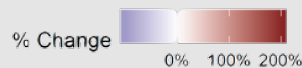
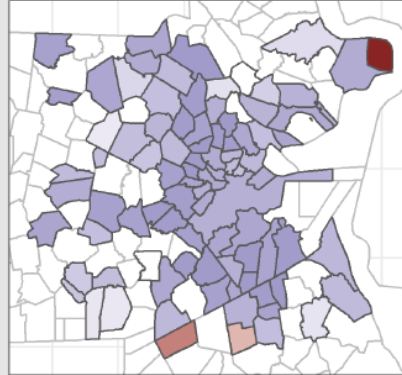
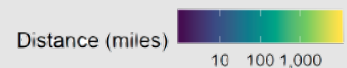
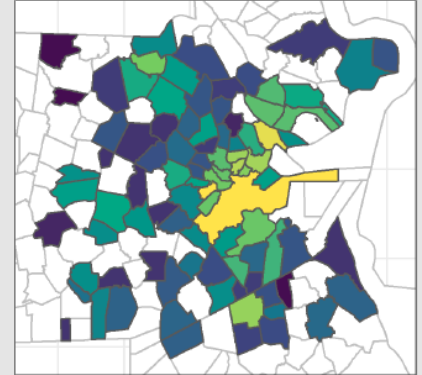


THE CMDN TEMPLATE SITUATION REPORT

% Change in Total Distance Traveled -
Comparing Thu, Mar 26 to Wed, Feb 26



Total Distance Traveled -
on Thu, Mar 26



"When looking at the travel network remember that people will live at boundaries of the area of interest, therefore, it may just be short distance movements that are resulting in people traveling from one location to another. Long distance travel connections are more difficult to rationalize and warrant further investigation"

- CMDN Template

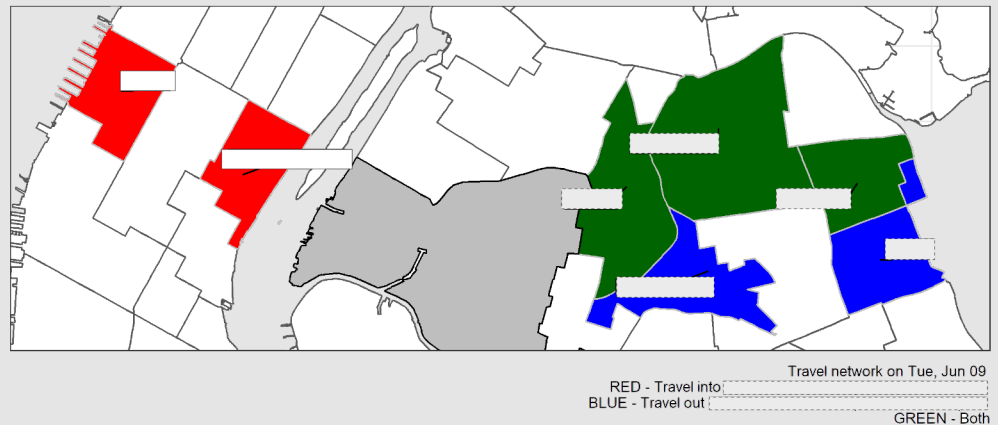
Speeding Up the Process, Providing a Launching Pad

The COVID-19 Mobility Data Network (CMDN) provided an [automated situation report template](#), created by Nishant Kishore, Ph.D. Candidate in Population Health Sciences | Epidemiology at Harvard University, with the aim to provide easy and automated access to Facebook mobility data in response to COVID-19. This provided an entrypoint for researchers to quickly generate reports and a way for practitioners to learn more about mobility data in action by further understanding its meaning for COVID-19 response activities.

State Level	Sub-State Level
Map of percent Change in Total Distance Traveled	Travel Network - Top 5 trip origins and Top 5 destinations
Map of Total Distance Traveled	Total distance traveled
Total Distance Traveled	

Figure Descriptions

The templates included a narrative reading guide which explained the source data, which came from Facebook movement data. In addition, it described the level of geographic data aggregation (e.g., sub-county, census tract) and metrics. The situation reports also included “pointers on evaluating the data” which recommended how to interpret the metrics, along with examples.



