


**2011 OPHA PHN Section Conference**  
**“Strengthening Our Voice in Challenging Times”**

## Current Research Topics in Public Health Nursing Practice

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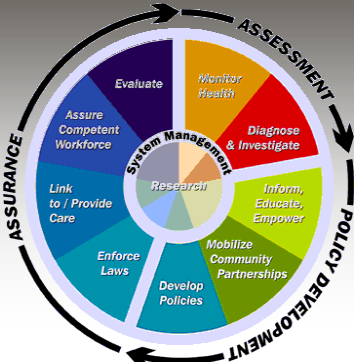
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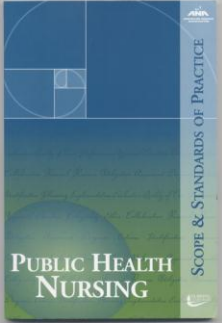
## Why research on PHN practice?

“effective PH action must be based on accurate knowledge of the causes and distributions of health problems and of effective interventions”

(IOM, 1988, p. 6)



## Why research on PHN practice?



**Standard 13.**

**The PHN integrates research findings into practice**

(ANA, 2007)

## Why research on PHN practice?



**Strengthening systems, improving the public's health**



## Why research on PHN practice?

Ohio Revised Code-

1. Complete state standards every other year
2. Complete the NPHPS once every 5 years



## Why research on PHN practice?

PHN practice –  
outside of some direct care  
interventions –  
does not have a strong  
evidence-base!

Need evidence to support  
population-focused  
PH nursing



## Presentation objectives

1. Describe two priority research areas related to PHN practice
2. Discuss the practice implications of current research on PHN in Ohio
3. Identify potential research issues relevant to PHN practice in Ohio

## 2009 ACHNE Research priorities for C/PHN

- 2006/7 literature review
  - 485 studies, 7 nursing journals
  - priorities from key federal funding agencies
- Results:
  - Most studies addressed health promotion, disparities, global health
  - < 20% on PHN workforce
  - 12% quasi-experimental or experimental

## 2009 ACHNE Research priorities for C/PHN

### Two overarching priorities for C/PHN:

#### 1. Population-focused outcomes

- ✓ More advanced designs & methods

#### 2. C/PHN workforce

- ✓ Workforce database
- ✓ PHN practice competency
- ✓ Economic value of PHN services
- *Need for evidence-based C/PHN practice*
- *Collaboration - practitioners, educators, researchers*

## Research priority #1: Population-focused Outcomes

### Safe practice of Population-Focused Nursing Care: Development of a PHN Concept (Issel & Bekemeier, 2010)

- Descriptive study to define safe care for PH nursing
- Describe how safe PHN practice might affect health outcomes
  - ✓ Recognized dimension of quality care
  - ✓ “Patient safety” – freedom from accidental injury
  - ✓ IOM, 2004: prevention of harm to patients
- “Population-patient” – identifies specific collective target recipient of PHN services

### Safe practice of Population-Focused Nursing Care: Development of a PHN Concept (Issel & Bekemeier, 2010)

#### 5 Population-patient Safety Concepts

- Structural
  - ✓ Operational failures - e.g., inadequate staffing
  - ✓ Systems failures – e.g., untimely sharing of data
- Process
  - ✓ Error by omission – e.g., inadequate outreach
  - ✓ Error by commission – e.g., inaccurate info
- Example: Popn.-focused popn.-patient outcome
  - ✓ flu immunizations - correct planning, ordering, staffing, outreach, administration

## Research priority #1: Population-focused Outcomes

### Three Population-patient Care Outcome Indicators for PH Nursing: Result of a Consensus Project (Issel et al., 2010)

- Descriptive research – what are consequences of not having RNs to provide PHN functions?
- No established specifics on impact of RN shortage for PH on population-focused patient-pop. outcomes
- Need specific outcomes indicators to measure effectiveness of PHN care and for PHN manager decision-making

