

Finding Guidelines and Research Syntheses

Evidence-Based Public Health Practice Step 3: Use Research Literature

As you prepare to develop an intervention, take the time to see what some of the research syntheses and guidelines say to ensure that the approach you are taking has been shown to be effective. Better yet, you want to make certain your approach hasn't been shown to be **ineffective!**

This handout will explore some of the sites recommended on the Evidence Based Public Health Website:
<http://www.sph.uth.tmc.edu/library/default.aspx?id=2909>

You can also access this site from the EBPH blog under February:
<http://ebph.blogspot.com/2008/02/ebph-web-sites.html>

This page is set up with a table of contents. Use it to get to the two sections discussed below, **Evidence-Based Guidelines** and **Best Practices**.

What is Evidence-Based Public Health?	Search for Systematic Reviews
How to Develop a Systematic Review	Evidence-Based Guidelines
Best Practices	Assessment of Effects
Search for Clinical Trials	EBPH Meta Sites
Free Online Research Journal Collections	

Evidence-Based Guidelines

The Community Guide

This site is organized by broad topics although there is also a search engine if you choose.

We'll start with **Diabetes**.

The screenshot shows the homepage of 'The Community Guide' by the CDC. The page features a navigation bar with the CDC logo and the title 'The Community Guide'. Below the navigation bar, there is a search box and a 'Search The Community Guide' button. The main content area is divided into several sections: 'Evidence-based recommendations for programs and policies to promote population health', 'Topics' (listing Alcohol, Cancer, Diabetes, Mental Health, Motor Vehicle, Nutrition, Obesity, Oral Health, Physical Activity, Pregnancy, Sexual Behavior, Social Environment, Tobacco, Vaccines, and Violence), 'Users' (listing Public Health Professionals, Providers of Health Care Services, Legislators and Policy Makers, Researchers, Community-Based Organizations, and Employers and Other Purchasers of Health Care Services), 'News' (including a 10% discount on 'The Guide to Community Preventive Services in book form' and 'America's Health: State Rankings — 2007 Edition'), 'What is It?' (with links for About Us, Library, The Book, Economics, Methods, and Partners), and 'Calendar of Events' (listing 'Upcoming Task Force Meetings' from February 27 to 28, 2008).




This project has been funded in whole or in part with Federal funds from the National Library of Medicine National Institutes of Health, Department of Health and Human Services, under Contract No NOI-LM-6-3505.

There are 2 major components in the diabetes section: health-care system level interventions and diabetes self-management education.




You can pull up the entire book chapter if you want (The Community Guide is not only a web site but it is a book as well).

In this section you have the actual interventions along with an icon indicating what the evidence says about the intervention— whether it is recommended for, against, or not enough evidence.





1. [Health-care system level interventions promoting disease and case management](#); and
 2. [Diabetes self-management education in various settings](#).

> [Book Chapter](#) 
 > [Summary of Findings](#) 
 > [Economic Efficiency Findings](#) 









Interventions

Legend:  Recommended  Insufficient Evidence  Recommend Against

Healthcare system level interventions

[Disease management](#)  
[Case management](#)  

Diabetes self-management education

[In community gathering places - adults with Type 2 Diabetes](#)  
[In the home - children and adolescents with Type 1 Diabetes](#)  
 In the home – people with Type 2 Diabetes 
 In summer camps 
 At the worksite 
 Educating school personnel about diabetes 

[Research questions suggested for further study](#)

To the right is the document showing the effectiveness of diabetes self-management education interventions in community gatherings.

This is not prescriptive; it doesn't tell you how.

It simply says that getting adults together in groups and teaching them about DSME can be an effective way to improve outcomes.

Effectiveness of Diabetes Self-Management Education Interventions

Diabetes is the seventh leading cause of death in the United States and accounted for \$98 billion in total U.S. healthcare system costs in 1997. More than 15 million Americans have diabetes. Diabetes self-management education (DSME) is a crucial component of diabetes treatment and is typically delivered in traditional clinical settings. Many people with diabetes, however, do not receive formal self-management education. Therefore, an important question is: in what community settings can diabetes self-management education be delivered effectively?

A systematic review of published studies, conducted on behalf of the Task Force on Community Preventive Services by a team of experts, including those from the Centers for Disease Control and Prevention (CDC), the National Institute of Diabetes and Digestive and Kidney Disorders (NIDDK), found that that diabetes self-management education is effective in improving glycemic (blood sugar) control when delivered in community gathering places for adults with type 2 diabetes, and when delivered in the home for adolescents with type 1 diabetes. Based on this review and sufficient evidence of effectiveness, **Task Force recommends that these strategies be implemented.**

Background on the Intervention

- DSME is the process of teaching people to manage their diabetes.
- Goals of DSME are to optimize metabolic control, prevent acute and chronic complications, and achieve an optimal quality of life, while keeping costs acceptable.
- DSME can be provided in a variety of community settings, including community gathering places, the home, recreational camps, the worksite, and schools.

