

**VIVEKANANDA COLLEGE
THAKURPUKUR
KOLKATA 700063
NAAC ACCREDITED "A"**



Topic : Disease Screening
Course title: Epidemiology and Environmental Health
Paper: 6th
Part : 3 (1+1+1)
Name of the teacher: [Sumana Mukherjee](#)
Name of the Department: Environmental Science

Disease Screening :

Screening is defined as the presumptive identification of unrecognized disease in an apparently healthy, asymptomatic population by means of tests, examinations or other procedures that can be applied rapidly and easily to the target population.

An effective screening programme should meet the following criteria:

- Mechanisms for systematic invitation and follow-up for individuals identified by the screening test as having an abnormal finding (call and recall mechanisms)
- Participation of over 70% of the target population to be screened;
- Necessary infrastructure and resources to offer the test periodically and to adequately diagnose and treat those found to have cancer or a precancerous lesion, and;
- Robust monitoring and evaluation framework to assure quality.

Screening programmes require significant health resources, infrastructure and functional health systems to be effective. Policies on cancer screening differ markedly between countries and health system capacity. There is no single approach that fits all situations thus necessary adaptations are needed depending on the local context.

A screening test is not intended to be diagnostic. Persons with positive or suspicious findings must be referred to their physicians for diagnosis and necessary treatment." It should be noted that, by definition, unrecognized symptomatic as well as pre-symptomatic disease is included; also, physical examination is considered part of the procedure, so long as it can be classed as rapid. The term "other procedures" may also embrace the use of questionnaires, which are assuming an increasingly important place in screening. Finally, tests may be "diagnostic", though not necessarily so intended.

Mass Screening :

This is a term used to indicate the large-scale screening of whole population groups. We have used it to refer to screening where no selection of population groups is made.

Selective Screening :

We use this term for the screening of selected high-risk groups in the population. It may still be large-scale, and can be considered as one form of population screening.

Multiple Screening :

This procedure has evolved by combining single screening tests, and is the logical corollary of mass screening. Where much time and effort has been spent by a population in attending for a single test (e.g., mass radiography) it is natural to consider the economy of offering other tests at the same time. Multiple (or multiphasic) screening has been defined as "the application of two or more screening tests in combination to large groups of people".

Surveillance :

This term is often used as a synonym for screening and essentially, in the sense the term is used, it does have the same meaning. However, a useful and important distinction can perhaps be made between the two terms. Webster's Third New International Dictionary (1966) defines "surveillance" as "close and continuous observation", while the definition of "to screen" is "to examine. . . methodically in order to make a separation into different groups". "Screening" tends to be thought of as (and in practice often is) a cross-sectional, short-term operation on a population at risk (e.g., "health weeks", "health fairs"); while "surveillance" conveys rather the sense of a long-term vigil over the health of an individual or of a population.

Early disease Detection :

It refers to all forms of early detection whether by screening, physical examination or other means; and this is meant when we use the term "early disease detection".

