Put Prevention Into Practice

A Step-by-Step Guide to Delivering Clinical Preventive Services: A Systems Approach

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The Agency for Healthcare Research and Quality (AHRQ) is the lead Federal agency charged with supporting research designed to improve the quality of health care, reduce its cost, and broaden access to essential services.

The U.S. Preventive Services Task Force (USPSTF), an independent panel of experts in primary care convened by AHRQ, systematically reviews the evidence of effectiveness of clinical preventive services—screening tests, immunizations, counseling, and chemoprevention (e.g., aspirin to prevent cardiovascular disease)—and makes recommendations for their use in primary health care.

Put Prevention Into Practice (PPIP), a national program sponsored by AHRQ, develops resources for clinicians, patients, and office systems to increase the delivery of USPSTF-recommended preventive services in the primary care setting.

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This publication, *A Step-by-Step Guide to Delivering Clinical Preventive Services: A Systems Approach,* was adapted from the Texas Department of Health (TDH) *Adult Health Program Manual (Texas Manual)* and the TDH *Implementation Guide for Clinical Preventive Services (Texas Guide).*

The *Texas Manual* was written by staff members of the Adult Health Program at TDH: Crystal Wilkinson, MSN, RN; Rick Danko, PhD; and Sylvia Harris, RN. The *Texas Guide* was written by Barbara S. Meyer, MS; Michele Murphy-Smith, PhD, RN, RD; Alexandra E. Evans, PhD; and Nell H. Gottlieb, PhD, all of The University of Texas at Austin, and by Patricia Goodson, PhD, of Texas A&M University.

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The U.S. Preventive Services Task Force (USPSTF) continuously updates its recommendations on clinical preventive services and makes them available on the Agency for Healthcare Research and Quality (AHRQ) Web site. In addition, Put Prevention Into Practice (PPIP) tools are revised to correspond with USPSTF updates and are also available on the AHRQ Web site.

For the most current recommendations and updates, visit the preventive services section of the AHRQ Web site at www.preventiveservices.ahrq.gov. Or, for immediate notification of new and updated recommendations from the current USPSTF and new resources from the PPIP program, join the AHRQ Prevention Listserv. To join the listserv visit the AHRQ Web site at: www.ahrq.gov/clinic/prev/prevlistserv.htm.

Put Prevention Into Practice: The Texas Experience

Since 1994, the Texas Department of Health (TDH) has promoted the implementation of the Agency for Healthcare Research and Quality's Put Prevention Into Practice (PPIP) program in various clinical settings throughout Texas. To encourage the implementation of a system for preventive services delivery, the TDH provided start-up funds to primary care sites—local health departments, community health centers, family practice residency programs, and other nonprofit primary care clinics. Sites were expected to use the money to build an infrastructure through which effective preventive care would be delivered. The TDH developed the *Implementation Guide for Clinical Preventive Services* in response to PPIP demonstration sites' requests for assistance. The developers of that guide used observation and staff interviews at the demonstration sites to gather information for its content.

The TDH also trained public health nurses to serve as consultants and provide technical assistance to the sites. The consultants worked with the sites to assess staff readiness to implement a system for the delivery of clinical preventive services, ensure that the system tools are used effectively, monitor PPIP chart documentation, and help sites link to local resources for referrals. Funds also were awarded to The University of Texas at Austin to evaluate the delivery of clinical preventive services using PPIP materials and to identify barriers and facilitators to using the PPIP program.

Contents

Introduction

The message is simple: deliver evidence-based clinical preventive services to help keep people healthy and save lives. Yet, research shows that even the most effective and accepted preventive services are not delivered regularly in the primary care setting. For example, although pneumococcal disease caused 10,000–14,000 deaths in 1997, only 43 percent of persons aged 65 and older received a pneumococcal vaccine (U.S. Department of Health and Human Services, 2000).

Barriers to making preventive services a routine part of patient care exist among clinicians, patients, and within the clinical setting. Clinicians report they do not have enough time to provide these services because most of their time is spent responding to patients' need for treatment (Frame, 1992; Kottke et al., 1993). Clinicians also cite competing demands, uncertainty about conflicting recommendations, and lack of training in prevention as barriers to providing clinical preventive services (Jaén et al., 1994). Patients often do not ask their health care providers about preventive services because they are unaware of the benefits or availability of these services, are not motivated to seek them out, are deterred by what they perceive as the inconvenience and expense of preventive care (which their health plans may not routinely cover), and are worried about the discomfort they think preventive care may entail. In the clinical setting, barriers to providing preventive services include inadequate reimbursement for these services, patient mobility, and the lack of a system for integrating preventive services into regular patient care (Frame, 1992; Kottke et al., 1993; Stange, 1996; McPhee et al., 1989; Jaén et al., 1994; Solberg et al., 1997; Stange et al., 1998).

There is increasing evidence that many of these barriers can be overcome through a formal system for delivering clinical preventive services (Kottke et al. 1993). The Agency for Healthcare Research and Quality's (AHRQ's) Put Prevention Into Practice (PPIP) program presents such a system in this publication, *A Step-by-Step Guide to Delivering Clinical Preventive Services: A Systems Approach*. The *Guide* describes easy-to-follow, logical steps to take you through the process. It is designed to be used by various audiences—physicians, nurses, health educators, and office staff—in public health clinics, community health centers, private practices, and other settings.[1]

[1]Such settings will be refered to interchangeably as "clinics," "clinical settings," "practices," and "office settings" throughout this *Guide*.

Effectiveness of Systems for Delivering Clinical Preventive Services

What Is a System?

A system is a process that integrates staff roles, responsibilities, and tools for the routine delivery of preventive care. In a system, individual responsibilities are defined, the flow of activities is specified, and performance is measured. A system must have an "owner" or champion: someone who will take responsibility for its implementation and monitoring (Frame, 2000).

Evidence That Systems Work

Several studies provide evidence that implementing a formal system for delivering preventive services increases their delivery in the clinical setting:

- The effect of implementing a system to deliver preventive services on the delivery rates of specific services was evaluated in two community health centers and three family practice residency programs at five Texas sites between September 1993 and February 1994 (Gottlieb et al., 2001). The new system included pre-auditing charts with reminder notices, using communication flow sheets, having patients use personal health guides for education and recordkeeping, and having clinicians use the *Clinician's Handbook of Preventive Services* (see Chapter 6) to establish a preventive care protocol. With this system, 372 charts were selected for pre-auditing at baseline and 376 charts were selected for auditing 33-39 months after the new system was implemented. Compared with baseline, documentation of timely cholesterol screening increased from 70 to 84 percent; smoking assessment increased from 56 to 80 percent; up-to-date Pap smears increased from 70 to 81 percent; and yearly mammograms for women aged 51 and older increased from 30 to 48 percent. Documented tetanus-diphtheria vaccinations increased from 19 to 59 percent. For adults aged 66 and older, documentation of pneumococcal vaccination increased from 22 to 48 percent and influenza vaccination increased from 45 to 49 percent (not statistically significant).
- Another study found statistically significant improvement in the documentation of patient education (assessment of risk plus appropriate counseling) delivered in five areas between 1994 and 1997 (Smith, unpublished data, 1994-1997). Specifically, documented delivery of tobacco education increased from 43 to 67 percent; of nutrition education, from 9.4 to 41 percent; of physical activity education, from 9.4 to 44 percent; of sexually transmitted disease/human immunodeficiency virus (STD/HIV) education, from 5.3 to 51.6 percent; and of alcohol use education, from 46 to 72.6 percent.

- Kottke et al. (1992) tested a clinic-wide teamwork approach to delivering preventive services in 10 clinics at 29 sites in Minnesota. Responsibility was spread among staff for identifying smokers, assessing their smoking habits, advising them to quit, negotiating action, and providing follow-up counseling. Of the 466 patients reporting from these sites, 40.5 percent said that they had been counseled about smoking, compared with 26.4 percent of the 507 patients at the sites that did not deliver preventive care.
- The Physician-Based Assessment and Counseling for Exercise (PACE) program was implemented to improve the rate and quality of counseling for physical activity in the primary care setting. In a controlled trial conducted in 17 physician practices, sedentary patients who received 3-5 minutes of counseling about physical activity plus a booster telephone call 2 weeks later demonstrated significantly higher rates of increased physical activity than those who were not counseled (Calfas et al., 1996). Investigators observed that in offices where this counseling was delivered consistently, forms were kept in convenient places, office staff had clear responsibilities for handing out PACE forms, and completed protocols were consistently found in charts.

Other studies have demonstrated that implementing a systems approach to delivering clinical preventive services is effective in increasing the rates of delivery of cancer screening (Carney et al., 1992; Kohatsu et al., 1994) and general disease prevention services (Dietrich et al., 1994a, 1994b) in the clinical setting.

The components of such a delivery system have been used and are documented in several studies (Frame, 2000; Carney et al., 1992; Dickey and Kamerow, 1994; Crabtree et al., 1998), the Texas adaptation of PPIP (Goodson et al., 1999; Goodson, in press; Smith, 1999; Gottlieb et al., 2001), and business literature (Mink et al., 1991, 1993; Senge, 1990; Wheatley, 1994; Argyris, 1990). There is scientific evidence to support the effectiveness of using certain tools in a system to deliver preventive services—such as preventive care flow sheets (Prislin et al., 1986) and reminder notes on patient charts (Chang et al., 1995; Cohen et al., 1989; Briss et al., 2000), standing orders (Briss et al., 2000), assessment and feedback to providers (Briss et al., 2000), and patient reminders, including telephone calls, letters, or postcards (Briss et al., 2000).

Essential Elements of a System for Delivering Preventive Services

This *Guide* explains how a system to effectively deliver clinical preventive services can be implemented in your setting. Although systems for delivering clinical preventive services vary among settings, the following steps will help you design a system appropriate for yours. These steps are described briefly below and are explained in detail in the chapters that follow:

- Establish preventive care protocols.
- Define staff roles for delivering and monitoring preventive care.
- Determine patient and material flow.
- Audit your delivery of preventive care continually.
- Readjust and refine your delivery system and standards.

Establish Preventive Care Protocols

Clinical practices use protocols for the delivery of preventive services as guides to adopting their own minimum acceptable standards of preventive care. Such evidence-based protocols are developed by the U.S. Preventive Services Task Force (USPSTF) and other organizations. Determining which preventive care protocols to adopt is complicated by the need for clinical settings to comply with the differing requirements and programs of each of the health plans with which they contract. In an attempt to streamline the incorporation of preventive services into clinical practice, several groups have collaborated on a common set of guidelines and protocols. Much of this collaboration has been driven by the desire to meet the Health Plan Employer Data and Information Set (HEDIS) requirements. The Massachusetts Health Quality Partnership, the Atlanta Quality Council, the Colorado Clinical Guidelines Collaborative, and the Foundation for Healthy Communities are just a few of the groups that have developed and made available clinical preventive services guidelines and standards (see Chapter 6, pp.79-110, for more information about these groups).

PPIP can improve and enhance the system you already use in your clinic. It doesn't replace it, and can be easily incorporated into the normal processes of your daily clinic operation.

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Define Staff Roles for Delivering and Monitoring Preventive Care

It is important for the entire office staff to be involved in delivering preventive services so that the tasks are spread out among many staff members. Delivering preventive care requires a team approach. Counseling, a clinical preventive service in which all clinical staff can play key roles throughout a patient's office visit, should involve several staff members who take on different yet coordinated and complementary roles. Counseling to promote a healthy diet can be used as an example: When a patient enters the clinical setting, the receptionist can provide information that will reinforce educational messages that the patient will hear during the visit. While weighing a patient, a nurse can emphasize nutritional information; during the physical exam, the clinician can discuss diet-related risk factors for particular conditions such as heart disease or diabetes.

Determine Patient and Material Flow

Specifying the people with whom the patient meets and interacts, and the nature of each interaction, is important. The flow of information and tools, such as flow sheets and health risk profiles, also needs to be determined. For example, determine when and where staff will administer the health risk profile to the patient (see Chapter 6).

Audit Your Delivery of Preventive Care Continually

Monitoring performance helps determine how well a practice is delivering preventive services and what changes are needed to improve the delivery of preventive care.

Readjust and Refine Your Delivery System and Standards

Based on the results of your audits, you may decide that the clinician is having difficulty determining either (1) which preventive services are needed or (2) whether the preventive services being delivered are being documented routinely. You also may find that recommendations on providing certain screening tests have changed. The staff in your clinical setting will then need to determine how to readjust practices and adopt or develop new standards.

Predictors of Successful PPIP Initiation in Texas

A study of PPIP program initiation in nine Texas sites—including family practice residency programs, community health centers, and public health primary care sites participating in a demonstration project funded by the Texas Department of Health—identified several predictors of successful PPIP program initiation (Goodson et al., 1999; McVea et al., 1996; Dietrich et al., 1992). One of the most frequently cited predictors is the use of outside facilitators to help establish and analyze the system for preventive services delivery, to facilitate the group process needed for implementation, and to help identify obstacles and ways to overcome them. Researchers also identified the involvement of internal facilitators who serve as program champions as predicting successful program initiation (Crabtree et al., 1998).

How to Use This *Guide*

This *Guide* is for professionals with a wide range of experience in delivering clinical preventive services. It is an interactive tool that includes activities, exercises, and questionnaires to help you implement a system for delivering preventive care. It can be tailored to fit your needs. You may want to read some sections carefully, scan others, and use or adapt the forms as needed. You may not need to complete all of the exercises and chapters, but may prefer to select the information that would be most useful and use the corresponding worksheets.

The process described in this *Guide* is intended for clinical settings that use paper-based medical records; however, much of the information would also be useful for settings in which electronic medical records are used.[2] The use of electronic medical records in clinical settings is increasing. They can improve preventive services delivery through features that provide practice-wide and unique patient protocols, track the provision of preventive services, provide physician reminders at patient visits, generate patient reminders, and provide relevant patient education resources (Ornstein et al., 1993).

Why Should You Use This Guide?

- ***It breaks the process into small, manageable tasks. It describes easy-to-follow, logical steps to implement the process of delivering preventive services.***
- ***It has been used and found to be effective in clinical settings.***
- ***It is based on scientific and empirical evidence.***
- ***It can be adapted for your setting.***
- ***It provides practical tools such as worksheets and forms that you can customize.***
- ***It provides resources for further reference.***

How This *Guide* Is Organized

This *Guide* is divided into six chapters and five appendixes. Chapters 1-5 describe the process of designing, implementing, and evaluating a system for delivering clinical preventive services. Figure 1 on p. 7 outlines the steps covered in each chapter (more detailed versions of this figure appear at the beginning of Chapters 1-5). These chapters include suggested activities and worksheets. Chapter 6 describes the purpose of PPIP materials and how to use them.

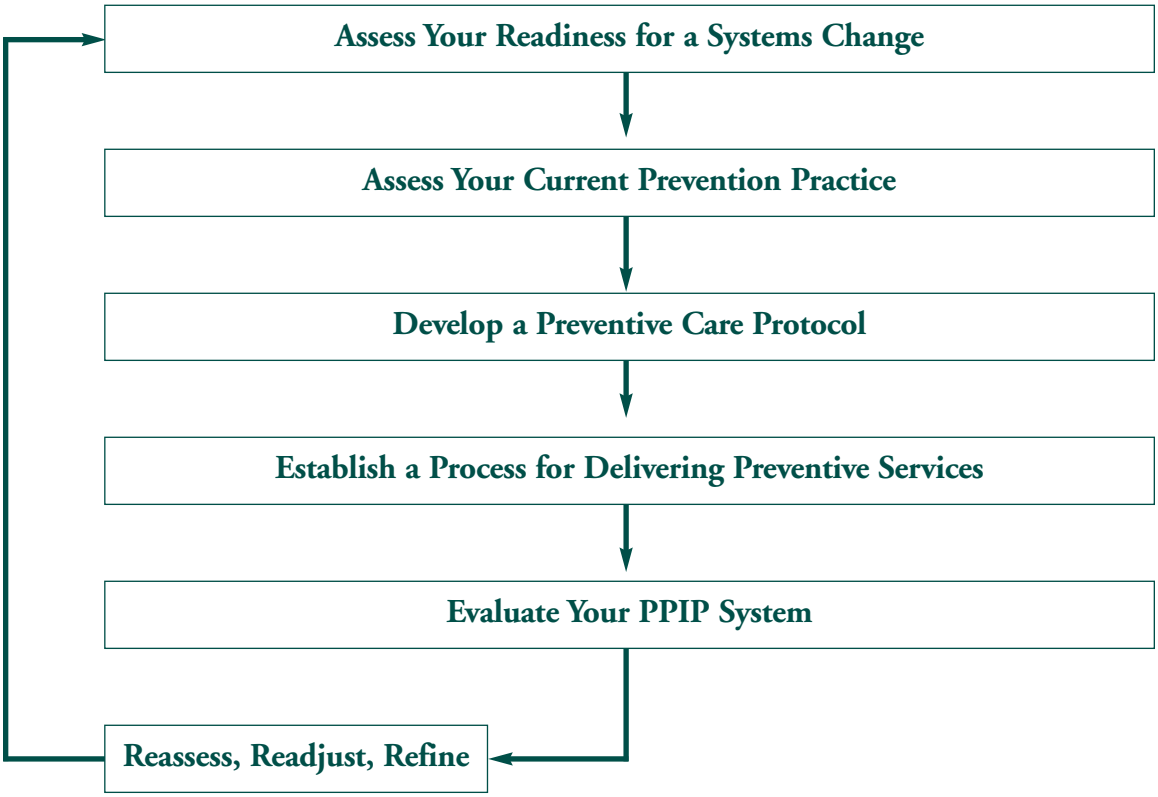
The appendixes contain the following materials:

- Appendix A—PPIP presentation materials to use in introducing PPIP to administrators and office staff.
- Appendix B—ready-to-use copies of worksheets found in Chapters 1–5.
- Appendix C—ready-to-use copies of the PPIP health risk profiles and flow sheets.

[2]Contact the Medical Records Institute (http://www.medrecinst.com) for information about electronic medical records.

- Appendix D—prevention prescriptions—sheets that can be individualized and given to patients.
- Appendix E—sample questions to help determine patients' readiness to change their health risk behavior (stages of change).

Figure 1. Steps Your Setting Can Take to Deliver Clinical Preventive Services



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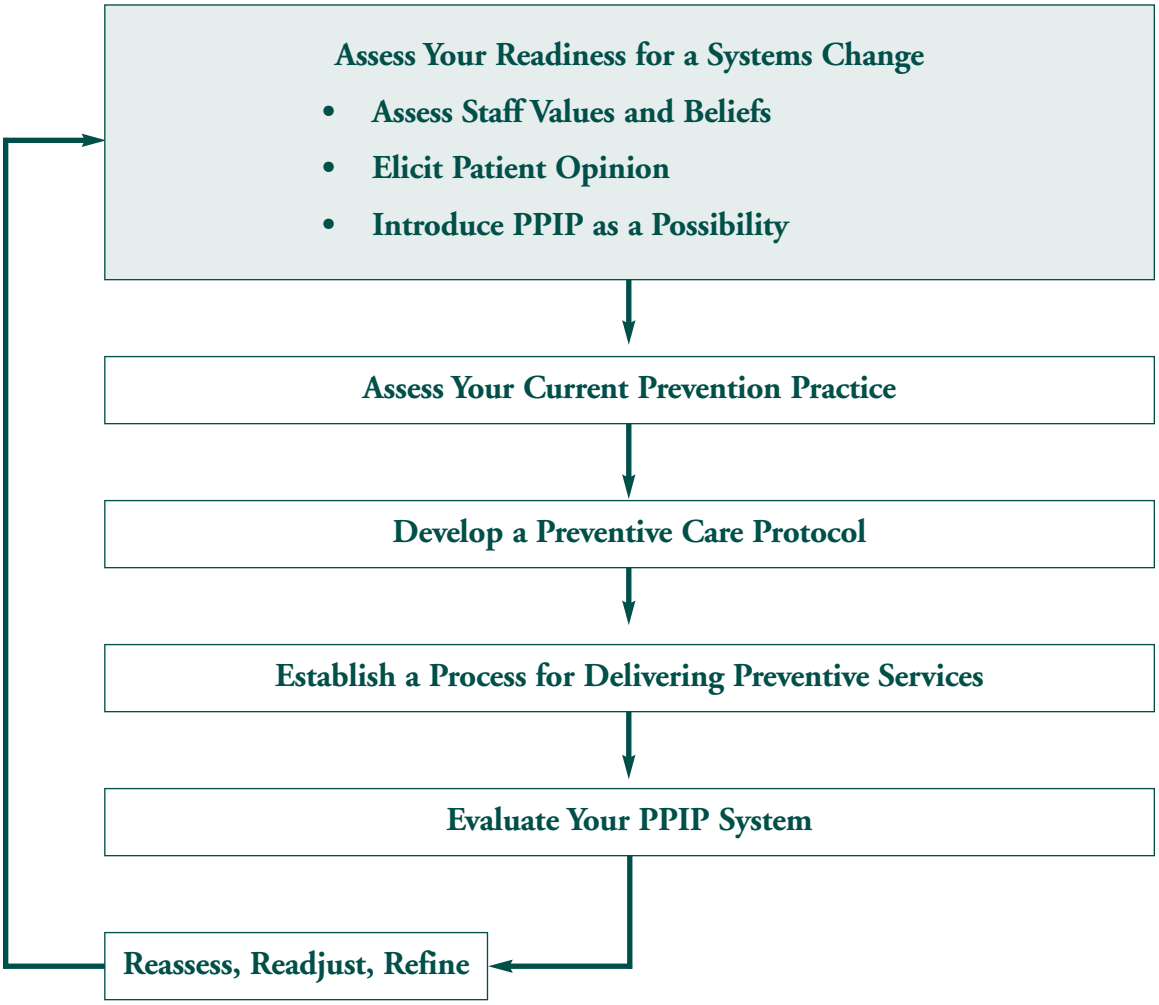
1

Assess Your Readiness for a Systems Change

Figure 1.1 Steps Your Setting Can Take to Deliver Clinical Preventive Services



1 Assess Your Readiness for a Systems Change

Before introducing the Put Prevention Into Practice (PPIP) program for delivering clinical preventive services, it is important to assess physician and staff readiness for a systems change by assessing staff values and attitudes about prevention, determining how staff view their current practice, and establishing goals for the delivery of preventive care.

Before an organization-wide systems change can occur, the entire staff should agree:

- ***Prevention is important.***
- ***Prevention aligns with the clinical setting's values.***
- ***PPIP tools can help the group realize its goals for delivering preventive care.***

Include each staff member in the decision-making process about whether, when, and how PPIP should be implemented in your setting by soliciting, acknowledging, and considering staff input. Use the worksheets included in this chapter to compile staff suggestions. (See Appendix B for additional copies of these worksheets.)

Understanding the values, attitudes, and beliefs of the staff can contribute to establishing support for the program before implementation begins. Staff members are more likely to put energy into a program aligned with their values and one they helped to create than one that is imposed on them.

Acknowledging the value of staff members who openly resist change also is important. Often, those who resist see barriers to change that need to be addressed. If the opinions of all staff members are considered important, and if all staff members are enlisted to solve problems, then barriers to implementing PPIP can be overcome. Those who initially resist may become champions of change and innovators in implementing PPIP.

Eliciting patients' ideas about preventive care also is valuable. Listen to what is important to your patients and consider incorporating their suggestions as you begin to implement the PPIP program.

Assess Staff Values and Beliefs

One of the first steps in assessing staff readiness to change and, ultimately, in delivering clinical preventive services is to determine (1) how the staff currently views prevention and (2) what your setting's current approach is to delivering preventive care. You can begin to make these determinations by administering a readiness survey and following with open discussions.

