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Mask Utilization Between Boise and Nampa, ID: Comparison Mask Mandate vs No Mandate

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Abstract

Masks, 6' distance and handwashing are the primary methods to prevent spread of COVID-19. Idaho had a rising number of COVID-19 cases and no statewide mask mandate to prevent transmission. Boise City Public Health Emergency Order No. 20-13 mask mandate started on 11/23/20 and Nampa had no mandate. Our research question focused on: How does a city mask mandate impact usage?

Observation locations were Boise, ID and Nampa, ID. Locations included 2 similar grocery stores, 2 similar general stores, and one gas station. Every 3rd person exiting the store was counted. Mask use criteria include whether the subject wore a mask, type of mask worn, and if mask was worn correctly. Observation sessions were either 41 persons or 30 minutes long.

Based on 1,975 observations there was a difference between mask use in Boise and Nampa.

Boise City, mask mandate, had a higher percentage (95.67%) of people using masks and (94.23%) used them correctly. And Nampa, with no mask mandate, had lower mask usage (68.44%) and higher incorrect usage (9.09%). Overall, the mask mandate is an effective means of increasing the use of masks and reducing COVID-19 transmission.

Authors

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Mask Utilization Between Boise and Nampa ID

Comparison Mask Mandate vs No Mandate

PRESENTERS: **Maria Nieto Ordosgoitia and Jennifer Nguyen**

BACKGROUND Masks, 6' distance and handwashing are the primary methods to prevent spread of COVID-19. Idaho had a rising number of COVID-19 cases and no statewide mask mandate to prevent transmission.

Boise City Public Health Emergency Order No. 20-13 was effective on 11/23/20 and Nampa had no mandate.

Research question: How does a city mask mandate impact usage?



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| <ul style="list-style-type: none"> • Approved by Boise State IRB and Idaho Health and Welfare • Tally instrument based on CDC.gov • Every 3rd person observed and their mask use tallied • Goal: Observe 41 persons exiting store during each observation or observe for 30 minutes • Shoppers unaware of observations | <ul style="list-style-type: none"> • Recruited 11 observers <ul style="list-style-type: none"> ○ 9 student observers ○ Trained and CITI certified • Defined mask use criteria <ul style="list-style-type: none"> ○ Did subject wear a mask? ○ Worn properly? ○ Type of mask worn | <ul style="list-style-type: none"> • Observations conducted 12/16/20 - 2/6/21. • Observation locations: Boise, ID and Nampa, ID • 2 similar grocery stores, 2 similar general stores, one gas station • One observer present for each observation • No private information on shoppers was gathered |
|---|---|--|

LIMITATIONS

- Received IRB approval on 12/16/20, right before university winter break: interruption of consistent observations.
- Some people exiting the stores could not be clearly seen, coded as "Unknown"
- Observations conducted on shoppers as they exited stores.

