School Nursing Outcomes: Advancing Public Health Nursing Research

ERIN MAUGHAN, RN, PHD, APHN-BC
MARTHA DEWEY BERGREN, DNS, RN, NCSN, FNASN, FASHA

http://schoolpromotions.wordpress.com/2011/05/11/see-the-school-nurse-today/
During this presentation we will:

- Articulate where we are in the process of identifying school nurse sensitive outcomes they can measure in their practice.
- Identify where important data is collected in their local region, and how to access and how to use the data to promote school nursing.
Background

- School children uninsured, undocumented
- Public health depends on school health services to fulfill mission
- Increasingly complex, medically fragile children
- Increase in number of children with chronic health conditions
- Tightening budgets
- Increased emphasis on accountability—but little data!!!
Sensitive Nursing Outcomes: Hospitals

- Linda Aiken and Colleagues
  - Decubitus ulcers—Bed sores
  - Infected Central Lines
  - Failure to Rescue
  - Readmissions
  - Patient Mortality

http://www.nursing.upenn.edu/faculty/profile.asp?pid=107
Adult ambulatory care / hospital admission rates

- Diabetes short term complications
- Diabetes long term complications
- Low birth weight
- Perforated appendix

AHRQ
Pediatric Quality Indicators

- Asthma admissions
- Diabetes short term complications
- Perforated appendix
- Urinary tract infection admissions

Standardized Data

- North American Nursing Diagnosis Association International (NANDA),
- The Nursing Intervention Classification (NIC), and the Nursing Outcome Classification (NOC).
Many influences on outcomes….

- Poverty
- School climate
- School system leadership
- Parenting
- Breadth / quality community health services
- and much more…..
School nurse sensitive outcomes

- Identify factors that measure the impact of nursing care over and above other factors.
- Outcomes “sensitive” enough to distinguish between the effects of family and community and the effects of the quality and the quantity school nursing interventions on child, family and school community outcomes.
Nursing-sensitive indicators identify structures of care & care processes, both of which influence care outcomes.

Nursing-sensitive indicators are distinct and specific to nursing, and differ from medical indicators of care quality.

Nursing outcome indicators are those outcomes most influenced by nursing care.
Donabedian Theory

- Structure
- Process
- Outcome
Process to Identify Outcomes

- **Martha: Director of Research - 2008**
  - Preparation
  - Masters Prepared
  - University faculty
  - School Nurse clinicians
- **Board of Directors:**
  - 54 nurses from 50 states
  - Wide range of education and experience

Critical Indicators

Structure

- LPN RN BSN Bachelors MSN masters doctorate
- Leadership /Coordinator
- Number of schools
- Policy
- State standards
- Mandated services
- Nurse practice act
- Practice guidelines

- Documentation system
- Percent time/hours per day/Days per year
- Clerical assistance
- Prep time
- State consultant
- District size
- Uninsured poverty
- Mobility rate
- Density

Critical Indicators

Structure

- Income
- Graduation rate
- Disabilities
- Pregnancy
- Substance abuse
- Acute community, SBHC, providers
- EMS response time
- Social worker

- Geography
- Distance lakes mountains highways weather
- Rural urban suburban
- Transportation, public health system, acute, HMO, 3rd party Medicaid
- Phone / Fax /Location

http://www.edison.k12.nj.us/domain/387
Critical Indicators

Process

- Assessment
- Plan
  - Care plans
  - Asthma Action Plans
  - Food Allergy Action Plans
- Intervene
- Evaluate
- Communicate

- Hand washing classes
- UAP Training
- UAP Supervision
- AED
- Immunization practices
- Medication practices
- SCHIP
- Vision Hearing Screening F/U

http://www.nhschoolnurses.org
Critical Sensitive Outcomes

- 911 calls
- Absenteeism
- Anaphylaxis response
- Asthma response
- Attendance

- Community partnerships
- Deaths
- Dental health
- Depression
- Early dismissal
- Emergency room utilization/Hospitalizations
Critical Sensitive Outcomes

- Graduation rates
- Health care costs
- Health office visits
- Immunization rate
- Improved behavior
- Inclusion / exclusion

- Increased case management
- Increased planned care
- Increased quality of life
Critical Sensitive Outcomes

- Injury
- Instruction time
- Insurance
- Medical home
- Medications missed dose
- Medications wrong dose
- Nutrition – healthy foods
- Obesity

- Parent communication
- Parent involvement
- Parent lost time from work
- Parent satisfaction
- Physical activity
- Policy changes
- Pregnancy

Critical Sensitive Outcomes

- Revenue: 3rd party
- Revenue: Grants
- Revenue: Medicaid
- Safer school environment: Bullying
- Safer school environment: Hazing
- School Connectedness
- Serendipitous case finding
- Staff communication
- Staff preparedness
- Staff satisfaction
- Test scores – achievement
- Wellbeing

http://pointersviewpoint.wordpress.com/2010/06/10/stop-bullying-an-information-on-bullying/
Critical Sensitive Outcomes

- Specific health and education outcomes: Seatbelts
- Specific health and education outcomes: Smoking
- Specific health and education outcomes: Vision follow-up
- Specific health and education outcomes: etc (identify)
Delphi Study

- Obtained funding from National Association of School Nurses (NASN)
- Following protocol from RAND/UCLA and AHRQ

http://www.sussexineurope.org/europeinschool/states/Greece/greek_pic1.htm
Delphi Process

- Advisory Group
  - Review outcomes
  - Oversee process

- School Nurse Experts
  - Round 1
  - Teleconference
  - Round 2

Delphi, cont

- Evaluate each outcome in three areas:
  - School Nurse Sensitive
  - Important to School Nursing
  - Feasibility in Collecting Data

- Rate each topic using 1-9 scale

http://www.ndhealth.gov/school-nursing/
Evaluation Criteria

- Importance
- Scientific acceptability
- Usability
- Feasibility
Where to Find the Data

- Electronic Health Records
- State Databases
- Local Examples
http://eastpenn.k12.pa.us
Contact Information

- Erin Maughan:
  - erin_maughan@byu.edu*

- Martha Dewey Bergren:
  - mbergren@nasn.org

We would love to hear from you!!