Administer Readiness Survey

A readiness survey that has been used in clinical settings appears on p. 17 and in Appendix B. It is designed to stimulate discussion about the readiness of a practice to change. Encourage staff members at all levels and from all departments to complete and submit this survey anonymously. Then, after analyzing the results both for variability and for salient issues, elicit staff members' help in assessing your organizational climate (see the Worksheet for Assessing Organizational Climate for guidance, p. 19 and in Appendix B).

Conduct Group or Individual Discussions

Through group or individual discussions, use the results of the Readiness Survey to probe staff values and beliefs. These interactions can help staff members understand each others' viewpoints and can give them a basis for envisioning how best to implement PPIP. In such discussions, all staff should feel valued for their contributions so that information can flow freely. Because staff and practice situations change, this process should be revisited often.

A cohesive working team will begin to emerge from these discussions. Information gathered on the group process will be helpful when preventive services are delivered. Gather information relating to the following questions:

- How does communication flow among staff?
- What roles do staff play in the communication process?
- Who initiates communication?
- Who does not communicate?
- How do staff members work together?
- Who is task-oriented?
- Who is a natural leader?

Assess Organizational Climate

A worksheet for assessing organizational climate, which appears on p. 19 and in Appendix B, can help facilitate further group discussion. Having the staff discuss the questions in this worksheet and then debate, disagree and, finally, agree on an assessment of your organizational climate can be exciting. The processing, the final plan, and the changes that evolve will be as individual to your site as are your staff members.

Readiness Survey

Circle the number that best indicates the extent to which you agree or disagree with each statement.

	Very much			Neutral			Not at all
1. Prevention is an important aspect of the care we provide in this practice.	1	2	3	4	5	6	7
2. We think prevention should be more strongly emphasized in our practice.	1	2	3	4	5	6	7
3. Someone in our practice has the vision, leadership, and authority to make prevention happen here.	1	2	3	4	5	6	7
4. We have adequate time to do one-on-one patient education or patient counseling.	1	2	3	4	5	6	7
5. Nurses in our practice regard patient education as one of their main tasks.	1	2	3	4	5	6	7
6. Physicians in our practice regard patient education as one of their main tasks.	1	2	3	4	5	6	7
7. Our practice is willing to allocate resources (time, training, personnel, and space) to implement a comprehensive program to deliver clinical preventive services.	1	2	3	4	5	6	7
8. Internal communication is strong among staff and physicians in our practice.	1	2	3	4	5	6	7
9. A sense of teamwork exists among staff members and physicians in our practice.	1	2	3	4	5	6	7
10. Our practice has already implemented, or has tried to implement, specific programs for prevention (e.g., cancer prevention programs, smoking cessation, and diabetes education).	1	2	3	4	5	6	7

continued on page 18

	Very much			Neutral			Not at all
11. Our practice has effective referral mechanisms for patients to receive any screening tests not provided in our office (e.g., mammography and lab).	1	2	3	4	5	6	7
12. We have effective referral mechanisms for patients to receive behavior change counseling.	1	2	3	4	5	6	7
13. We follow up on patients referred to other services (e.g., record test results on charts).	1	2	3	4	5	6	7
14. We can allow adequate planning time to incorporate prevention into our practice.	1	2	3	4	5	6	7
15. We have a quality assurance system in place to assess and improve service delivery (e.g., Continuous Quality Improvement [CQI]; Total Quality Management [TQM]).	1	2	3	4	5	6	7
16. We have a system in place to report the percentage of eligible patients who are receiving the screening tests they need (e.g., Pap smears and immunizations).	1	2	3	4	5	6	7

Source: Readiness to put prevention in your practice. *Texas Medicine* 92(12):35, 1996.

Worksheet for Assessing Organizational Climate

What are the values, attitudes, and beliefs of our staff about prevention?

What are the values, attitudes, and beliefs of our patients about prevention?

What kinds of preventive services do we aspire to provide all of our patients?

What is the difference between what we aspire to provide and what we currently provide?

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Do we perceive a need to change?

Are we ready to make a change?

Elicit Patient Opinion

Before incorporating preventive services into your clinical setting, consider patient perspectives about such services. You can elicit opinions from your patients in a variety of ways, including customer satisfaction surveys, brief interviews, suggestion boxes, and focus groups.

Questionnaires on Patient Satisfaction

- Prepare a brief questionnaire that patients can complete while waiting for their appointments.
- Mail patients a brief questionnaire along with appointment reminder cards.

Brief Interviews (Telephone/Front Desk)

- Staff, on a rotating basis, can contact patients at random to ask one or two questions relating to the patients' satisfaction with the clinical setting and the preventive services provided.
- One or more staff members, at the time of a visit, can ask a question relating to patient satisfaction.

Suggestion Box (Comment Cards)

- Offer comment cards so that patients can express their opinions about the clinical setting and the preventive care provided. Patients may submit responses anonymously or may give their name and telephone number if they wish to be contacted by the staff.

Focus Groups

- Invite an outside consultant to conduct focus groups with your patients.
- Offer patients a small incentive to participate (e.g., lunch, a gift certificate, a small cash amount, or a free health and wellness visit).

Introduce PPIP as a Possibility

By this stage, you have taken two pivotal steps toward implementing PPIP in your clinical setting: (1) your staff have discussed their views on and goals for delivering clinical preventive services, and (2) you have analyzed your patients' views. The next step is to review your findings, introduce PPIP, and discuss whether to proceed with its

implementation. Before an organization-wide systems change can occur, the staff must agree that prevention is important and that prevention is aligned with the clinical setting's values.

You may wish to use the sample agenda, below, at a staff meeting. Also see Appendix A for sample presentation materials (slides and talking points for a group presentation on PPIP).

Sample Agenda
PPIP Introduction/Presentation Meeting

Team Presentation of Findings

- Summarize staff views on and goals for delivering preventive services.
- Discuss patients' opinions.
- Determine readiness for change.

PPIP Presentation Materials

- Use PPIP materials in Appendix A.

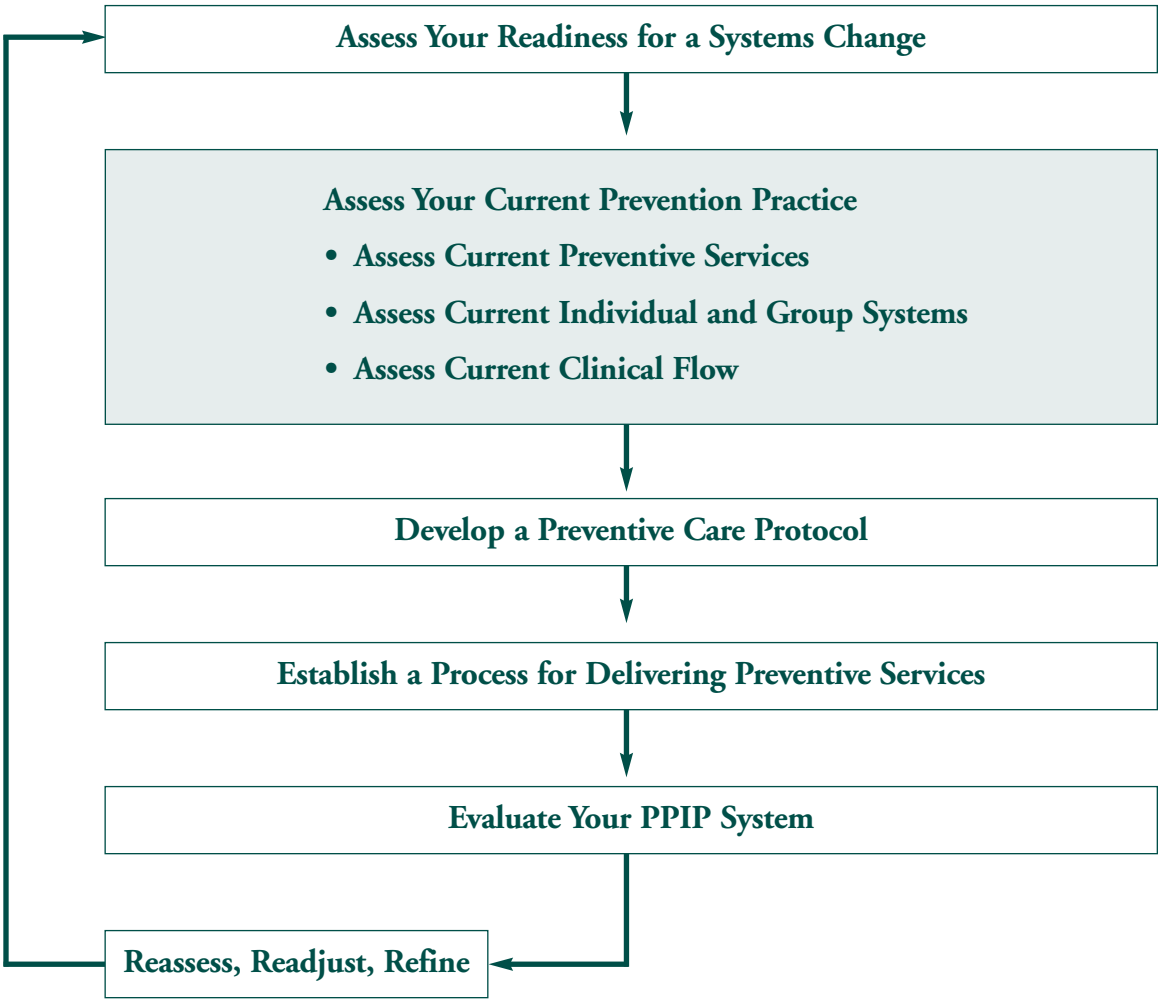
Goals

- Discuss whether PPIP would help your staff realize their goals for incorporating clinical preventive services. If there is consensus that it will, you can proceed to the next step—assessing the preventive services you are currently providing.

2

Assess Your Current Prevention Practice

Figure 2.1 Steps Your Setting Can Take to Deliver Clinical Preventive Services



2 Assess Your Current Prevention Practice

When staff have agreed on the need for change, the next step is to assess your current system for delivering preventive services. During this process, you can examine whether the Put Prevention Into Practice (PPIP) system and tools will fit your setting's needs. Although you may decide to make some changes in your current system, you may not need to change everything.

A number of tools are presented in this chapter to help you assess your current practice, including:

- A worksheet that will provide an overview of the preventive services you currently deliver.
- A worksheet to assess current individual and group systems.
- Guidelines and forms for assessing current clinical flow.

A review of the current system can provide you with a basis for comparison when you evaluate your system in the future. Conducting future evaluations will allow you to determine whether the new system is effective for your clinical setting.

Assess Current Preventive Services

Analyze how and to what extent preventive services are delivered in your clinical setting before going off in new directions or modifying existing systems. Use the Worksheet for Assessing Current Preventive Services, which appears on p. 27 and in Appendix B, to help determine your setting's current level of delivering preventive care.

Worksheet for Assessing Current Preventive Services

Preventive Services Provided

What preventive care do we currently provide our patients?

Do we provide preventive services for which each patient is eligible?

What services are we documenting?

Existing Systems for Providing Preventive Services

What policies and procedures do we have in place for providing preventive services?

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What forms and systems are we using?

How does our current physical environment support or inhibit our delivery of preventive services?

What preventive services delivery systems have worked? Why?

What preventive services delivery systems have not worked? Why?

continued on page 29

What can we do differently?

Will the PPIP system duplicate the work we are already doing?

Staff Roles

What functions do staff currently serve in the provision of preventive care?

Who is documenting the delivery of preventive services?

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Patient Flow

How does our current patient flow support or inhibit our delivery of preventive services?

Assess Current Individual and Group Systems

Use the worksheet below (also in Appendix B) to help you further evaluate the interpersonal relationships in your setting, the perceptions of your patients, and the need for change.

Worksheet for Assessing Current Individual and Group Systems

How are people working together?

Do people like working here?

What do patients say about our clinical setting?

Assess Current Clinical Flow

When analyzing clinical flow, consider whom the patient encounters during an office visit and what is done at each step of the visit. Such an analysis can provide a foundation for improving clinical efficiency. Effective organization of clinical systems and patient flow, and productive use of staff members' skills, can improve the delivery of preventive services.

Use the following exercise to review your current clinical flow, to note which staff members perform which functions, and to note when each service is documented. Compare staff perceptions of current clinical flow by having them first complete the Current Clinical Flow (pp. 33-34) and then discuss them as a group. Use the following Sample Current Clinical Flow as a guide.

Sample Current Clinical Flow

Patient Enters the Clinic for an Appointment

- New patients complete the personal information and medical history/insurance forms provided by the receptionist.
- The patient is asked to wait in the waiting room. Educational materials are available for the patient to review.
- The nurse/medical assistant/nurse assistant calls the patient from the waiting area and takes the patient's height, weight, blood pressure, and a brief history of the presenting problem.
- Information is documented on a progress note, and the patient is brought into the exam room.
- The patient waits for the clinician in the exam room.

Patient Sees the Clinician

- The clinician documents assessment, diagnosis, and services delivered in the progress notes.
- Flow sheets are used to track medications, weight, and vital signs.

Patient Exits the Clinic

- Follow-up information is documented on the bill.
- Educational materials are available for the patient to take home.
- The receptionist makes an appointment for the patient's next visit.

Outline Current Clinical Flow

Use the following boxes to record each step of your current clinical flow and to identify how your clinical setting incorporates prevention activities. Specify with whom the patient meets and interacts and briefly describe the nature of the interaction. Identify when forms are completed and when services are documented.

Current Clinical Flow

Patient Enters the Clinic for an Appointment

-
-
-
-
-

Answer the following questions to help you complete the box above.

- How and when does your clinical setting identify which screening activities are up-to-date and which preventive services are indicated for your patients?
- Whom does the patient see before seeing the clinician?
- What is done/discussed during this interaction?
- What educational materials are available for the patient to read in the waiting area?
- Do staff provide appropriate materials?

Patient Sees the Clinician

-
-
-
-

Answer the following questions to help you complete the box above.

- How does the clinician know which preventive services to offer/order?
- How is the patient's preventive care monitored over time?
- What preventive services are documented?
- How and where are these services documented?

continued on page 34

Patient Exits the Clinic

-
-

Answer the following questions to help you complete the box above.

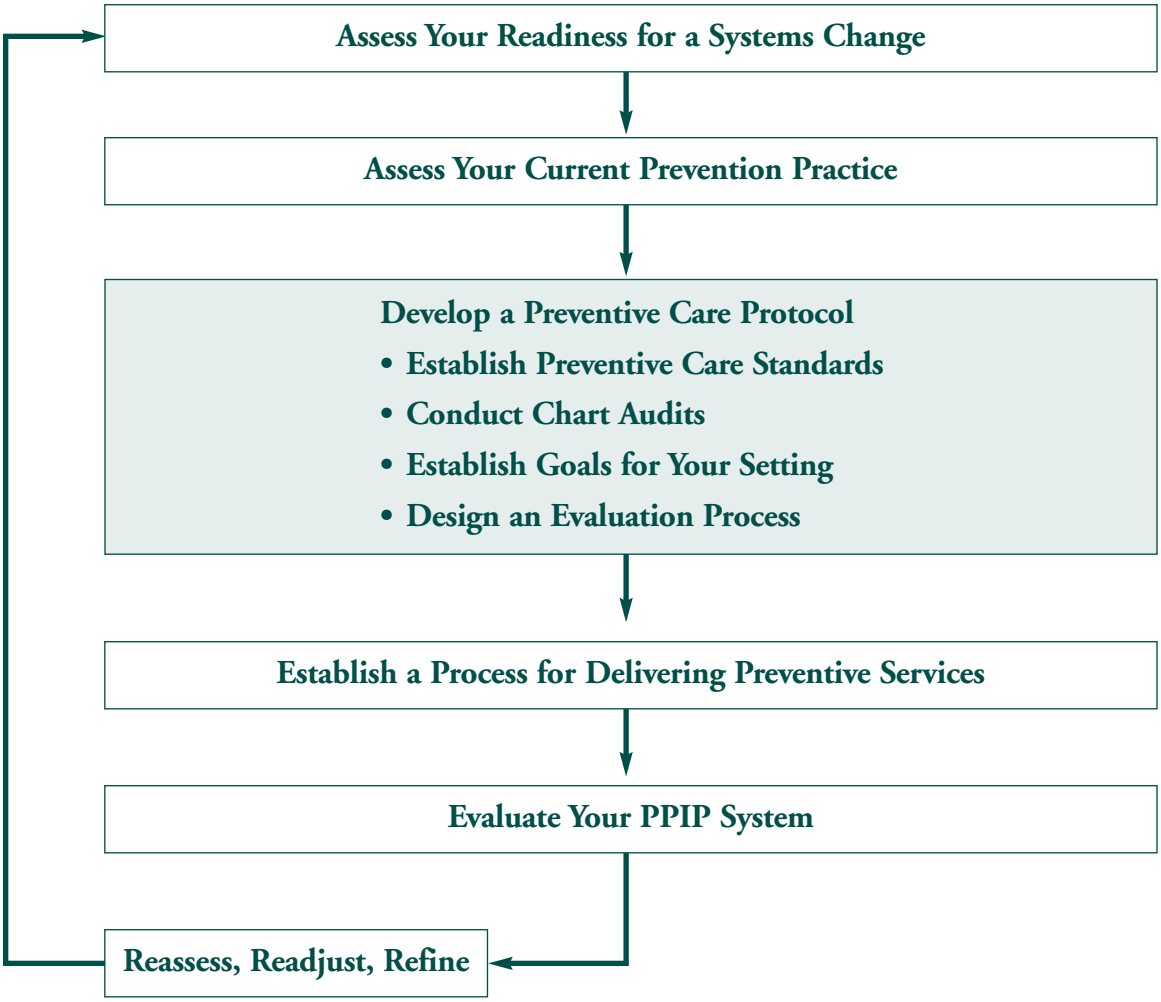
- What kind of monitoring system is in place to follow up with off-site screenings?
- What kind of reminder system is in place to follow up with screenings and counseling that are needed but that were not done at this visit?

Chapter 3 explains how to use the valuable information you just gathered to design and implement a system for delivering preventive services that fits your needs.

3

Develop a Preventive Care Protocol

Figure 3.1 Steps Your Setting Can Take to Deliver Clinical Preventive Services



3 Develop a Preventive Care Protocol

A preventive care protocol—a plan that specifies who should get which services and how often they should be delivered—needs to be developed as a first step in designing a system for delivering preventive care.

- The first step in developing a preventive care protocol is to review screening standards from various organizations, including the U.S. Preventive Services Task Force (USPSTF) (see the Introduction, "Establish Preventive Care Protocols," p. 4) and use them to establish preventive care standards to meet your setting's needs.
- The second step is to conduct baseline chart audits to determine how well your setting is meeting the standards you have set.
- The third step is to establish short-term or intermediate goals and evaluate how well your setting is meeting them.

These steps are described in greater detail in the remainder of this chapter. Worksheets to help you implement the steps described are included here and in Appendix B.

Start Small

If you are still daunted by the whole process, ease into it by first tackling a subset of your population or one piece of the implementation process. Here are two suggestions:

1. Implement PPIP for a definable subset of your population, such as new patients; or initiate PPIP in a single unit of a multi-unit clinic; or choose one or two items on which to focus, such as cervical cancer screening and mammography. Then add one or two additional items every 1–3 months as staff become comfortable with the process.
2. Place reminders on the charts prior to patients' visits. Putting needed preventive services on a reminder note on the front of the chart is a simple task. Studies have shown that the delivery of appropriate screening tests, counseling, and immunizations can improve greatly with this reminder alone (Chang et al., 1995; Cohen et al., 1989).

Establish Preventive Care Standards

To help your setting establish preventive care standards, gather standards or recommendations from one or more sources. The sources listed below offer recommendations for preventive health services (see p. 110 for more contact information). The standards should be provided to all staff members and a time should be scheduled to discuss them.

- The U.S. Preventive Services Task Force (USPSTF) systematically reviews the evidence of effectiveness of a wide range of clinical preventive services and develops recommendations for preventive care in the primary care setting. See the *Guide to Clinical Preventive Services, Third Edition: Periodic Updates* and the second edition (http://www.ahrq.gov/clinic/uspstfix.htm).
- The National Guideline Clearinghouse, sponsored by the Agency for Healthcare Research and Quality (AHRQ), is a comprehensive database of evidence-based clinical practice guidelines (http://www.guideline.gov).
- The National Committee for Quality Assurance sponsors the Health Plan Employer Data and Information Set (HEDIS), a set of standardized performance measures for health care prevention and treatment. Many plans base their preventive care standards on HEDIS performance measures (http://www.ncqa.org).
- The Texas Department of Health (TDH) *Adult Health Program Manual for Clinical Preventive Services* includes model standards for adult preventive health care. For sample TDH standards, contact http://www.tdh.state.tx.us/ppip/ormanual/index.htm.
- The Massachusetts Health Quality Partnership, the Atlanta Quality Council, the Colorado Clinical Guidelines Collaborative, the Foundation for Healthy Communities, and other groups offer clinical preventive services guidelines and standards.
- The Task Force on Community Preventive Services, coordinated by the Centers for Disease Control and Prevention, develops evidence-based recommendations on community preventive services. See the *Guide to Community Preventive Services* (http://www.thecommunityguide.org).

Establish your own preventive care standards by adapting and modifying existing standards to fit your setting's priorities and needs. Set minimum standards of care: your initial protocol may include only a subset of what you would eventually like to do. It is easier to start small than to try to do too much. You can always add more standards after your setting has successfully implemented a basic protocol. A sample of basic preventive care standards is on the next page.

Sample Basic Preventive Care Standards

Immunizations

- All adults will receive a Tetanus-diphtheria (Td) vaccine every 10 years.
- All adults aged 65 and older will receive a pneumococcal vaccine.
- All adults aged 65 and older will receive an influenza vaccine every year.

Screenings

- All men aged 35 and older and all women aged 45 and older will have their cholesterol checked every 5 years.
- All adults aged 50 and older will have a fecal occult blood test annually and sigmoidoscopy every 5 years.
- All sexually active women aged 25 and younger will be screened for chlamydia.
- All sexually active women who have a cervix will receive a Pap smear every 3 years.
- All women aged 40 and older will receive a mammogram every 1-2 years.

Assessment and Counseling

- All patients will receive an initial physical exam within their first year as a patient in this practice.
- Once a year, all adult patients will be assessed for risks related to smoking, physical activity, nutrition, alcohol, and aspirin and coronary heart disease. They will be counseled, referred, screened, or treated in relation to all risks.

Specify Steps for Each Standard

According to Frame (2000), protocols should be specific about how to deliver each recommended preventive service, particularly counseling. For example, if a protocol states that providers should counsel for injury prevention, what are they expected to do? Should they spend 10 minutes talking to their patients? Should they give patients printed information? Should they ask them to watch a video? Any of these is reasonable, but the protocol should specify the steps needed to comply with the recommendation.

Standing orders, defined as interventions in which nonphysician personnel prescribe or deliver clinical preventive services to patients without direct physician involvement at the time of visit, can also be included in protocols. Standing orders have been found to be effective in improving vaccine coverage among adults used alone or as part of a multicomponent intervention in a number of settings.

Conduct Chart Audits

After you have established your own preventive care standards, the next step is to determine how well your setting is meeting them. To obtain this information, examine clinical records through chart audits. From these audits you can determine not only how health risks are being identified and addressed in your setting but also the percentage of patients who are receiving the appropriate screening, counseling, immunization, and chemoprevention. See p. 46 for instructions and examples on conducting chart audits.