Locations IN	Travel Today	Travel Baseline
NA	253	1022.6
NA	250	1520.0
NA	78	214.6
NA	46	183.2
NA	41	88.6

Locations OUT	Travel Today	Travel Baseline
NA	187	607.0
NA	173	1519.4
NA	44	122.6
NA	24	41.8
NA	19	35.6

It also described in lay terms limitations of analysis, such as how to interpret short and long distance travel across boundaries of analysis. The report template also included state level and sub-state visualizations in map, graph, and chart formats with brief explanations.

MOVING QUICKLY TO VISUALIZE DATA & STARTING A CONVERSATION

The template acted as a catalyst for many groups, providing a way for researchers to quickly become familiar with Facebook mobility data. This enabled them to show practitioners what the data looked like in a visual format for their specific state, county, or city. Having visualizations of mobility data that was this specific enabled groups to examine the meaning of the data and explore further questions about it. These templates were a tool to help start conversations between researchers and practitioners, moving from the abstract view of mobility data to something tangible. This helped further build their working relationships and a level of trust around the potential value of the data.

ADAPT AND INTEGRATE

While many groups in the end did not use the template in its entirety, they adapted around the template. Groups adjusted visualizations, added summary text, and redacted content that they felt was too detailed for the practitioners that they were engaging with.

Ranking results

For example, Rebecca Kahn, a Postdoctoral Research Fellow at Harvard University, felt that the template was helpful for quickly sharing situation reports. This helped her colleagues in Kansas further specify changes in the visualization that would better fit their needs. She also created additional tables so they could see top summary metrics, as her government collaborators found scrolling through pages of maps cumbersome.

"[The template] report was pretty detailed, and some may be intimidated by it, or not able to dig in deeper... we worked on providing high level updates, often including different data sources."

- Integrated Data Team, NYC Department of Health and Mental Hygiene

"In the beginning, the feedback from the Minister of Science was that the report didn't need to be so long."

- Pablo Marquet, Associate Professor, Ecology, Pontificia Universidad Católica de Chile

"The original HTML reports were a little difficult to read through."

- Data specialist, Florida

"Part of Nishant's template was very useful in navigating the tile data and geo units in the beginning."

- Ayesha Mahmud, Assistant Professor, Department of Demography, University of California Berkeley

Percent change in trips within neighborhoods on 2020-04-06 compared to baseline and change since 2020-04-05

Neighborhood	% change from baseline	1 day change
Shoal Creek	42	Increase
Breen Hills	41	Increase
Parkdale And Walden	34	NA
Hickman Mills	23	Increase
East Swope Highlands	21	Increase
Davidson	20	Increase
KCI & 2nd Creek	19	Increase
Coves North	17	Increase
Rockhill	3	Decrease

