

Explanation of estimates in the figure:

Restaurants & Bars	<p>Uses info from https://en.wikipedia.org/wiki/Restaurant#United_States. 1 restaurant per 310 US citizens; average person eats out 5 to 6 times per week = each restaurant serves 1705 meals/wk. Assume restaurant serves an average of 2 times/day (1/3 each restaurants serve 3, 2 or 1 meal per day). Thus typical restaurant 1705 meals in 14 times a week, so it averages 122 patrons. Typical dining group I take to be 4 persons, 90 minutes per meal, 5.5 times a week = 102970 exposed-person-minutes/yr Multiply by 122 potential carriers in the restaurant to get 12539057 exposure minutes/yr Also uses https://brandongaille.com/22-bar-and-nightclub-industry-statistics-and-trends/ Bar has 5.5 average full time employees; bartender can serve 75 patrons, per https://www.hwevents.com/how-many-bartenders-do-i-need-at-my-wedding-reception/ Party of 2 goes to bar for 120 minutes, once a week. 12480 exposed-person-minutes/yr Multiply by 75 patrons in the bar to get 936000 exposure minutes/yr. Add these to get 13475057 exposure minutes/yr</p>
Schools	<p>1 child is in a class of 40 for 7 hours = 420 minutes per day. 32 5-day weeks per year. Total exposure 67200 exposed-person-minutes/yr. Multiply by 40 in class as potential infectors to get 2688000 exposure minutes/yr</p>
Movie Theaters	<p>Capacity 250: https://www.answers.com/Q/What_is_the_average_capacity_of_a_movie_theater 4 times a year: https://www.quora.com/How-often-does-the-average-user-go-to-the-movies 180 minutes per time, group of 3 attending, makes 2160 exposed-person-minutes/yr. Multiply by 250 to get 540000 exposure minutes/yr.</p>
Gyms	<p>60.87 million gym members in US: https://www.statista.com/statistics/236123/us-fitness-center--health-club-memberships/ 50% of them say they visit gym at least 100 times a year: https://noobgains.com/gym-membership-statistics/ 38,477 gyms in US: https://www.statista.com/statistics/244922/us-fitness-centers-und-health-clubs/ Members per gym: 60870000/38477=1582 per gym. 50% = 791 go 100 times a year, 1 hour each means 79100 person hrs/yr Gym is open 12 hrs/day, 7 days/wk = 84 hours/wk = 4368 hours/yr. But before and after work and weekends = 40 hrs/week = 2080 hrs/yr 79100/4368=18 people at once on average. Gym can hold 10% of membership = 150. But desirable hours are 40 hrs/wk = 2080 hrs/yr so average number during desired hours are 79100/2080=38 average in gym. 38 is a reasonable number given the capacity of 150. Plus 2 staff = 40.</p>
Grocery / Drugs	<p>Party of 2 visits grocery or drug store 26 times a year (each 2 weeks), for 45 minutes. Makes 2340 exposed-person-minutes/yr Multiply by 75 folks you bump into or come near in the grocery for 175500 exposure-minutes/yr</p>
Concert Venues	<p>Midsize concert venue holds 2000 patrons: https://en.wikipedia.org/wiki/List_of_concert_halls#United_States Assume a party of 2 goes to a 3-hour performance 5 times a year. That's 1800 exposed-person-minutes/yr Multiply by 2000 potential infectors to get 3600000 exposure-minutes/yr</p>
Public Transport	<p>150 people in subway car: https://www.quora.com/How-many-people-fit-in-a-full-New-York-City-Subway-car 1 person rides for 20 minutes 250 days (50 weeks) per year, for 5000 exposed-person-minutes/yr Multiply by 150 to get 750000 exposure-minutes/yr 42 people in full bus: https://www.codot.gov/programs/commuterchoices/documents/trandir_transit.pdf 1 person rides for 60 minutes 250 days per year, for 15000 exposed-person-minutes/yr Multiply by 42 to get 630000 exposure-minutes/yr So let's roughly say for public transport 700000 exposure-minutes/yr</p>
Malls, Big Boxes	<p>Indoor shopping malls: party of 2, go for 90 minutes, 18 times a year for 3240 exposed-person-minutes/yr Multiply by 300 persons you encounter to get 972000 exposure-minutes/yr Big box stores: party of 2, go for 60 minutes, 12 times a year for 1440 exposed-person-minutes/yr. Multiply by 300 persons you encounter to get 432000 exposure-minutes/yr Add these to get 1404000 exposure-minutes/yr</p>
Sports Arena	<p>Capacity ~100,000: https://en.wikipedia.org/wiki/List_of_stadiums_by_capacity Party of 4 goes to 3 hour event, 2 times a year (average of a very wide range), gives 1440 exposed people-minutes/yr Multiply by 100000 to get 144000000 exposure-minutes/yr</p>
Universities - US Students	<p>1 student goes to 300 minutes of classes per day, 160 days a year for 48000 exposed-people-minutes. Multiply by 150 students per class to bet 7200000 exposure-minutes/yr.</p>
Vacation Drives	<p>Party of 3 spends 10 hours in a car, 2 times a year going on vacation. 3600 exposed-person-minutes/yr Probably encounter 100 people at restaurants, gas stations, lodging. Total 360000 exposures-minutes/yr</p>
Universities - non-US Students	<p>5% students foreign: https://www.migrationpolicy.org/article/international-students-united-states So exposure to foreign students is 5% of 7200000, or 360000 exposure-minutes/yr</p>
Air Travel	<p>2 times a year: https://www.quora.com/How-many-times-does-the-average-American-fly-in-a-year 100 passengers: https://www.quora.com/What-is-the-average-amount-of-passengers-on-a-plane cruise speed 575 mph: https://en.wikipedia.org/wiki/Cruise_(aeronautics) Average flight duration 2 hrs: https://www.researchgate.net/figure/The-average-flight-length-hours-The-graph-above-illustrates-that-the-average-flight_fig3_2178852 Party of 2 flies 2 times a year for 2 hours. That's 480 exposed-people-minutes/yr. Times 100 in plane - 48000 exposure-minutes/yr Airport waiting area at gate is the same except only 1 hour, but still 100 people, so 24000 exposure-minutes/yr. Airport security line, party of 2, twice a year, 30 minutes in line gives 120 exposed-person-minutes/yr. Proximity to 40 people, gives 4800 exposure-minutes/yr Total of these is 76800 exposure-minutes/yr.</p>