Review of: "[Commentary] India’s steps towards carbon dioxide monitoring in public assembly spaces for ventilation measurement for airborne infection control and other factors"

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Potential competing interests: No potential competing interests to declare.

My comments are,

1. CO2 level in a closed air conditioned space is a marker of ventilation level.
2. However, CO2 is neither a pollutant, nor an infecting agent in an air conditioned space. A building can still have high infection risk with low CO2 level.
3. CO2 level in an air conditioned space never reaches a level which can kill someone.
4. Higher CO2 level in an air conditioned space makes occupants dizzy, and lowers their activity level.
5. CO2 level is monitored in many modern air conditioned energy efficient public buildings in India for demand controlled supply of outdoor ventilation air as a measure of optimised energy consumption by AC plant. Outdoor air needs extra cooling, and so, its supply is reduced when the building operates with lower occupancy. This saves energy. Outdoor air is increased gradually to the maximum level when the building occupancy level goes up. This is done by using a building CO2 monitoring system.
6. Possibility of infection spread in an enclosed environment can be monitored by monitoring pathogen count in the building. This is currently practiced in critical areas (like bone marrow transplant areas) in modern hospitals.
7. Infection risk in a closed air conditioned public spaces can be reduced by using ultraviolet germicidal irradiation (UVGI) over the cooling coils of air handling units of air conditioning system. This inactivates pathogens from further growth. This is practiced in many modern public buildings in India. This can be made mandatory.
8. Not having provision for outdoor air supply in split air conditioners is a perennial problem. Manufacturers of split air conditioners may be advised to make some arrangement for outdoor air supply. This is possible.