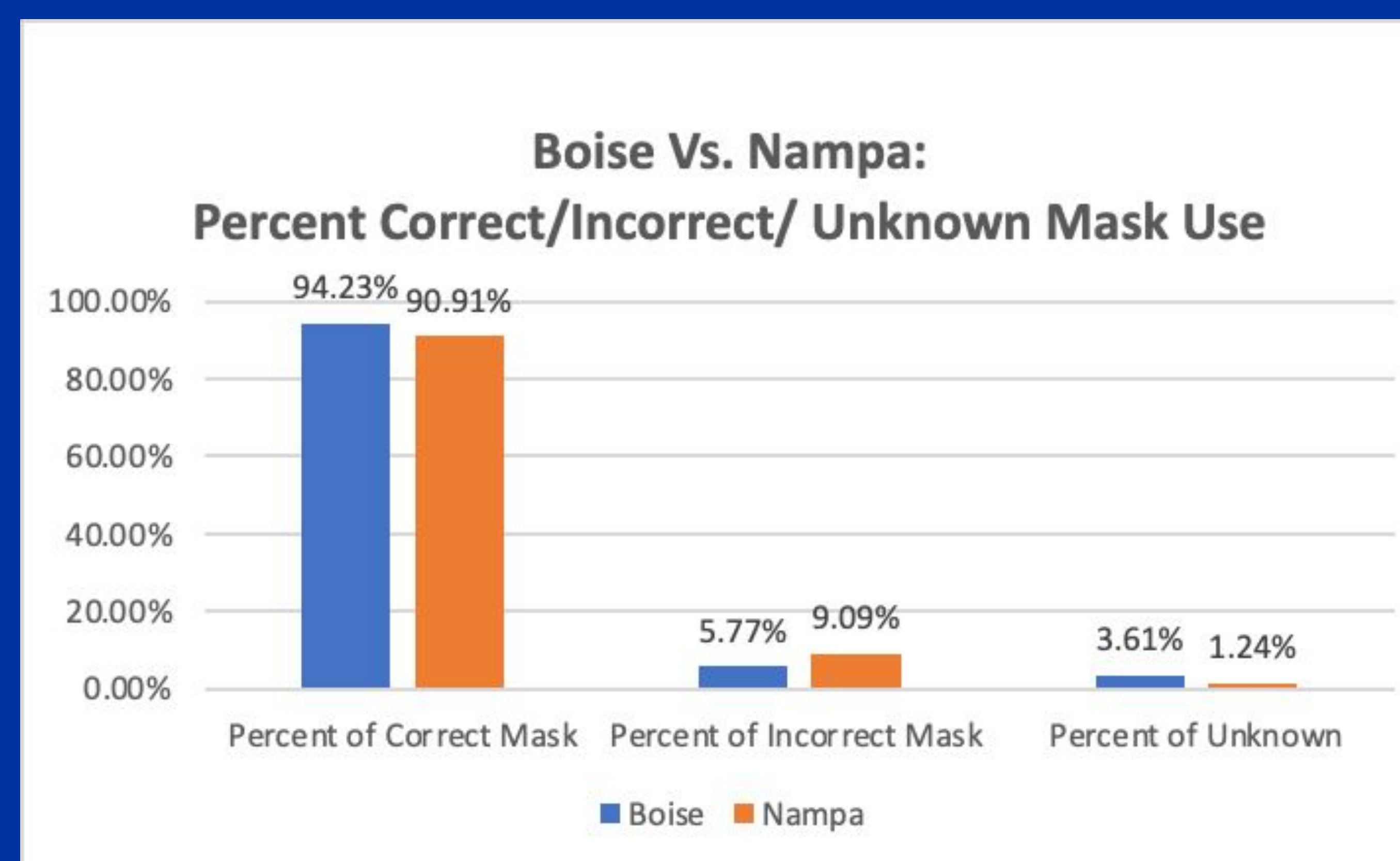
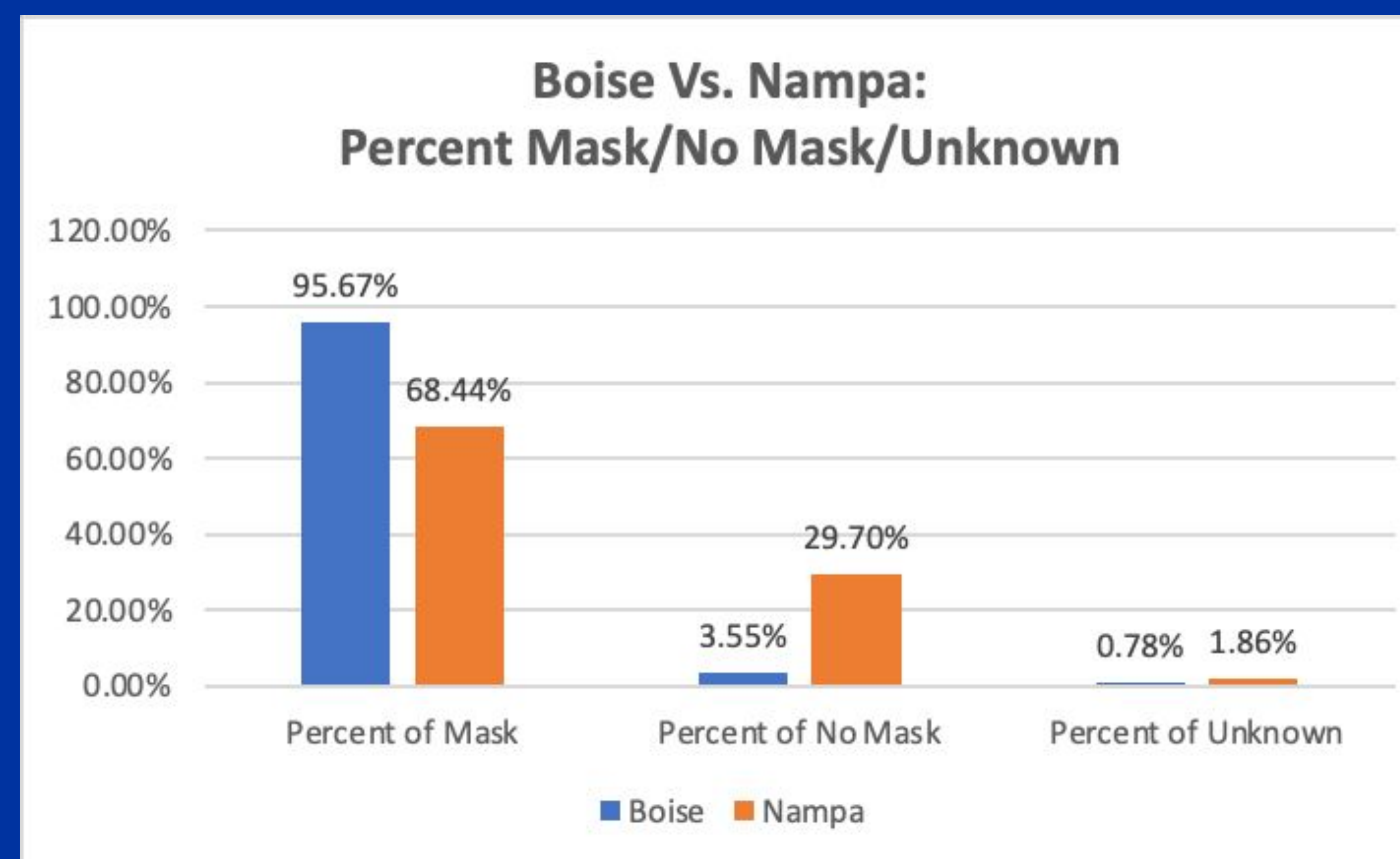
RESULTS

