

## Reference Guide: Evidence-Based Practice or Research?

### Definition of Evidence-Based Practice

Born out of efforts of evidence-based medicine, which is the integration of best research evidence with clinical expertise and patient values to guide individual care, Evidence-Based Practice (EBP) is problem solving approach that integrates a systematic search for and critical appraisal of the most relevant evidence to answer a clinical, education or administrative question Shirey, M.R. et al. 2011. J of Continuing Ed in Nursing 42(2):57-68. (See also <http://www.healthypeople.gov/2010/hp2020/advisory/pdfs/EvidenceBasedClinicalPH2010.pdf>).

### Steps common to EBP include [PICO]:

- (1) ask a focused program/policy/instructional question,
- (2) search for best scientific evidence,
- (3) critically appraise the evidence,
- (4) synthesize the evidence,
- (5) apply the evidence, and
- (6) evaluate the outcomes.

<http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Vol-18-2013/No2-May-2013/Impact-of-Evidence-Based-Practice.html>).

### Definition of Human Subjects Research

A systematic investigation, including research development, testing and evaluation, designed to develop or contribute generalizable knowledge. Research includes collection of data through intervention or interaction with living individuals or identifiable private information about them. Such efforts are designed to benefit society in the future from knowledge gains. 45CFR46.102(e)

### General Characteristics

#### Evidence-Based Practice

#### Human Subjects Research

INTENT of EBP activities is to translate research evidence into practice, increase effectiveness of products and services through programs and policy improvements, and encourage consistency of practice based on best research evidence.	INTENT of the activity is to generate knowledge—by generating hypotheses, testing them, and answering research questions—to develop new paradigms or untested methods, or establish standards where none are accepted.
DESIGN includes usual administrative oversight to ensure all participants continue to receive standard or evidentiary best practices during conduct of EPB activities.	DESIGN may include group comparisons, randomization, control groups, placebo. Some participants may receive non-standard or experimental tests, products or services.
SETTING of activities is within the organization or a unit of it.	SETTING of the activities may be within or beyond the organization.
PARTICIPANTS and their data are not used as a representative sample of a broader population outside of the organization.	PARTICIPANTS and their data are selected as a representative sample of a broader population outside of the organization.
RISKS of harm to participants are not anticipated.	RISKS of harm to participants are possible.
INFORMED CONSENT is usually not required as there is no plan to provide less than standard practices and data collected is about the org and not participants.	INFORMED CONSENT may be required as research participation is voluntary and may involve non-standard care, products, services or instruction.

**Examples**

**Evidence-Based Practice**

**Human Subjects Research**

**In the Classroom:**

Concerned students with language challenges are not receiving adequate individualized instruction, the School formed a taskforce to evaluate its Individualized Education Program practices. The Taskforce asked, “What instructional practices have been shown to be most effective for children with language problems?” The Taskforce conducted a systematic literature review to identify proven program strategies. Evidence was collected, assessed and rated, and the results summarized and reviewed, resulting in changes to 5 instructional strategies.

The Individualized Education Program Director identified an experimental math instructional program for children with language disabilities. He randomized instruction for children to receive either the usual or the experimental math instruction. He hypothesized children in the experimental math instructional program will have higher test scores than those receiving usual instruction. At end of the quarter, the Director evaluates test scores.

**In the Clinic:**

With benchmarking efforts revealing the hospital had highest nosocomial infection rate of its peers, the Infectious Disease (ID) committee asked, “What procedures will help us lower and manage our rate?” Sub-committees formed to conduct systematic literature reviews on surveillance, outbreak investigations, nursing procedures, and lab and anti-biotic use protocols. Evidence was collected, assessed and rated. Best-rated results were reviewed by the committee which resulted in changes to 10 relevant procedures in Nursing, Lab Services and IC.

In tandem with its evidence-based efforts, the IC nurse conducted focus groups with a sample of medical, nursing, housekeeping and administrative staff on all three shifts to solicit their observations and input on what systems and interruptions obstructed their abilities to maintain a clean environment and good infection control techniques. Based on their responses, a survey was constructed and offered to all employees via Survey Monkey. The Infection Control nurse plans to publish the results as they are generalizable to other hospitals.

**In the Community:**

The Health Dept. identified a 3-year downward trend in childhood immunization rates. The Dept. asked, “What programs do we need to establish to increase and maintain high immunization rates?” The Dept. conducted a systematic literature review to identify proven program strategies. Evidence was collected, assessed and rated, and the results summarized and reviewed. The Dept. added multiple interventions: a reminder and recall system, community educational events on the importance of timely immunizations, and expanded access to services by changing hours of operation and availability of transit vouchers.

In conjunction with its evidence-based efforts to affect immunization rates, the Dept. conducted home visits in 3 zip code areas where rates were the lowest to interview a sample of families and collect info on demographics, beliefs related to childhood immunization, and barriers to immunization schedule compliance. The data collected will be analyzed and used by the Dept. in its efforts to improve immunization. Themes identified will published in a public health journal as the findings will be relevant for other health departments.