

From: [Stuart Stolp](#)
To: [Moreno, Edward 755-4585](#)
Subject: Following Up
Date: Wednesday, September 23, 2020 4:08:58 PM
Attachments: [Outbreaks by Sector.Highlighting Bars and Restaurants.docx](#)

[CAUTION: This email originated from outside of the County. Do not click links or open attachments unless you recognize the sender and know the content is safe.]

Greetings Ed,

Hi Ed,

I think any of the following reports might help to support your concern regarding the specific risks posed by indoor restaurant exposures. Of course, because people in restaurants are presumably not wearing masks, the investigations that support indoor aerosol exposures are all pretty relevant!

Here are the links:

- 1) An outbreak in a restaurant in China that looked at air currents: https://wwwnc.cdc.gov/eid/article/26/7/20-0764_article#comment
- 2) A look at potential sources of exposure for COVID-19 positive patients 18 years and older: <https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6936a5-H.pdf> (several correlations with recent restaurant visitation, this may have been the MMWR you recalled)
- 3) Here is a NEJM blog that identifies the two articles noted above: <https://blogs.jwatch.org/hiv-id-observations/index.php/restaurants-are-hurting-but-dining-indoors-poses-real-covid-19-transmission-risk/2020/09/13/>
- 4) This NEJM article is on SARS-1, but it was highly cited as evidence of SARS transmission in air currents, as one would expect in restaurants: <https://www.nejm.org/doi/10.1056/NEJMoa032867>
- 5) This article found that in rooms recently vacated by COVID-19 patients, the grate over the HVAC intake had the highest viral recovery rate: <https://doi.org/10.1101/2020.03.23.20039446>
- 6) Here is a recent thorough study of transmission during a 10 hour flight, similar to what one might expect in other indoor close proximity exposures: <https://wwwnc.cdc.gov/eid/article/26/11/20-3299-f1>

I am also attaching the "Outbreaks by Sector" list that includes highlighted outbreaks at restaurants and bars.

I hope these resources help! Best regards,

Todd