- Observations completed 1,975
- Boise comprised 45.6% of completed observations and Nampa 54.3%

- Boise**
- 95.67% wore masks
 - 94.23% masks worn *correctly*

- Nampa**
- 68.44% wore masks
 - 90.91% masks worn *correctly*

Higher mask use observed in city with mask ordinance. In both cities, most individuals wore their masks correctly.



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CONCLUSIONS

Based on 1,975 observations there was a difference between mask use in Boise and Nampa.

Boise City, mask mandate, had a higher percentage (95.67%) of people using masks and (94.23%) used them correctly.

Nampa, no mask mandate, had lower mask usage (68.44%) and higher incorrect usage (9.09%).

Idaho Cumulative COVID-19 Incidence Rate by county as of 4/5/21:

Boise in Ada County incidence rate is 10,253.6 per 100,000 is lower than Nampa, in Canyon County, incidence rate is 11,64.3 per 100,000.

Overall, the mask mandate is an effective means of increasing the use of masks and reducing COVID-19 transmission.

TAKEAWAYS

Most commonly used mask by type:
#1. Surgical #2. Cloth

The number of people exiting stores varied by day of the week and time of the day.

Some observers were surprised by the outcome. Good reminder to always stay curious and check your assumptions with facts.

Similar stores displayed varying mask signage and safety procedure independent of mandate.

AUTHORS

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Arp, N., Nguyen, T., Linck, E., Feeney, J. et al (2020). Use of face coverings in public during the COVID-19 pandemic: an observational study. medRxiv. <https://doi.org/10.1101/2020.06.09.20126946>.

Barrios, L., Green, R. (2020) Observing mask use at institutes of higher education: COVID-19 response mitigation assessment protocol. CDC COVID-19 Response Team

Incidence Rates -ID COVID-19 Dashboard at <https://public.tableau.com/profile/idaho.division.of.public.health#1/vizhome/DPHIdahoCOVID-19Dashboard/Home>



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