Establish Goals for Your Setting

After establishing standards of preventive care and conducting chart audits, the next step is to review the results of your assessment activities. You will then be ready to set goals toward meeting your standards. You may decide to begin by establishing short-term or intermediate goals. A short-term or intermediate goal may be to increase the delivery of one preventive service within the next 6 months. For example, you may decide to immunize 90 percent of patients aged 65 and older against pneumococcal disease within the next year; or you may decide to counsel all smokers who visit your office within the next 6 months.

You will also need to set goals for a systems change to help your setting increase the delivery of clinical preventive services. For example, you may decide to include a health risk profile and preventive care flow sheet in each chart (see Chapter 6 and Appendix C for examples). Once you have an implementation system in place, you may want to add new preventive services, expand the target populations served, or make other changes in your system.

The worksheet on p. 41 will help you decide how to begin delivering preventive services. Your next steps will be to develop a plan to evaluate your delivery of clinical preventive services and then develop a process for implementing your plan, which will be explained in Chapter 4.

Set and Evaluate Short-term or Intermediate Goals

Practice X adopted the following standard: All patients will be asked about tobacco use at all office visits, and all tobacco users will be urged to quit smoking. However, when Practice X conducted a baseline chart audit, staff found that within the last year only 60 percent of their patients had been asked about tobacco use and only 30 percent of these had been urged to quit smoking. Practice X then adopted a short-term goal: Within the next 6 months, at least 85 percent of all patients will be asked about tobacco use and all identified tobacco users will be counseled to stop using tobacco.

Chart audits should be repeated periodically to help you determine how well your setting is meeting its goals. This evaluation should be planned before implementing the Put Prevention Into Practice Program (PPIP).

Worksheet for a Plan to Deliver Clinical Preventive Services

When should we start implementation?

How should we start implementation?

Who will our initial target population be? (Remember to start small!)

continued on page 42

With what services/materials should we start? Which should we add later?

How will we know when we are ready to expand our services?

Design an Evaluation Process

Plan to evaluate your delivery of clinical preventive services while you are designing your implementation program. The evaluation should be based not only on your program goals but also on your progress toward reaching them. In tracking your delivery of clinical preventive services, you may find that a certain process (such as the flow of patients through your setting or the physician reminder system) does not work well and needs modification.

Systems change and evolve over time.

As you design you evaluation process, consider how you will evaluate your providers' delivery of one or more clinical preventive services, and how you will convey your evaluation to them. This intervention has been proven effective in improving vaccine coverage among adults.

Decide how and when to review your progress. To track your progress, schedule frequent, regular opportunities to evaluate the status of your preventive services delivery system. Regularly scheduled meetings offer opportunities for staff to share what is and what is not working for them. Encourage staff to explore all possibilities for changing routines and for attempting new solutions by openly listening and responding to all ideas. Since the implementation process will be reviewed and modified often, there will be many opportunities for creative solutions.

Completing the worksheet on p. 45 will help you design an evaluation process for your setting. Chapter 5 provides specific information to help you evaluate your system for delivering clinical preventive services.

Worksheet for Designing an Evaluation Process

How will we review our progress?

How often will we meet to reflect on our direction?

How will we know if we have been successful?

How to Conduct Chart Audits

The following are first steps to take in preparing to conduct a chart audit:

1. Determine the number of charts needed to give you a good overview of the delivery of preventive services in your clinical setting (e.g., at least 10 percent to 15 percent of active charts).
2. Choose a time period to cover; 6 months often is used. In a patient population that is not well-defined, especially in fee-for-service or mixed practices, it is best to measure the provision of preventive services among patients who have visited your setting within a defined period (usually 2 years).
3. Use the appointment log from the chosen time period. Choose two morning and two afternoon appointments per day to reach the desired number of charts to audit for that time period. Be sure to cover all days of the week (including weekends and nights, if applicable) and to include all practitioners.
4. Decide which preventive services to evaluate. You will need to review the preventive care standards your setting has adopted. You may start with one service, such as Pap smears, for your initial assessment. In this way, you can assess each patient's chart and find out whether it is up to date for that particular service (see Simple Chart Audit).

You are now ready to conduct an audit. Three sample audits are presented. These range from simple to complex to more complex (Examples 1, 2, and 3). Of course, you can adapt these forms or choose other forms to suit your needs.

Simple Chart Audit

A simple chart audit (Example 1) appears below.

Example 1. Simple Chart Audit

Chart #	Sex	Systematic Assessment of Risk Factors?	Initial Physical Exam?	Health History?	Delivery of Pap Test Complete?	Any Health Education Documented?	Date Client Was Seen	Age
1002	M	no	yes	no	no	yes	12/3/95	55
2323	F	yes	yes	no	no	yes	5/5/95	32
Total								
		1 YES/2	2 YES/2	0 YES/2	0 YES/2	2 YES/2		

Complex Chart Audit

The following instructions and sample chart (Example 2) will help you conduct a complex chart audit.

1. Use the information recorded on a patient's flow sheet, health history form, or most recent progress report to complete this form.
2. Use one line for each patient.
3. Record the indicated demographic data in the first three columns.
4. Complete the columns as follows: "Y" indicates "yes," "NA" indicates "not applicable," "N" indicates "no," and "NI" indicates "no information found." Record comments in the last column.

You can begin with the health screening areas cited in the chart. You should decide as a group which preventive services you would like to evaluate. For each patient, record the most recent date a procedure was performed, recommended, or scheduled, regardless of where it was done.

Example 2. Complex Chart Audit

							HEALTH SCREENING AREA				
Date of Most Recent Visit	**Age**	**Sex**	**Is Flow Sheet in Chart?**	**Has It Been Updated Within Last 12 Months?**	**Smoker?**	**Tobacco Counseling?**	**Guaiac**	**Breast Exam**	**Mammogram**	**PAP/ Pelvic**	**Comments**
5/5/98	32	F	Y	N	N	N	N/A	4/98	NA	4/98	Prog. Notes/Lab
5/5/99	59	M	Y	Y	Y	N	7/99	NA	NA	NA	Prog. Notes
5/5/99	42	F	N	N	N	Y	NA	NI	1/99	NI	Mental Illness little attention paid to prevention

Source: Adapted from Carney et al., 1992 and Dietrich et al., 1994

More Complex Chart Audit

The following instructions and Examples 3A–3D will help you conduct a more complex chart audit. These instructions and examples are adapted from an instrument developed by Smith (1999); see also Smith et al. (1999).

1. Create a Protocol for the More Complex Chart Audit
    a. Establish minimum standards of preventive care (see Example 3A).
    b. Create patient categories for specific age groups by gender. List the minimum preventive care requirements for these categories (see Example 3B).
2. Use Instruments for Conducting the Audit
    a. Complete Instrument 1: Document Delivery of Assessment and Counseling for Behavioral and Clinical Risk Factors (Example 3C).
    b. Complete Instrument 2: Determine Scores on Delivery of Screening Tests, Immunizations, and Counseling (Example 3D).

Example 3A. Protocol for a More Complex Chart Audit: Establish Minimum Standards of Preventive Care

Minimum Standards of Preventive Care for Patients

Immunizations

- All adults will receive a Tetanus-diphtheria (Td) vaccine every 10 years.
- All adults aged 65 and older will receive a pneumococcal vaccine.
- All adults aged 65 and older will receive an influenza vaccine every year.

Screenings

- All men aged 35 and older and women aged 45 and older will have their cholesterol checked every 5 years.
- All adults aged 50 and older will have a fecal occult blood test every year and sigmoidoscopy every 5 years.
- All sexually active women aged 25 or younger will be screened for chlamydia.
- All sexually active women who have a cervix will receive a Pap smear every 3 years.
- All women aged 40 and older will receive a mammogram every 1-2 years.

Assessment and Counseling

- All patients will receive an initial physical exam within their first year as a patient in this practice.
- Once a year, all adult patients will be assessed and counseled for risks related to smoking, physical activity, nutrition, and alcohol, and counseled about taking aspirin to prevent coronary heart disease. They will be counseled, referred, screened, or treated in relation to all identified risks.

Example 3B. Protocol for a More Complex Chart Audit: Patient Categories and Minimum Requirements

Patient Category	Sex/Age	Minimum Requirements
PC1	F/≤25	Td + Chla + Pap
PC2	F/26-39	Td + Pap
PC3	F/40-44	Td + Pap + Mamm
PC4	F/45-49	Td + Pap + Mamm + Chol
PC5	F/50-64	Td + Pap + Mamm + Chol + FOBT/Sigm
PC6	F/≥65	Td + Pap + Mamm + Chol + FOBT/Sigm + Pneuvx + Flu
PC7	M/<35	Td
PC8	M/35-49	Td + Chol
PC9	M/50-64	Td + Chol + FOBT/Sigm
PC10	M/≥65	Td + Chol + FOBT/Sigm + Pneuvx + Flu

Chla=Chlamydia
Chol=Cholestorol
FOBT/Sigm=Fecal Occult Blood Test/Sigmoidoscopy
Mamm=Mammogram
Pneuvx=Pneumovax
Td=Tetanus-diphtheria

Example 3C. More Complex Chart Audit, Instrument 1: Document Delivery of Assessment and Counseling for Behavioral and Clinical Risk Factors

Patient	Sex	Age	Sample Date	No. Visits Last 12 Months?	Health Hx?	Smoking	Physical Activity	Nutrition	Alcohol	ASA/CHD
1-GK	F	24	5/5/99	1	Yes	(A) C	A C	A C	A C	A C
2-MM	F	47	6/7/01	3	Yes	A C	A C	(A) (C)	(A) C	(A) (C)
3-LR	M	39	2/5/02	2	No	(A) (C)	A C	A C	A C	(A) C
4-AB	M	70	2/10/02	5	Yes	(A) C	A C	A C	(A) (C)	(A) C

A=Assessment for risk
ASA/CHD=Aspirin/Coronary heart disease
C=Counseling/referral/screening/treatment
Hx=History
(Note: Circle if documented in chart within the last 12 months.)

Example 3D. More Complex Chart Audit, Instrument 2: Determine Scores on Delivery of Screening Tests, Immunizations, and Counseling

	Date of Last:								CPS Scores		
Patient/ Sex/Age	Chla	Pap	Mamm	Chol	FOBT/ Sig	Td	Pneuvx	Flu	# Linked A and C	Ratio Timely Screens/ Patient Category	Required Screens
1-GK/F/24	3/99	3/99	N/A	N/A	N/A	5/97	N/A	N/A	0	1	3/3=1
2-MM/F/47	N/A	8/97	10/99 not up to date	*	N/A	2/98	N/A	N/A	2	4	2/4=0.5
3-LR/M/39	N/A	N/A	N/A	1/02	N/A	1/02	N/A	N/A	1	8	2/2=1
4-AB/M/70	N/A	N/A	N/A	7/00	7/00	*	*	11/01	1	10	3/5=0.6
Totals for Patients 1–4									4	—	3.1
Mean Scores:								1	—	0.77	

*Test/Immunization not completed
A=Assessment for Risk
C=Counseling/referral/screening/treatment
Chla=Chlamydia
Chol=Cholesterol
FOBT/Sig=Fecal Occult Blood Test/Sigmoidoscopy
Mamm=Mammogram
N/A=Not applicable
Pneuvx=Pneumovax
Td=Tetanus-diphtheria

If you have gone through this chapter step by step, you will be able to establish standards for delivering clinical preventive services, set goals for meeting these standards, and evaluate your setting's progress. Your standards for delivering preventive services will change over time, requiring you to set new goals and conduct new evaluations using the chart audits described in this chapter.

The next chapter explains how to develop a process that will help you deliver appropriate clinical preventive services to your patients. The key elements of this process are engaging staff, assigning responsibilities for specific tasks, and determining the flow of information and materials.

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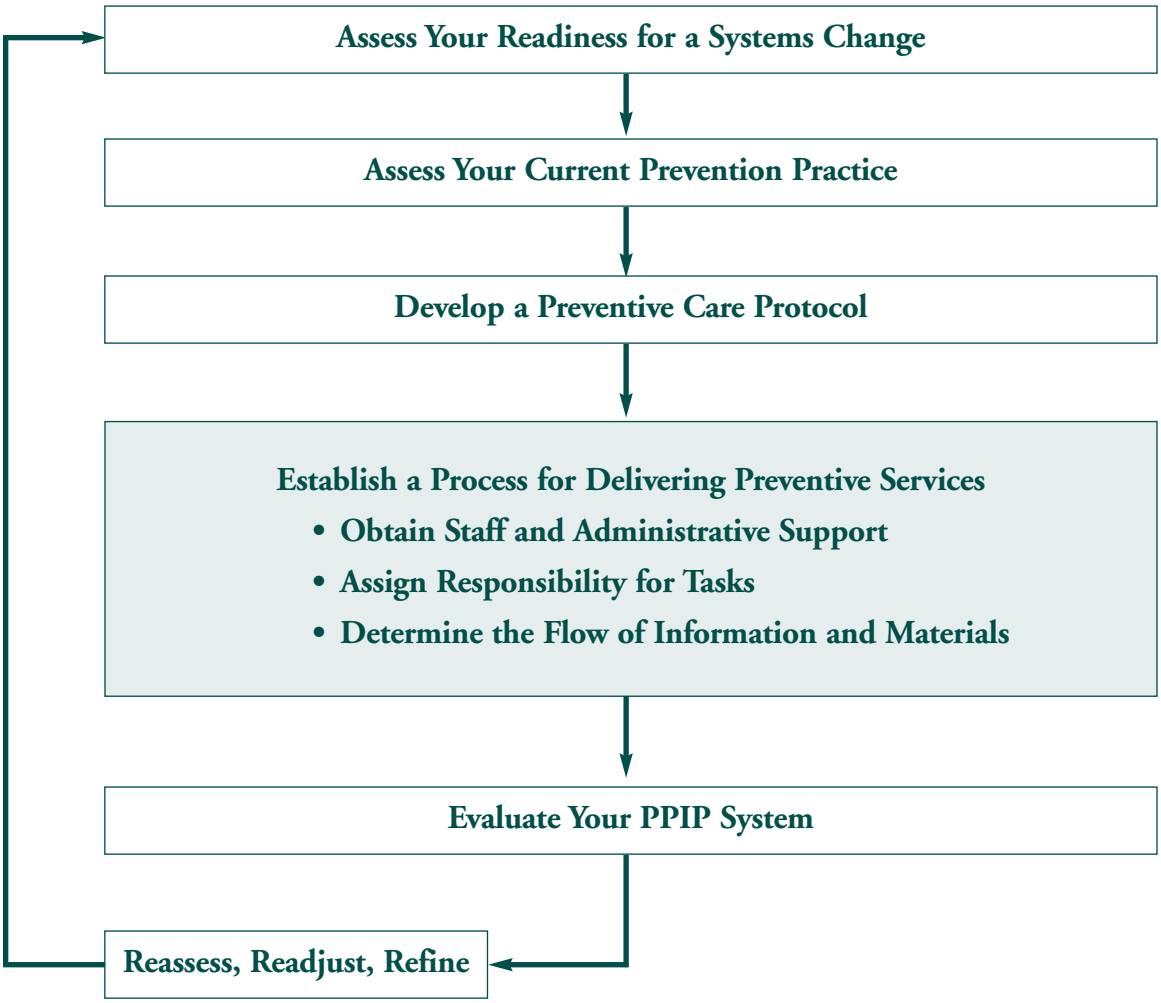
4

Establish a Process for Delivering Preventive Services

Figure 4.1 Steps Your Setting Can Take to Deliver Clinical Preventive Services



4 Establish a Process for Delivering Preventive Services

Now that you have developed a preventive care protocol, you will need a process to help you implement it. Although each setting has unique needs and the process may vary from one setting to another, your process should include the following steps:

- Obtain staff and administrative support.
- Define staff roles.
- Determine the flow of information and materials.

Obtain Staff and Administrative Support

Support from staff and the administration is needed to successfully implement a process for delivering clinical preventive services. Support includes not only the cheerleading role but also the authorization for staff to expend time and resources. Although key staff, representing different areas of your setting, should be involved in the development and ongoing evaluation of your preventive services delivery system, an internal change agent or program champion should have primary responsibility for the program. The ideal program champion will know the organization's history, personalities, abilities, authority figures, and decision-making process. This person will also have a wide social network within the organization and will be trusted and respected by both superiors and colleagues. This implies that the program champion should have excellent communication skills, especially listening skills.

Every system needs a program champion.

Consider Using Consultants to Provide Technical Assistance

Consultants can assist with the nuts and bolts of implementation. They add perspective, teach staff how to collect data and assess the organization, assist staff in overcoming organizational barriers, and facilitate planning and implementation efforts as needed by each practice. In facilitating implementation, consultants work closely with a person within the organization, such as a program champion.

Define Staff Roles

When you begin to incorporate a system for delivering clinical preventive services into your setting, you will be ready to divide responsibility for the delivery of these services among staff. The functions required to implement Put Prevention Into Practice (PPIP) can be shared in many creative ways. There is no "one way" to implement PPIP.

The following worksheet lists several of the functions needed to implement PPIP. Have each staff member complete this worksheet and bring it to a staff meeting for discussion and decision-making.

Worksheet for Delegating PPIP Functions Among Staff

For each question, consider the following:

- Who would be the best person to fill this role in your clinical setting? Why?
- Who would be the best person to supervise and/or follow up?

Clinical Flow

Who will put the PPIP tools in the client's chart the day before the visit? (see Chapter 6 for PPIP materials.)

Who will prescreen the patient's chart the day before the visit?

Who will conduct and review the health risk profile (HRP) and initiate the preventive care flow sheet for each patient? (see Chapter 6 for a description of HRPs and preventive care flow sheets.)

continued on page 60

Who will be responsible for ordering screening tests?

Who will be responsible for reviewing the appropriate health guides with the patient and for counseling the patient on identified risk factors? (see Chapter 6 for a description of PPIP health guides.)

Chart Audits

Who will conduct chart audits to assess the quality of preventive services?

Who will analyze the chart audit results and present them to the staff?

continued on page 61

Staff Training

Who will arrange for staff training?

Who will conduct staff training?

What will we do if we need technical support?

Additional Functions

Who will be responsible for designing and ordering materials?

continued on page 62

What are some additional functions, and who will perform them?

Determine the Flow of Information and Materials

Based on your assessment exercises and review of the Worksheet for Delegating PPIP Functions Among Staff, complete the Revised Clinical Flow for PPIP (pp. 65-66) to guide you in implementing PPIP. Completing this flow sheet will enable you to:

- Illustrate how the patient will move through the PPIP system.
- Note opportunities for patient interaction.
- Note when services will be delivered and documented.
- Determine appointment scheduling changes needed as a result of the new system flow.
- Follow the flow of a chart through the new PPIP system.

As you are completing the Revised Clinical Flow, note that when a procedure or protocol is changed in one department or work group, you will need to consider how this will affect other departments or work groups. For example, at one site, ordering more off-site screening created several additional tasks for staff members, such as following up to make sure patients went for tests, scheduling patients for appointments to receive their results, and confirming that the results were received before the patient's next office appointment.

See the following Sample PPIP Clinical Flow before completing the Revised Clinical Flow for PPIP.

Sample PPIP Clinical Flow

Patient Enters the Clinic for an Appointment

- The receptionist greets the patient, provides the patient with personal/medical history/insurance information forms, and introduces patients new to PPIP to the appropriate health guides and health education materials while they are waiting to see their provider. Returning patients are asked if they brought their health guides and if they have been using them (see Chapter 6 for more information about PPIP health guides and other health education materials).
- The nurse/health educator/medical assistant takes the patient into a private area (e.g., office or exam room) to complete/review the health risk profile (HRP) and starts the preventive care flow sheet and the appropriate risk-specific education/counseling. Risks and counseling are documented on the flow sheet. (See Chapter 6 and Appendix C for more information about the HRP and preventive care flow sheet.)
- The nurse/medical assistant takes the patient into the treatment room and takes height, weight, and vital signs. The patient and staff discuss the results of the health risk assessment and the identified health risks.

continued on page 64

Patient Enters the Clinic for an Appointment (continued)

- A reminder note is completed to alert the clinician to any areas needing to be addressed with the patient.

Patient Sees the Clinician

- The clinician/nurse/medical assistant/health educator reviews the health guide with the patient.
- The clinician sees the patient and addresses the areas checked on the reminder note. All recommendations and procedures (immunizations, screening, and education) performed are documented on the flow sheet/progress notes.
- The clinician writes referrals for off-site preventive services if needed.
- The clinician/nurse/health educator provides counseling on one or more identified health issues/behaviors and documents services provided on the flow sheet.

Patient Exits the Clinic

- The patient views educational posters and available materials when walking through the clinic.
- The receptionist/clerk receives pertinent follow-up information from the visit, distributes educational materials, and reminds the patient to use the health guide.
- The receptionist/clerk, while scheduling the new appointment, removes the tickler card from the chart and places it in the tickler file to mail at a later date.
- The receptionist/clerk schedules a return appointment for follow-up if the patient is scheduled for off-site testing or exams.

continued on page 65

Ongoing Activities in the Clinic

- Clinic staff conduct periodic chart audits to assess delivery of preventive services and documentation. Results are shared with staff and used in performance evaluations.
- Regular meetings are scheduled for staff to reflect on implementation of preventive services.
- Staff functions are reviewed for effectiveness, and job descriptions are revised to include preventive care activities.
- Staff and patient feedback is routinely invited and reviewed.
- Successes are acknowledged and celebrated.

Use the information from the sample PPIP clinical flow, on pp. 63-64, to design your clinical flow. Use the following boxes to record each step of the clinical flow.

Revised PPIP Clinical Flow

Patient Enters the Clinic for an Appointment

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-
-
-

Answer the following questions to help you complete the box above:

- How and when does your clinic identify which screening activities are up-to-date and which preventive services are indicated for your patients?
- Which staff members greet patients?
- Who guides patients through the clinical setting?
- Where do patients go and with whom do they interact?
- Whom do patients see before seeing the clinician? What information is collected or discussed at this time?

continued on page 66

Patient Sees the Clinician

-
-
-

Answer the following questions to help you complete the box above:

- How does the clinician use the patient appointment to reinforce, educate, and counsel the patient on preventive care and positive health behaviors?
- How is the patient's preventive care monitored over time?
- What services are documented? How and where are services documented?

Patient Exits the Clinic

-
-
-
-
-

Answer the following questions to help you complete the box above:

- How does the staff obtain patients' feedback on their experiences in the setting?
- How does the staff demonstrate their interest in the patients' progress toward healthier lifestyles?
- How can the staff reinforce patients' positive behavior changes?
- What kind of monitoring system is in place to follow up with off-site screenings?
- What kind of reminder system is in place to follow up with needed screenings or counseling?