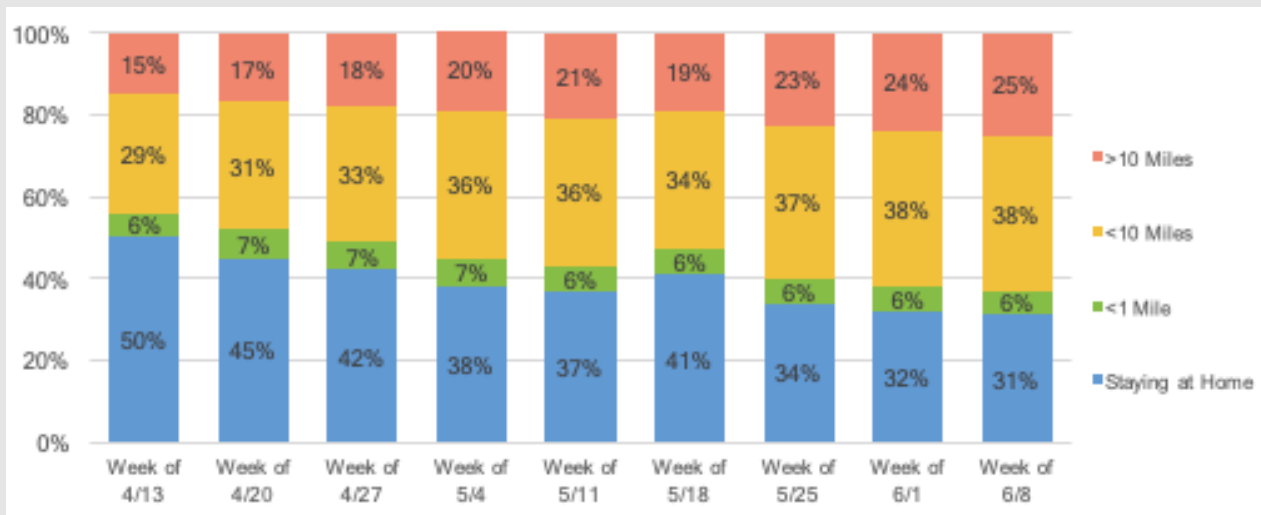
Copying results and sharing

A few groups were able to directly use figures from the situation reports. They cut and pasted the graphs and took them directly to daily coordination meetings in Massachusetts to brief the governor on mobility changes and then shared them in powerpoint presentations during weekly meetings.

Integrating into larger situational awareness reports and dashboards

Many groups integrated the original graphs into other situation reports, while others were able to obtain the anonymized data and reformat the graphs to meet their design and formatting standards. The emergency manager for Arapahoe County, Colorado, integrated Facebook mobility data alongside other mobility data sources (BlueDot/Cuebiq) in weekly situation reports shared with government officials. (Figure 1, 2) He described the Facebook mobility data as *“part of our early warning and COVID detection system that hopefully gives us a notification when a “second wave” is coming so we can respond accordingly”*. The Syracuse data team integrated mobility data into an online interactive dashboard with case data, temperature data, and citation data. (Figure 3) A few groups, despite using the template and working together to align the data with their evolving needs ultimately did not end up using the data. Factors for non-use are described in other briefs ([The Networks use of Mobility data Beyond Facebook](#)).

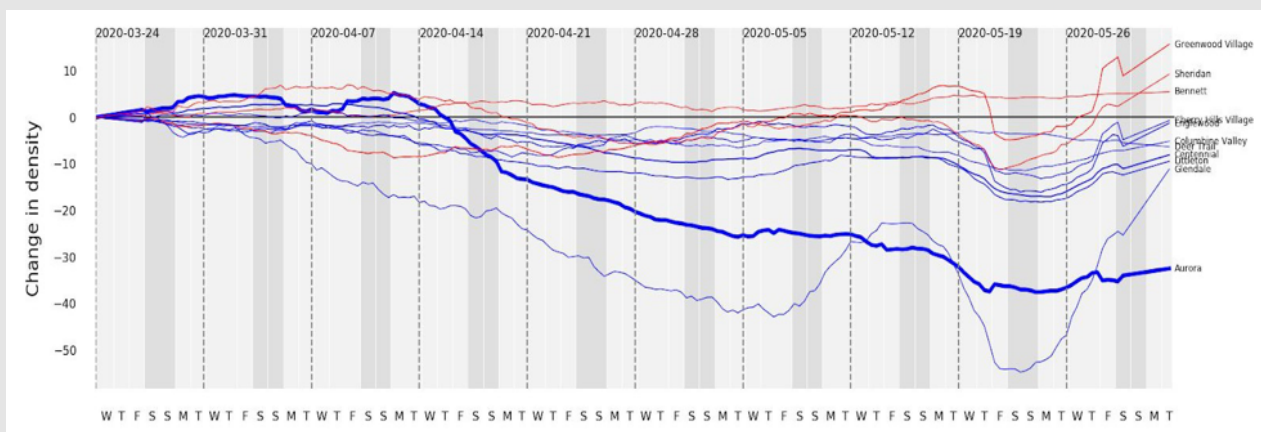
Arapahoe County Cuebiq Stay-at-Home Analysis



The stay-at-home analysis represents the percentage of users staying at home in Arapahoe County; it is calculated by measuring how many users moved less than 330 feet from home.