Findings from the Systematic Review:

DSME in community gathering places (Recommended for adults with type 2 diabetes): DSME in community centers, faith institutions, and libraries improved glycated hemoglobin (GHb) levels by 1.9 percentage points. An improvement of this size is associated with a decrease in diabetes-related complications and death. All the included studies involved adults with type 2 diabetes.

DSME in the home (Recommended for adolescents with type 1 diabetes): Home DSME improved GHb levels by 1.1 percentage points among adolescents with type 1 diabetes. An improvement of this size is associated with a decrease in diabetes-related complications and death. For people with type 2 diabetes, evidence was insufficient to determine effectiveness because too few studies were available.

DSME in recreational camps, DSME at the worksite, and Education of school personnel about diabetes: For these interventions, evidence was insufficient to determine effectiveness because too few studies were available.

Future research is needed to determine: 1) how to involve people who would benefit most from DSME in community gathering places and in the home; optimal intervention intensity, ideal providers; and how to integrate DSME with primary care; 2) effectiveness of DSME for youth in recreational camps and for adults in the worksite; 3) effectiveness of educating school personnel about the needs of people with diabetes; and 4) effect of DSME on other outcomes such as lifestyle, lipid levels, blood pressure, cost, and quality of life.

What research did they use to reach their conclusions?

Go back to The Community Guide and scroll down to **Publications** and **Additional Resources**.

The publishers of The Community Guide have received permission in many cases to upload key articles. They have also linked to MMWR articles whenever appropriate.

You may not find any evidence that what you want to do is effective. But, you may find evidence that what you want to do *isn't*. Or you may find that there is inconclusive evidence about the effectiveness of it.

The screenshot shows a webpage with a yellow header for "Publications". Under "Full Reports (recommendations & supporting evidence)", there are three entries: "Recommendations. MMWR. 2001;50(No. RR-16):1-16.", "Recommendations. AJPM. 2002: 22 (4S); 10-14.", and "Evidence review: disease & case management. AJPM. 2002: 22 (4S); 15-38.". Under "Evidence review: self-management education. AJPM. 2002: 22 (4S); 39-66.", there are two entries: "Diabetes and physical activity. McGinnis JM. AJPM. 2002: 22 (4S); 1-2." and "Striving for a more active community. Kriska A. AJPM. 2002: 22 (4S); 6-7". A "top of page" link is at the bottom right. The "Additional Resources" section has a yellow header and lists "Evidence Tables" with links for "Disease management", "Case management", and "Self-management education", each with a red arrow icon. Below are links for "Review team members" and "Candidate studies".

Clinical Practice Guidelines

Wait a minute— this is public health, not medicine! Why look at clinical practice guidelines?

If you are going to develop an intervention to increase the utilization of breast cancer screening among Hispanic women, you need to make certain you know what the guidelines are. For example, AHRQ no longer recommends that women are taught self-examination. Women in high-risk categories have different guidelines than women who are not. Women over 70 have different guidelines.

So, while you may not be a physician performing the examinations, you still need to know what the guidelines say so that you can develop appropriate interventions.

The next section will explore the guideline clearinghouse.

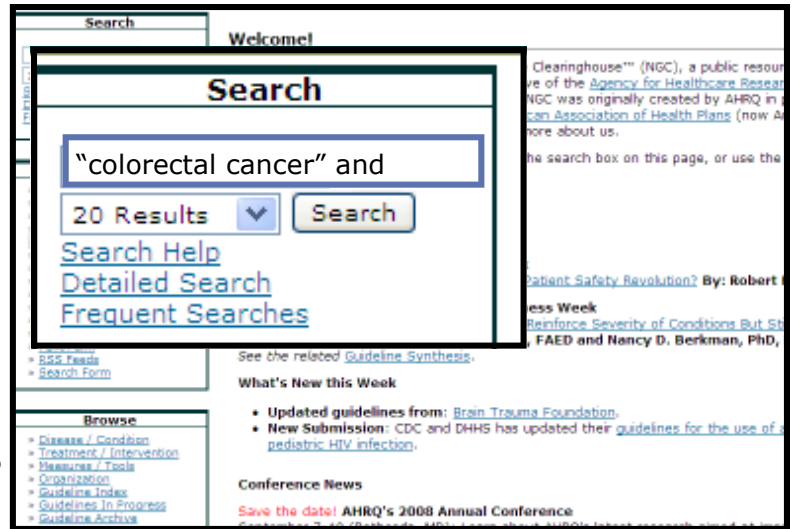
The screenshot shows the AHRQ website header with the logo "AHRQ Agency for Healthcare Research and Quality" and the tagline "Advancing Excellence in Health Care". Navigation links include "AHRQ Home", "Questions?", "Contact Us", "Site Map", "What's New", and "E". A "Z Quick Menu" is on the left with a "Select Topic" dropdown and links for "Related Topics", "Evidence-based Practice", "Outcomes & Effectiveness", "Technology Assessments", "Preventive Services", "Clinical Practice Guidelines", "Main Menu", "News & Information", "Clinical Information", "Consumers & Patients", "Funding Opportunities", and "Data & Surveys". The main content area has a breadcrumb trail: "You Are Here: AHRQ Home > Clinical Information > Clinical Practice Guidelines". The title is "Clinical Practice Guidelines". Below are links for "National Guideline Clearinghouse™", "National Guideline Clearinghouse™: Fact Sheet", "Invitation to Submit Guidelines to the National Guideline Clearinghouse™", "Beta-Blockers for Acute Myocardial Infarction Practice Advisory (PDF File, 145 KB; PDF Help)", "Fact Sheet (PDF File, 111 KB; PDF Help)", "Questions and Answers (PDF File, 78 KB; PDF Help)", "Tobacco Cessation", "U.S. Public Health Service Clinical Practice Guideline; Pathfinder page links", "Surgeon General Reports: The latest information to help people quit smoking", and "Clinical Practice Guidelines Online" with a note that they are released by the Agency for Health Care Policy and Research.

