Mask Observation in 20 Retail Sites Pre and Post Policy Implementation 3 Time Points

Findings Compiled by University of Memphis School of Public Health

Dr. Marian Levy, Associate Dean mlevy@memphis.edu
Dr. Vikki Nolan, Assistant Dean and MPH Coordinator vgnolan@memphis.edu
MPH Students: Jerelyn Carmichael; Gabby Dowdy; Erick Kalobwe; Rebecca Kronenberg

Four MPH students from the University of Memphis School of Public Health observed mask usage among approximately 4,000 individuals in a total of 20 retail sites across Shelby County during each of three time points: June 15-21, 2020 (pre-policies); July 9-15, 2020 (post policies) and August 10-16, 2020 (one-month post-policy implementation).

Site locations were identified by the Shelby County Health Department, with 10 sites categorized as being in High COVID-19 Transmission zip codes and 10 in Low COVID-19 Transmission zip codes.

Overall mask use: (all locations combined) increased dramatically after policy implementation and increased further one-month post-policy implementation:

Pre policies: June 15-21: **51%**Post 1: July 9-15: **92%**Post 2: Aug. 10-16: **96%**

Increased mask use with age; highest use among older adults. The age gradient increased over time, with at least 90% compliance for all age groups one-month post-policy implementation:

Pre-policies: Post 1 Post 2 2-18: 35% 85% 90% 19-24: 39% 91% 95% 25-40: 46% 92% 96% 41-55: 58% 94% 96% 94% 55+: 64% 97%

Rate of compliance for each race/ethnicity increased over time to over 90% compliance for each group that mostly remained or increased one-month post policies. The Hispanic/Latinx group showed the most dramatic increase, from 34% to 93%. White and Black groups had similar rates of compliance at all time points, increasing from ~50% pre policies to ~92% post policies and further increasing to 96% at one-month post policy implementation. Asians had the highest initial rate of compliance (91%) that increased to 96% post policies and returned to pre-policy rate one-month post-policy:

Pre-policies: Post 1 Post 2 Latinx: 34% 93% 93% White: 51% 93% 96% Black: 53% 92% 96% Asians: 91% 96% 91%

Greater mask usage in LOW transmission zip codes vs HIGH transmission zip codes for all time points, with dramatic increases in both groups:

Pre-policies Post 1 Post 2 High transmission: 43% 91% 94% Low transmission: 60% 94% 97%

Summary: mask usage increased dramatically for all age, race, and ethnic groups after implementation of the mask policies. The increases were not only sustained but, in most cases, surpassed one-month post implementation.

The School of Public Health gratefully acknowledges the collaboration and support of the following individuals: Dr. Alisa Haushalter (Shelby County Health Department Director); Dr. Manoj Jain (Consultant to the Mayor's COVID-19 Joint Task Force); Dr. Jeff Warren (Memphis City Councilman); and Don Crowe (Deputy Chief of the Memphis Police Department).