<u>Description of Wisconsin Viral Laboratory-Based Surveillance</u>

The purpose of Wisconsin's laboratory-based viral surveillance is to monitor the activity of circulating viruses, detect new strains of viruses, and maintain a repository of isolates for future study, with an emphasis on influenza surveillance.

Viral surveillance in Wisconsin is accomplished through a combination of testing at the Wisconsin State Laboratory of Hygiene (WSLH) and voluntary reporting by viral culture laboratories, molecular (PCR) laboratories, and antigen detection (rapid testing) sites throughout Wisconsin. These viral culture laboratories, molecular (PCR) laboratories, and antigen detection (rapid testing) sites in Wisconsin also submit specimens and isolates to the WSLH for additional characterization and/or repository storage.

- Selected healthcare providers (sentinel submitters) at clinic and hospital sites in Wisconsin submit a limited number of respiratory specimens directly to the WSLH for viral testing.
- Viral Culture Laboratories throughout Wisconsin (the Wisconsin Virology Laboratory Information Network or "LIN"), provide a weekly summary to the WSLH of the total number of specimens tested and the number positive for each virus. LIN members also submit selected viral isolates to the WSLH or the Milwaukee Health Department Laboratory (MHDL) for subtyping or serotyping of isolates.
- Molecular (PCR) Laboratories throughout Wisconsin provide a weekly summary to the WSLH of the total number of specimens tested and the number positive for each virus. These laboratories may also submit selected samples to the WSLH for confirmation, characterization, or repository storage.
- Antigen Detection (Rapid Testing) Sites throughout Wisconsin provide a weekly summary to the WSLH of the total number of specimens tested and the number positive for selected agents. Rapid Testing Sites also submit selected influenza-positive specimens to a virology laboratory for culture-confirmation; subtyping is performed at the MHDL or at the WSLH. A subset of these testing sites also provide a sampling of specimens (both positive and negative) to the WSLH for additional surveillance testing.

The WSLH analyzes and compiles the testing data, adds additional commentary, and provides reports to participants, Wisconsin Division of Public Health personnel, and others by request. Graphic representations of the data are also provided on the WSLH website.

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For more complete information about surveillance for influenza or enhanced surveillance for avian influenza, see "Influenza" on the WSLH Communicable Disease Division webpage at http://www.slh.wisc.edu/comdis/influenza.dot