Source: https://www.cuebiq.com/visitation-insights-covid19/?utm_source=covid-outreach&utm_medium=homepage-banner&utm_campaign=covid-19-insights-outreach-2020

Facebook Mobility Analysis for Arapahoe County

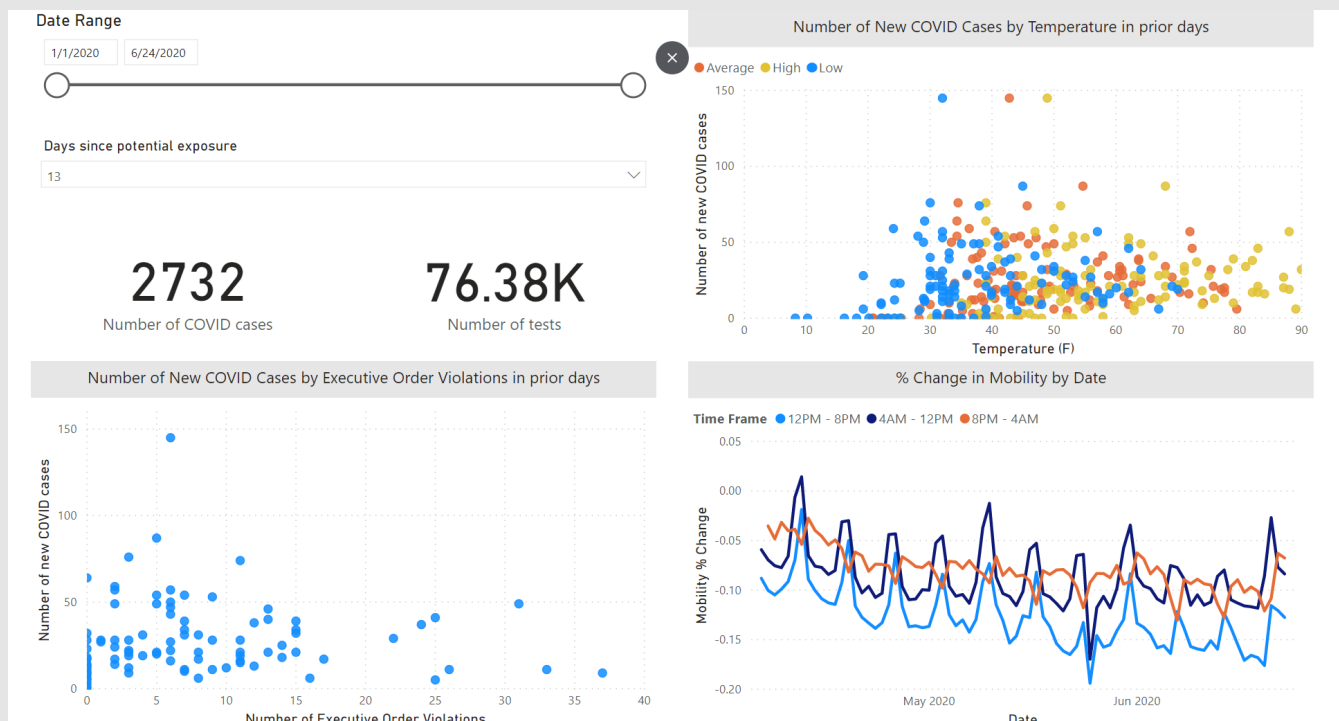


Note: No changes have been made to this section since the last weekly report.

The Facebook population density analysis this week shows an increase in density and therefore a decrease in residents staying at home. Please note: An error in the data was unable to be resolved by the research team that provides the data; that error is the dramatic reduction of density observed on 4/23. Ignoring that error shows that density is increasing.

Source: University of Colorado, Boulder; Colorado State University, Fort Collins; and National Alliance for Public Safety GIS, Washington, DC

Syracuse County Interactive Dashboard



TRENDS BETWEEN GLOBAL AND US GROUPS

US based groups tended to use the templates as a starting point more regularly than the global groups did. This may be due to the social connectedness of Harvard based or Harvard affiliated graduate student researchers in the Network, and the predominance of graduate students who were primary research collaborators with many US counties and cities in the Network. Groups in Colombia, British Columbia, Canada, Thailand, and Spain, did not use the templates, but many expressed interest in them.

Acknowledgements: We are grateful to every individual who shared their time amidst the COVID-19 pandemic to provide honest and insightful perspectives. Their voices, enact the change we need to advance translational readiness in future disasters. This project could not have achieved its goals without the support and guidance from Kate Bruni, Lauren Bateman, Abhi Bhatia, Andrew Shroeder, Nishant Kishore, Caroline Buckee, Satchit Balsari, and Alissa Scharf.