National Guideline Clearinghouse

The page is a little busy, but there is a search function that is very easy to use and highly recommended.

This search engine supports “and” as well as phrasing searches. Use “quotation marks” to search as a phrase.

Notice the example search isn’t for “colorectal cancer screening”. It is usually better to break up the term so that you are not so specific that you don’t find anything at all.



Fifty guidelines were found. One of the really exciting things you can do at this site is check off guidelines.

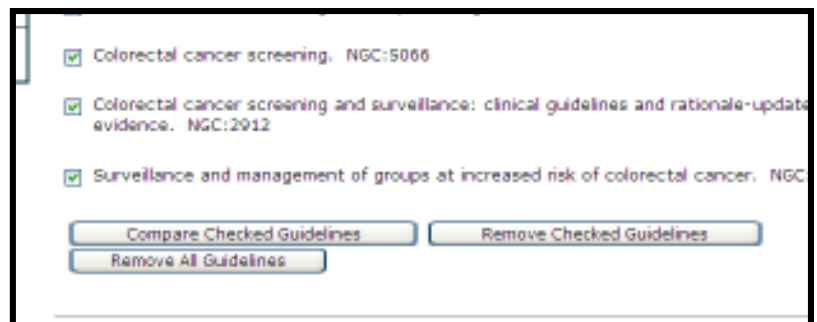
Click **Add to My Collection**.



Once you’ve done that, click **View My Collection**.



Your marked items are now ready for comparison.



Best Practices

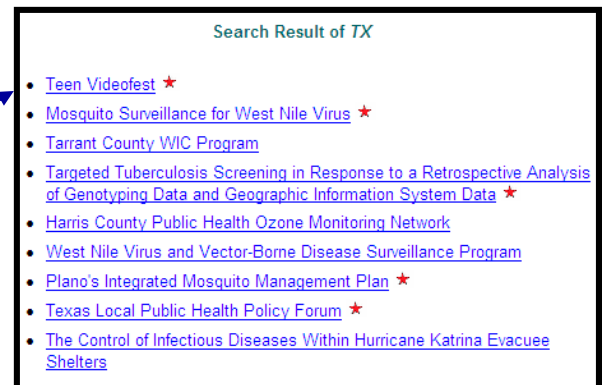
The **Rand Corporation** has a pretty exciting site. Look under “**Programs that Work**” for a list by outcome area, indicator, topic, evidence level, or alphabetical.



NACCHO (National Association of County and City Health Officials) has compiled a **Model Practices Database**.



Click on the state whose best practices you would like to view. For example, here are best practices for Texas:



You can also view the list by topic instead of by state if you prefer.

Search for Systematic Reviews

People tend to confuse systematic reviews for literature reviews. In fact, systematic reviews are a much more disciplined approach to assessing the research literature than a regular literature review is. Because the process is so rigorous, the output tends to providing a definitive word (if such a thing exists) on the evaluation of an intervention.

The granddaddy of systematic reviews is the Cochrane Collaboration, the group that gives us Cochrane Reviews, described on the next page.

Cochrane Reviews

Cochrane Reviews provides abstracts free to the public; the full text of the systematic reviews are available through a subscription.

Cochrane Reviews are a bit heavy on clinical medicine but more and more health intervention SRs are being added.

A search for smoking adolescents (Cochrane adds the “and”) returned 48 records.

If you click on the title, you will get a structured abstract:

- **Background**
- **Objectives**
- **Search strategy**
- **Selection criteria**
- **Data collection and analysis**
- **Main results**
- **Authors' conclusions**
 - Some well-executed RCTs show family interventions may prevent adolescent smoking, but RCTs which were less well executed had mostly neutral or negative results. There is thus a need for well-designed and executed RCTs in this area.



EPPI-Centre Search for Reviews

Select **Browse the reviews by broad topic area**, then select **Health**.

Once you pull up a title, you will see a description of the study. Unlike Cochrane, you are able to pull up the full report as well as see all studies included in the review.

