Portal TB Gombak, a user-friendly application that integrate the most common approach in public health surveillance which is disease mapping. It is an interactive mapping tool by plotting location of tuberculosis (TB) cases and its sociodemographic and environmental risk factors. It has been implemented in the PHP CodeIgniter framework in aid of ArcGIS Javascript API 3.7. This application could guide the public health officers to visualise and interrogate geographically-referenced TB data without the need for specialist in programming and geographic information system. Production of maps displaying distribution of TB cases in space and time could facilitate control measures such as contact tracing and screening; therefore lessen the public health impacts of the disease.

The sociodemographic data of the 3325 TB cases such as age, gender, race, nationality, country of birth, educational level, employment status, health care worker, income status, residency, and smoking status from January 2013 to December 2017 in Gombak district were collected from the myTB web and Tuberculosis Information System (TBIS) database at the Gombak District Health Office and Rawang Health Clinic. Other data such as individual's ID and patients' location were also collected. Environmental data consisting of air pollution such as air quality index (AQI), carbon monoxide (CO), nitrogen dioxide (NO_2), sulphur dioxide (SO_2), and particulate matter 10 (PM_{10},) were obtained from the Department of Environment Malaysia from June 2012 to December 2017 with the lag time between one to six months; whereas weather data such as rainfall were obtained from the Department of Irrigation and Drainage Malaysia and relative humidity, temperature, wind speed, and atmospheric pressure were obtained from the Malaysian Meteorological Department in the same period. The sociodemographic data of TB cases and environmental data were extracted from the ArcGIS® version 10.7 (Esri, Redlands, CA, USA). Then, these data were uploaded to the Portal TB Gombak. Cases can be filtered by selection of risk factors by searching a word in the entire table of the data in any time period. The map can be zoomed in and out to enable a better examination of the areas, and clicking on cases produces the details information about the patients. The data can exported in the form of .csv, or .pdf file.