Supplement F: Laboratory Guidance

I. Rationale and Goals

Laboratory diagnostics are essential for detecting and documenting a reappearance of SARS-CoV, responding to and managing outbreaks, and managing concerns about SARS in patients with other respiratory illnesses. The identification of SARS-CoV led to the rapid development of enzyme immunoassays (EIA) and immunofluorescence assays (IFA) for serologic diagnosis and reverse-transcription PCR (RT-PCR) assays for detection of SARS-CoV RNA in clinical samples. These assays can be very sensitive and specific for detecting antibody and RNA, respectively, in the later stages of SARS-CoV infection. However, both are less sensitive for detecting infection early in illness.

As part of SARS preparedness, CDC is working to improve diagnostics by developing new tools that should make definitive diagnosis early in illness possible. In the interim, CDC is applying new knowledge about the natural history of SARS-CoV disease to improving diagnostic yield by optimizing the type, timing, and quantity of specimens collected. CDC's laboratory diagnostics plan is designed to achieve two primary goals:

- Provide ready access to high-quality SARS-CoV laboratory diagnostics for the public health community
- Ensure that SARS-CoV laboratory diagnostics are used safely and appropriately and that results are interpreted appropriately