North Carolina Transit Cares

COVID-19 Safety and Health Webinar Q&A

Question	Response
With the Probable Aerosol Transmission on Bus slide, do you know the percent of capacity the bus was filled at? Any idea which seats were empty?	Based on the JAMA article, it appears only one seat was empty and outdoor air ventilation was poor.
I am hearing different stories. I am hearing the vaccine prevents infection, I hear also it just reduces you from getting a severe case of Covid. Does the vaccine prevent you from getting it?	According to the CDC, "All COVID-19 vaccines currently available in the United States have been shown to be highly effective at preventing COVID-19," and "experts believe that getting a COVID-19 vaccine may also help keep you from getting seriously ill even if you do get COVID-19." There is a lot of additional information here that may be helpful for your understanding of how these vaccines work: https://www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html
Do I understand correctly that there are NO bolt on HEPA Filtration units that are effective in substantial reduction of the virus spread?	HEPA filters can be extremely effective at removing particles, including aerosols from the air. However, if an HEPA filter was installed in an HVAC unit, air with infectious particles could move across people and throughout the space before reaching that filter where those particles would then be removed from the air by the filter. It is important to maximize filtration capacity and optimize airflow to move particles away from people and towards the air filter. The HVAC Technology sheet does have a recommendation for higher MERV rated and HEPA filters, and also cautions that higher rated filters may or may not void the warranty on your HVAC system: https://connect.ncdot.gov/business/Transit/NCTCDocs/2021.03.01_NCDOT%20HVAC%20Technology%20Position%20Sheet%20v0.95.pdf
I am curious if the "add on" HEPA-3 filtration Units are effective? They are loud and add a lot of noise to the interior of the bus. The noise interferes with audio recording on the bus so I need to be sure they are effective before adding.	Please see answer above for HEPA filters .
Please comment of the effectiveness of physical barriers around drivers.	Barriers can be useful for preventing close contact droplet spread, but may not be as useful to protect against the spread of aerosol. Agencies should also make sure that barriers do not introduce other hazards like glare.

For DHHS - Why were transit operators not considered in an earlier phase? Rural Operators have had daily contact with those at risk (elderly, dialysis, etc. Now they are being asked to transport to sites but not eligible	Independent state and federal public health advisory committees determined that the best way to fight COVID-19 is to first start with vaccinating people who are most at risk. As vaccine supply increases from January to June, we will reach more people. North Carolina developed a prioritization plan based on discussions with over 60 stakeholders representing a variety of groups, and aligned with CDC recommendations.
Is there any guidance on a website that shows the best way to set the air flow on buses?	NCDOT IMD and WSP are currently working to put guidance together that focused on vehicles common in North Carolina including a raised roof van and Light Transit Vehicle. In the meantime, you can consider the guidance in this document: https://atu1181.org/wp-content/uploads/2020/09/ATU-SAFE-SERVICE-COVID-19-Bus-Airflows-Solutions.pdf
ASHRAE has recommendations for helping with COVID-19. One of them is "flush" a space using 3 air-changes per hour. Of course, this needs proper filtration, but is this something that can already be done on existing bus systems?	The air change rate is different in each space- it will depend on the size of space and specifications of the HVAC system. An HVAC engineer will be able to inform you of your air change rate in a given vehicle or facility when the HVAC controls are properly set. As you noted, it's important that the air change occurs with maximum outside air and/or in a manner that effectively filters any recycled air in the space. Most buses do not have efficient filters, and therefore, air changes are best on a bus with outside air (set HVAC controls to maximum ventilation and crack windows on the bus). Also note that a significant volume of air is changed just by opening and closing the bus doors at a stop.
We are considering installing passenger seating barrier. Thoughts? Will these help protect riders?	Similar to physical barriers for drivers, passenger seating barriers may useful for preventing close contact droplet spread, but may not be as useful to protect against the spread of aerosols. Agencies are strongly encouraged to perform a safety hazard analysis before installing such barriers including the effect they may have on emergency evacuations.
With transition mainly by airborne transmission is it necessary to perform constant disinfective wipe downs or is daily disinfective wipe appropriate?	Cleaning and disinfecting of surfaces does not help protect against direct droplet or aerosol transmission, which are the primary ways people get sick with COVID-19. Prior CDC guidance for transit agencies recommended cleaning and disinfection of frequently touched surfaces at least daily. However, current CDC guidance does not recommend any specific frequency for cleaning and disinfecting: https://www.cdc.gov/coronavirus/2019-ncov/community /organizations/bus-transit-operator.html Local North Carolina health departments may have additional guidance for surface disinfection.
Does the current vaccines (Pfizer Moderna) also work against the UK variant now circulating in US or will that require an additional specific vaccine?	All viruses change over time and these changes (variants) are expected. Scientists are currently working to learn more about the new variants and their effects on vaccines so it is unknown if an additional vaccine will be needed at this time.