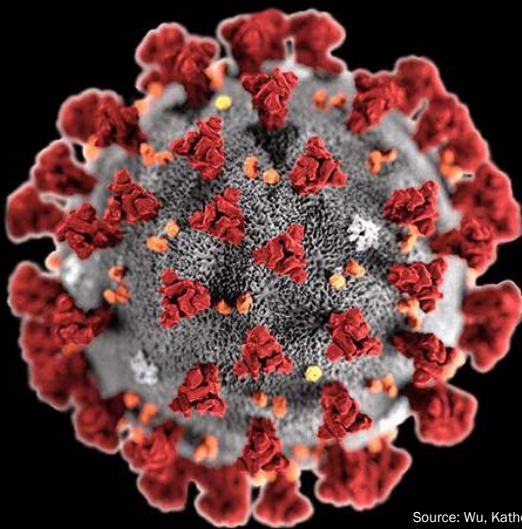


Finding, Visualizing, and Sharing: Data and the Socioeconomic Aspects of a Pandemic in Metro Vancouver

Andy Yan
SFU City Program / Urban Studies
GIS Day 2021
November 17, 2021

March 17, 2020
COVID-19 Public
Health Emergency
Declared in British
Columbia



Source: Wu, Katherine J. "A Guide to What to Know about Covid-19."
Smithsonian.com, Smithsonian Institution, 2 Mar. 2020,
<https://www.smithsonianmag.com/smart-news/everything-you-need-know-about-covid-19-180974313/>.

The image is a screenshot of a CNN Entertainment news article. At the top, the CNN logo and 'entertainment' are visible, along with navigation links for 'Stars', 'Screen', 'Binge', 'Culture', and 'Media'. The main headline reads 'Coronavirus is 'the great equalizer,' Madonna tells fans from her bathtub'. Below the headline, it says 'By Toyin Owoseje, CNN' and 'Updated 9:53 AM ET, Mon March 23, 2020'. The central image shows Madonna sitting in a bathtub filled with water and flowers, looking directly at the camera. Below the main image is a carousel of five smaller article thumbnails with titles like 'The creative ways...', 'I deeply regret not...', 'Volunteers step in to...', 'Education is key issue', and 'One mom...'. At the bottom right of the screenshot, there is a source citation: 'Source: Owoseje, T. (2020, March 23). Coronavirus is 'The great equalizer,' Madonna tells fans from her bathtub. CNN. Retrieved November 18, 2021, from <https://www.cnn.com/2020/03/23/entertainment/madonna-coronavirus-video-intl-scli/index.html>.

FINDING

April 18, 2020

The screenshot shows a CBC News article page. The main headline is "Early signs suggest race matters when it comes to COVID-19. So why isn't Canada collecting race-based data?". Below the headline is a sub-headline: "Canada has 'no plans' to collect race-based data amid COVID-19 despite signs of disparities in U.S.". There is a small image of a person wearing a white N95 respirator mask. To the right of the article is a "POPULAR NOW IN NEWS" sidebar with five items, including "Highways closed around B.C. as rain batters province, leading to mudslides and flood warnings" and "Abbotsford opens evacuee reception centre, declares 'high alert' after floods and mudslides displace residents".

Source: Nasser, S. (2020, April 18). *Early signs suggest race matters when it comes to covid-19. so why isn't Canada collecting race-based data?* | CBC News. CBCnews. Retrieved November 17, 2021, from <https://www.cbc.ca/news/canada/toronto/race-coronavirus-canada-1.5536168>.

The screenshot shows a Statistics Canada webpage. The title is "Impacts on Immigrants and People Designated as Visible Minorities". The release date is "October 20, 2020". Under "Key messages:", there is a bulleted list:

- Immigrants are disproportionately represented in jobs with greater exposure to COVID-19 – 34% of front-line/essential service workers identify as visible minorities (compared with 21% in other sectors).
- Visible minorities are also more likely to work in industries worst affected by the pandemic, such as food and accommodation services – compounding health and economic risks.
- Impact of COVID-19 on immigrants' employment could reverse gains made in recent years to close the gap.
- Immigrants and visible minorities are more likely to report facing harassment, attacks, and stigma.
- Immigrants are more concerned with their health and social consequences of the pandemic and are more likely to take precautions, but less likely to get a vaccine.

