Surveillance and response systems to communicable diseases existed in the Tsunami affected countries before the crisis, albeit with differing levels of functionality. Diagnostic laboratories represent an essential component of the national surveillance system. In order to decrease the vulnerability of the population to epidemic and emerging infectious diseases, the overall support to this area of work in the affected areas is to build an institutionalized system that fits within the national surveillance system.

Assessments of National Surveillance Systems have been carried out in the past 2 years in the affected area (Indonesia, Sri Lanka, Maldives and Malaysia). In January 2005, a detailed assessment of laboratories capacities was carried out in Sri Lanka, in the affected areas, using the WHO/CSR laboratory assessment tool (“LAT”). Ten different laboratory components included in 10 different modules are part of this assessment, and results were compared with those obtained in the central level laboratory.

The overall analysis of general indicators relying to the laboratory-dependent attributes of a surveillance and diagnostic system will be presented. These include the accuracy (reliability) of laboratory results (diagnostic), the rapidity (timeliness) of specimen collection and transport and diagnostic confirmation, and the capacity to interact with international reference laboratories and surveillance networks. Sri Lanka laboratories showed a pattern that was found in a majority of members states: 1- there is a lack of organized system for collection and transport of biological specimens, hampering the timeliness of diagnostic confirmation, 2- the diagnostic skills are well developed, mainly at central level, but lack of Standardized procedures in the periphery and weaknesses in external quality control system towards peripheral laboratories are observed, that will compromise the accuracy of the diagnostic or delay its production.

Several other characteristics of an efficient laboratory system will be discussed as well, such as the flow of information and data, and interaction with the national surveillance system.

Consequently, recommendations can be made, that will help in fully integrating laboratory component in the plan of actions have either been already developed or are in the process of being developed to strengthen the national surveillance systems in the pre-tsunami disaster. The tsunami brings specific perspectives and challenges that were not previously considered. In the reconstruction phase, there is a need not only to reinforce those plans, and revise them in order to adapt them to the current context, but to rapidly assess new needs created by the crisis.