Using Big Data, Social Media, and Maps to Monitor COVID-19 Outbreaks in San Diego

4/27/2020, Written by: Dr. Ming-Hsiang Tsou, Director of the Center for Human Dynamics and Professor of Geography, San Diego State University.   mtsou@sdsu.edu

With the collaborations from the faculty, staff, and students at San Diego State University and our partners in San Diego, we are glad to announce the establishment of this Research HUB for COVID-19. The purpose of the COVID-19 Research Hub is to provide Analytics Dashboard and Maps to help both decision makers and the public to monitor the COVID-190 disease outbreaks in San Diego and to get a better understanding about the different aspects of COVID-19 disease spread patterns related to vulnerable population, population profiles, and health services in San Diego. So that the decision makers can identify potential problems in specific regions and re-arrange health service resources as early as possible. Our group applied both data science tools (visual analytics) and data visualization methods (maps) to enable this dashboard and maps to accomplish these functions and visualization.

As a cartographer and a data scientists, I want to emphasize that data visualization is a very powerful tool to help us make right decision at the right time. These web apps can help San Diegans to get a clear picture about the challenges and problems we are facing now in our local communities. It will also reduce the spread of wrong information and fake news in San Diego regions.

If you are interested in join this volunteered groups, please contact me at mtsou@sdsu.edu.

Sincerely,

Ming-Hsiang (Ming) Tsou.

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Director of the Center for Human Dynamics in the Mobile Age.
Director of the Big Data Analytics Program https://big.sdsu.edu/
San Diego State University

Apps   GitHub - HDMA-SD...   Account Login - Arc...   SD-COVID19-Dash...   SD-COVID19 Maps   SMART2 (Social Me...   GEO 583: Internet...   SDSU WebPortal   Blackboard Learn   Facebook ming   Other bookmarks

San Diego County COVID-19 Dashboard created by the HDMA Center at SDSU and County of San Diego HHSA

Total Confirmed Cases
1,404
Data through 4/5/2020

New Cases (Daily Increase)
↑78

Total Hospitalizations
269

Total ICU Cases
102
Intensive Care Unit

Total Deaths
19

Total Number of Reported Tests
18,490

This dashboard is created by the Center for Human Dynamics at the Mobile Age at San Diego State University.
Last Updated at 4/06/2020, 9:25 PM

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Total Confirmed Cases and Daily New Cases

1,404
1,326
1,209
1,112
966
849
734
603
519
488
417
341
283
232
197
143
118
100
70
59
58
41
39
26
19
10
5
3
2
2
0
0

Mar 7   Mar 11   Mar 15   Mar 19   Mar 23   Mar 27   Mar 31   Apr

● Total Confirmed   ● New Cases

Confirmed Cases and New Cases | Total Deaths | COVID-19 Tests by Date Reported

Confirmed Cases and Hospitalizations by Age Groups

10 — 0-9 years
15 — 10-19 years (13)
235, 31 — 20-29 years
300, 31 — 30-39 years
254, 36 — 40-49 years
235, 46 — 50-59 years
172, 54 — 60-69 years
109, 46 — 70-79 years
71, 40 — 80+ years
3, 1 — Age Unknown

■ Confirmed_Cases   ■ Hospitalization

4/05/2020 | 4/04/2020 | 4/032020 | 4/02/2020 | 4/01/2020 | 3/31/2020 | 3/30/2020 | Cases by Gender

Confirmed Cases by Zip Code of Residence. See historical maps HERE.

Zip code is zip code of residence, which may not be location of exposure. Data are preliminary and subject to change.

Cases by Zip Code of Residence | Cases by City of Residence

Data Source: County of San Diego, Health and Human Services Agency, Public Health Services, Epidemiology and Immunization Services Branch and Community Health Statistics Unit. **Disclaimer:** These data should not be interpreted as an indication of activity in any specific location. Under a community transmission status, the true prevalence of this disease may not be known as most cases are likely not diagnosed or reported. Data are preliminary and subject to change. For more resources on COVID-19, please visit the County of San Diego COVID-19 website: https://coronavirus-sd.com/

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San Diego County COVID-19 Maps (Confirmed Cases by Zip Codes of Residence) created by the HDMA Center at SDSU and County of San Diego HHSA

This dashboard is created and maintained by the Center for Human Dynamics at the Mobile Age at San Diego State University.

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Click HERE to see the List of Zip Code Table.

Data Source: County of San Diego, Health and Human Services Agency, Public Health Services, Epidemiology and Immunization Services Branch and Community Health Statistics Unit. **Disclaimer:** These data should not be interpreted as an indication of activity in any specific location. Under a community transmission status, the true prevalence of this disease may not be known as most cases are likely not diagnosed or reported. Data are preliminary and subject to change. For more resources on COVID-19, please visit the County of San Diego COVID-19 website: https://coronavirus-sd.com/

HHSA | LIVE WELL SAN DIEGO

Confirmed Cases by Zip Code of Residence (Data through 4/5/2020), Total Number of Cases: 1404.
Zip code is zip code of residence, which may not be location of exposure. Data are preliminary and subject to change.

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4/05/2020 | 4/04/2020 | 4/03/2020 | 4/02/2020 | 4/01/2020