Evidence-Based Programming

What is “Evidence-Based” Practice?

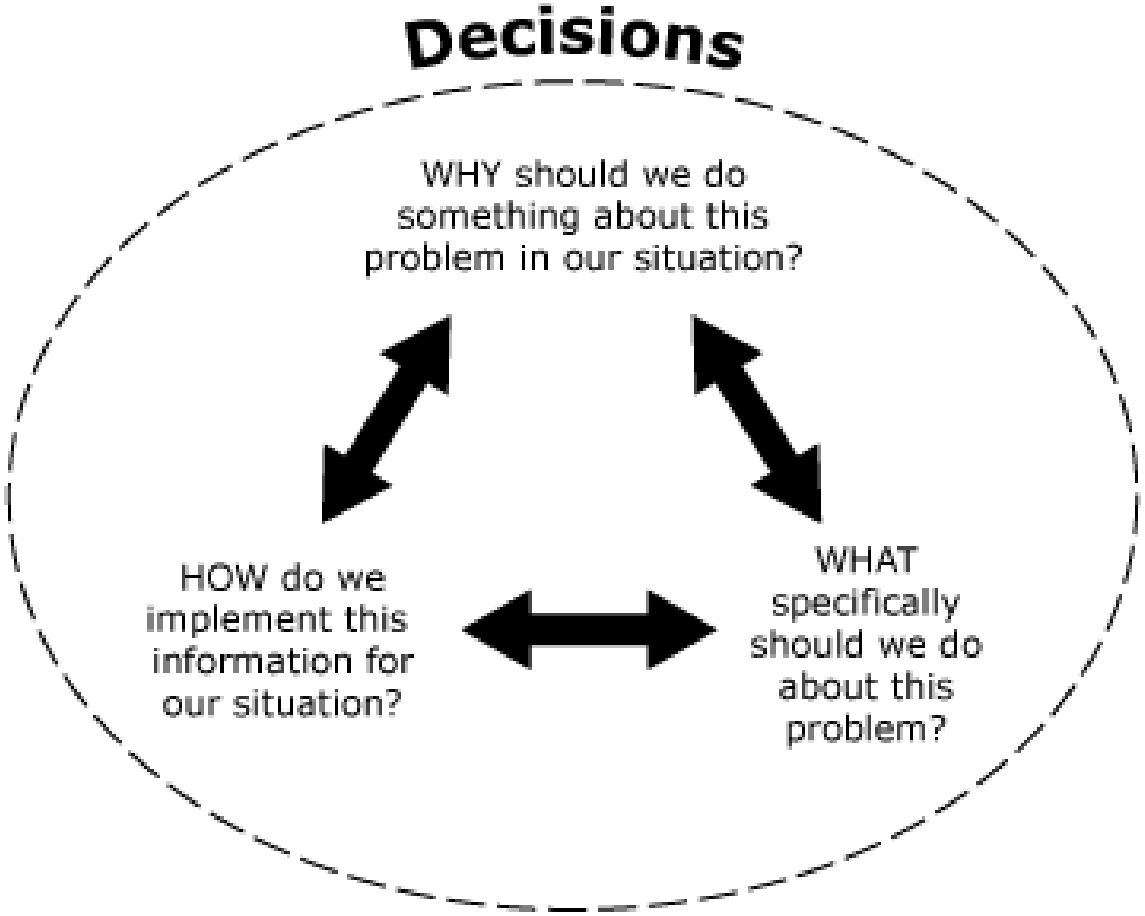
The development, implementation, and evaluation of effective programs and policies through application of principles of scientific reasoning, including systematic uses of data and information systems and appropriate use of behavioral science theory and program planning models.

Source: Anderson, L. M., Brownson, R. C., Fullilove, M. T., Teutsch, S. M., Novick, L. F., & Fielding, J. (2005). Evidence-Based Public Health Policy and Practice: Promises and Limits.

What does this mean?

Basically, it's using data and best practices to inform program design.