 Below this is a section titled "Evidence of differential rates of COVID-19 among visible minorities in Canada – highlighting the need for more data on diverse populations". It states: "Concerns regarding differential impacts of COVID have prompted calls for the collection of race-based health data in Canada." and "Currently, there is no requirement to collect race-based data in Canada related to COVID-19." It then mentions that in Ontario, census data were used to analyze COVID cases across neighbourhoods with higher vs lower concentration of visible minorities. A bulleted list follows:

- COVID-19 infections were three times higher
- hospitalizations rates were four times higher and
- deaths were twice as high

 It concludes that among individuals living in the most diverse neighbourhoods compared with the least diverse neighbourhoods, most diverse neighbourhoods tend to be in large urban areas. At the bottom, it says: "Age-adjusted rate and number of confirmed cases of COVID-19 for each quintile of ethnic concentration: Ontario, January 15, 2020 to May 14, 2020".

October 20, 2020

Source: Statistics Canada. (2020, October 20). *Impacts of COVID-19 on immigrants and people designated as visible minorities.* Retrieved November 17, 2021, from <https://www150.statcan.gc.ca/n1/pub/11-631-x/2020004/s6-eng.htm>

May 7, 2021

COVID-19-Daily-Update-May-07-2021.pdf - Adobe Acrobat Pro

File Edit View Window Help

Create [Icons] Customize [Icon]

1 / 3 [Icons] 97.8% [Icons] Tools Fill & Sign Comment

Every vaccine helps protect you and those around you. We encourage everyone to get immunized with any of the COVID-19 vaccines as soon as you are eligible.

Updated information on who should get a COVID-19 vaccine can be found [here](#) and there is more information about vaccine aftercare [here](#). More information and immunization data is available through this page: [BCCDC](#).

VCH high-transmission neighbourhood residents 30 years and older eligible for vaccine
 As part of the B.C. COVID-19 Immunization Plan for priority neighbourhoods, Vancouver Coastal Health (VCH) will offer targeted vaccinations to people 30 years of age and older who reside in the [high-transmission neighbourhoods](#) of Cedar Cottage, Grandview Woodland, Hastings Sunrise, Kensington, Killarney, Renfrew-Collingwood, Sunset and Victoria Fraserview. Residents of these neighbourhoods are encouraged to [register](#) to receive a link to book their vaccination appointment.

VCH will be opening a COVID-19 vaccine clinic at [Killarney Community Centre](#) (6260 Killarney Street) from May 8 to 14, 17 to 21 and 25 to 28 from 9 a.m. to 4:30 p.m. Vaccinations will be provided by appointment only.

All B.C. residents 18 years of age and older (born in 2003 or earlier) are encouraged to register now through the

Source: Vancouver Coastal Health. (2021, May 7). Latest Update. Retrieved November 17, 2021, from <http://www.vch.ca/covid-19>

May 7, 2021

THE TYEE
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ANALYSIS CULTURE SOLUTIONS MORE

NEWS | Coronavirus

Who Lives in Vancouver's COVID Hotspots? Frontliners and Minorities
 New information on high-transmission neighbourhoods underscores need for race-based data, expert says.

Kaitlyn Fung, 7 May 2021 | The Tyee.ca

April 27, Fung's previous column at CBC's *Journal*, *Why good media coverage is a problem at The Tyee*, she goes up to the Dominion press on the unmet needs of the small-business, Hispanic and other ethnic groups. Find her on Twitter [@kayfun](#)

[Social Media Icons] 20 Comments



Beaufort-Blisswood, one of Vancouver's COVID hotspots. Collecting race-based data is a challenge to shed light on structural factors of spread, says VCH professor Jane Platt. Courtesy: Photo by Christopher Clarke.

While B.C. has still not released race-based data concerning COVID-19.

Source: Fung, K. (2021, May 7). *Who lives in Vancouver's Covid Hotspots? Frontliners and minorities*. The Tyee. Retrieved November 17, 2021, from <https://thetyee.ca/news/2021/05/07/Vancouver-COVID-Hotspots-Frontliners-Minorities/>.

May 7, 2021

The neighbourhood with the city's highest percentage of frontliners, 62 per cent, is Sunset. It is also the neighbourhood with the second-highest percentage of visible minorities, 83 per cent.

City of Vancouver neighbourhoods

Neighbourhood	Frontliners*	Minorities	Hotspot
Sunset	62%	83%	Yes
Victoria-Fraserview	60%	84%	Yes
Renfrew-Collingwood	60%	78%	Yes
Kensington-Cedar Cottage	52%	64%	Yes
Hastings-Sunrise	51%	59%	Yes
Killarney	50%	72%	Yes
Marpole	46%	67%	No
Strathcona	42%	45%	No
Grandview-Woodland	40%	28%	Yes
Riley Park	39%	44%	No
West End	37%	29%	No
Oakridge	36%	75%	No
South Cambie	35%	43%	No
Mount Pleasant	35%	32%	No
Kerrisdale	35%	58%	No
Shaughnessy	35%	54%	No
Fairview	33%	26%	No
Arbutus-Ridge	32%	58%	No
Kitsilano	32%	20%	No
Dunbar-Southlands	31%	39%	No
Downtown	30%	44%	No
West Point Grey	29%	36%	No

Hotspots as reported by Vancouver Coastal Health on May 6. Frontliner percentages based off census data on health, trades, services, manufacturing and resource workers. Visualization by Christopher Cheung. Data from 2010 Canadian census.

