Do masks help prevent the spread of COVID-19?

Brown County Public Health recognizes that universal masking is an effective tool in reducing the spread of COVID-19. Experts in a variety of fields are finding that when masks widely used, in addition to implementing social distancing and good hand hygiene measures, rates of infection are significantly reduced.

According to recent studies:

Face masks reduce the likelihood that the wearer will contract COVID-19. Cloth masks, whether homemade or commercial, can reduce respiratory virus infections by 33% and slow community spread.
http://www.healthdata.org/covid/updates

Universal masking at 80% adoption flattens the curve significantly, as well as less deaths, compared to masking at only 50% adoption. Masking at 80%-90% eventually eliminates COVID-19.
https://arxiv.org/pdf/2004.13553.pdf

Without a mask, social distancing or any other preventive measures, the risk of transmitting COVID-19 is 17.4%. Add a mask or respirator, and that number drops to 3.1%.
https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31142-9/fulltext

When a mask was not worn, COVID-19 was detected in 30%-40% of samples, but when a mask was worn, COVID-19 was not detected in the samples.
https://www.nature.com/articles/s41591-020-0843-2

A healthcare system in Massachusetts with more than 75,000 employees mandated masking. After the mask mandate was in place, they saw over a 50% reduction in COVID-19 positive cases per day.
https://jamanetwork.com/journals/jama/fullarticle/2768532

A Case Study

Two stylists at a Missouri hair salon tested positive for COVID-19. Both stylists had symptoms and continued to work for 4 and 8 days, respectively. The salon had a policy requiring both stylists and clients to wear masks. More than 98% of clients wore masks. None of the interviewed customers developed symptoms of illness and all customers who volunteered to be tested, tested negative for COVID-19.

*Please see bottom of page for source.

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When family contacts wore a mask around the COVID-19 positive family member, transmission was reduced by 79%.
https://gh.bmj.com/content/bmjgh/5/5/e002794.full.pdf

In New York State, if 80% of folks wore a mask, the cumulative mortality for COVID-19 could have been reduced by 55%-74%, depending on the rate of how effectively the mask was worn.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7186508/

N95 masks, medical masks, and homemade masks made of four-layer kitchen paper and one-layer cloth could block 99.98%, 97.14%, and 95.15% of COVID-19, respectively.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7228401/

If masking increased by 15%, it could prevent the need to bring back stay-at-home orders that would otherwise cost an estimated 5% of gross domestic product, or a projected cost of $1 trillion.
https://www.goldmansachs.com/insights/pages/face-masks-and-gdp.html

In states that have mask mandates, the average daily growth rate decreased by 2% three weeks after signing and implementing the mandate. As many as 230,000-450,000 COVID-19 cases may have been prevented based on when states passed these mandates.
https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2020.00818

Even at lower levels of mask adoption, wearing a mask benefits the mask wearers. Face mask use by the public, when used in combination with physical distancing or periods of lock-down, provides an effective way of managing COVID-19 and re-opening economic activity.
https://royalsocietypublishing.org/doi/10.1098/rspa.2020.0376

A Case Study

A church choir in Washington State reported 87% of their members tested positive for COVID-19 after two in person rehearsals. The county health department found that this outbreak underscores the importance of physical distancing, avoiding group gatherings, and wearing a cloth face covering, where social distancing measures are difficult to maintain.

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*https://www.cdc.gov/mmwr/volumes/69/wr/mm6919e6.htm