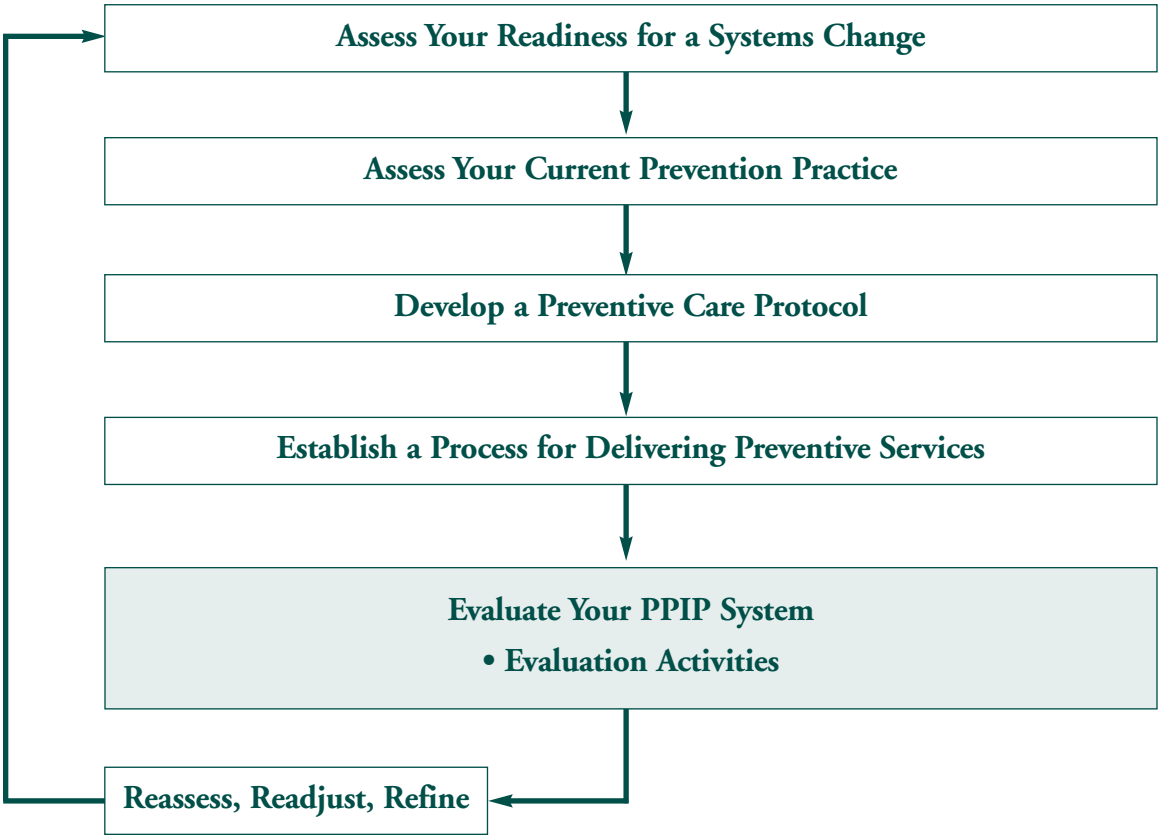
With collaboration and thorough planning, implementation is nothing more than taking those first steps toward achieving your goals.

As the experience of your staff members increases, your ability to respond to changes in the environment (such as managed care and population aging) will improve. Through changes in your delivery system and the empowerment of your patients and your staff, you will stand out as a competitive, healthy, and successful health care organization.

5

Evaluate Your PPIP System

Figure 5.1 Steps Your Setting Can Take to Deliver Clinical Preventive Services



5 Evaluate Your PPIP System

Evaluating your Put Prevention Into Practice (PPIP) system for delivering preventive services should be an ongoing process. You can use formal methods, such as questionnaires and chart audits, or informal methods, such as staff meetings and lunches, to help you evaluate your PPIP system. You can evaluate your PPIP system by assessing the following elements:

- Staff and patient satisfaction.
- The delivery and documentation of preventive services.
- The effectiveness of PPIP materials.
- How staff are working as a team.
- Your goals for delivering preventive services.

To evaluate your system effectively, it is necessary to set times for ongoing evaluation and to keep lines of communication open.

Evaluation Activities

Because your setting's system for delivering preventive services will change and evolve over time, you will need to evaluate your performance periodically to determine whether your prevention goals are being met. You will want to evaluate areas of excellence as well as areas of deficiency. It is particularly important to acknowledge areas of excellence so staff will continue to be motivated to maintain and improve the delivery of preventive services within your setting.

You may want to suggest that staff change roles within the system. People who "cross-train" will not only appreciate the work done by others, but will learn how to better support each other.

There are a number of ways your setting can keep the lines of communication open to regularly evaluate your PPIP system. Some of these are described briefly below.

Complete a Questionnaire

Consider using the following Worksheet (pp. 71-74) for Evaluating Your PPIP System (a copy is also in Appendix B) as a first step in evaluating your PPIP system for delivering preventive services.

Hold Regular Staff Meetings

- Assess staff members' needs for continuing education.
- Provide opportunities for the safe practice of new skills.
- Present regular reports from planning and evaluation groups.

Schedule Informal Opportunities to Share and Communicate Regularly

- Host staff lunches.
- Sponsor group exercise activities (e.g., walking groups for staff, patients, or both).

Conduct Chart Audits

- Repeat chart audits to assess delivery and documentation of preventive services.
- Compare chart audits with your setting's baseline measures.
- Discuss results with staff.

Elicit Patient Feedback

- Create a suggestion box.
- Conduct focus groups.
- Record questions to ask receptionists/clerks and other staff.
- Conduct customer satisfaction calls/surveys.

Acknowledge Staff

- Identify regular opportunities to appreciate staff.
- Explore with staff ways they can support one another.

Worksheet for Evaluating Your PPIP System

Goals

Are we functioning in alignment with our greater purpose? Our vision?

Do we need to reevaluate our goals?

What is working well? Why?

What is not working? Why?

What can be done differently?

continued on page 72

Are we providing the services we said we want to provide?

Should we reevaluate the services we offer?

Materials

How do the PPIP materials fit our needs?

Should we modify any of the PPIP materials?

continued on page 73

Documentation

Are we documenting the services we provide?

Staff Performance and Satisfaction

How are the staff performing their functions?

Are staff stepping in where needed?

Are staff working together as a team?

continued on page 74

Are all staff contributing suggestions?

How do staff members feel about their work?

Do staff members feel supported and heard?

Patients

How are our patients responding to the change?

PPIP in Practice

Regular Reflection and Change at the Bristol Memorial Clinic

The staff at Bristol Memorial Clinic, who used to meet once a month, now meet every Wednesday afternoon. Once PPIP was implemented, the staff decided that the monthly meetings came too late to address some of the problems before they arose. Since they started meeting weekly, they have been able to stay on top of changes and to resolve problems promptly. Most staff look forward to the weekly check-in as a way to stay connected to each other and to share their ideas.

Each meeting begins with a report from two representatives, one from the planning team and one from the performance improvement team. The planning team addresses ongoing growth and development within the clinical setting. Once a year they lead a session to reassess the group goals and to make future plans. This group works to maintain the energy and spirit of the organization and to keep people motivated and involved. The performance improvement team reports on staff adjustment to their individual functions and to team work. They compare current status to their goals and recommend changes to better meet those goals.

Bristol Memorial Clinic has instituted many changes since implementing PPIP, most of which were suggested by staff at the weekly meetings. One of the most helpful changes was to move Mark, the health educator, from his office in the basement to a space outside the waiting room. This made it easier for him to counsel patients on the way to or from the exam room. Mark is now more visible to the patients, and he is better able to keep the educational materials stocked in the waiting room. Mark has ideas for creating a health education library in his old office. The clinic has just received a TV/VCR as a donation, and Mark is looking into the possibility of obtaining some educational tapes for the patients to view when they come in for their visits. Another important change was instituted after staff realized that some patients were not being followed up after their off-site screening tests. Two Bristol Memorial Clinic nurses proposed a system for tracking patient referrals. The feedback these nurses received from the staff at the weekly meetings helped them to develop the new system within a month. They created a referral tracking form that is maintained by the receptionist. When the results come back to the clinical setting, they are noted on this form, which helps to ensure that results are placed in the patient's chart.

6

Incorporate Prevention Materials Into Your PPIP System

6 Incorporate Prevention Materials Into Your PPIP System

Effective interventions that address personal health practices are likely to lead to substantial reductions in the incidence and severity of the leading causes of diseases and disability in the U.S. Primary prevention as it relates to such risk factors as smoking, physical inactivity, poor nutrition, alcohol and other drug abuse, and inadequate attention to safety precautions holds greater promise for improving overall health than many secondary preventive measures such as routine screening for early disease. Therefore, clinician counseling that leads to improved personal health practices may be more valuable to patients than conventional clinical activities, such as diagnostic testing.

(Office of Disease Prevention and Health Promotion, 1996, pp. xxix-xxx).

Many of the patients we see don't have a lot of positive experiences in their lives. When they can make one little positive change for themselves, they're very excited.

Mia Latham, RNC, Women's Health Clinic Nurse, Lubbock, TX

Clinicians, office settings, and patients use prevention materials in different ways. Clinicians use them as the evidence-based foundation for delivering preventive care. Office settings use them to develop a system for improving the delivery of preventive services. Patients use them to understand and keep track of the preventive care they receive. This chapter describes U.S. Preventive Services Task Force (USPSTF) and Put Prevention Into Practice (PPIP) resources and related materials and suggests how to use them in your setting.

The materials described in this chapter—particularly the health risk profiles, preventive care flow sheets, posters, and patient education materials—have been designed to be used in counseling patients. Descriptions of the materials that follow explain how they may be used for this purpose.

Reference Materials for Clinicians

- Third U.S. Preventive Services Task Force Recommendations and Rationale*
- Summaries of the Evidence for the Third U.S. Preventive Services Task Force*
- *Guide to Clinical Preventive Services*, second edition*
- *Clinician's Handbook of Preventive Services**†
- *Guide to Community Preventive Services* (coordinated by the Centers for Disease Control and Prevention)

Office System Materials

- Health risk profiles*†
- Preventive care flow sheets*†
- Preventive care timeline posters*†
- Prevention Poster*†

Patient Materials

- Prevention prescriptions (adapted from Texas PPIP)
- *Personal Health Guide**† (available in English and Spanish)
- *Child Health Guide**† (available in English and Spanish)
- *Staying Healthy at 50+**† (available in English and Spanish)

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* Information regarding these publciations can be found on the Agency for Healthcare Research and Quality (AHRQ) Web site: http://www.ahrq.gov/clinic/prevenix.htm. To order these publications, e-mail your request to ahrqpubs@ahrq.gov, or call the AHRQ Publications Clearinghouse: 1-800-358-9295.

† Publications in the PPIP series.

Reference Materials for Clinicians

From the U.S. Preventive Services Task Force

The USPSTF is an independent panel of experts in primary health care and prevention that systematically reviews the evidence of effectiveness of a wide range of preventive services—including screening tests, counseling, and chemoprevention—and then recommends the services that clinicians should routinely provide as part of primary health care.

The Third U.S. Preventive Services Task Force

Recommendations and Evidence Reviews. Release of the recommendations of the current USPSTF, and the evidence on which they are based, began in the Spring of 2001. The Agency for Healthcare Research and Quality (AHRQ) will release new and updated current USPSTF recommendations, evidence summaries, and Systematic Evidence Reviews individually on AHRQ's Web site and in print as they are completed. For a description of USPSTF products, see the AHRQ Web site (http://www.ahrq.gov/clinic/uspstfix.htm). To order, please e-mail your request to ahrqpubs@ahrq.gov, or call the AHRQ Publications Clearinghouse: 1-800-358-9295.

The Second U.S. Preventive Services Task Force

***Guide to Clinical Preventive Services,* Second Edition.** The USPSTF *Guide to Clinical Preventive Services*, second edition, contains recommendations from the previous USPSTF, based on data available through 1995, on delivering more than 200 preventive services in the primary care setting. This *Guide* helps clinicians determine which preventive services to provide their patients.

Principal Findings of the Second U.S. Preventive Services Task Force

- Preventive interventions that have an impact on patients' personal health practices are vitally important.
- Clinicians and patients should share decision-making.
- Clinicians should be selective in ordering tests and providing preventive services.
- Clinicians must take every opportunity to deliver recommended preventive services, especially to persons with limited access to health care.
- Community-level interventions may be more effective for some health problems than clinical preventive services.

***Clinician's Handbook of Preventive Services*, Second Edition.** The *Clinician's Handbook of Preventive Services*, second edition, is a reference for clinicians and office staff. The *Handbook* includes evidence-based recommendations of the second USPSTF and 51 other major medical authorities, provides detailed instructions for performing each preventive service recommended, and refers readers to hundreds of patient and provider resources.

The *Handbook* can be used by clinicians and office staff to create a protocol for preventive care, to teach or remind them how to deliver preventive services, to serve as a resource for clinical preventive care guidelines, and to locate patient and provider resources.

The *Handbook* is divided into four main sections: (1) basic information on concepts of prevention and delivery of preventive care, (2) discussion of specific preventive care topics for children and adolescents, (3) information on specific types of preventive care for adults and older adults, and (4) appendixes that provide a list of major authorities cited and tables that summarize disorders according to specific risk factors.

From the Centers for Disease Control and Prevention Community Task Force

Guide to Community Preventive Services

While the USPSTF *Guide to Clinical Preventive Services* provides evidence-based recommendations for delivering preventive care in the clinical setting, the Centers for Disease Control and Prevention (CDC) *Guide to Community Preventive Services* provides evidence-based recommendations for delivering preventive services in the community. Systematic reviews are conducted for interventions in each health topic and organized as "chapters." Chapters will address changing behaviors that put our health at risk; reducing specific diseases, injuries, and impairments; and addressing environmental and ecosystem threats to public health. The *Guide to Community Preventive Services* will help public health practitioners and others make informed decisions for selecting and implementing community preventive services.

For more information and to view individual chapters as they become available, search the Web site for this *Guide* (www.thecommunityguide.org) or call 1-770-488-8189.

Office System Materials

Health Risk Profiles

Health risk profiles (HRPs) are tools to help office staff and clinicians identify whether age, gender, or health-related behaviors put the patient at risk for cardiovascular disease, diabetes, certain types of cancer, certain infectious diseases, and other conditions. The identification of risk factors guides the clinician in deciding which screenings, immunizations, patient education, and follow-up to provide each patient. (The HRP is *not* a patient health history. Adult and child/adolescent HRPs appear on pp. 83-92 and in Appendix C.)

Adult Health Risk Profile

Name: _____ Date of Birth/Age: _____ Male: _____ Female: _____ MR# or SS#: _____

Ethnicity: _____ Medications: _____ Old Records: _____

Allergies: _____ Smoker: _____ ETS: _____ Date: _____

Screening	Annual Assessment of Risk Factors	Counseling Provided
1. Vaccine-preventable diseases	Needs the following immunizations: ___ Td booster—≥10 yr since last booster Date of last Td_____ ___ Hepatitis B—at increased risk ___ Varicella—nonimmune adults ___ Rubella—nonimmune females of childbearing age and health care workers without evidence of immunity or prior immunization ___ Hepatitis A—at high risk ___ Influenza—≥50 yr or high risk ___ Pneumococcal—≥65 yr or high risk	
2. Blood pressure (BP)	___ Weight ___ BP ___ Does not exercise 30 minutes most days of week ___ First-degree family history of high blood pressure or personal history of hypertension ___ Diabetes mellitus	
3. Height/weight	___ Above healthy weight range for height **OR** ___ BMI >25. Formula for calculating BMI is $\frac{\text{Weight (kg)}}{\text{Height (m)}^2}$	

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Adult Health Risk Profile (cont.)

Screening	Annual Assessment of Risk Factors	Counseling Provided
4. Cholesterol	___ In males ≥35 yr and females ≥45 yr ___ >1 yr since previous abnormal test ___ Diabetes mellitus ___ Family history of cardiovascular disease < 50 yr in male relatives, <60 yr in female relatives ___ Family history suggestive of familial hyperlipidemia ___ Multiple coronary heart disease risk factors (e.g., tobacco use, hypertension)	
5. Diabetes	___ Adults with hypertension or hyperlipidemia	
6. Pap smear	___ Is or has been sexually active ___ >3 yr since last Pap smear ___ Abnormal ___ Date	
7. Mammogram	___ ≥40 yr and has not had a mammogram within the past 1–2 yr ___ Family history of breast cancer	
8. Colorectal cancer screening	___ ≥50 yr ___ Family members who have a positive history of cancer of colon, intestine, breast, ovaries, or uterus ___ History of polyps	
9. Osteoporosis	___ Women ≥ 65 ___ Women ≥ 60 at increased risk for fractures	
10. Problem drinking	___ Drinks >2 drinks/day (men) OR >1 drink/day (women)	
11. Vision	___ If >65 yr, does not see an eye doctor for regular eye exams ___ Glaucoma ___ Diabetes mellitus ___ Wears glasses ___ Family history of glaucoma	

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Adult Health Risk Profile (cont.)

Screening	Annual Assessment of Risk Factors	Counseling Provided
12. Hearing	___ >65 yr strains to hear a normal conversation ___ Turns up volume on TV and radio so loud that others complain	
13. Chlamydial infection	___ Is sexually active and ≤25 yr ___ Prior history of STD ___ New or multiple sex partners ___ Had cervical ectopy ___ Uses barrier contraceptives inconsistently	
For Persons at High Risk	**Annual Assessment of Risk Factors**	**Counseling Provided**
14. STD/HIV	___ Contraception ___ Has or has had any one of the following risk factors: Previous STD, multiple sex partners, or shared needles	
15. Tuberculosis (TB) infection	___ Close contact with a person who has active TB ___ Occupational high risk (health care, correctional, residential, etc.) ___ Lived in endemic area in the past year (SE Asia, Africa, Latin America) ___ Medical risk factors (e.g., diabetes, HIV, alcoholism) ___ PPD status ___ INH	
Chemoprevention	**Annual Assessment of Risk Factors**	**Counseling Provided**
16. Discuss aspirin to prevent coronary heart disease	___ At risk for coronary heart disease	
17. Discuss breast cancer chemoprevention	___ Women of older age ___ Brest cancer in first degree relative ___ Atypical hyperplasia or breast biopsy	

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Adult Health Risk Profile (cont.)

Counseling	Annual Assessment of Risk Factors	Counseling Provided
18. Tobacco use	___ Currently smokes cigarettes, cigars, or pipes or uses smokeless tobacco ___ Is exposed to tobacco smoke regularly ___ Number of packs per day ___ Carcinoma ___ Coronary artery disease	
19. Alcohol/drug use	___ Long-term use of certain prescription drugs ___ Has had medical/social problems related to alcohol or drug use ___ Uses or has used "street drugs"	
20. Nutrition	___ Does not limit intake of fat and cholesterol, maintain caloric balance in diet, or eat foods containing fiber	
21. Physical activity	___ Does not exercise 30 minutes most days	
22. Oral health	___ Poor dental hygiene (e.g., does not brush with a fluoride toothpaste and floss daily) ___ Does not see a dentist regularly ___ Smokes or chews tobacco and/or drinks alcohol	
23. Sun exposure	___ Immunosuppression ___ Family history of skin cancer ___ Freckles and poor tanning ability ___ Light skin, hair, and eye color	
24. Injury prevention	___ Does not use seatbelts when in a motor vehicle ___ Does not use a helmet when on a bike/motorcycle ___ Drinks alcohol and drives, or rides with someone who does ___ Medicines, chemicals/poisons, or firearms are accessible to children ___ Does not have working smoke detectors in the home ___ At risk for battering or abuse (emotional, verbal, or physical)	

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Adult Health Risk Profile (cont.)

Counseling	Annual Assessment of Risk Factors	Counseling Provided
25. STD/HIV	___ Contraception ___ Previous STD, multiple sex partners, or shared needles	
26. Unintended pregnancy	___ Sexually active male or sexually active female of childbearing age ___ Does not desire a pregnancy/is not using a reliable birth control method	
27. Multivitamin with folic acid	___ Sexually active female of childbearing age	
28. Osteoporosis	___ Does not do weight-bearing exercises ___ Does not get adequate calcium ___ Low body weight ___ Caucasian female ___ Hormone replacement therapy (HRT) ___ Menopause at <40 yr	

Notes/Instructions: _____

_____

_____

_____

_____

Completed by: _____ Date: _____

Reviewed by clinician: _____ Date: _____

Note: Information is based on U.S. Preventive Services Task Force recommendations.
ETS = environmental tobacco smoke; Td = tetanus-diphtheria; BMI = body mass index; STD = sexually transmitted disease; HIV = human immunodeficiency virus; PPD = tuberculin purified protein derivative; INH = isoniazid.

Revised January 2003.

Child and Adolescent Health Risk Profile

Name: _____ Date of Birth/Age: _____ Male:_____ Female:_____ MR# or SS#:_____

Ethnicity:_____ Medications: _____ Old Records: _____

Allergies:_____ Smoker:_____ ETS:_____ Date: _____

Screening	Annual Assessment of Risk Factors	Counseling Provided
1. Height/weight	___ Above or below healthy weight range for height	
2. Blood pressure	___ Screen during office visits	
3. Vision	___ Screen at approximately 3–4 yr ___ Eyes turning inward or outward ___ Squinting ___ Headaches ___ Not doing as well in school as before ___ Blurred or double vision	
4–6. PKU, hemoglobinopathies, hypothyroidism	___ Screening tests done in first 7 days after delivery ___ Records from hospital should be in chart	
7. Hearing	___ Family history of hereditary childhood sensorineural hearing loss ___ Congenital perinatal infection with herpes ___ Perinatal infection with herpes, syphilis, rubella, cytomegalovirus, or toxoplasmosis ___ Malformations involving head or neck ___ Birth weight below 1500 g ___ Bacterial meningitis ___ Hyperbilirubinemia requiring exchange transfusion ___ Severe perinatal asphyxia ___ Ototoxic medications	

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Child and Adolescent Health Risk Profile (cont.)

Screening	Annual Assessment of Risk Factors	Counseling Provided
8. Anemia (for those at high risk)	___ Lives in poverty ___ Black, Native American, or Alaska Native ___ Immigrant from developing country ___ Preterm and low birth weight infant ___ Drinks primarily unfortified cow's milk	
9. Cholesterol (for those at high risk)	___ Has a parent who has high cholesterol ___ Has a parent or grandparent who died suddenly or had heart disease before age 55 ___ Child is obese ___ Has high blood pressure	
10. Lead (for those at high risk)	___ Lived in or regularly visited a house built before 1950 ___ Lived in or regularly visited a house built before 1978 with recent, ongoing, or planned renovation or remodeling ___ Had a brother or sister, housemate, or playmate followed or treated for lead poisoning ___ Is anemic	
11. Tuberculin skin test (for those at high risk)	___ Close contact with a person who has active tuberculosis ___ Occupational high risk (health care, correctional, residential, etc.) ___ Lived in endemic area in the past year (SE Asia, Africa, Latin America) ___ Medical risk factors (e.g., diabetes, HIV, alcoholism)	
12. HIV test (for those at high risk)	___ High-risk mother and antibody status of mother is unknown ___ Inconsistent and incorrect use of barrier contraceptives ___ Has or has had any one of the following risk factors: previous STD, multiple sex partners, or shared needles.	
13. Chlamydia	___ Is sexually active and ≤25 yr	
14. Pap smear	___ Is sexually active and has been over 3 yr since last test	

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Child and Adolescent Health Risk Profile (cont.)

Counseling	Annual Assessment of Risk Factors	Counseling Provided
15. Sleep position	___ Places baby on stomach	
16. Injury prevention	___ Does not use child safety car seats/booster seats ___ Does not use lap/shoulder belts ___ Does not use a bicycle helmet ___ Does not have hot-water heater temperature <120–130°F ___ Medicines, chemicals/poisons, or firearms are accessible to children ___ Does not have window/stair guards or a pool fence ___ Does not have syrup of ipecac or the poison control phone number ___ Does not have working smoke detectors in the home	
17. Nutrition	___ Mother does not breast-feed ___ Does not limit intake of fat and cholesterol, maintain calorie balance in diet, or eat foods containing fiber ___ Inadequate calcium intake for teen girls	
18. Physical activity	___ Does not get 30 minutes of physical activity most days	
19. Oral health	___ Poor dental hygiene (e.g., does not brush with a fluoride toothpaste and floss daily) ___ Does not see a dentist regularly ___ Smokes or chews tobacco and/or drinks alcohol	
20. Sun exposure	___ Immunosuppression ___ Family history of skin cancer ___ Freckles and poor tanning ability ___ Light skin, hair, and eye color	
21. Tobacco use	___ Currently smokes cigarettes, cigars, or pipes or uses smokeless tobacco ___ Lives with an adult who smokes inside the home	

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Child and Adolescent Health Risk Profile (cont.)