None of this data surprises advocates, who have called for the collection of race-based COVID-19 data since the early months of the pandemic.

Source: Fung, K. (2021, May 7). Who lives in Vancouver's Covid Hotspots? frontliners and minorities. The Tyee. Retrieved November 17, 2021, from <https://thetyee.ca/News/2021/05/07/Vancouver-COVID-Hotspots-Frontliners-Minorities/>.

VISUALIZING

My Toolkit



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May 7, 2021

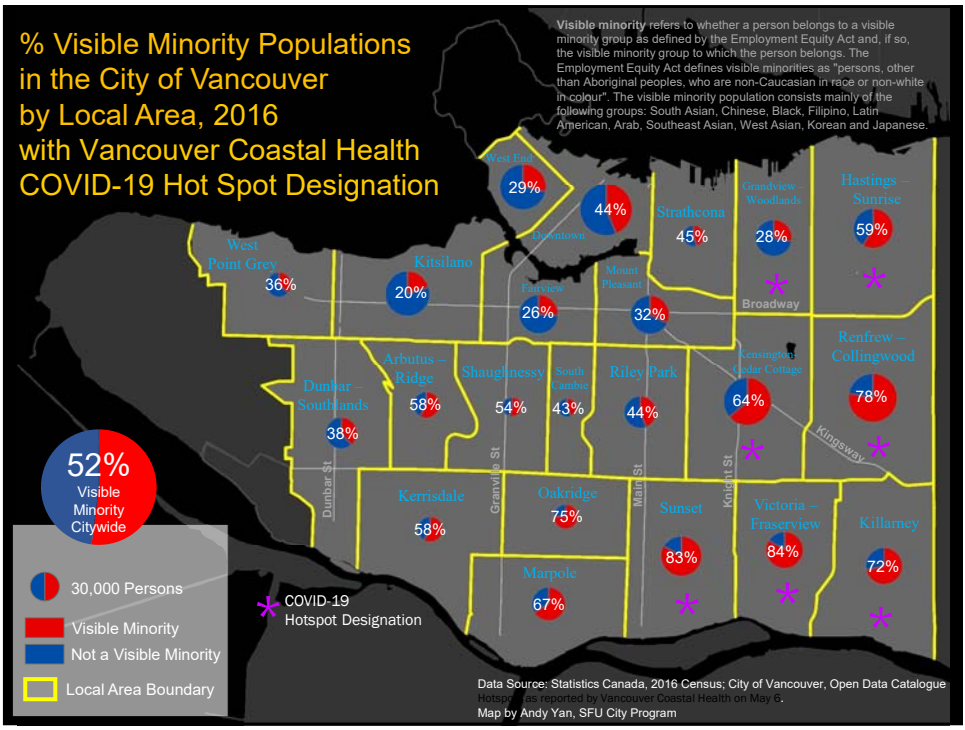
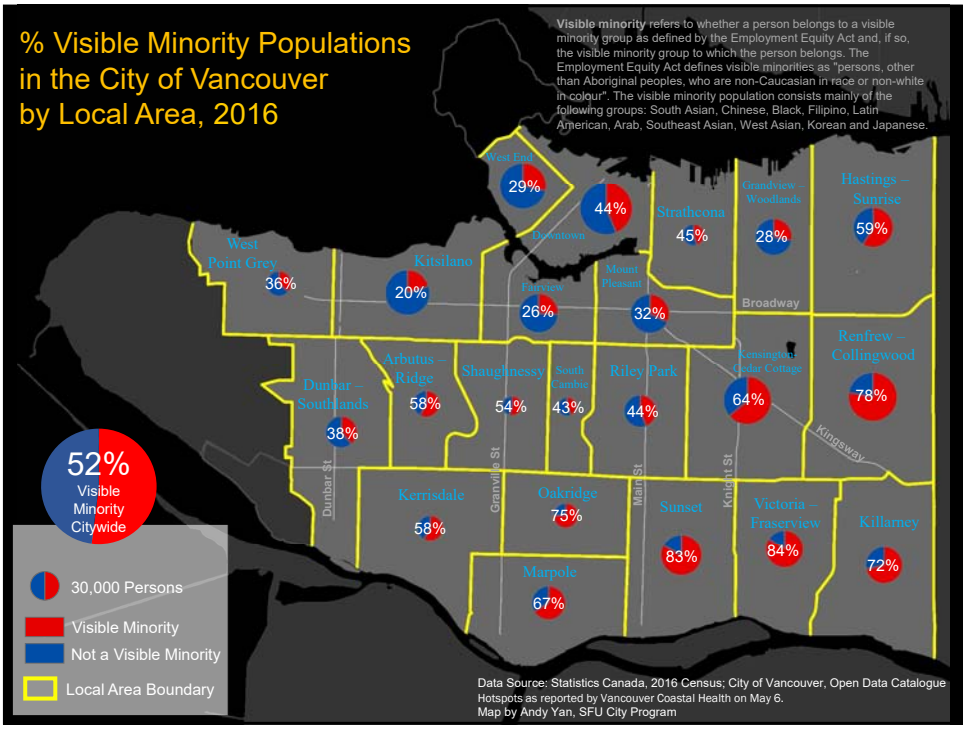
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* Frontliners data visualization
Hotspots as reported by Vancouver Coastal Health on May 6. Frontliner percentages based off census data on health, trades, services, manufacturing and resource workers. Visualization by Christopher Cheung. Data from 2016 Canadian census.



