Preventing heart disease: a practice-based program that works

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We're reminded daily that cardiovascular disease is the leading cause of death and disability in the United States.[1] Although surveys show that health professionals want to help their patients change behaviors and reduce risks, preventive services continue to lag behind national recommendations.[2]

Why the gap between positive attitudes and actual practice? First and foremost, primary care is mainly acute care, which makes routine delivery of preventive services difficult. Lack of time, trained staff, organizational support, and reimbursement for preventive services also are barriers.[3]

However, our experience with the Health Education and Research Trial (HEART) Project indicates that it is possible to deliver effective heart disease prevention services in the primary care setting. The HEART project is funded by the National Institutes of Health to study implementation of prevention systems in primary care practices. We have worked with more than 45 practices, 160 physicians, and 580 staff members to help improve heart disease prevention services in their practices.

Skeptics say it can't be done. But the authors' experience with dozens of diverse practices suggests it is possible to create an in-office program for heart disease prevention that will benefit patients and staff.

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An office-based prevention program can help physicians monitor patients' exercise, eating, and overall health habits.

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Based on our experience in the HEART Project, published prevention research, and our own practice, we have developed methods that can be used to make routine delivery of preventive services a reality in primary care.

Prevention works

When office-based prevention programs are established, they are effective.[4] For example, a program using computerized reminders increased prevention tests and counseling by between 9% and 31%,[5] while a plan that emphasized office organization increased cancer screening and prevention counseling by 10% to 20%.[6] Nurse-initiated reminder systems for physicians have increased screening, counseling, and immunizations by 70% to 100%.[7,8]

The common denominator for successful prevention programs is a clearly defined, well-established office system of routine screening, management, and monitoring. Nearly all practices already have such systems in place for blood pressure screening, with 98% to 100% of patients being screened for high blood pressure.[2] The same approach can be expanded to in-

clude other cardiovascular risk factors as well.

To be successful, heart disease prevention systems cannot require large amounts of physician or staff time. Because practices typically have "time-wasters" in their usual routines, the development of a prevention system can provide an opportunity to review the efficiency of the office in general. Examples of time-wasters are duplication of information collected and entered in the medical record, vital signs that aren't vital, and poorly organized patient education. If the prevention system is designed to be more efficient than current routines, it can be established with a modest initial time investment and maintained with minimal staff time.

Elements of the system

The goal of a prevention system is to make sure all patients in the practice are appropriately screened, managed, and monitored at every visit, not just when it is convenient or when a practice member remembers.

1. **Screening.** An office routine for checking risk factors could include a self-administered questionnaire the patients receive when they check in. The questionnaire should ask about heart disease risk factors as well as medical, social, and family history (see "Designing Your Own Tools," page 11). The information should be updated every 2 years. (Tip: Changing the color of the questionnaire at 2-year intervals makes it easy to recognize when information needs to be updated.)

The nurse can review the questionnaire with the patient, enter any pertinent data on a problem list, and file the questionnaire in the designated spot in the medical record. When the physician sees the patient, he or she can review the nurse's entries on the problem list and look at the questionnaire in more detail, if desired. In this way, the patient is "doing the work," the practice is gaining valuable information, and all patients are being screened.

Another way to facilitate routine screening is to include some risk factors as vital signs. Because pulse and respiration take a significant amount of time to collect and often have limited clinical benefit, you may choose to eliminate them and include physical activity status, smoking habits, and the most recent cholesterol test instead. If a risk is identified, the chart could be flagged with a colored sticker or "bookmark" to alert the staff to risk factors.

2. **Managing.** Managing heart disease risk factors involves recommending behavior change, providing counseling, and, in some cases, prescribing medications. Because patient education is a major part of behavior change, education materials need to be selected carefully and organized in a convenient location. The task of maintaining and ordering education materials needs to be assigned to a specific person. If there is space, many practices display the 15 or 20 most commonly used education brochures in each exam room, designating a staff person to regularly replenish them.

Patient education is most effectively conducted using a team approach, taking advantage of the strengths of each member. The physician can determine what counseling the patient needs and provide a strong message about the benefits of managing risk factors and the capabilities of the staff

members who are providing the counseling. By doing this, the physician endorses the patient education process and makes it more likely that the patient will see it as important. Other staff members may have more time to provide the detailed education and follow-up or make referrals. (Tip: The referral process can be streamlined by maintaining a list of the most commonly used referral sources, including program descriptions, costs, and phone numbers.)

When the physician prescribes medication, a staff member can explain its use and potential side effects, saving the physician time. One-page sheets outlining the purpose of the medication and its potential side effects (available from most pharmacies) can make this process more efficient. The staff can personalize these with dosage information for each patient.

3. **Monitoring.** Once a plan to manage heart disease risk has been established, each patient's progress needs to be monitored. A schedule of follow-up visits should be set up to help encourage compliance. The physician indicates the desired follow-up interval on the super bill or charge slip or in a designated place in the medical record. This information can be transferred to a computer or card file and monitored by a staff person who sends reminder cards as appropriate. When risk factors are addressed in a routine and consistent way at each visit, patients are more likely to recognize the importance of managing them.

