1. No.
   2020G031

2. Title
   Actual status of smoking of heat-not-burn tobacco (HNB) and electric cigarettes (e-cig) and measurement methods of particulate matter emitted from HNB or e-cig

3. Period
   2020-2021

4. Summary
   There is currently little basic data on which and how many people smoke which heated tobacco products (HTPs) and electronic cigarettes (e-cigs), which is necessary when examining the health effects of these products. Furthermore, there is little data on the degree of environmental pollution caused by environmental tobacco smoke, which is necessary when examining the health effects of passive smoking and environmental measures. In light of these points, we measured the solid and liquid components of $PM_{2.5}$ separately in the first year and surveyed the number of cigarettes smoked by HTP and e-cigarette users in the second year via a web-based questionnaire.

   Since we could not conduct smoking experiments with smokers due to the COVID-19 infestation, we measured indoor ambient concentrations of solid and liquid $PM_{2.5}$ by burning incense and varying the temperature of the $PM_{2.5}$ sensor. As the temperature of the sensor was increased, the concentration at the heated sensor was lower than the concentration at the unheated sensor.

   Regarding smoking status, we found that the younger the age, the higher the percentage of people using both cigarettes and HTP. When those who smoked cigarettes only and changed the type of tobacco they smoked were asked what type of tobacco they changed to, those who changed to HTP were most likely to do so, followed by those who changed to both cigarettes and HTP.