sensitivity and specificity in that it is not a constant characteristic of a screening test. If the condition is sufficiently rare in the screened population, even tests with excellent sensitivity and specificity can have low PPV, having more false positive results than true positive results. Another important aspect in determining the efficacy of a screening test is the reliability of the test. The reliability (reproducibility) is the ability of the test to give the same result when it is repeated. An accurate test with poor reliability can produce results that vary widely from the correct value, even though the average of the results approximates the true value. Poor reliability may be due to either interobserver variation or intraobserver variation (U.S. Preventive Services Task Force, 1989).

DEFINITION OF TERMS

Term	Definition	Formula*
Sensitivity	Proportion of persons with the condition who	а
Specificity	test positive. Proportion of persons without the condition who test pegative	a+c d b+d
Positive Predictive Value	Proportion of persons with positive test who have condition.	a a+b
Negative Predictive Value	Proportion of persons with negative test who do not have the condition.	d c + d
*Explanation of Symbols		
	Condition absent	Condition present
Positive Test	а	b
Negative Test	С	d

Legend: a=true +; b=false +; c=false -; d=true -.

★ The screening program should be one that is feasible and acceptable to individuals and the community. Therefore, plans and possible screening tests for a medical monitoring program will be presented to the community for input prior to the initiation of any recommended program.

B. An accepted treatment, intervention, or both, for the condition (outcome or marker of exposure) must exist and a referral system should be in place prior to the initiation of a medical monitoring program.

There should be established criteria for determining who should receive referral for intervention or treatment. These criteria will be based on the selected effect being screened for and the screening test being used. Results will be evaluated by ATSDR longitudinally and cross-sectionally to identify changes in the system or screening tools that require follow-up (Gochfeld 1990). A referral mechanism should exist so that those who are eligible for the intervention can be referred to a qualified health care provider for further diagnosis, treatment, or intervention. The referral must be for treatment or intervention that is standard practice and not experimental in nature. The medical monitoring (screening) program is not responsible for the cost of the referral, the intervention, or the treatment of individuals participating in the program.

C. The logistics of the system must be resolved before the program can be initiated.

After medical monitoring has been determined to be appropriate for a site, the specifics of the monitoring system will be detailed in a site-specific medical monitoring plan. The site panel consisting of the community members, appropriate health officials, and subject experts as necessary will work with ATSDR to develop and review the sitespecific medical monitoring plan. The specifics of the medical monitoring system recommended can vary for each site. The monitoring plan is the protocol for the specific program to be proposed in a community. The plan will outline the target community, the types of outcomes to be screened for, the participants in the referral system, and the program reports. The plan will include a review of the latency period for the outcomes being monitored and the duration of the exposure to define the period of time that the program will operate in a specific site population. The target population; the completeness with which the exposed population can be identified, contacted, and followed; the screening tests; and the selected health outcomes will all influence the specifics of the system. Existing medical facilities and personnel will be used when possible.

The monitoring plan will be submitted for peer review prior to its implementation at a site. The plan for a site might require additional review by an expert panel (ethicists, NRC) to evaluate the screening tests recommended. ATSDR's Division of Health Studies will work closely with the Division of Health Education to provide professional health education when needed to enhance the medical monitoring program.

Medical monitoring is one of ATSDR's service activities and is not considered to be a research tool. The monitoring activity at each site will be routinely evaluated for the effectiveness of the screening tests in place and the types of effects being detected. Due to confidentiality issues in dealing with small groups of people, the reporting from the system will consist of annual reports noting the number of individuals screened, the number of referrals made, and the number of conditions diagnosed in the referral system. ATSDR will develop a list that includes information on the types of exposures seen in the communities and the types of screening tests that were included in the monitoring. ATSDR can provide this information as available to the site panels to assist them in deciding on the types of screening tools based on what has been used in other areas.

The referral system will consist of the review of the screening results and the referral to appropriate health care providers or referral physicians. The specific mechanisms for determining who needs referral and for selecting the health care providers in the referral pool must be in place prior to the initiation of the medical monitoring. Once the participant has been referred to the