

## The Pandemic Severity Index (PSI)

Severity level is initially based on case-fatality ratio (CFR), a single criterion that will likely be known even early in a pandemic when small clusters and outbreaks are occurring. Other measures, such as excess mortality, could be factored in later. Two events prompt the CDC director to designate a pandemic category: the World Health Organization (WHO) declaring a phase 6 pandemic level and the US government declaring a stage 3, 4, or 5 alert. Both have occurred.

### The pandemic severity index categories are:

- Category 1, CFR of less than 0.1% **This is the present level.**
- Category 2, CFR 0.1% to 0.5%
- Category 3, CFR 0.5% to 1%
- Category 4, CFR 1% to 2%
- Category 5, CFR 2% or higher

This **PSI** has been a missing aspect to pandemic preparedness. The pandemics of 1957 and 1968 both fit into Category 2, whereas the severe pandemic of 1918-19 qualified as a Category 5. This factor must be considered when planning community mitigation actions, as the designated Pandemic Level (1 thru 6) considers only how widespread the illness is, but does not consider the Pandemic Severity Index. Pandemic Level 6 with a Severity Index Category 1 only means wide-spread disease with minimal morbidity and mortality consequences. Much better this than a Pandemic Level 3 with a PSI Category of 3, which could well mean 5 to 10 times the morbidity and death. So far, the novel H1N1 pandemic has exhibited a mortality of no more than **0.05%** (Category 1).