Counseling	Annual Assessment of Risk Factors	Counseling Provided
22. Alcohol/drug use	___ Drinks more than 2 drinks/day (men) or 1 drink/day (women) (quantity_____ frequency_____) ___ Uses or has used "street drugs" ___ Has had medical and/or social problems related to alcohol or drug use	
23. Unintended pregnancy/STDs/HIV	___ Sexually active male or sexually active female of childbearing age ___ Does not desire a pregnancy/is not using a reliable birth control method ___ Has or has had previous STD, multiple sex partners, or shared needles	
24. Multivitamin with folic acid	___ Sexually active female of childbearing age	

Notes/Instructions: _____

_____

_____

_____

_____

Completed by: _____ Date: _____

Reviewed by clinician: _____ Date: _____

Information based on U.S. Preventive Services Task Force recommendations.
ETS = environmental tobacco smoke; PKU = phenylketonuria; HIV = human immunodeficiency virus; STD = sexually transmitted disease.

The sample adult HRP and child and adolescent HRP on the preceeding pages and in Appendix C have been adapted from those developed by the Texas Department of Health (TDH) Adult Health Program. For other examples of HRPs, see the TDH Web site http://www.tdh.state.tx.us/ppip/cpsguide/index.htm.

HRPs are tools to aid in risk assessment and do not cover all possible risk factors. You can either use the HRPs "as is" or modify them to fit your patient population's needs.

You may need to adapt the HRP to fit the minimum standards for preventive care that your setting creates.

Using the Health Risk Profile

Office staff should complete the HRP annually as part of a comprehensive health assessment for all adult patients and more frequently for children. Clinicians can use the HRP to:

- Identify and track patients' health risks and behaviors.
- Provide appropriate immunizations, screenings, counseling, or referral for the identified risks and behaviors.

After completing the HRP, the preventive care flow sheet (explained in the next section) should be initiated to document patient education, counseling and referrals, the results of screening tests or examinations, and immunizations given.

Preventive Care Flow Sheets

Preventive care flow sheets help office staff and clinicians monitor and document physical examinations and test results, counseling provided, and immunizations administered to patients. These flow sheets can also serve as reminders of which preventive services your setting recommends. The preventive services listed on the flow sheets should be based on the risks identified on the HRP and the preventive care standards adopted by your setting.

Patients will walk out of the clinic and say, "Wow, nobody's ever asked me these questions before. I didn't know that I had this particular risk factor."

Teresa Ruiz, MD, Pediatrician, San Antonio, TX)

There is evidence that using preventive care flow sheets can increase the documentation of clinical preventive services. In a study conducted with patients from the Oregon Health Sciences University Family Practice Center, researchers concluded that inserting flow sheets into patient charts increased the documentation of two preventive services studied—fecal occult blood testing and breast examinations (Prislin et al., 1986).

Three sample preventive care flow sheets—based on USPSTF recommendations—are included in this *Guide*: the Adult Preventive Care

Flow Sheet, the Child and Adolescent Preventive Care Flow Sheet, and the Child Immunization Flow Sheet (copies are on pp. 95-103 and in Appendix C). The flow sheets correspond to the HRPs. If an HRP is changed, then the appropriate flow sheet must be modified to reflect these changes.

The Adult Preventive Care Flow Sheet lists recommended preventive services, including immunizations, as well as space for recording the services. The Child and Adolescent Preventive Care Flow Sheet also lists recommended preventive services, with the exception of immunizations. Instead, the Child Immunization Flow Sheet lists the recommended immunizations for children and adolescents and includes space for recording the immunizations administered. The reverse side of this flow sheet contains more detailed information about each recommended immunization.

Along with improving the quality of life, having a system for documenting preventive care is important, since managed care organizations and other accrediting organizations are looking for documentation in patients' medical records.

Carol Mancinas, Health Educator, San Antonio, TX)

Purpose of Preventive Care Flow Sheets

Preventive care flow sheets will allow you to identify:

- Which services have been ordered, and when.
- Which services have been provided, and when.
- Which results are still pending and might need follow-up.
- Which results were abnormal.

Adult Preventive Care Flow Sheet

Name:_____ Date of Birth/Age: _____ Male:_____ Female:_____ MR# or SS#:_____

Ethnicity:_____ Medications: _____ Old Records: _____

Allergies:_____Smoker: _____ ETS:_____ Date: _____

1. Immunizations	Population/Frequency	I.D.	Date/Site/Sig.	Date/Site/Sig.	Date/Site/Sig.	Date/Site/Sig.	Date/Site/Sig.
Tetanus—diphtheria	q 10 yr						
Hepatitis B	Adults at increased risk—3-dose series						
Varicella	Nonimmune adults 2 doses delivered 4–8 wk apart						
Rubella	Women of childbearing age and health care workers without evidence of immunity or prior immunization—1 dose						
Hepatitis A	At high risk						
Influenza vaccine	q 1 yr ≥50 yr or at increased risk						
Pneumococcal vaccine	Once ≥65 yr or at increased risk						

continued on page 96

Adult Preventive Care Flow Sheet (cont.)

N, Results Normal **A**, Results Abnormal **R**, Refused **P**, Pending

Screening Test/Exam	Population/Frequency	Date										
		Age										
2. Blood pressure												
3. Height/weight												
4. Total cholesterol, HDL	≥35yr males ≥45yr females											
5. Diabetes	Adults with hyperlipidemia or hypertension											
6. Pap smear	q 3 yr											
7. Mammogram	q 1–2 yr ≥40 yr											
8. Colorectal cancer screening	Depends on screening test selected*											
9. Osteoporosis	≥ 65 yr females ≥ 60 yr females at increased risk for fractures											
10. Problem drinking												
11. Vision	>65 yr											
12. Hearing	≥65 yr											
13. Chlamydial infection	Sexually active women age ≤25											
High Risk												
14. STD/HIV												

* See www.preventiveservices.ahrq.gov for U.S. Preventive Services Task Force recommendation on colorectal cancer screening

continued on page 97

Adult Preventive Care Flow Sheet (cont.)

N, Results Normal **A**, Results Abnormal **R**, Refused **P**, Pending

High Risk	**Population/Frequency**	**Date**										
		Age										
15. TB infection/PPD												
Chemoprevention												
16. Discuss aspirin to prevent CHD	High risk											
17. Discuss breast cancer chemoprevention	Women of older age Breast cancer in first-degree relative Atypical hyperplasia or breast biopsy											
Counseling												
18. Tobacco use												
19. Alcohol/drug use												
20. Nutrition												
21. Physical activity												
22. Oral health												
23. Sun exposure												
24. Injury prevention												
Sexuality/Reproduction												
25. STD/HIV												
26. Unintended pregnancy												
27. Multivitamin with folic acid	Females capable of pregnancy											
28. Osteoporosis/calcium												

continued on page 98

Adult Preventive Care Flow Sheet (cont.)

Referrals (As indicated)	Date	Result
Diabetes education		
Nutrition education		
Tobacco cessation program		
Dental examination		
Eye exam/glaucoma		

Note: Screening tests/exams and counseling based on U.S. Preventive Services Task Force recommendations.

ETS = environmental tobacco smoke; HDL = high-density lipoprotein; STD = sexually transmitted disease; HIV = human immunodeficiency virus; TB = tuberculosis; PPD = tuberculin purified protein derivative; CHD = coronary heart disease.

Revised January 2003.

Child and Adolescent Preventive Care Flow Sheet

Name: _____Date of Birth/Age: _____Male: _____ Female:_____MR# or SS#: _____

Ethnicity:_____Medications: _____Old Records: _____

Allergies:_____Smoker: _____ETS: _____Date: _____

N, Results Normal **A**, Results Abnormal **R**, Refused **P**, Pending

Screening Test/Exam	Frequency	Date										
		Age										
1. Height/weight												
2. Blood pressure												
3. Vision	At 3–4 yr											
4. PKU	Newborn											
5. Sickle cell hemoglobinopathies	Newborn											
6. Hypothyroidism	Newborn											
High Risk												
7. Hearing												
8. Anemia												
9. Cholesterol												
10. Lead	12 mo											

continued on page 100

Child and Adolescent Preventive Care Flow Sheet (cont.)

N, Results Normal **A**, Results Abnormal **R**, Refused **P**, Pending

Screening Test/Exam	Frequency											
		Date										
		Age										
High Risk												
11. Tuberculin skin test												
12. HIV test												
For Sexually Active Females												
13. Chlamydia	Sexually active											
14. Pap smear	Sexually active											
Counseling												
15. Sleep position												
16. Injury prevention including car seat/seatbelt												
17. Nutrition including calcium												
18. Physical activity												
19. Oral health including fluoride												
20. Sun exposure												
21. Tobacco use												
22. Alcohol/drug use												

continued on page 101

Child and Adolescent Preventive Care Flow Sheet (cont.)

N, Results Normal **A**, Results Abnormal **R**, Refused **P**, Pending

Counseling	**Frequency**	**Date**										
		Age										
23. Unintended/ pregnancy/STDs/HIV												
24. Multivitamin with folic acid	Females											
Referrals (as indicated)	**Date**	**Result**										
Hearing examination												
Dental examination												
Mental health counseling												
Substance abuse counseling												

Note: Screening tests/exams and counseling based on U.S. Preventive Services Task Force recommendations.
ETS = environmental tobacco smoke; HIV = human immunodeficiency virus; STD = sexually transmitted disease.

Child Immunization Flow Sheet[1]

Name:_____ **D.O.B.**_____ **No.**_____

Disease(s)	Vaccine Type	Vaccine Name	Recommended Age	Date Given	Age Given	Manufacturer	Lot Number	Site	Signature of Person Giving Vaccine	Handout Pub. Date	Signature of Parent or Guardian in Response to Informed Consent Statement (below)
Hepatitis B[2]	HBV #1		Birth-2 mo or as soon thereafter as possible								
	HBV #2		1-4 mo or as soon thereafter as possible								
	HBV #3		6-18 mo or as soon thereafter as possible								
Diphtheria[3] Tetanus Pertussis	DTaP		2 mo								
	DTaP		4 mo								
	DTaP		6 mo								
	DTaP		15-18 mo								
	DTaP		4-6 yr								
	Td		11-16 yr								
Haemophilus[4] *influenzae* type b	Hib #1		2 mo								
	Hib #2		4 mo								
	Hib #3		6 mo								
	Hib #4		12-15 mo								
Polio[5]	IPV		2 mo								
	IPV		4 mo								
	IPV		6-18 mo								
	IPV		4-6 yr								
Measles[6] Mumps Rubella	MMR #1		12-15 mo								
	MMR #2		4-6 yr or as soon thereafter as possible								
Varicella[7]	VAR		12-18 mo or under 13 yr								
Hepatitis A[8] (in selected areas)	Hep A #1		24 mo-18 yr								
	Hep A #2		6-12 mo after first dose								
Pneumococcal Disease[9]	Prevnar™		2 mo								
			4 mo								
			6 mo								
			12-15 mo								
Influenza[10] (high-risk children)			6 mo + (2 doses if first time)								

Informed Consent Statement

"I have been given a copy of, and have read or have had explained to me, information about each of the diseases and the vaccines listed. I have had a chance to ask questions, and they were answered to my satisfaction. I believe I understand the benefits and risks of each vaccine and ask that they be given to the minor named above (for whom I am authorized to make this request)."

On October 22, 1999, the Advisory Committee on Immunization Practices (ACIP) recommended that Rotashield® (RRV-TV), the only U.S.-licensed rotavirus vaccine, no longer be used in the United States (MMWR 1999 Nov. 5; 43[5]). Parents should be reassured that their children who received rotavirus vaccine before July are not at increased risk for intussusception now.

[1]This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines as of 10/2000. Additional vaccines may be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components of the combination are indicated and its other components are not contraindicated. Providers should consult the manufacturers' package inserts for detailed recommendations. The information in this Child Immunization Flow Sheet is based on ACIP recommendations, which are the most current available.

[2]Infants born to HBsAg-negative mothers should receive the 1st dose of hepatitis B (Hep B) vaccine by age 2 months. The 2nd dose should be at least 1 month after the 1st dose. The 3rd dose should be administered at least 4 months after the 1st dose and at least 2 months after the 2nd dose, but not before 6 months of age for infants (MMWR 1999 Jan 22;48(2): 33-34).

An optional 2-dose schedule of Recombivax HB® is licensed for adolescents 11-15, with the 2nd dose given 4-6 months after the 1st (MMWR 2000 March 31;49(12):261-262).

Infants born to HBsAg-positive mothers should receive hepatitis B vaccine and 0.5 mL hepatitis B immune globulin (HBIG) within 12 hours of birth at separate sites. The 2nd dose of hepatitis B vaccine is recommended at 1-2 months of age and the 3rd dose at 6 months of age.

Infants born to mothers whose HBsAg status is unknown should receive hepatitis B vaccine within 12 hours of birth. Maternal blood should be drawn at the time of delivery to determine the mother's HBsAg status; if the HBsAg test is positive, the infant should receive HBIG as soon as possible (no later than 1 week of age).

All children and adolescents (through 18 years of age) who have not been immunized against hepatitis B should begin the series during any visit. Special efforts should be made to immunize children who were born in or whose parents were born in areas of the world with moderate or high endemicity of hepatitis B virus infection.

[3]The 4th dose of DTaP (diphtheria and tetanus toxoids and acellular pertussis vaccine) may be administered as early as 12 months of age, provided 6 months have elapsed since the 3rd dose and the child is unlikely to return at age 15-18 months. Td (tetanus and diphtheria toxoids) is recommended at 11-12 years of age if at least 5 years have elapsed since the last dose of DTP, DTaP or DT. Subsequent routine Td boosters are recommended every 10 years. Note: q.5 years if wounded. (MMWR 1997 March 28; 46 [RR-7], 1-25).

[4]Three Haemophilus influenzae type b (Hib) conjugate vaccines are licensed for infant use. If PRP-OMP (PedvaxHIB® or ComVax™ [Merck]) is administered at 2 and 4 months of age, a dose at 6 months is not required. Because clinical studies in infants have demonstrated that using some combination products may induce a lower immune response to the Hib vaccine component, DTaP/Hib combination products should not be used for primary immunization in infants at 2, 4 or 6 months of age, unless FDA-approved for these ages (MMWR 1993 Sept.17; 42[RR-13], 1-15).

[5]To eliminate the risk of vaccine-associated paralytic polio (VAPP), an all-IPV schedule is now recommended for routine childhood polio vaccination in the United States. (MMWR 2000 May 19; 49[RR-5], 1-22). All children should receive 4 doses of IPV at 2 months, 4 months, 6-18 months, and 4-6 years. OPV (if available) may be used only for the following special circumstances:

1. Mass vaccination campaigns to control outbreaks of paralytic polio.
2. Unvaccinated children who will be traveling in less than 4 weeks to areas where polio is endemic or epidemic.
3. Children of parents who do not accept the recommended number of vaccine injections. These children may receive OPV only for the 3rd or 4th dose or both; in this situation, health care providers should administer OPV only after discussing the risk for VAPP with parents or caregivers.
4. During the transition to an all-IPV schedule, recommendations for the use of remaining OPV supplies in physicians' offices and clinics have been issued by the American Academy of Pediatrics (see *Pediatrics*, December 1999).

[6]The 2nd dose of measles, mumps, and rubella (MMR) vaccine is recommended routinely at 4-6 years of age but may be administered during any visit, provided at least 4 weeks have elapsed since receipt of the 1st dose and that both doses are administered beginning at or after 12 months of age. Those who did not receive the 2nd dose at 4-6 years should receive this dose as soon thereafter as possible (MMWR 1998 May 22; 47 [RR-8], 1-57).

[7]Varicella (Var) vaccine is recommended at any visit on or after the first birthday for susceptible children, i.e., those who lack a reliable history of chickenpox (as judged by a health care provider) and who have not been immunized. Susceptible persons 13 years of age or older should receive 2 doses, given at least 4 weeks apart (MMWR 1996 Jul. 12; 45 [RR-11], 1-36).

[8]Hepatitis A (Hep A) is recommended in 2 doses 6-12 months apart in selected states and/or regions; consult your local public health authority (MMWR 1999 Oct. 1; 48[RR-12], 1-37).

[9]Children ≤23 months should be vaccinated according to the proposed vaccination schedule.

Prevnar™ vaccine also should be used for all children aged 12-23 months and for children aged 24-59 months who are at increased risk for pneumococcal disease (e.g., children with sickle cell disease, human immunodeficiency virus (HIV) infection, and other immunocompromising or chronic medical conditions). ACIP also recommends that the vaccine be considered for all other children aged 24-59 months, with priority given to a) children aged 24-35 months, b) children who are of Alaska native, American Indian and African-American descent, and c) children who attend group day care centers (MMWR 2000 Oct. 6; 49 [RR-9], 1-38).

Pneumococcal vaccine is recommended for children 24 months and older who have chronic diseases/asplenia (functional or anatomic) and children 24 months and older who reside in nursing homes and other long-term care facilities.

It is recommended that immunocompromised children and children with asplenia be revaccinated after 5 years (MMWR 1997 Apr. 4; 46 [RR-8], 1-24).

[10]Annual influenza vaccination is recommended for children 6 months-18 years with chronic diseases, hemoglobinopathies, those who are residents of long-term care facilities, those who are undergoing long-term aspirin therapy, and those who are at increased risk of complications from influenza. Two doses administered at least 1 month apart are recommended for children 6 months to <9 years of age who are receiving influenza vaccine for the first time (MMWR 2000 Apr. 14; 49 [RR-3], 6-29).

Using Preventive Care Flow Sheets

Office staff should start a flow sheet when the patient receives an annual risk assessment, recording dates of previous screenings, exams/tests, counseling, and immunizations. Staff should update the flow sheet during the year as a test or exam is completed, results are received, or counseling is provided. The flow sheet is designed to work in conjunction with the HRP. Any risks found on the HRP must be addressed in the appropriate area of the flow sheet.

One of the things that helped people get over their fear of using PPIP was the fact that you do not have to address every issue–that one or two items can be approached and discussed and documented. It didn't have to be the whole program.

Mia Latham, RNC, Lubbock, TX

Chart Reminders

Chart reminders can be used to alert the nurse or clinician to needed preventive services, such as screening tests, immunizations, and/or counseling and education. These reminders can be stickers or pieces of paper—often brightly colored—attached to the front of patient charts. Although these are not PPIP tools, you may decide to create your own and use them as part of your new system for delivering preventive care.

Research shows that chart reminders can increase rates of the delivery of preventive services. Chart reminders have been particularly effective in increasing the rate of smoking cessation counseling by physicians (Chang et al., 1995; Cohen et al., 1989).

Using Chart Reminders

The day before a patient's visit, a staff member should review the patient's chart, including the completed HRP and preventive care flow sheet from the previous visit, and record on a "reminder note" the screening tests, immunizations, and counseling needed. The note should then be placed in a conspicuous place on the chart.

Reminder Postcards

Office staff can send postcards to remind patients to return to the clinical setting for specific screening tests, immunizations, follow-up, or the annual assessment.

Ideally, a staff member (or even the patient) will complete a reminder postcard while the patient is in the office and mail the postcard to the patient a month before the patient is to return for a visit. To ensure the patient's privacy, fold and staple or tape the card before mailing.

Preventive Care Timeline Posters

The PPIP adult and child preventive care timeline posters depict USPSTF-recommended preventive care in a timeline format. Displayed in the examining room, they are quick references for clinicians and educational tools for patients.

Patient Materials

You can discuss the materials described below with your patients. You can encourage them to take these materials home, read them, and bring them back at their next office visit.

Prevention Prescriptions

Prevention prescriptions are tools designed to educate patients, motivate and remind them to change behaviors that put their health at risk, and reinforce clinician-patient discussions about prevention. Prevention prescriptions are given to the patient by the clinician at the end of the office visit. The clinician should deliver these along with brief advice about changing behaviors that put the patient at risk for disease, such as smoking and physical inactivity. The prescriptions can be printed with carbonless duplicate sheets so that a copy of the instructions given to the patient can be placed in the patient's record. Sample adult prevention prescription forms are included in Appendix D (pp. 169–183). These forms were adapted from those created by the TDH.

Helpful Hint

Encourage your patients to write test results and appointment/exam dates in their personal health guides. Reinforce positive behavior changes at every patient encounter. Offer assistance in taking notes, if needed, or identify family members who can help with notetaking.

Health Guides

The *Personal Health Guide*, the *Child Health Guide*, and *Staying Healthy at 50+* (available in English and Spanish) are pocket-sized booklets that provide patients with information about preventive care and guide them in changing behaviors that put their health at risk. These booklets also help patients and providers assess patient risk for health problems and plan individualized schedules for delivering preventive services. These guides include simple charts to track personal health information, questions to ask health care providers, and other resources. Clinicians and office staff should encourage patients to note in their booklets when preventive services are due and to request these services as needed.

Using the Health Guides

Office staff can use the health guides as aids when counseling patients about the patient's role in preventive care. If this is the patient's first PPIP assessment, staff should issue the appropriate guide and instruct the patient briefly about how and when to use it. (This task may best be performed by the front office staff, but may be performed by others during the patient's visit.) Include the date the counseling is provided, and by whom, beside the corresponding topic on the appropriate prevention care flow sheet.

Helpful Hint

Some clinical settings use the patient's birthday for scheduling the annual assessment. This may help patients and staff remember to schedule a yearly appointment.

Additional Educational Materials

Be creative in using additional materials, and remember that patients' education begins when they enter your clinical setting. Explore the possibility of attaching prevention messages to bare walls, doors, and restrooms.

Use colorful posters and lively messages as effective ways of reinforcing information that patients receive when interacting with office staff. Remember to change your messages frequently so they do not become part of the scenery.

Have educational materials about prevention available in the waiting room. Such material can include pamphlets that are eye-catching and easy to read and videotapes that tell stories and depict role models for preventive behaviors.