### Three Population-patient Care Outcome Indicators for PH Nursing: Result of a Consensus Project (Isaet et al., 2010)

- Consensus process – 6 DoNs, 3 PHN faculty
- Worked from existing state and county health indicators
- Wanted outcomes measures that were PHN relevant, reflected current LHD program foci, would be useful to document effects of PHN and RN shortages
- Identified 3 outcome indicators:
  - Chlamydia incidence rate
  - % pregnant women with 1<sup>st</sup> trimester PNC visit
  - % children 0-2 y.o. UTD immunization status

### Three Population-patient Care Outcome Indicators for PH Nursing: Result of a Consensus Project (Isaet et al., 2010)

- Potential harm to population-patient with inadequate PHN RN staffing:
  - Chlamydia: increase rates of chlamydia, infertility, preterm birth; increase disparities
  - Pregnant women with 1<sup>st</sup> trimester PNC visit: increase rates of preterm birth, LBW; decrease breastfeeding rate; increase birth outcomes disparities
  - % children 0-2 y.o. UTD immunization status: increase rates of vaccine-preventable diseases, hospitalizations/other HC service use, morbidity and mortality from preventable infections; decreased herd immunity

### Research priority #1: Population-focused Outcomes

#### PHN Case Management for Women Receiving TANF: A RCT using CBPR (Kniepp et al., 2011)

- To date, only descriptive research on health problems, disparities for women on TANF (e.g., depression, substance abuse, PTSD, health status, disparities)
- Need appropriate strategies for this vulnerable population
- 1 urban, 1 rural county in FL; PHN in local TANF office; 9 mo. CM; measures at baseline, 3-6-9 months
- Case mgt.: access, appropriate health svc. use, coordination, education, referral, health goals

#### PHN Case Management for Women Receiving TANF: A RCT using CBPR (Kniepp et al., 2011)

##### Results;

- Improvement in Medicaid knowledge, skills; functional status, depression
- Increase #s initiating new MH visit
- No differences in use of routine or preventive services, general health status

##### Concluded:

- On-site PHN CM can improve outcomes for women on TANF
- Partnership of LHD, PHN , Medicaid, other partners

### Research priority #1: Population-focused Outcomes

#### Feasibility of integrating Omaha System Data Across Home Care Agencies and Vendors (Westra et al., 2010)

- Descriptive study – abstracting, integrating, comparing data from standardized nursing documentation system
- 15 Medicare-certified home health care agencies
- Part of larger study combining data from OASIS and the Omaha System to examine patient outcomes
  - OASIS: demographic data
  - Omaha System: problems, interventions, outcomes

### Feasibility of integrating Omaha System Data Across Home Care Agencies and Vendors (Westra et al., 2010)

#### Results

- Differences in data, file formats across agencies- due to different Omaha System vendors
  - Able to merge, integrate abstracted data from *common documentation system*
- Missing data issues were agency, vendor specific
- Upheld meaningful use criterion for interoperable EHR
- Larger study- outcome indicators used to develop standardized pain mgt. protocols across agencies

### Research priority #2: C/PHN Workforce

#### Feasibility of using the Omaha System to Represent PHN Manager Interventions (Monsen & Newsome, 2011)

- Case study – 1 PHN NM, midwest LHD, over 5 mos.
- 76% of PHN NM work hours represented by interventions for 79 project, team, individual “clients”
  - Addressed 43% of problems in Omaha System
  - 87% of problems were community level
- Differentiated PHN NM interventions in family home visiting program and in PHN management
- Potential use of standardized documentation for quantifying value of PHN services even mgt. level

### Research priority #2: C/PHN Workforce

#### Impact of Web-Delivered Education on Preceptor Role Self-Efficacy & Knowledge in PHNs (Larsen & Zahner, 2011)

- Quasi-experimental study, pre/post test measures
- Web delivered 10-module program on preceptor skills
  - Could complete at own pace, any order

#### Results:

- Increase self-efficacy immediately, after 3 months
- Increase knowledge immediately, drop-off at 3 months
- Further research- follow-up, complete on LHD time

