Who is Wearing a Mask to Curb the Spread of COVID-19?

Part I: Age and Gender Differences in Mask Wearing

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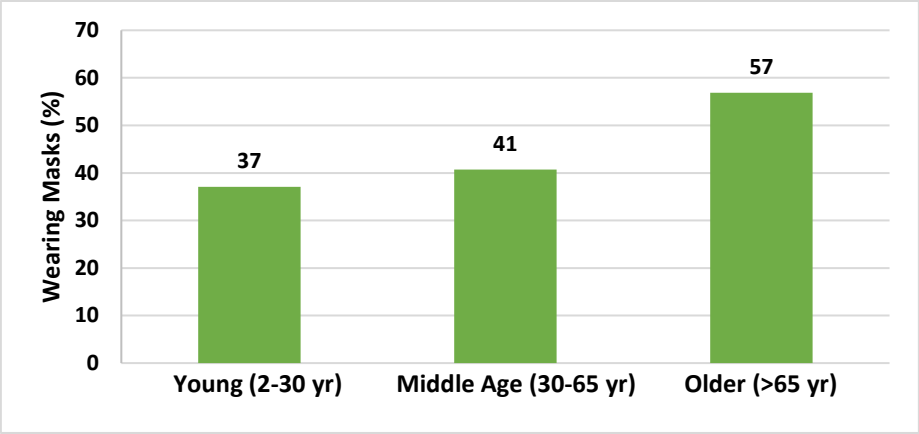
Key Points

- **In Milwaukee and surrounding areas, 58% of people do not wear masks compared to 42% who do (June 3 to 9, 2020)**
- **Young individuals (<30 years) wear masks less than their middle age and older counterparts (>65 years)**
- **Males wear masks less at 38% compared to females at 45%, with young males wearing masks the least of all groups studied**

Wearing masks significantly decreases the infection risk and transmission of COVID-19 between people[3,5]. The question of how many people are actually wearing masks in the Milwaukee area was first brought up in a previous student commentary[3]. To understand the demographics of who was wearing a mask within the community, Marquette faculty and students conducted an observational study[4]. A total of 5,517 observations were collected from June 3 to 9, 2020 at various stores in Milwaukee and surrounding areas within a 60-mile radius. At that time, the Moving MKE Forward Plan was transitioning to Phase 3, allowing for 25% of total occupancy of the location, one person for every 30 square feet, or less than 250 total people at a location[1]. According to these orders, it is strongly recommended to wear a mask, however it is not required.

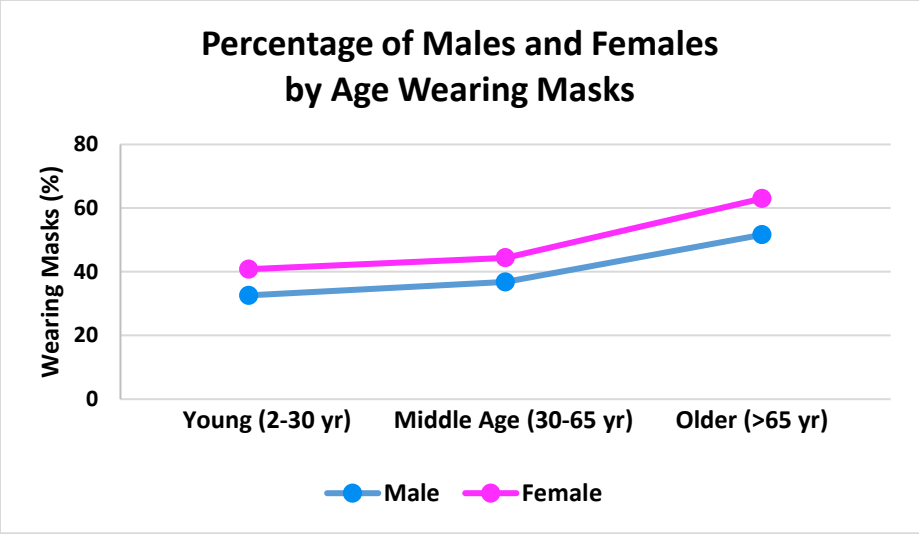
Our observational study found that 58% of people entering stores were not wearing masks. Differences in mask wearing behavior were seen among different age groups, with mask wearing behavior increasing with age. Younger individuals (2-30 years) wore masks the least at 37%, followed by middle age (30-65 years) at 41%, and older individuals (>65 years) wore masks the most at 57%. The statistical analysis showed that middle age individuals were 1.6 times more likely and older individuals were 3.4 times more likely to be observed wearing masks than their younger counterparts.

Figure 1. Percentage of young (2-30 yr), middle age (30-65 yr), and older (> 65 yr) individuals observed throughout Milwaukee and surrounding areas wearing masks.



Differences in mask wearing behavior were also seen between females and males. More females, (45%), compared to males (38%), wore masks. Females were 1.5 times more likely than males to be observed wearing a mask. This difference in mask wearing behavior was consistent across all age groups, with females consistently wearing masks more than males.

Figure 2. Comparison of males and females by age groupings; young (2-30 yr), middle age (30-65 yr), and older (> 65 yr) individuals observed throughout Milwaukee and surrounding areas wearing masks.



In conclusion, younger individuals and males were less likely to be observed wearing masks. Overall, it was found that young males wore masks the least. Other studies have found similar results[4,6]. These differences in mask wearing behavior are important as it has

been shown that wearing masks helps slow the spread of COVID-19[3,5]. Models show that if 80% of people wear masks that are at least 60% effective, that could curb the transmission of the virus[2,7]. As illustrated in this study, if the number of people wearing masks is doubled from 42%, this could effectively diminish the spread of COVID-19.

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