

TITLE: Standardizing the Structure of Public Health Case Definitions for Diseases and Conditions placed under the National Public Health Surveillance System (NPHSS)

Statement of the Problem(s):

The purpose of this position paper is to call the attention of the Membership to the non-uniform structure of case definitions for diseases and conditions placed under NPHSS by the CSTE Committees, and to call for the development of one or more standardized templates to assist in the construction of case definitions.

There are currently close to 200 diseases and conditions placed under NPHSS. These include conditions related to infectious disease, chronic disease, maternal and child health, oral health, environmental health, occupational health, and injury. New surveillance case definitions continue to be developed.

Despite their evident usefulness, there is great variability in the structure of the case definitions between and within the CSTE committees. Deviations even occur among case definitions authored within similar categorical content areas. Some case definitions do not use a case classification system to allow separation of confirmed cases from probable/presumptive cases or possible/suspected cases. Some case definitions do not allow for ascertainment of cases from differing sources other than clinician/laboratory reporting, failing to specify criteria for case finding using retrospective review of coded administrative data, or survey self-report.

There is also inconsistency in the level of completeness, precision and clarity among the adopted case definitions. For example, there are difficulties in translating infectious disease public health case definitions to standardized vocabularies necessary for electronic laboratory reporting coding standards, including a) lack of equivalence in specification of test methods, specimen sources, and antibody classes; b) inconsistency among case definitions in serologic results categories and

the interval between repeated measures of a single laboratory test; and c) clinical criteria contained within the laboratory criteria that qualifies the interpretation of lab results.

The NPHSS vision includes automation of case ascertainment through integration of public health surveillance with the standard electronic processes for medical care administrative data. This can allow for rapid identification of cases which may be either confirmed or probable or suspected, and allow prompt case investigation when indicated. In order for such case ascertainment automation to occur, case definitions need to be constructed in a standardized manner.

The authors would like a call to action to develop a universal standard template or multiple templates for the construction of public health case definitions of diseases and conditions placed under NPHSS. These case definition templates will be mapped into the Public Health Data Model. The templates will then become part of the messaging standards requirements implementing the National Electronic Disease Surveillance System (NEDSS).

Statement of any Action(s) Desired

CDC, CSTE, and other partners should develop the suggested template(s) within one year, and bring before the Membership for consideration and adoption at 2002 CSTE Annual Meeting.

A workgroup will be formed to assist in the development of the template(s). All CSTE Committees will be represented, and the workgroup will seek the input of the Membership as well as State and CDC partners in the development process. Such partners include APHL, NAPHSIS, and NAHDO.

Public Health Impact:

Further standardization of case definitions will aid in the conduct of public health surveillance and will result in an increased consistency of surveillance data across states. Adherence to universal templates will provide support for the implementation of the National Electronic Disease Surveillance System (NEDSS) architecture, and allow for well-defined relationships between diseases and conditions, public health case definitions and standardized vocabularies for clinical and laboratory data, thus providing a more accurate and timely picture of the Nation's health.

The implementation of this position paper will require organizational resources in facilitating the activities of a workgroup with appropriate representatives at the table, coordination of meetings and conference calls, synthesis of input, and articulation of needs and recommendations to stakeholders. Substantial staff and member-leader time and effort will be required, and the CSTE National Office should consider including this activity in the CSTE-CDC Cooperative Agreement, requesting adequate funding for senior level staff members to conduct the activities of the project.

CDC Comments:

CDC agrees with the idea of standardizing the structure of public health case definitions for diseases and conditions placed under the National Public Health Surveillance System (NPHSS).

Historically, in collaboration with CSTE and CDC programs, the Surveillance Studies Branch at CDC has coordinated public health case definition development and dissemination. Future work on case definition format and concept standardization must be coordinated with the standards development work being done as part of National Electronic Disease Surveillance System (NEDSS). Continuing to support CSTE as they work with CDC programs and other public health partners to develop new standardized case definition formats, to review and revise existing case definitions, to assist in the development of new case definitions, and to maintain and disseminate public health case definitions is an appropriate role for SSB. Protocols for case definition development, standardization, and revision should also be developed in collaboration with CSTE, CDC programs, and other surveillance partners. Without additional resources, SSB would be able to maintain its current level of effort on case definition consultation, development, and dissemination, but would not be able to address some of the critical informatics and standards issues associated with electronic reporting of surveillance information.

In addition, CDC requests the opportunity to have representation on the workgroup formed to develop the case definition template to ensure the proposed format is appropriate for occupational diseases and injuries.