You may find it helpful to use a flow sheet containing pertinent information from several visits in an easy-to-read format (figure 1 on page 11). Some practices already use such sheets to summarize screening tests, immunizations,

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Designing your own tools

You might want to develop a health questionnaire and a health monitoring flow sheet for your program. The health questionnaire should ask for information about:

Medications

Health history
- Smoking habits
- Exercise habits
- Alcohol consumption
- Eating habits
- Special diets

Medical history
Illnesses such as alcoholism, anemia, and other health problems, including high blood pressure, fatigue, and shortness of breath

A sample of a health monitoring flow sheet is shown at right. More complete forms are available from the authors at 777 South Mills Street, Madison, WI 53715-1849.

Health monitoring flow sheet

Name			Birth Date		Height	
Date						
Age						
Weight						
Blood pressure						
Total cholesterol						
Triglycerides						
HDL-C						
LDL-C						
Tobacco use (type, amount)						
Exercise						
Nutrition						
Alcohol						
Medications, dose						
Patient history update						
Behavior change category*						
Assessment						
Plan						
Provider initials						
Next appointment						

* Behavior change categories: W = winner (has changed behavior); C = will change on own, doesn't want help; H = help needed to change, arrangements made; L = will change later, not now; N = no interest in changing; O = omitted discussion of changing

Figure 1. This sample of a health monitoring flow sheet highlights the important areas to include for tracking a patient's health over the course of several visits.

and health education. Others use flow sheets for chronic conditions, such as diabetes, high cholesterol, and hypertension. It's important to develop a protocol for using this tool, defining when and how the information will be included and who will be responsible for data collection and updating. This can save the staff time and eliminate mistakes by providing a summary of tests and actions.

Building your own system
As you begin to establish a system in your practice, you might consider the same elements used to evaluate and manage patients— screening, managing, and monitoring. You can start by appointing two or three "prevention leaders" to coordinate the development and implementation of your system. This team should include at least one physician and one staff person who are committed to prevention, are familiar with practice operations, and have adequate time to participate in the planning process. These are the leaders who will provide the momentum to keep the system going over the long haul.

1. Screen your practice. Before setting up a new prevention program, first screen your practice for current prevention policies, procedures, and patient flow. This may include medical record reviews to determine how patients at risk of heart disease are usually handled. Is smoking status recorded on all medical records? Are patients with elevated cholesterol receiving appropriate behavior-change counseling or medication? Are patients returning for follow-up visits as recommended?

Prevention leaders may want to
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interview staff and physicians to determine who currently has which responsibilities and what ideas they have for making clinic activities more efficient. A brief patient survey asking for suggestions to improve clinic operations and preventive services can also be helpful.

2. **Manage your practice.** Using the baseline data collected, establish goals to improve your prevention activities. You may want to get ideas from the entire staff before you start planning, but the actual planning is probably most efficiently done in a small group or task-force setting.

The task force should include the prevention leaders and one representative from each area in the practice (lab, medical records, reception, etc). Once the goals are drafted by the task-force members, they can be presented to the entire practice for input and consensus development.

After practice goals are set, the task force can outline the tools required to implement those goals. Are new flow sheets needed? Do patient education materials need to be updated? Responsibility for tasks should also be outlined in detail, defining who will handle each element of the system. Policies and procedures explaining new routines and roles should be put in writing and distributed for comments and revisions. Once the policies and procedures are approved, implementation begins. The "kick-off" date should be clearly communicated to all practice members and can be made more enjoyable by a festive atmosphere with food and prizes. During the early stages of implementation, the prevention leaders should troubleshoot and monitor progress, modifying plans as problems are encountered.

> **The goal of a prevention system is to make sure all patients in the practice are appropriately screened, managed, and monitored during every visit.**

3. **Monitor your practice.** Like any other part of your organization, your prevention system will need periodic assessment. It is best to define the type of monitoring your practice will do before the system is actually implemented. You may decide to have a staff meeting one month after the system is put in place to assess its effects and deal with specific problems. Medical record reviews or a staff survey can also be helpful. Responsibility for initiating the assessment should be assigned to a specific person. (As a bonus, information gathered in the assessment of your prevention system may be useful for quality-assurance reviews required by many healthcare organizations.)

After review, you may decide to revise some goals and eliminate others, replacing them with new ones. Keep in mind that staff members will be more likely to maintain commitment to the system if they know their suggestions for improvement are being considered.

One effective way to monitor your prevention system is to make it a routine agenda item at staff meetings. At each meeting, you can discuss the system briefly and refer areas needing attention back to the prevention task force for follow-up.

A final word

Incorporating an effective heart disease prevention system into current office organization can lead to major improvements in patients' health behavior. Our experience in the NIH-HEART Project demonstrates that busy practices can improve the delivery of preventive services, but this requires commitment and perseverance. The key is to identify prevention goals and define specific policies and procedures. Involving the entire practice reduces the burden on any one person and fosters a team approach.

The rewards of a comprehensive and consistent approach to heart disease prevention certainly are worth the time and effort. The payoff for an effective prevention program is likely to be a more efficient, satisfied staff and happier, healthier patients. ❑

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