Conclusion

We encourage you to send us your comments and let us know about your experiences in delivering clinical preventive services using the PPIP program and materials. We plan to update this publication as needed to include new ideas, new research findings, and new information. To contact us, send an e-mail to ppip@ahrq.gov

References

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For Further Reading

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Resources

Agency for Healthcare Research and Quality
Publications Clearinghouse
P.O. Box 8547
Silver Spring, MD 20907
Telephone: 1-800-358-9295
http://www.ahrq.gov/clinic/ppipix.htm

healthfinder™
http://www.healthfinder.gov

Joint Commission on Accreditation of Health Care Organizations
One Renaissance Boulevard
Oakbrook Terrace, IL 60181
Telephone: 630-792-5000
Fax: 630-792-5005
http://www.jcaho.org

National Committee for Quality Assurance
2000 L Street, NW
Suite 500
Washington, DC 20036
Telephone: 202-955-3500
Fax: 202-955-3599
http://www.ncqa.org

Texas Department of Health
1100 West 49th Street
Austin, TX 78756-3199
Telephone: 512-458-7534
http://www.tdh.state.tx.us/ppip/index.htm

Community Groups

Colorado Clinical Guidelines Collaborative
6187 Yates Court
Arvada, CO 80003
Telephone: 303-657-3409
http://www.coloradoguidelines.org

Foundation for Healthy Communities
125 Airport Road
Concord, NH 03301
Telephone: 603-225-0900
Fax: 603-225-4346
http://www.fhconline.org

Georgia Healthcare Leadership Council
1200 Abernathy Road
Suite 1700
Atlanta, GA 30328
Telephone: 770-551-8290
Fax: 770-698-9954
http://www.ghlc.org

Massachusetts Health Quality Partners
c/o Tufts Health Plan
705 Mount Auburn Street, 705-3T
Watertown, MA 02471
Telephone: 617-972-9079
Fax: 617-972-9474
http://www.mhqp.org

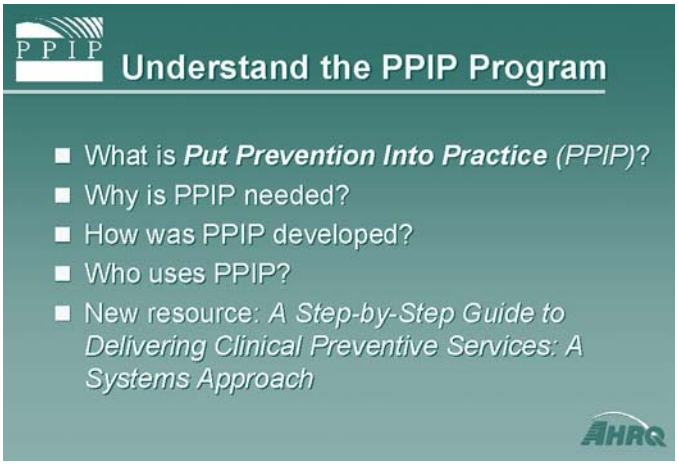
Appendix A

PPIP Presentation Materials

Appendix A

Slide 1: _____

Slide 2: _____



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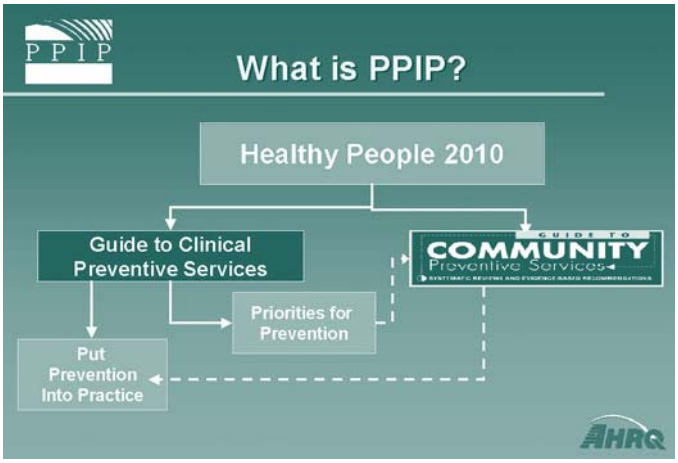

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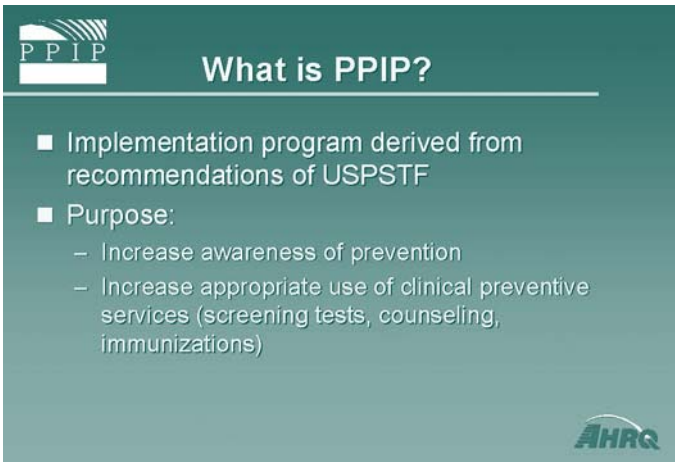
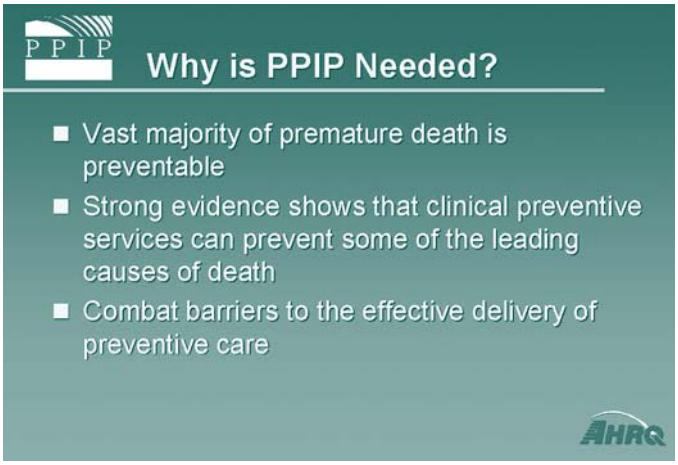


Slide 5: _____



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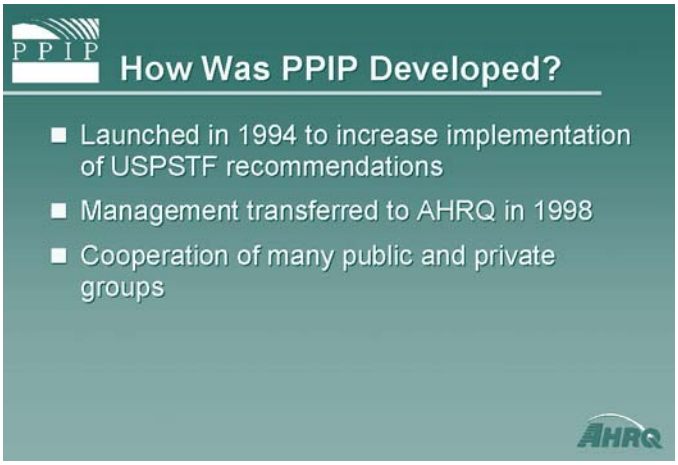
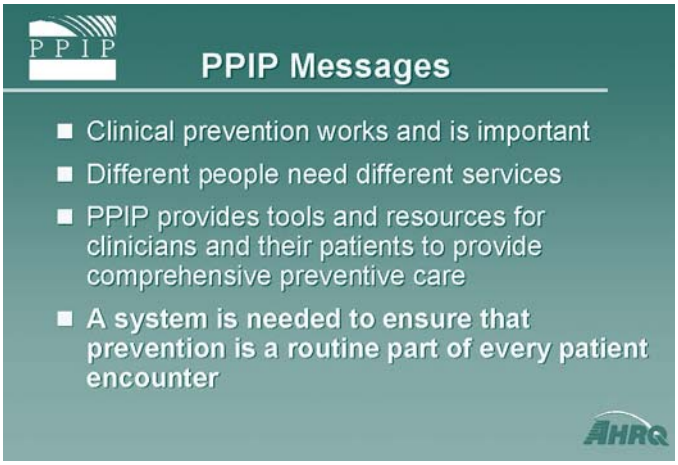


Slide 7: _____

Slide 8: _____



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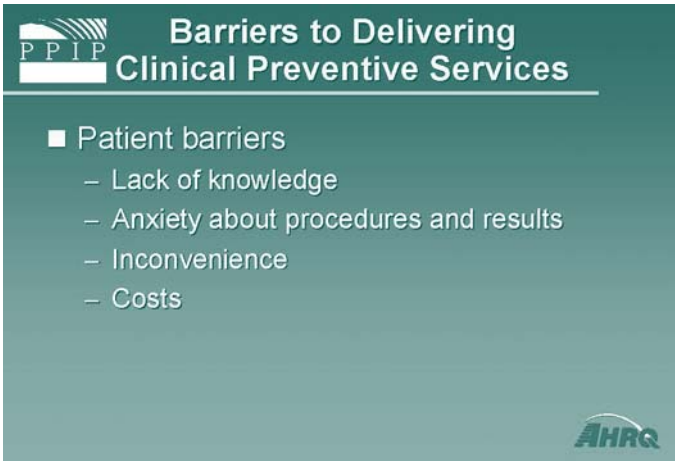
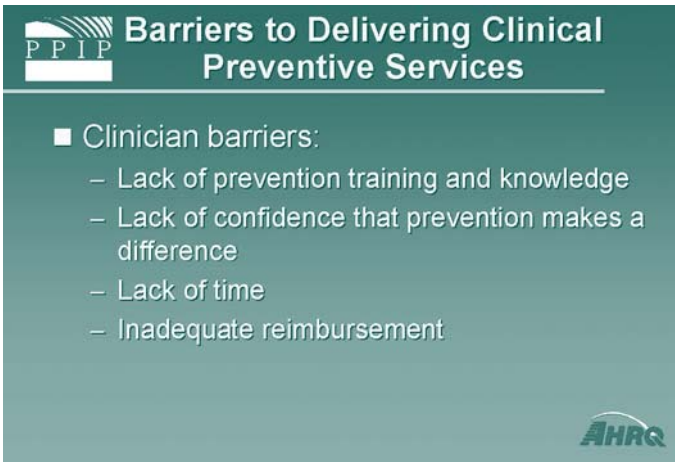


Slide 10: _____



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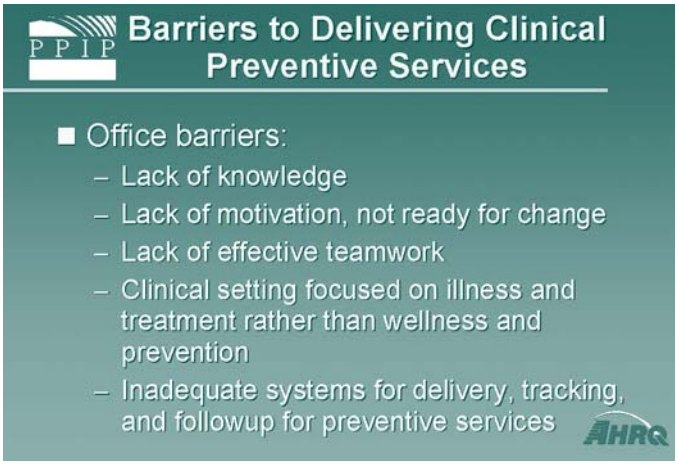

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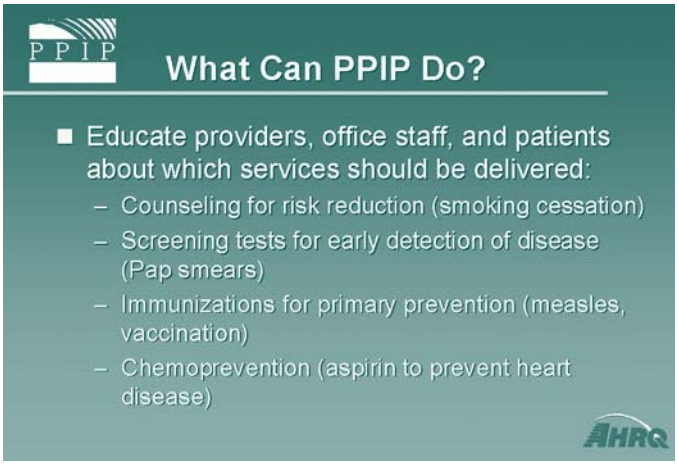

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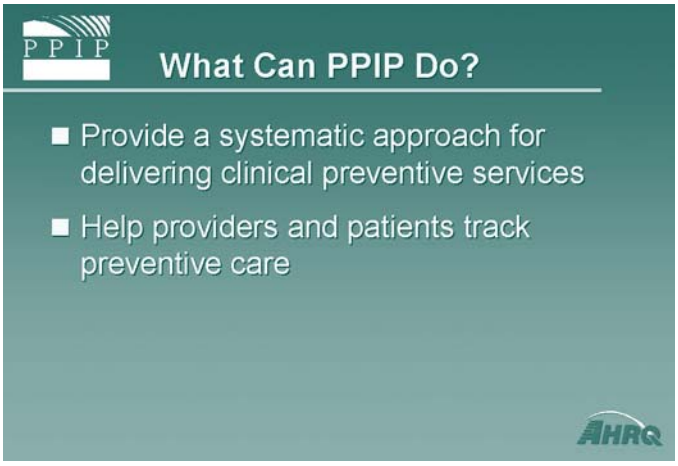

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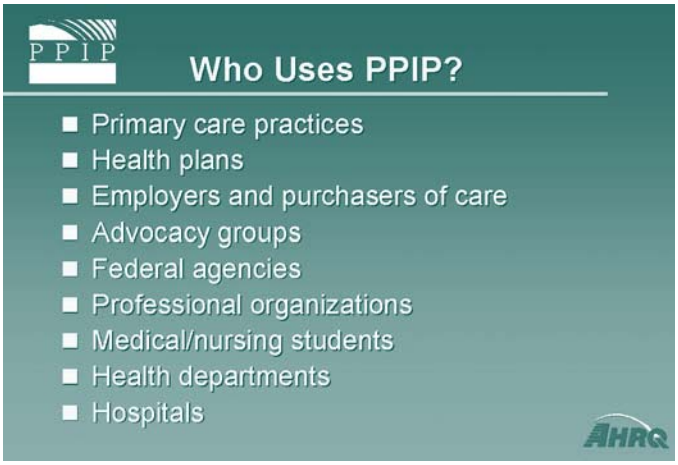

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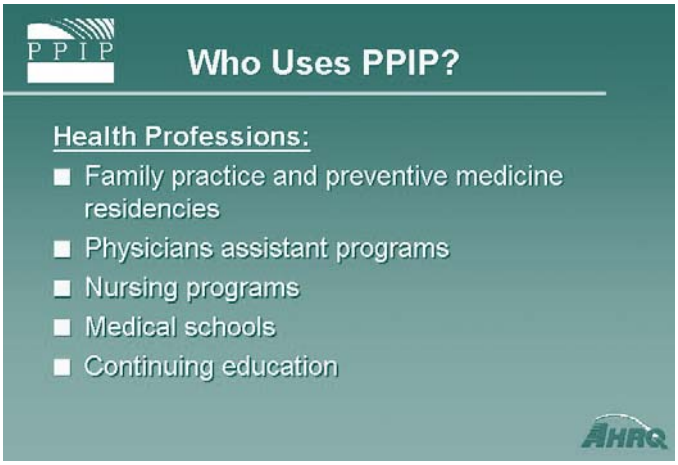

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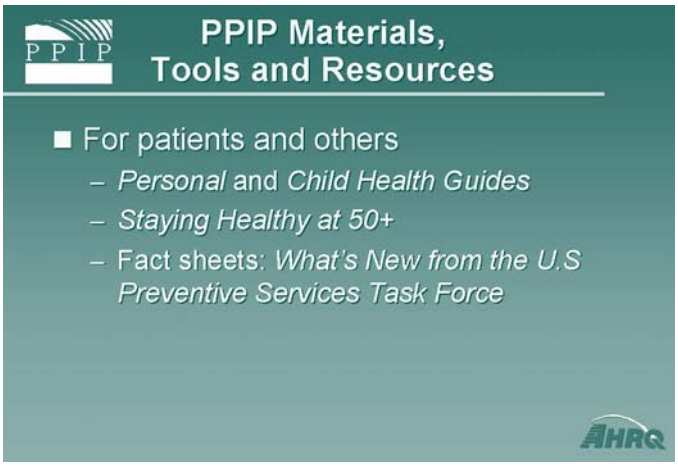

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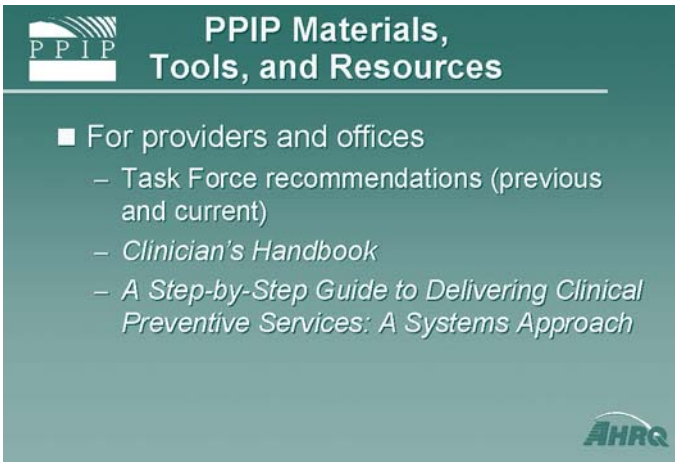

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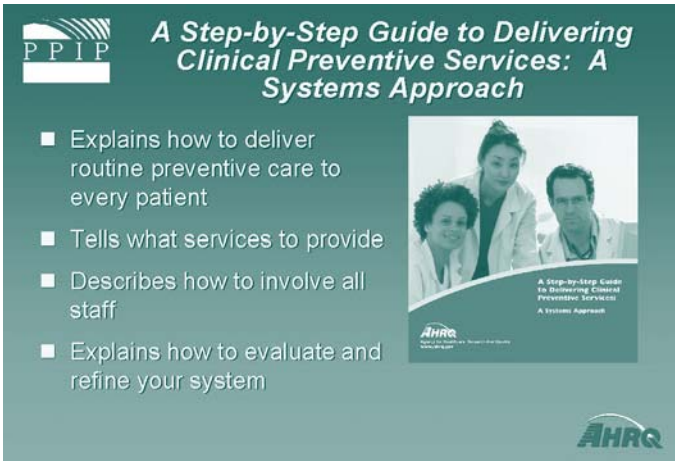

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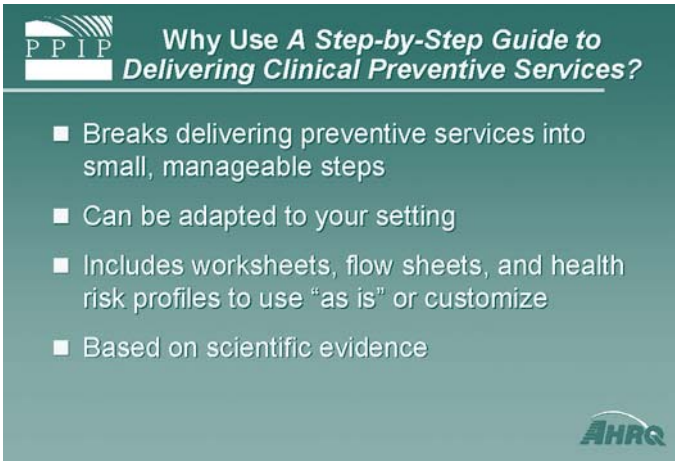

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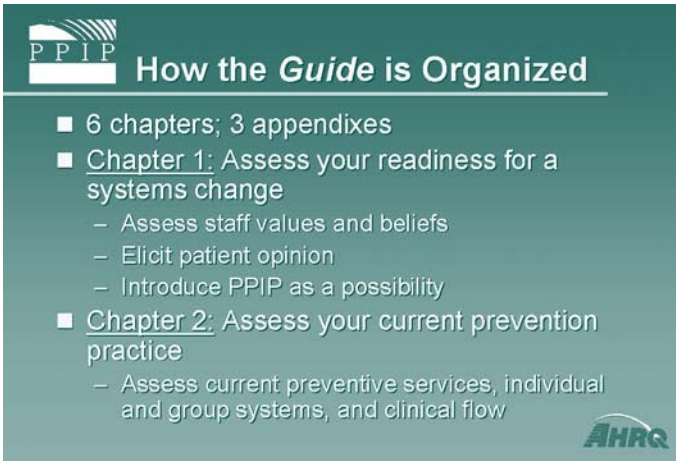

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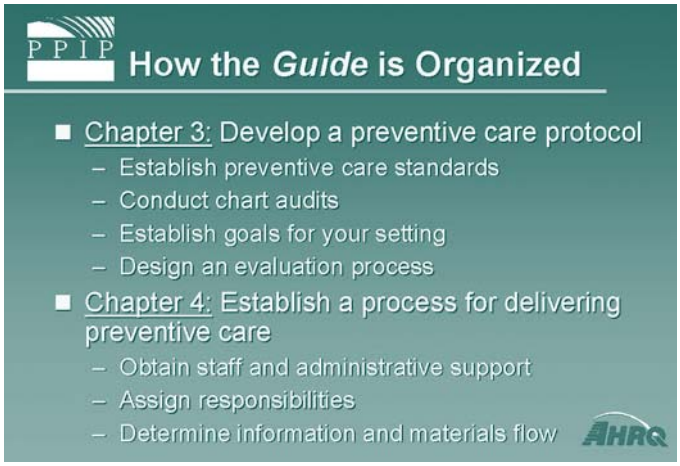

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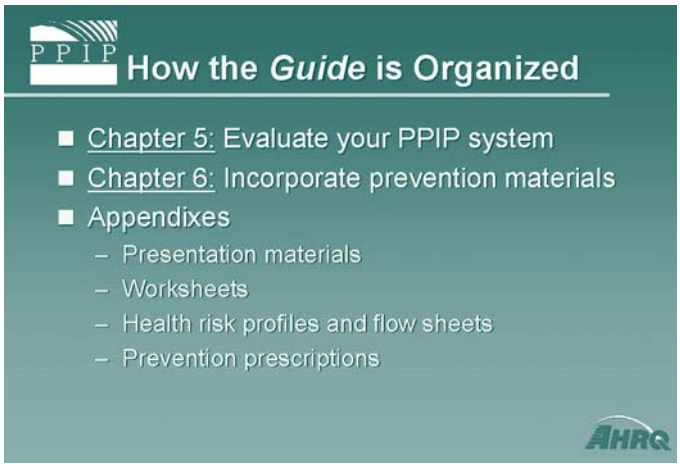

Slide 23: _____

Appendix B

Worksheets for Implementing PPIP

Readiness Survey

Circle the number that best indicates the extent to which you agree or disagree with each statement.

	Very much			Neutral			Not at all
1. Prevention is an important aspect of the care we provide in this practice.	1	2	3	4	5	6	7
2. We think prevention should be more strongly emphasized in our practice.	1	2	3	4	5	6	7
3. Someone in our practice has the vision, leadership, and authority to make prevention happen here.	1	2	3	4	5	6	7
4. We have adequate time to do one-on-one patient education or patient counseling.	1	2	3	4	5	6	7
5. Nurses in our practice regard patient education as one of their main tasks.	1	2	3	4	5	6	7
6. Physicians in our practice regard patient education as one of their main tasks.	1	2	3	4	5	6	7
7. Our practice is willing to allocate resources (time, training, personnel, and space) to implement a comprehensive program to deliver clinical preventive services.	1	2	3	4	5	6	7
8. Internal communication is strong among staff and physicians in our practice.	1	2	3	4	5	6	7
9. A sense of teamwork exists among staff members and physicians in our practice.	1	2	3	4	5	6	7
10. Our practice has already implemented, or has tried to implement, specific programs for prevention (e.g., cancer prevention programs, smoking cessation, and diabetes education).	1	2	3	4	5	6	7

continued on page 124

	Very much			Neutral			Not at all
11. Our practice has effective referral mechanisms for patients to receive any screening tests not provided in our office (e.g., mammography and lab).	1	2	3	4	5	6	7
12. We have effective referral mechanisms for patients to receive behavior change counseling.	1	2	3	4	5	6	7
13. We follow up on patients referred to other services (e.g., record test results on charts).	1	2	3	4	5	6	7
14. We can allow adequate planning time to incorporate prevention into our practice.	1	2	3	4	5	6	7
15. We have a quality assurance system in place to assess and improve service delivery (e.g., Continuous Quality Improvement [CQI]; Total Quality Management [TQM]).	1	2	3	4	5	6	7
16. We have a system in place to report the percentage of eligible patients who are receiving the screening tests they need (e.g., Pap smears and immunizations).	1	2	3	4	5	6	7

Source: Readiness to put prevention in your practice. Texas Medicine 92(12):35, 1996.