### Research priority #2: C/PHN Workforce

#### PHN competency in a Rural/Frontier State (Bigbee et al., 2010)

- Descriptive study, 124 PHNS in PHAs in Idaho
- Competencies measured by self-report
- Used Quad Council, Council on Linkages competency standards

### PHN competency in a Rural/Frontier State (Bigbee et al., 2010)

- Overall moderate competency levels, most strongly associated with years overall nursing experience
- Highest competency levels in: communication, cultural competence, leadership skills
- Lowest competency levels: analytic assessment, policy dev./program plang., financial plang./mgt. skills
- Rural district PHNs higher in community dimension of practice skills
- Some difference by staff vs. management levels (analytic assessment, basic PH skills, financial, leadership, policy/program planning), education (analytic assessment)

### Research priority #2: C/PHN Workforce

#### Self-Reported Competency of PHNs and Faculty in Illinois (Issel et al., 2006)

- Descriptive study, 168 PHNs in 5 LHDs
- Quad Council, 10 Essential Svcs. competency stds.
- PHNs most competent in ES 7 – Linking; lowest in policy development/program planning, ES 10 – research innovative solutions to PH problems
- Higher competency in PHNs with more years experiences in all areas except ES 3 – Inform, educate, empower

### Research priority #2: C/PHN Workforce

#### Barriers and Facilitators to the Incorporation of EH into PHN Practice (Hill et al., 2010)

- National consensus on nursing responsibility to incorporate EH into practice
- Descriptive study, 141 PHNs in rural western state
- PHNs report most frequent requests: basic EH info, info on health effects related to hazards, assistance collecting EH data, assistance taking PH action
- PHNs least frequent requests: assist/find/interpret EH studies, analyze/interpret EH data
- Barriers to incorporate EH: time, client interest
- Facilitators: resources, CE

### Research priority #2: C/PHN Workforce

#### Market Analysis of Salary & compensation for PHNs and Hospital Nurses (Edwards et al., 2011)

- Descriptive study to quantify differences in compensation – 6 LHDs, 11 hospitals in same county

#### Results:

- 100% LHDs, 70% provide CE reimbursement
- LHDs provide 11% more tuition reimbursement (\$2,924 vs. \$2,639)
- LHD salaries not competitive
- More research needed on links among PHN salary, recruitment & retention as well as other factors related to recruitment & retention

### Research priority #2: C/PHN Workforce

#### Analyzing the differences between Position Descriptions for Ohio PHNs and Standard Indicators of PH and PHN competency and Scope of Practice (Poiivka & Chaudry, 2011)

- Ohio RAPHI funded descriptive study; Alex Jones representing section
- Assessing fit between PDs and: ANA PHN Scope & Standards, Quad Council and Col competencies, ES
- Compare: LHDS by key characteristics, PHN levels
- Develop recommendations re: Ohio PHN workforce development; PHN education, practice, research
- OSU IRB exempt

### 12 PH Practice Based Research Networks

- Production & translation of information to improve quality of care, health outcomes
- Local & state HDs, community partners, academia
- Provide evidence-base for daily functions of LHDs
- Research questions from PH practice community
- Disseminate best practices among Ohio HDs
- Develop, strengthen PH partnerships

Ohio Research Association for  
Public Health Improvement (RAPHI)

### Discussion – What are the practice implications of current research on PHNs in Ohio?

#### Population-focused outcomes

1. Safe practice of PHN care
2. Three population-focused PHN outcome indicators
3. PHN case mgt. for women on TANF
4. Using Omaha System data across 15 HHC agencies

#### C/PHN Workforce

1. Using Omaha System with PHN NM interventions
2. Web education & PHN preceptor self-efficacy, knowledge
3. PHN competency in rural/frontier state
4. PHN & faculty competency
5. Incorporating EH into PHN practice
6. Market analysis of PHN & hospital compensation
7. Analyzing Ohio PHN PDs

