

Latinx Mask User Experience Report

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Abstract

Face coverings are an essential tool for limiting the spread of the coronavirus. Cover Durham is distributing high quality cloth masks for free to people in high-risk, low-resource groups. Since May 2020, working-class Latinx people have borne the brunt of the COVID-19 pandemic in Durham. We recruited a diverse sample of 22 people from this community to test out different types of masks, in order to identify the characteristics of a mask that is good for people doing difficult jobs like landscaping, cleaning, and cooking.

Participants tested out a different mask each day for four days, and gave feedback via daily interviews. They wore the masks during their normal work activities. Over 20 different models were tested, reflecting a range of construction styles, fabrics, colors, tie styles, and extra features. At the end of the week, participants did a longer interview on their attitudes to masks more generally. Participants were compensated for their time.

We found that people preferred masks with the following characteristics: breathable cotton; adjustable ear loops; full coverage; dark colors or patterns; and nose pieces. We also found that participants generally approved of workplace rules about mask use, though some wished for enforcement of those rules. They cited lack of information, lack of responsibility, physical discomfort, feelings of fatalism, embarrassment, and conspiracy theories as factors that lead others not to wear masks, and emphasized the importance of community- and family-based education.

Background and Purpose

In recent weeks, COVID-19 has taken an alarming and disproportionate toll on the Hispanic/Latino/a/x community in Durham (as well as elsewhere in North Carolina and nationally). This is due to a variety of causes, including both preexisting factors (health injustices, socioeconomic inequality, high-risk exploitative jobs), as well as recent COVID-specific trends (hospitals [turning away Spanish-speaking patients](#) with COVID symptoms, jobs where social distancing is impossible, [employers requiring workers to report to work even if they have been exposed](#)). In other words, Latinos in Durham are getting sick, and sometimes dying, simply from going to work.

Consistently wearing face coverings is one of the best ways to limit the spread of COVID-19, especially in settings where social distancing is impossible. The purpose of this user experience study is to determine which types of masks are best suited to the kinds of high-risk, difficult, labor-intensive jobs that many Latinos work: construction, landscaping, restaurants, and cleaning. With detailed input from the affected communities, Cover Durham, as well as other organizations and agencies, will be able to procure and distribute masks that are usable, comfortable, and practical for people working these jobs, which will hopefully make it easier for them to wear masks, especially during the hot summer months.

Methodology and Study Design

Recruitment

Cover Durham, in collaboration with El Centro Hispano and its community health workers, conducted a free mask distribution on Saturday, July 11, at La Superior supermarket in Durham. During the distribution, we recruited more than 100 possible participants for the user experience study. Of those, we selected 25 individuals to participate, all of whom live in Durham County. Our goal was to have a representative range in terms of profession, age, gender, location, and national origin. 22 participants finished the study.

Gender		Occupation		Zip code		Country of origin	
Men	13	Construction	2	27701	2	Guatemala	5
Women	9	Landscaping	2	27703	3	México	12
		Cleaning	5	27704	4	Honduras	2
		Restaurant	2	27705	4	El Salvador	2
		Retail	2	27707	7	Unknown	1
		Painting and decorating	2	27709	0		
		Warehouse/factory	4	27712	1		
		Plumber	1	27713	1		
		Barber	1				
		Butcher	1				
Age							
18-30	3						
31-40	9						
41-50	6						
51-60	2						
60+	1						

Masks

Each participant received four different types of face covering. As a control, every participant received a 3-ply surgical mask as one of their allocation. The other face coverings varied in material, layers, construction, tie style, color, and other features such as removable filters or nosepieces. Due to a limited number of samples for each mask type, some masks were tested more than others; some models only had one user test, while others had up to ten. In addition, each participant also received a pack of plain white face coverings for their families and bottles

of hand sanitizer. Each participant was instructed to wear mask A on Wednesday, July 15, mask B on Thursday, mask C on Friday, and mask D on Saturday.

Interviews

In the evening on each day, a team of Spanish-speaking volunteers called each participant and conducted a five-minute phone survey. (Each volunteer contacted the same individuals throughout the week, in order to develop a sense of rapport.) Each participant was asked when and where they wore the mask that day, and what kinds of activities they did. They were then asked to rate different qualities of the mask, on a scale of 1 to 5.

Finally, they were asked if they had anything else they wished to add. The volunteers then submitted the results of the daily survey. On Sunday, after the study participants had worn the masks for four days, the same volunteers conducted a longer interview about each participant's overall experiences with the masks as well as broader questions of COVID prevention. Each participant that completed the entire study received a Visa gift card worth \$100.

Results

1. Most masks were highly rated by most participants. This suggests that many of the options are feasible from a user experience perspective.
2. Most participants liked surgical masks, but a sizable minority strongly disliked them, citing breakage and sweating.
3. Participants found it hot, tiring, and difficult to wear a mask all day at work, regardless of which mask they were wearing. They expressed the necessity of masks that stay cool, dry, well-secured, and breathable under their work conditions.
4. Participants broadly agreed with one another about good and bad features of masks.
 - Material:** cotton or cotton blend
 - Cut:** fitted, covering the chin so it doesn't ride up, big enough to cover a range of faces.
 - Tie style:** adjustable earloops or ties
 - Color:** dark or with patterns
 - Nosepiece**
 - Removable filter** (although most did not actually like the filter)
5. Masks are mandatory in most workplaces, however many participants would like employers to provide masks, be stricter about communicating and requiring mask use, and encourage social distancing in the workplace.
6. Participants offered six reasons that others in their community do not wear masks:
 - a. Lack of responsibility/moral failure/selfishness
 - b. Lack of education and information

- c. Physical discomfort
 - d. Fatalism/resignation to getting COVID-19
 - e. Feeling embarrassed by how it looks to others
 - f. Conspiracy theories/disbelief in COVID-19
7. Masks are more widely available than they were at the beginning of the pandemic. Masks are available in many stores, though they can be very expensive. It remains difficult to find masks for children.
 8. Participants suggested supermarkets, work sites, apartment complexes and trailer parks, churches, restaurants, El Centro Hispano for mask distribution.
 9. Participants recommend education between family members, education at worksites, and community-based information sessions by Spanish-speaking nurses or health workers. It is important to emphasize that COVID prevention is about protecting one's family and community.

Limitations of the study

Our participants were Latino/a/x people in demanding working-class jobs. We did not attempt to understand the user experience of any other group. The results should be interpreted in this light. In particular, we did not consider questions of accessibility that may be important for other groups, such as older people and people with physical disabilities. We did not consider which masks would be easiest for children to put on and keep on. We did not consider which masks are less likely to put Black people at risk for unjust suspicion. We did not consider which masks are appropriate for people with breathing difficulties. All of these questions are important, however, and merit further thought and consultation.

Conclusion

In light of these findings, we recommend:

1. Using the above criteria for procurement of face coverings for workers.
2. Communication campaigns that emphasize family/community protection, responsibility, and solidarity, as well as peer-to-peer education.
3. Workplaces with safety rules, such as construction sites, should make COVID rules part of general workplace rules.
4. For **outdoor** workers, limiting mask requirements as much as possible by focusing on the high-risk parts of the job (being in a truck with others, lifting things together, lunchtime)
5. Requiring employers to provide masks to workers.
6. Encouraging employers to apply mandatory mask requirements and require social distancing whenever possible.