Importance of Evidence-Based Practices



Key Definitions in Evidence-Based Practice

- Efficacy – measures whether the intervention produces the expected results under ideal circumstances
- Effectiveness – measures degree of beneficial effect under “real world” conditions
- Internal validity – degree to which intervention is responsible for producing the intended effect
- External validity – degree to which intervention results can be generalized to other populations/circumstances

Foundation of Evidence-Based Studies

Systematic Reviews

- Summarize results of available studies
- Provide assessment of quality of evidence
- Examine effectiveness of interventions

Where to Find Evidence-Based Interventions

- National Cancer Institute – R-TIPS
- NACCHO Model Practices
- AHRQ Innovation Exchange
- The Guide to Community Preventive Services
- National Cancer Institute – Research to Reality
- Cancer Control P.L.A.N.E.T.
- The Community Tool Box

Research Tested Intervention Programs (R-TIPs)

- Empowering and utilizing physicians
- Friend to friend education
- Utilization of non-traditional settings to deliver care
- Peer-navigation
- Patient navigation
- Targeted mailings
- Education in worksite settings

Using Evidence to Inform Program Design I

About the Study

A randomized, controlled trial was used to test the efficacy of a direct mail intervention as a population-wide approach for increasing screening mammography use among women who are eligible for free screening services through the National Breast and Cervical Cancer Early Detection Program (NBCCEDP). Women in the first intervention condition received two different mailers, sent approximately one month apart. Women in the second intervention condition received the same mailers plus a $10 monetary incentive for those who complete a mammogram within approximately one year. These groups were compared to a no-intervention control group. Women in all three study groups may have been exposed to other ongoing NBCCEDP program recruitment activities, including efforts by community health agency recruiters, occasional print and broadcast media advertisements, and individual participating clinics promoting the program to their patients.

The primary outcome was completion of a mammogram through Sage, the NBCCEDP program in Minnesota, within 13 months after the intervention's onset.

The sampling frame provided 145,467 possible participants for the study, with a mean age of 49.7 years. Cases were split into low versus high mammography rate clusters (MRC), based on NCI's Consumer Health Profiles that reflect associations between health behaviors and Claritas PRIZM cluster assignment for each woman. Of the 145,467 possible participants, 34,540 (23.7%) were from low MRC strata and 110,927 (76.3%) were from high MRC strata. Cases were randomized to each group, although since the high MRC stratum was much larger, a higher percentage of high MRC cases were allocated to the control group. In total, 25,633 participants were randomly assigned to the mail only group, 25,633 were assigned to the mail plus incentive group, and 94,201 were assigned to the control group.

Using Evidence to Inform Program Design II

The Program

Description

Woman to Woman is a 16-month intervention aimed at improving adherence to screening guidelines for breast and cervical cancer among women aged 40 and older.

Volunteer advisory boards recruit and select peer health advisors (PHAs), tailor the intervention according to the needs and interests of the worksite, as well as assist in the planning and promotion of intervention activities. PHAs disseminate breast and cervical cancer information to coworkers, provide social support, and foster positive social norms for screening.

Over the course of the intervention, PHAs conduct an average of six small-group discussions on breast and cervical cancer screening. In addition, PHAs also conduct individual outreach to those who do not attend sessions while PHAs and the volunteer advisory boards implement two worksite-wide events over the intervention period.

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Implementation Guide

The Implementation Guide is a resource for implementing this program. It provides important information about the staffing and functions necessary for administering this program in the user's setting. Additionally, the steps needed to carry out the research-tested program, relevant program materials, and information for evaluating the program are included. The Implementation Guide can be viewed and downloaded in the Products page.

The Community Guide

Interventions	Breast Cancer
Client Reminders	Recommended (July 2010)
Client Incentives	Insufficient evidence (July 2010)
Small Media	Recommended (December 2005)
Mass Media	Insufficient evidence (October 2009)
Group Education	Recommended (October 2009)
One-on-One Education	Recommended (March 2010)
Reducing Structural Barriers	Recommended (March 2010)
Reducing Client Out-of-Pocket Costs	Recommended (October 2009)

Limitations of Evidence-Based Reviews

- Dependent on amount and quality of evidence available
- Studies may not apply to population
- Results may not be generalized in “real world” situations
- Rapidly changing environments

Promising Practices

- Help address knowledge gaps left by systematic reviews
- Practice-based networks
- Engaging decision-makers and community members
- Ensures results can be generalized

Context is Everything

- Utilize all available information
- Understand context of intervention
  - Culture
  - Local norms
  - History
  - Resources
  - Constraints
- Maintaining fidelity

In Summary

- Evidence-based programs can tell you what works
- Multiple sources available for locating evidence-based programs
- Evidence-based programs carry multiple limitations
- Consider contextual issues