable ECG lead wires to ⇩ HAI**
- **RoL showed bacteria on LW but no research on HAI rates based on ECG LW type**
- **Recent theme:**
  - • **Bath basin soap/H_2O vs. CHG wipes**

INFECTION RATES IN INTENSIVE CARE UNITS BY ELECTROCARDIOGRAPHIC LEAD WIRE TYPE: DISPOSABLE VS REUSABLE

By Nancy M. Albert, PhD, CCNS, CHFN, CCRN, NE-BC, Ellen Slifcak, RN, BA, Joel D. Roach, BA, James F. Bena, MS, Gregory Horvath, RN, BA, MBA, Sue Wilson, RN, BSN, Rosslyn Van Den Bossche, RN, BSN, MBA, Nenny Vargas, RN, MSN, CCRN, CEN, Victoria Rhoades, RN, BSN, CCRN, Katrina M. Hartig, RN, BSN, MS, NE-BC, Heather Lachiewicz, RN, MSN, CCRN, CNML, and Terri Murray, RN, MSN

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HORIZONTAL INFRASTRUCTURE

- **Career Ladder:**
  - –**Points for leading nursing research**
  - –**Points for participating in nursing research**
  - –**Points for intellectual property in novel research interventions**
  - –**Points or disseminating research in peer-reviewed journals**

Leader Annual Performance Review	Career Ladder

Chief Nursing Officer & Other Leadership Support

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HORIZONTAL INFRASTRUCTURE

- ***Unit Based* Shared Governance:**
  - –**How embedded is nursing research at the unit level?**
  - –**Or, do you rely on a global nursing research council to facilitate staff-nurse led research?**

Leader Annual Performance Review	Career Ladder	Shared Governance

Chief Nursing Officer & Other Leadership Support

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INFRASTRUCTURE

Nursing Leader APR	Career Ladder	Shared Gover-nance	Doctoral Prepared Nurse Researcher
			Other Resources
			Intranet Resources
			Database

Chief Nursing Officer & Other Leadership Support

Infrastructure

Tips in the Nursing Research Magnet Journey

## So, You Want To Do Research; Now What?

- The research question is the most important piece!
- Always develop the question before discussing:
  - Full research team
  - Research methods
  - Tools
- Pick a topic/question you are really interested in!

BUILDING BRIDGES

- People
  - Internal and external
- Resources
  - If you do not have resources; find some- they are out there
- Show evidence of research findings
  - Research leads to more research
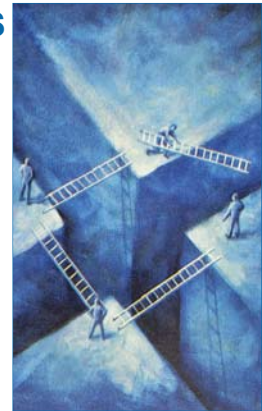
TEAMWORK

- Encourage nurses to work in teams, when possible
- Involve non-nursing experts
- Determine group rules early
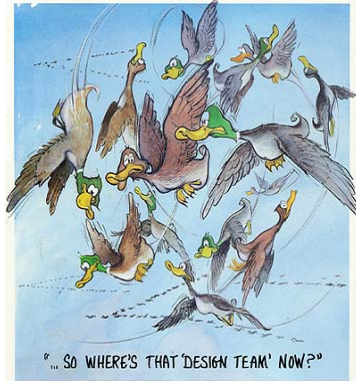 - Author status
  - Work expectations
  - Outcomes

Replication Studies

Data Collection

- **Data collection takes time & attention to detail**
- **Momentum can be lost if team does not support**

"... SO WHERE'S THAT 'DESIGN TEAM' NOW?"

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SHARE EVIDENCE & OUTCOMES

- **Must publish!**
- **Poster presentations on our website**
- **11 x 17" posters hung on wall**
- *Notable Nursing* **– 2 articles/issue**
- **Local presentations**
  - –Leaders
  - –Colleagues

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NEGATIVE RESULTS ARE STILL POSITIVE!

"I'm feeling great . . . I think they're giving me the placebo."

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CONCLUSION

- **Research is like a foreign language**
- **An infrastructure that supports:**
  - **RoL**
  - **Research conduct and analysis**
  - **Research translation and dissemination**
    - –Helps nurses get started
- **Use resources: national organizations, nurse/other experts, college resources**

Research moves your nursing dept. one step forward in making a mark as a leader

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Your nursing research infrastructure can create footsteps that set a new course for nursing practice

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