Worksheet for Assessing Organizational Climate

What are the values, attitudes, and beliefs of our staff about prevention?

What are the values, attitudes, and beliefs of our patients about prevention?

What kinds of preventive services do we aspire to provide all of our patients?

What is the difference between what we aspire to provide and what we currently provide?

continued on page 126

Do we perceive a need to change?

Are we ready to make a change?

Worksheet for Assessing Current Preventive Services

Preventive Services Provided

What preventive care do we currently provide our patients?

Do we provide preventive services for which each patient is eligible?

What services are we documenting?

Existing Systems for Providing Preventive Services

What policies and procedures do we have in place for providing preventive services?

continued on page 128

What forms and systems are we using?

How does our current physical environment support or inhibit our delivery of preventive services?

What preventive services delivery systems have worked? Why?

What preventive services delivery systems have not worked? Why?

continued on page 129

What can we do differently?

Will the PPIP system duplicate the work we are already doing?

Staff Roles

What functions do staff currently serve in the provision of preventive care?

Who is documenting the delivery of preventive services?

continued on page 130

Patient Flow

How does our current patient flow support or inhibit our delivery of preventive services?

Worksheet for Assessing Current Individual and Group Systems

How are people working together?

Do people like working here?

What do patients say about our clinical setting?

Worksheet for a Plan to Deliver Clinical Prevention Services

When should we start implementation?

How should we start implementation?

Who will our initial target population be? **(Remember to start small!)**

continued on page 134

With what services/materials should we start? Which should we add later?

How will we know when we are ready to expand our services?

Worksheet for Designing an Evaluation Process

How will we review our progress?

How often will we meet to reflect on our direction?

How will we know if we have been successful?

Worksheet for Delegating PPIP Functions Among Staff

For each question, consider the following:

- Who would be the best person to fill this role in your clinical setting? Why?
- Who would be the best person to supervise and/or follow up?

Clinical Flow

Who will put the PPIP tools in the client's chart the day before the visit? (see Chapter 6 for PPIP materials.)

Who will prescreen the patient's chart the day before the visit?

Who will conduct and review the health risk profile (HRP) and initiate the preventive care flow sheet for each patient? (see Chapter 6 for a description of HRPs and preventive care flow sheets.)

continued on page 138

Who will be responsible for ordering screening tests?

Who will be responsible for reviewing the appropriate health guides with the patient and for counseling the patient on identified risk factors? (see Chapter 6 for a description of PPIP health guides.)

Chart Audits

Who will conduct chart audits to assess the quality of preventive services?

Who will analyze the chart audit results and present them to the staff?

continued on page 139

Staff Training

Who will arrange for staff training?

Who will conduct staff training?

What will we do if we need technical support?

Additional Functions

Who will be responsible for designing and ordering materials?

continued on page 140

What are some additional functions, and who will perform them?

Worksheet for Evaluating Your PPIP System

Goals

Are we functioning in alignment with our greater purpose? Our vision?

Do we need to reevaluate our goals?

What is working well? Why?

What is not working? Why?

What can be done differently?

continued on page 142

Are we providing the services we said we want to provide?

Should we reevaluate the services we offer?

Materials

How do the PPIP materials fit our needs?

Should we modify any of the PPIP materials?

continued on page 143

Documentation

Are we documenting the services we provide?

Staff Performance and Satisfaction

How are the staff performing their functions?

Are staff stepping in where needed?

Are staff working together as a team?

continued on page 144

Are all staff contributing suggestions?

How do staff members feel about their work?

Do staff members feel supported and heard?

Patients

How are our patients responding to the change?

Appendix C

Health Risk Profiles and Flow Sheets

Adult Health Risk Profile

Name:_____Date of Birth/Age:_____Male:_____Female:_____MR# or SS#:_____

Ethnicity:_____Medications:_____Old Records:_____

Allergies:_____Smoker:_____ETS:_____Date:_____

Screening	Annual Assessment of Risk Factors	Counseling Provided
1. Vaccine-preventable diseases	Needs the following immunizations: ___ Td booster—≥10 yr since last booster Date of last Td_____ ___ Hepatitis B—at increased risk ___ Varicella—nonimmune adults ___ Rubella—nonimmune females of childbearing age and health care workers without evidence of immunity or prior immunization ___ Hepatitis A—at high risk ___ Influenza—≥50 yr or high risk ___ Pneumococcal—≥65 yr or high risk	
2. Blood pressure (BP)	___ Weight ___ BP ___ Does not exercise 30 minutes most days of week ___ First-degree family history of high blood pressure or personal history of hypertension ___ Diabetes mellitus	
3. Height/weight	___ Above healthy weight range for height **OR** ___ BMI >25. Formula for calculating BMI is $\frac{\text{Weight (kg)}}{\text{Height (m)}^2}$	

continued on page 148

Adult Health Risk Profile (cont.)

Screening	Annual Assessment of Risk Factors	Counseling Provided
4. Cholesterol	___ In males ≥35 yr and females ≥45 yr ___ >1 yr since previous abnormal test ___ Diabetes mellitus ___ Family history of cardiovascular disease < 50 yr in male relatives, <60 yr in female relatives ___ Family history suggestive of familial hyperlipidemia ___ Multiple coronary heart disease risk factors (e.g., tobacco use, hypertension)	
5. Diabetes	___ Adults with hypertension or hyperlipidemia	
6. Pap smear	___ Is or has been sexually active ___ >3 yr since last Pap smear ___ Abnormal ___ Date	
7. Mammogram	___ ≥40 yr and has not had a mammogram within the past 1–2 yr ___ Family history of breast cancer	
8. Colorectal cancer screening	___ ≥50 yr ___ Family members who have a positive history of cancer of colon, intestine, breast, ovaries, or uterus ___ History of polyps	
9. Osteoporosis	___ Women ≥ 65 ___ Women ≥ 60 at increased risk for fractures	
10. Problem drinking	___ Drinks >2 drinks/day (men) OR >1 drink/day (women)	
11. Vision	___ If >65 yr, does not see an eye doctor for regular eye exams ___ Glaucoma ___ Diabetes mellitus ___ Wears glasses ___ Family history of glaucoma	

continued on page 149

Adult Health Risk Profile (cont.)

Screening	Annual Assessment of Risk Factors	Counseling Provided
12. Hearing	___ >65 yr strains to hear a normal conversation ___ Turns up volume on TV and radio so loud that others complain	
13. Chlamydial infection	___ Is sexually active and ≤25 yr ___ Prior history of STD ___ New or multiple sex partners ___ Had cervical ectopy ___ Uses barrier contraceptives inconsistently	
For Persons at High Risk	**Annual Assessment of Risk Factors**	**Counseling Provided**
14. STD/HIV	___ Contraception ___ Has or has had any one of the following risk factors: Previous STD, multiple sex partners, or shared needles	
15. Tuberculosis (TB) infection	___ Close contact with a person who has active TB ___ Occupational high risk (health care, correctional, residential, etc.) ___ Lived in endemic area in the past year (SE Asia, Africa, Latin America) ___ Medical risk factors (e.g., diabetes, HIV, alcoholism) ___ PPD status ___ INH	
Chemoprevention	**Annual Assessment of Risk Factors**	**Counseling Provided**
16. Discuss aspirin to prevent coronary heart disease	___ At risk for coronary heart disease	
17. Discuss breast cancer chemoprevention	___ Women of older age ___ Brest cancer in first degree relative ___ Atypical hyperplasia or breast biopsy	

continued on page 150

Adult Health Risk Profile (cont.)

Counseling	Annual Assessment of Risk Factors	Counseling Provided
18. Tobacco use	___ Currently smokes cigarettes, cigars, or pipes or uses smokeless tobacco ___ Is exposed to tobacco smoke regularly ___ Number of packs per day ___ Carcinoma ___ Coronary artery disease	
19. Alcohol/drug use	___ Long-term use of certain prescription drugs ___ Has had medical/social problems related to alcohol or drug use ___ Uses or has used "street drugs"	
20. Nutrition	___ Does not limit intake of fat and cholesterol, maintain caloric balance in diet, or eat foods containing fiber	
21. Physical activity	___ Does not exercise 30 minutes most days	
22. Oral health	___ Poor dental hygiene (e.g., does not brush with a fluoride toothpaste and floss daily) ___ Does not see a dentist regularly ___ Smokes or chews tobacco and/or drinks alcohol	
23. Sun exposure	___ Immunosuppression ___ Family history of skin cancer ___ Freckles and poor tanning ability ___ Light skin, hair, and eye color	
24. Injury prevention	___ Does not use seatbelts when in a motor vehicle ___ Does not use a helmet when on a bike/motorcycle ___ Drinks alcohol and drives, or rides with someone who does ___ Medicines, chemicals/poisons, or firearms are accessible to children ___ Does not have working smoke detectors in the home ___ At risk for battering or abuse (emotional, verbal, or physical)	

continued on page 151

Adult Health Risk Profile (cont.)

Counseling	Annual Assessment of Risk Factors	Counseling Provided
25. STD/HIV	___ Contraception ___ Previous STD, multiple sex partners, or shared needles	
26. Unintended pregnancy	___ Sexually active male or sexually active female of childbearing age ___ Does not desire a pregnancy/is not using a reliable birth control method	
27. Multivitamin with folic acid	___ Sexually active female of childbearing age	
28. Osteoporosis	___ Does not do weight-bearing exercises ___ Does not get adequate calcium ___ Low body weight ___ Caucasian female ___ Hormone replacement therapy (HRT) ___ Menopause at <40 yr	

Notes/Instructions: _____

_____

_____

_____

_____

Completed by: _____ Date: _____

Reviewed by clinician: _____ Date: _____

Note: Information is based on U.S. Preventive Services Task Force recommendations.
ETS = environmental tobacco smoke; Td = tetanus-diphtheria; BMI = body mass index; STD = sexually transmitted disease; HIV = human immunodeficiency virus; PPD = tuberculin purified protein derivative; INH = isoniazid.

Revised January 2003.

Child and Adolescent Health Risk Profile

Name: _____ Date of Birth/Age: _____ Male:_____ Female:_____ MR# or SS#:_____

Ethnicity:_____ Medications: _____ Old Records: _____

Allergies:_____ Smoker:_____ ETS:_____ Date: _____

Screening	Annual Assessment of Risk Factors	Counseling Provided
1. Height/weight	___ Above or below healthy weight range for height	
2. Blood pressure	___ Screen during office visits	
3. Vision	___ Screen at approximately 3–4 yr ___ Eyes turning inward or outward ___ Squinting ___ Headaches ___ Not doing as well in school as before ___ Blurred or double vision	
4–6. PKU, hemoglobinopathies, hypothyroidism	___ Screening tests done in first 7 days after delivery ___ Records from hospital should be in chart	
7. Hearing	___ Family history of hereditary childhood sensorineural hearing loss ___ Congenital perinatal infection with herpes ___ Perinatal infection with herpes, syphilis, rubella, cytomegalovirus, or toxoplasmosis ___ Malformations involving head or neck ___ Birth weight below 1500 g ___ Bacterial meningitis ___ Hyperbilirubinemia requiring exchange transfusion ___ Severe perinatal asphyxia ___ Ototoxic medications	

continued on page 154

Child and Adolescent Health Risk Profile (cont.)

Screening	Annual Assessment of Risk Factors	Counseling Provided
8. Anemia (for those at high risk)	___ Lives in poverty ___ Black, Native American, or Alaska Native ___ Immigrant from developing country ___ Preterm and low birth weight infant ___ Drinks primarily unfortified cow's milk	
9. Cholesterol (for those at high risk)	___ Has a parent who has high cholesterol ___ Has a parent or grandparent who died suddenly or had heart disease before age 55 ___ Child is obese ___ Has high blood pressure	
10. Lead (for those at high risk)	___ Lived in or regularly visited a house built before 1950 ___ Lived in or regularly visited a house built before 1978 with recent, ongoing, or planned renovation or remodeling ___ Had a brother or sister, housemate, or playmate followed or treated for lead poisoning ___ Is anemic	
11. Tuberculin skin test (for those at high risk)	___ Close contact with a person who has active tuberculosis ___ Occupational high risk (health care, correctional, residential, etc.) ___ Lived in endemic area in the past year (SE Asia, Africa, Latin America) ___ Medical risk factors (e.g., diabetes, HIV, alcoholism)	
12. HIV test (for those at high risk)	___ High-risk mother and antibody status of mother is unknown ___ Inconsistent and incorrect use of barrier contraceptives ___ Has or has had any one of the following risk factors: previous STD, multiple sex partners, or shared needles.	
13. Chlamydia	___ Is sexually active and ≤25 yr	
14. Pap smear	___ Is sexually active and has been over 3 yr since last test	

continued on page 155

Child and Adolescent Health Risk Profile (cont.)

Counseling	Annual Assessment of Risk Factors	Counseling Provided
15. Sleep position	___ Places baby on stomach	
16. Injury prevention	___ Does not use child safety car seats/booster seats ___ Does not use lap/shoulder belts ___ Does not use a bicycle helmet ___ Does not have hot-water heater temperature <120–130°F ___ Medicines, chemicals/poisons, or firearms are accessible to children ___ Does not have window/stair guards or a pool fence ___ Does not have syrup of ipecac or the poison control phone number ___ Does not have working smoke detectors in the home	
17. Nutrition 18. Physical activity	___ Mother does not breast-feed ___ Does not limit intake of fat and cholesterol, maintain calorie balance in diet, or eat foods containing fiber ___ Inadequate calcium intake for teen girls ___ Does not get 30 minutes of physical activity most days	
19. Oral health	___ Poor dental hygiene (e.g., does not brush with a fluoride toothpaste and floss daily) ___ Does not see a dentist regularly ___ Smokes or chews tobacco and/or drinks alcohol	
20. Sun exposure	___ Immunosuppression ___ Family history of skin cancer ___ Freckles and poor tanning ability ___ Light skin, hair, and eye color	
21. Tobacco use	___ Currently smokes cigarettes, cigars, or pipes or uses smokeless tobacco ___ Lives with an adult who smokes inside the home	

continued on page 156

Child and Adolescent Health Risk Profile (cont.)

Counseling	Annual Assessment of Risk Factors	Counseling Provided
22. Alcohol/drug use	___ Drinks more than 2 drinks/day (men) or 1 drink/day (women) (quantity_____ frequency_____) ___ Uses or has used "street drugs" ___ Has had medical and/or social problems related to alcohol or drug use	
23. Unintended pregnancy/STDs/HIV	___ Sexually active male or sexually active female of childbearing age ___ Does not desire a pregnancy/is not using a reliable birth control method ___ Has or has had previous STD, multiple sex partners, or shared needles	
24. Multivitamin with folic acid	___ Sexually active female of childbearing age	

Notes/Instructions: _____

_____

_____

_____

_____

Completed by: _____ Date: _____

Reviewed by clinician: _____ Date: _____

Information based on U.S. Preventive Services Task Force recommendations.
ETS = environmental tobacco smoke; PKU = phenylketonuria; HIV = human immunodeficiency virus; STD = sexually transmitted disease.

Adult Preventive Care Flow Sheet

Name:_____ Date of Birth/Age: _____ Male:_____ Female:_____ MR# or SS#:_____

Ethnicity:_____ Medications: _____ Old Records: _____

Allergies:_____Smoker: _____ ETS:_____ Date: _____

1. Immunizations	Population/Frequency	I.D.	Date/Site/Sig.	Date/Site/Sig.	Date/Site/Sig.	Date/Site/Sig.	Date/Site/Sig.
Tetanus—diphtheria	q 10 yr						
Hepatitis B	Adults at increased risk—3-dose series						
Varicella	Nonimmune adults 2 doses delivered 4–8 wk apart						
Rubella	Women of childbearing age and health care workers without evidence of immunity or prior immunization—1 dose						
Hepatitis A	At high risk						
Influenza vaccine	q 1 yr ≥50 yr or at increased risk						
Pneumococcal vaccine	Once ≥65 yr or at increased risk						

continued on page 158

Adult Preventive Care Flow Sheet (cont.)

N, Results Normal **A**, Results Abnormal **R**, Refused **P**, Pending

Screening Test/Exam	Population/Frequency	Date / Age										
2. Blood pressure												
3. Height/weight												
4. Total cholesterol, HDL	≥35yr males ≥45yr females											
5. Diabetes	Adults with hyperlipidemia or hypertension											
6. Pap smear	q 3 yr											
7. Mammogram	q 1–2 yr ≥40 yr											
8. Colorectal cancer screening	Depends on screening test selected*											
9. Osteoporosis	≥ 65 yr females ≥ 60 yr females at increased risk for fractures											
10. Problem drinking												
11. Vision	>65 yr											
12. Hearing	≥65 yr											
13. Chlamydial infection	Sexually active women age ≤25											
High Risk												
14. STD/HIV												

* See www.preventiveservices.ahrq.gov for U.S. Preventive Services Task Force recommendation on colorectal cancer screening

continued on page 159

Adult Preventive Care Flow Sheet (cont.)

N, Results Normal **A**, Results Abnormal **R**, Refused **P**, Pending

High Risk	Population/Frequency	Date										
		Age										
15. TB infection/PPD												
Chemoprevention												
16. Discuss aspirin to prevent CHD	High risk											
17. Discuss breast cancer chemoprevention	Women of older age Breast cancer in first-degree relative Atypical hyperplasia or breast biopsy											
Counseling												
18. Tobacco use												
19. Alcohol/drug use												
20. Nutrition												
21. Physical activity												
22. Oral health												
23. Sun exposure												
24. Injury prevention												
Sexuality/Reproduction												
25. STD/HIV												
26. Unintended pregnancy												
27. Multivitamin with folic acid	Females capable of pregnancy											
28. Osteoporosis/calcium												

continued on page 160

Adult Preventive Care Flow Sheet (cont.)

Referrals (As indicated)	Date	Result
Diabetes education		
Nutrition education		
Tobacco cessation program		
Dental examination		
Eye exam/glaucoma		

Note: Screening tests/exams and counseling based on U.S. Preventive Services Task Force recommendations.

ETS = environmental tobacco smoke; HDL = high-density lipoprotein; STD = sexually transmitted disease; HIV = human immunodeficiency virus; TB = tuberculosis; PPD = tuberculin purified protein derivative; CHD = coronary heart disease.

Revised January 2003.

Child and Adolescent Preventive Care Flow Sheet

Name: _____ Date of Birth/Age: _____ Male: _____ Female: _____ MR# or SS#: _____

Ethnicity: _____ Medications: _____ Old Records: _____

Allergies: _____ Smoker: _____ ETS: _____ Date: _____

N, Results Normal **A**, Results Abnormal **R**, Refused **P**, Pending

Screening Test/Exam	Frequency	Date / Age										
1. Height/weight												
2. Blood pressure												
3. Vision	At 3–4 yr											
4. PKU	Newborn											
5. Sickle cell hemoglobinopathies	Newborn											
6. Hypothyroidism	Newborn											
High Risk												
7. Hearing												
8. Anemia												
9. Cholesterol												
10. Lead	12 mo											

continued on page 162

Child and Adolescent Preventive Care Flow Sheet (cont.)

N, Results Normal **A**, Results Abnormal **R**, Refused **P**, Pending

Screening Test/Exam	Frequency	Date										
		Age										
High Risk												
11. Tuberculin skin test												
12. HIV test												
For Sexually Active Females												
13. Chlamydia	Sexually active											
14. Pap smear	Sexually active											
Counseling												
15. Sleep position												
16. Injury prevention including car seat/seatbelt												
17. Nutrition including calcium												
18. Physical activity												
19. Oral health including fluoride												
20. Sun exposure												
21. Tobacco use												
22. Alcohol/drug use												

continued on page 163

Child and Adolescent Preventive Care Flow Sheet (cont.)

N, Results Normal **A**, Results Abnormal **R**, Refused **P**, Pending

Counseling	**Frequency**	**Date**										
		Age										
23. Unintended/ pregnancy/STDs/HIV												
24. Multivitamin with folic acid	Females											

Referrals (as indicated)	**Date**	**Result**
Hearing examination		
Dental examination		
Mental health counseling		
Substance abuse counseling		

Note: Screening tests/exams and counseling based on U.S. Preventive Services Task Force recommendations.
ETS = environmental tobacco smoke; HIV = human immunodeficiency virus; STD = sexually transmitted disease.

Child Immunization Flow Sheet[1]

Name:_____ **D.O.B.**_____ **No.**_____

Disease(s)	Vaccine Type	Vaccine Name	Recommended Age	Date Given	Age Given	Manufacturer	Lot Number	Site	Signature of Person Giving Vaccine	Handout Pub. Date	Signature of Parent or Guardian in Response to Informed Consent Statement (below)
Hepatitis B[2]	HBV #1		Birth-2 mo or as soon thereafter as possible								
	HBV #2		1-4 mo or as soon thereafter as possible								
	HBV #3		6-18 mo or as soon thereafter as possible								
Diphtheria[3] Tetanus Pertussis	DTaP		2 mo								
	DTaP		4 mo								
	DTaP		6 mo								
	DTaP		15-18 mo								
	DTaP		4-6 yr								
	Td		11-16 yr								
Haemophilus[4] *influenzae* type b	Hib #1		2 mo								
	Hib #2		4 mo								
	Hib #3		6 mo								
	Hib #4		12-15 mo								
Polio[5]	IPV		2 mo								
	IPV		4 mo								
	IPV		6-18 mo								
	IPV		4-6 yr								
Measles[6] Mumps Rubella	MMR #1		12-15 mo								
	MMR #2		4-6 yr or as soon thereafter as possible								
Varicella[7]	VAR		12-18 mo or under 13 yr								
Hepatitis A[8] (in selected areas)	Hep A #1		24 mo-18 yr								
	Hep A #2		6-12 mo after first dose								
Pneumococcal Disease[9]	Prevnar™		2 mo								
			4 mo								
			6 mo								
			12-15 mo								
Influenza[10] (high-risk children)			6 mo + (2 doses if first time)								

Informed Consent Statement

"I have been given a copy of, and have read or have had explained to me, information about each of the diseases and the vaccines listed. I have had a chance to ask questions, and they were answered to my satisfaction. I believe I understand the benefits and risks of each vaccine and ask that they be given to the minor named above (for whom I am authorized to make this request)."

On October 22, 1999, the Advisory Committee on Immunization Practices (ACIP) recommended that Rotashield® (RRV-TV), the only U.S.-licensed rotavirus vaccine, no longer be used in the United States (MMWR 1999 Nov. 5; 43[5]). Parents should be reassured that their children who received rotavirus vaccine before July are not at increased risk for intussusception now.

[1]This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines as of 10/2000. Additional vaccines may be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components of the combination are indicated and its other components are not contraindicated. Providers should consult the manufacturers' package inserts for detailed recommendations. The information in this Child Immunization Flow Sheet is based on ACIP recommendations, which are the most current available.

[2]Infants born to HBsAg-negative mothers should receive the 1st dose of hepatitis B (Hep B) vaccine by age 2 months. The 2nd dose should be at least 1 month after the 1st dose. The 3rd dose should be administered at least 4 months after the 1st dose and at least 2 months after the 2nd dose, but not before 6 months of age for infants (MMWR 1999 Jan 22;48(2): 33-34).

An optional 2-dose schedule of Recombivax HB® is licensed for adolescents 11-15, with the 2nd dose given 4-6 months after the 1st (MMWR 2000 March 31;49(12):261-262).

Infants born to HBsAg-positive mothers should receive hepatitis B vaccine and 0.5 mL hepatitis B immune globulin (HBIG) within 12 hours of birth at separate sites. The 2nd dose of hepatitis B vaccine is recommended at 1-2 months of age and the 3rd dose at 6 months of age.

