Sensitivity tests and sucking ventilations indoor for mitigating COVID-19

• Yoshiyasu Takefuji, Professor, Keio University

(10 September 2020)

Although Ronan Lordan et al. mentioned "Current diagnostic tests cannot identify silent infections reliably and are not sufficiently fast and inexpensive to make a school-wide testing-based surveillance system practical" (1). As long as sensitivity is 100 %, we will not miss the infected persons. The sensitivity of a test is also called the true positive rate and is the proportion of samples that are genuinely positive that give a positive result using the test in question. Sensitivity is calculated by (the number of true positives) / (the number of true positives + the number of false negatives). False negative results play a key role in detecting infected persons including asymptomatic ones. As of Today, there are several 100% sensitivity tests which can be provided to schools (2).

All we need to do is to protect students against airborne COVID-19. In order to control the airflow of airborne viruses, simply installing sucking ventilations indoor plays a key role in mitigating airborne COVID-19.

References:

- 1. Ronan Lordan et al., Reopening schools during COVID-19, Science 04 Sep 2020: Vol. 369, Issue 6508, pp. 1146
- 2. EUA Authorized Serology Test Performance, FDA https://www.fda.gov/medical-devices/coronavirus-disease-2019-covid-19-emerg emcy-use-authorizations-medical-devices/eua-authorized-serology-test-perform ance