Infants born to mothers whose HBsAg status is unknown should receive hepatitis B vaccine within 12 hours of birth. Maternal blood should be drawn at the time of delivery to determine the mother's HBsAg status; if the HBsAg test is positive, the infant should receive HBIG as soon as possible (no later than 1 week of age).

All children and adolescents (through 18 years of age) who have not been immunized against hepatitis B should begin the series during any visit. Special efforts should be made to immunize children who were born in or whose parents were born in areas of the world with moderate or high endemicity of hepatitis B virus infection.

[3]The 4th dose of DTaP (diphtheria and tetanus toxoids and acellular pertussis vaccine) may be administered as early as 12 months of age, provided 6 months have elapsed since the 3rd dose and the child is unlikely to return at age 15-18 months. Td (tetanus and diphtheria toxoids) is recommended at 11-12 years of age if at least 5 years have elapsed since the last dose of DTP, DTaP or DT. Subsequent routine Td boosters are recommended every 10 years. Note: q.5 years if wounded. (MMWR 1997 March 28; 46 [RR-7], 1-25).

[4]Three Haemophilus influenzae type b (Hib) conjugate vaccines are licensed for infant use. If PRP-OMP (PedvaxHIB® or ComVax™ [Merck]) is administered at 2 and 4 months of age, a dose at 6 months is not required. Because clinical studies in infants have demonstrated that using some combination products may induce a lower immune response to the Hib vaccine component, DTaP/Hib combination products should not be used for primary immunization in infants at 2, 4 or 6 months of age, unless FDA-approved for these ages (MMWR 1993 Sept.17; 42[RR-13], 1-15).

[5]To eliminate the risk of vaccine-associated paralytic polio (VAPP), an all-IPV schedule is now recommended for routine childhood polio vaccination in the United States. (MMWR 2000 May 19; 49[RR-5], 1-22). All children should receive 4 doses of IPV at 2 months, 4 months, 6-18 months, and 4-6 years. OPV (if available) may be used only for the following special circumstances:

1. Mass vaccination campaigns to control outbreaks of paralytic polio.
2. Unvaccinated children who will be traveling in less than 4 weeks to areas where polio is endemic or epidemic.
3. Children of parents who do not accept the recommended number of vaccine injections. These children may receive OPV only for the 3rd or 4th dose or both; in this situation, health care providers should administer OPV only after discussing the risk for VAPP with parents or caregivers.
4. During the transition to an all-IPV schedule, recommendations for the use of remaining OPV supplies in physicians' offices and clinics have been issued by the American Academy of Pediatrics (see *Pediatrics*, December 1999).

[6]The 2nd dose of measles, mumps, and rubella (MMR) vaccine is recommended routinely at 4-6 years of age but may be administered during any visit, provided at least 4 weeks have elapsed since receipt of the 1st dose and that both doses are administered beginning at or after 12 months of age. Those who did not receive the 2nd dose at 4-6 years should receive this dose as soon thereafter as possible (MMWR 1998 May 22; 47 [RR-8], 1-57).

[7]Varicella (Var) vaccine is recommended at any visit on or after the first birthday for susceptible children, i.e., those who lack a reliable history of chickenpox (as judged by a health care provider) and who have not been immunized. Susceptible persons 13 years of age or older should receive 2 doses, given at least 4 weeks apart (MMWR 1996 Jul. 12; 45 [RR-11], 1-36).

[8]Hepatitis A (Hep A) is recommended in 2 doses 6-12 months apart in selected states and/or regions; consult your local public health authority (MMWR 1999 Oct. 1; 48[RR-12], 1-37).

[9]Children ≤23 months should be vaccinated according to the proposed vaccination schedule.

Prevnar™ vaccine also should be used for all children aged 12-23 months and for children aged 24-59 months who are at increased risk for pneumococcal disease (e.g., children with sickle cell disease, human immunodeficiency virus (HIV) infection, and other immunocompromising or chronic medical conditions). ACIP also recommends that the vaccine be considered for all other children aged 24-59 months, with priority given to a) children aged 24-35 months, b) children who are of Alaska native, American Indian and African-American descent, and c) children who attend group day care centers (MMWR 2000 Oct. 6; 49 [RR-9], 1-38).

Pneumococcal vaccine is recommended for children 24 months and older who have chronic diseases/asplenia (functional or anatomic) and children 24 months and older who reside in nursing homes and other long-term care facilities.

It is recommended that immunocompromised children and children with asplenia be revaccinated after 5 years (MMWR 1997 Apr. 4; 46 [RR-8], 1-24).

[10]Annual influenza vaccination is recommended for children 6 months-18 years with chronic diseases, hemoglobinopathies, those who are residents of long-term care facilities, those who are undergoing long-term aspirin therapy, and those who are at increased risk of complications from influenza. Two doses administered at least 1 month apart are recommended for children 6 months to <9 years of age who are receiving influenza vaccine for the first time (MMWR 2000 Apr. 14; 49 [RR-3], 6-29).

Appendix D

Sample Prevention Prescriptions for Adults

Weight

Put Prevention Into Practice

*Name:*_____

R_x for Prevention

Follow-up: _____

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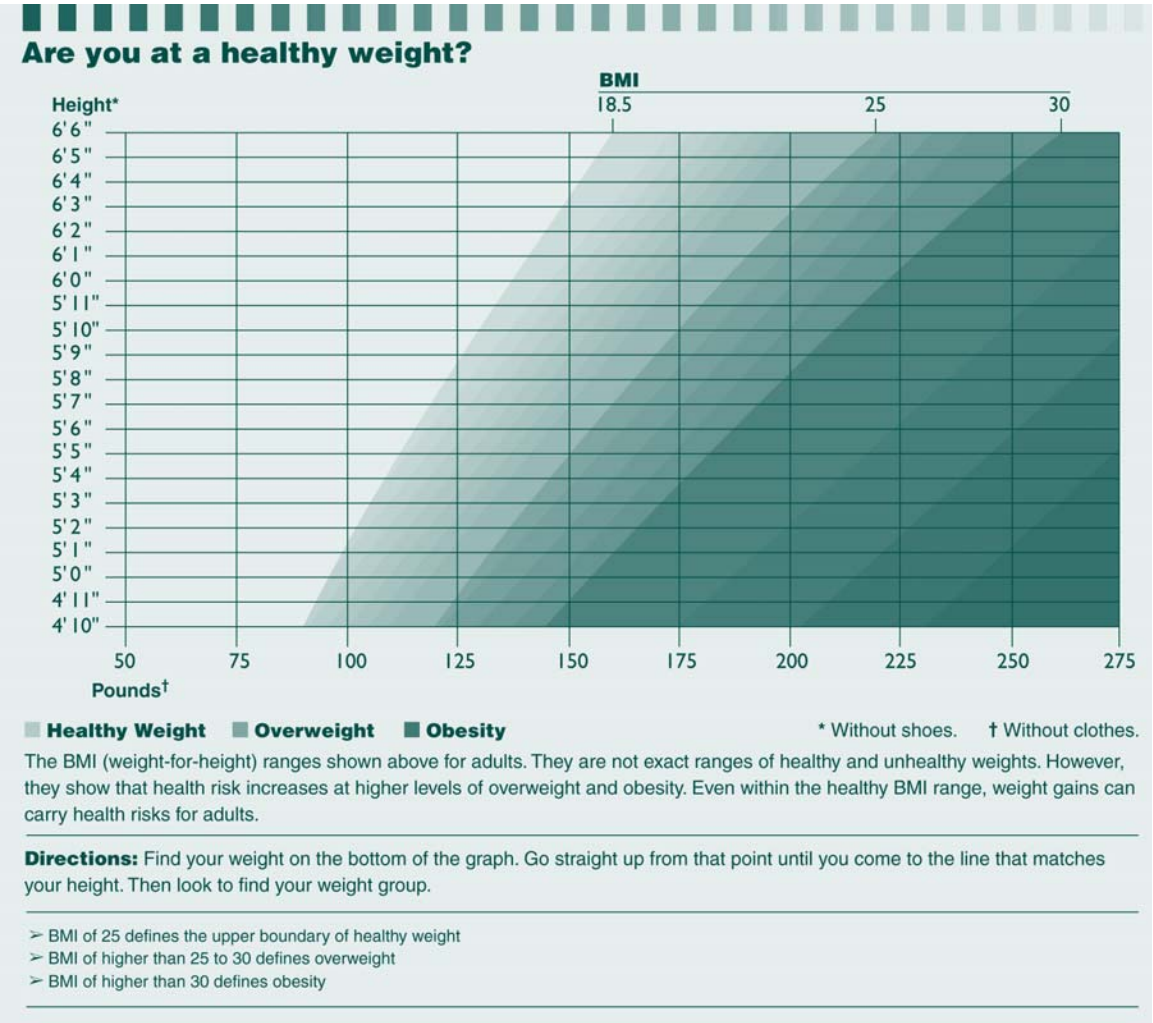
_____

Clinician's Signature: _____ *Date:* _____

- A healthy weight for you is approximately _____ .
- Being overweight can lead to high blood pressure, diabetes, and other serious health problems.
- The best way to control your weight is to limit fat and calories in your diet.
- Eat a variety of foods, especially vegetables, fruits, dry beans such as red beans, whole grains such as corn and barley, and whole-grain breads and cereals.
- Eat foods low in fat, saturated fat, and cholesterol (e.g., fish, poultry prepared without skin, lean meat, and low-fat dairy products).
- Get at least 30 minutes of exercise most days of the week.
- Keep extra weight off.



Reprinted from: Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans. Washington, D.C., U.S. Departments of Health and Human Services and Agriculture, 2000, page 3.

Blood Pressure

Put Prevention Into Practice

*Name:*_____

R_x for Prevention

Follow-up: _____

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Clinician's Signature: _____ *Date:* _____

- Your blood pressure should be lower than _____/ _____.
- High blood pressure can lead to heart disease, stroke, and kidney disease.
- Eating healthy foods, losing weight, and being active are ways to keep your blood pressure under control:
  - Losing as little as 5 to 10 pounds can lower your blood pressure.
  - Eat a variety of foods, especially vegetables, fruits, dry beans such as red beans, whole grains such as corn and barley, and whole grain breads and cereals.
  - Eat foods low in fat, saturated fat, and cholesterol (e.g., fish, poultry prepared without skin, lean meat, and low-fat dairy products).
  - Get at least 30 minutes of exercise most days of the week.
  - Eat less salt. Taste your food before you add salt. Eat fewer fast foods and salty snacks.
- If you take medicine to lower your blood pressure, be sure to talk to your doctor about how to take it. Do not skip any doses of medicine.
- If you drink alcohol, limit the number of alcoholic drinks—no more than one drink a day for women and two drinks a day for men.
- Smoking tobacco increases the risk of heart disease. If you smoke, plan to quit.

Smoking

Put Prevention Into Practice

Name: _____

R_x for Prevention

Follow-up: _____

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Clinician's Signature: _____ *Date:* _____

- Cigarettes and other tobacco products hurt your lungs and your heart and also cause cancer.
- Cigarettes and other tobacco products stain your teeth, cause wrinkles, and make your breath and hair stink!
- Children who live with smokers have more ear infections, asthma, and pneumonia.
- If you smoke, ask yourself when you would like to quit. When you are ready, do the following:
  - Make a plan and set a date to quit. Ask your doctor/clinical setting for help.
  - Tell your friends and family that you are going to quit. Get rid of your cigarettes and ashtrays.
  - Ask your doctor about new medicines that can make it easier to quit smoking.
  - If you fail the first time, don't give up. Try again!

Diabetes

Put Prevention Into Practice

*Name:*_____

R_x for Prevention

Follow-up: _____

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Clinician's Signature: _____ *Date:* _____

- You can have diabetes and not know it. You may need a blood test for diabetes if you have a family member with diabetes, are overweight, or have had diabetes during pregnancy.
- Diabetes can lead to problems with your vision, kidneys, and blood circulation, especially to the lower legs and feet.
- You can help prevent diabetes by having a healthy lifestyle:
  - Be physically active (at least 30 minutes of moderate activity) every day of the week.
  - Control your weight. Limit fat and calories in your diet.
  - Eat a healthy diet. Eat fruits, vegetables, dry beans, and whole grains every day.
  - Eat foods low in fat, saturated fat, and cholesterol (e.g., fish, poultry prepared without skin, lean meat, and low-fat dairy products).

Tetanus, Diphtheria

Put Prevention Into Practice

*Name:*_____

R_x for Prevention

Follow-up: _____

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Clinician's Signature: _____ *Date:* _____

- Tetanus (lockjaw) is a serious disease that kills 1 in 4 people who get it.
- Diphtheria is a serious disease that kills 1 in 10 people who catch it.
- Both tetanus and diphtheria can be easily prevented by one injection every 10 years.
- Keep a record of your immunizations and remind your doctor or clinic when you are due for your next booster.
- Your next tetanus-diphtheria (Td) booster will be due in_____.

Pneumonia

Put Prevention Into Practice

*Name:*_____

R_x for Prevention

Follow-up: _____

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Clinician's Signature: _____ *Date:* _____

- Pneumonia is a serious disease that can lead to death.
- Everyone needs a pneumonia vaccination at approximately 65 years of age. You may need this shot before age 65 if you have diseases of the lung, heart, or kidney; diabetes; HIV; or cancer.
- One shot provides lifelong protection for most people. If you are at a very high risk for pneumonia, your doctor may recommend repeating the shot after 5 years.

Rubella

Put Prevention Into Practice

*Name:*_____

R_x for Prevention

Follow-up: _____

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Clinician's Signature: _____ *Date:* _____

- Rubella (German measles) is caused by a virus. If a woman has rubella during a pregnancy, it can cause miscarriage, stillbirth, or severe birth defects.
- Rubella can be prevented with a vaccination (shot).
- A blood test will show if you need to get the vaccination.
- Do not get the vaccination if you are pregnant. Do not get pregnant for 3 months after you receive the vaccination.
- If you are already pregnant and need the vaccination, get it after your baby is born.

Hepatitis B

Put Prevention Into Practice

*Name:*_____

R_x for Prevention

Follow-up: _____

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Clinician's Signature: _____ *Date:* _____

- Hepatitis B is a serious disease of the liver. It is spread through contact with the blood or body fluids of someone who has Hepatitis B, usually through sex or sharing needles.
- Generally, you should receive Hepatitis B shots if you:
  - have had other sexual partners within the last 6 months or if your partner has had other sexual partners within the last 6 months;
  - are a male and have had sex with another male;
  - have had a sexually transmitted disease (STD) within the last 6 months;
  - have injected illegal drugs;
  - are a health care worker who is often exposed to blood or blood products; or
  - had blood transfusions between 1978 and 1985.
- If you are at risk and decide not to be immunized, decrease your risk by:
  - using a condom with spermicide every time you have sex;
  - never sharing needles; and
  - protecting yourself on the job by wearing gloves, face or eye shields, and a gown every time you expect to come in contact with any bodily fluids.

Colon and Rectal Cancer

Put Prevention Into Practice

*Name:*_____

R_x for Prevention

Follow-up: _____

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Clinician's Signature: _____ *Date:* _____

- Cancer of the colon and rectum is the second leading cause of cancer death in the United States. If it is found early, it can be treated more easily than if it is found late. Effective tests are available to find cancer of the colon and rectum.
- Starting at 50 years of age, you should be tested for colorectal cancer.

  Ask your doctor:
  - Should I be tested for colorectal cancer?
  - Which tests or test for colorectal cancer would be best for me?
- Tell your doctor if you have had polyps or if you have family members with cancer of the colon. If so, you may need to be tested more often.
- You may be able to reduce your risk of developing cancer of the colon or rectum if you do the following:
  - Eat a variety of foods, especially vegetables, fruits, dry beans such as red beans, whole grains such as corn and barley, and whole-grain breads and cereals.
  - Eat foods low in fat, saturated fat, and cholesterol (e.g., fish, poultry prepared without skin, lean meat, and low-fat dairy products).
  - Get at least 30 minutes of physical activity most days of the week.

Revised January 2003.

Mammogram

Put Prevention Into Practice

*Name:*_____

R_x for Prevention

Follow-up: _____

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Clinician's Signature: _____ *Date:* _____

- Mammograms (breast x-rays) can find a lump in your breast while it is still too small for you, your doctor, or your nurse to feel.
- Most breast cancers are treated more easily when found early.
- Get a mammogram every 1 to 2 years if you are 40 or older.
- Make sure to tell your doctor if your mother or a sister has had breast cancer. If so, you may need to have mammograms more often than other women.
- Your doctor may also examine your breasts.

Pap Smear

Put Prevention Into Practice

*Name:*_____

R_x for Prevention

Follow-up: _____

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Clinician's Signature: _____ *Date:* _____

- A Pap smear is a test for cancer of the cervix (opening of the uterus). The Pap smear can find changes in the cells of your cervix before they become cancerous or while the cancer is easier to cure.
- Women need to have a Pap smear every 3 years, some more often.
- Tell your doctor if you have had genital warts, a sexually transmitted disease (STD), multiple sex partners, or abnormal Pap smears. If so, you may need Pap smears more often than other women.
- Your doctor may suggest stopping Pap smears if you are older than age 65 and have had regular, normal Pap smears or if you have had a hysterectomy.
- If your Pap smear results are abnormal, you may need to have the Pap smear done again in a few months. Or you may need other tests, usually done in a doctor's office.
- The cause of an abnormal Pap smear can usually be treated in a doctor's office.

Prostate Cancer

Put Prevention Into Practice

*Name:*_____

R_X for Prevention

Follow-up: _____

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Clinician's Signature: _____ *Date:* _____

- Prostate cancer is the most common cancer among American men.
- Men who are older than 50 years of age, are African American, or have a brother or father with prostate cancer are more likely than other men to get prostate cancer.
- In some men prostate cancer grows very slowly, and in other men it spreads quickly.
- If you are at risk, talk with your doctor about the risks and benefits of tests such as a rectal exam and prostate-specific antigen (PSA) to find prostate cancer.

Cholesterol

Put Prevention Into Practice

*Name:*_____

R_x for Prevention

Follow-up: _____

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Clinician's Signature: _____ *Date:* _____

- Most experts recommend checking your cholesterol every 5 years. Your health care provider may suggest you have it checked more often, especially if your cholesterol is too high.
- Get your cholesterol checked every_____ year(s). Your next cholesterol test is due in_____.
- Make changes in your lifestyle to help lower your cholesterol. Doing certain things can help you control your cholesterol:
  - Eat a healthy diet. Eat fruits, vegetables, dry beans, and whole grains every day.
  - Eat foods low in fat, saturated fat, and cholesterol (e.g., fish, poultry prepared without skin, lean meat, and low-fat dairy products).
  - Get 30 minutes or more of exercise most days of the week.
- You should start having your cholesterol checked if you are a:
  - Man and 35 years old.
  - Woman and 45 years old.
  - Man between the ages of 20 and 35 or a woman between the ages of 20 and 45, and you have other risk factors for heart disease. These risk factors include tobacco use, diabetes, a family history of heart disease or high cholesterol, or high blood pressure.

Tips for Anyone Who Wants a Healthy Heart

Put Prevention Into Practice

*Name:*_____

R_x for Prevention

Follow-up: _____

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Clinician's Signature: _____ *Date:* _____

- Aspirin can help prevent heart disease in adults who are at increased risk for heart disease. Risk factors for heart disease include age, sex, diabetes, elevated cholesterol levels, low levels of high-density lipoprotein (HDL) cholesterol, elevated blood pressure, family history (in younger adults), and smoking. You and your doctor should discuss your risk for heart disease and the benefits and risks of taking aspirin to help prevent heart disease.
- Control your weight by limiting fat and calories in your diet.
- Eat a variety of high-fiber foods, vegetables, fruits, dry beans such as red beans, whole grains such as corn and barley, and whole-grain breads and cereals.
- Eat foods low in fat, saturated fat, and cholesterol (e.g., fish, poultry prepared without skin, lean meat, and low-fat dairy products).
- Be more active. You will feel better, and exercise helps you stay at a healthy weight.
- Ask your doctor for diet, exercise, and weight-loss tips.

Appendix E

Stages of Change and Your Patients

Patients' motivation to change their health risk behavior can range from resistance to ambivalence to commitment and can fluctuate over time. Researchers refer to this fluctuating motivation as stages of change (Prochaska and DiClemente, 1992). These stages have been labeled Precontemplation, Contemplation, Preparation, Action, and Maintenance. Patients who are not quite ready to change may vacillate over modifying their health risk behavior before making a commitment to change and acting on it. Your communication strategies should take your patients' stage of change and consequent motivation into account. You can determine which stage of change your patients are in by asking them simple questions about their behaviors. You can then proceed with the appropriate education/counseling and attempt to move patients from one stage to the next in a responsive, patient-centered manner.

A table with each of the stages of change and sample questions follows. You can adapt these questions to the particular behavior change you are encouraging. To facilitate understanding, smoking cessation is used as an example.

Stages of Change

Question	Stage
Do you intend to quit smoking in the next 6 months?	If the answer is "No," then the person is in the Precontemplation stage. Here, the only education that will have any effect is one that encourages the patient to consider quitting. Remember, the patient has not given any serious thought to quitting in the future. Either because of ignorance of the effects of smoking on health or because he or she feels that quitting is impossible, this patient has never given serious thought to the possibility. Do not minimize the difficulty of smoking cessation, but you can tell the patient, "We've learned a lot in the past few years about helping people quit smoking. We're having more success, and we are here to help you when you are ready."

continued on page 188

	If the answer is "Yes," then the person is in the Contemplation stage. Here, your task as an educator will be different. At this stage, the person has seriously considered quitting but may lack the motivation to start the process. This is the moment when you can provide motivation and share success stories of other patients. You may even use other patients to function as peer volunteers. An ex-smoker may be the best one to talk about the different approaches to smoking cessation and the options available to the patient. If the answer is "Maybe," then the person is probably feeling ambivalent. Explore with the person his or her values and discuss how they may conflict (e.g., children's health versus the pleasures of smoking).
Do you intend to quit smoking within the next 30 days?	If the answer is "No," then your patient is still in the Precontemplation phase, and you should provide the education/counseling suggested above for that stage. If the answer to this question is "Yes," your patient is in the Preparation stage. He or she has already made the decision to attempt the change and is ready to prepare to quit. Here, it is your task to give the patient the necessary tools to cause the behavior change. You should either refer the patient to a smoking cessation program that you know to be effective or you should facilitate the cessation process yourself. It is important to focus—at this stage—on increasing the patient's confidence (self-efficacy) so that he or she can attempt this change and succeed. Small steps, close follow-up, reinforcement, and encouragement are also very important. The use of contracts between the patient and the educator may be useful tools for mastering each

continued on page 189

	step of the process. (Here the educator writes down the goal to be accomplished in the next week[s] and the patient signs the contract, agreeing to perform the tasks specified in the document.)
Are you in the process of giving up smoking?	If the answer is "Yes," then the needs of your patient are different from those in the previous stages. This patient is in the Action stage. Here, he or she most likely needs positive reinforcement for the changes already attained and support for moving on to the Maintenance stage. Attention to self-efficacy is also important.
Have you quit smoking for more than 6 months?	If the answer is "Yes," then your patient is in the Maintenance stage. At this point, it is important to focus on learning coping mechanisms to prevent relapse and on recruiting this patient as a potential peer volunteer to motivate others and share his or her experience.

References

Prochaska JO, DiClemente CC. Stages of change in the modification of problem behaviors. *Prog Behav Modif* 28:183-218, 1992.

Further Reading

Prochaska JO, DiClemente CC. The *Transtheoretical Approach: Crossing the Traditional Boundaries of Therapy*. Homewood, IL: Dow-Jones/Irwin, 1984.