None of this data surprises advocates, who have called for the collection of race-based COVID-19 data since the early months of the pandemic.

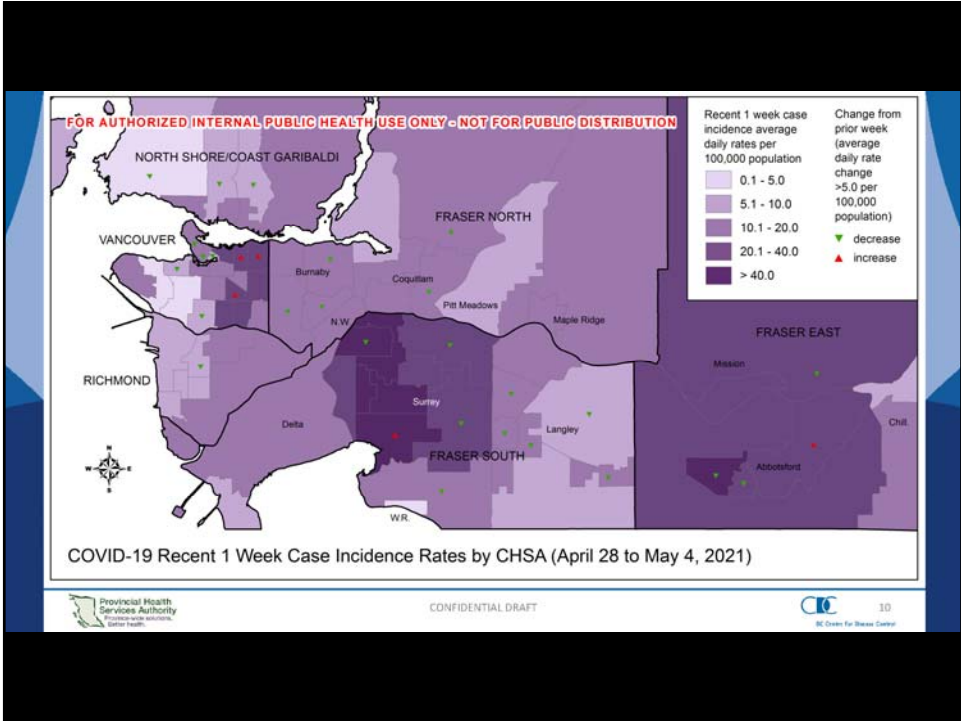
Source: Fung, K. (2021, May 7). Who lives in Vancouver's Covid Hotspots? frontliners and minorities. The Tye. Retrieved November 17, 2021, from <https://thetye.ca/news/2021/05/07/Vancouver-COVID-Hotspots-Frontliners-Minorities/>.



BCCDC Weekly Data Summary

6 May 2021



1



Data Catalogue

Community Health Service Areas - CHSA

Published By: Health Sector Information Analysis and Reporting

Description
 Community Health Service Area (CHSA) boundaries, 2018 boundary configuration.
 On April 1, 2019, the Ministry of Health released a new geography classification that introduces community-level geographies nested within the Local Health Areas.
 The CHSAs are a mutually exclusive and exhaustive classification of the land area in BC. CHSAs are contiguous (and area is geographically adjacent) and fit within the existing geographical hierarchy (cannot violate higher-level geography boundaries such as the Local Health Areas).

Licence
 Open Government Licence - British Columbia

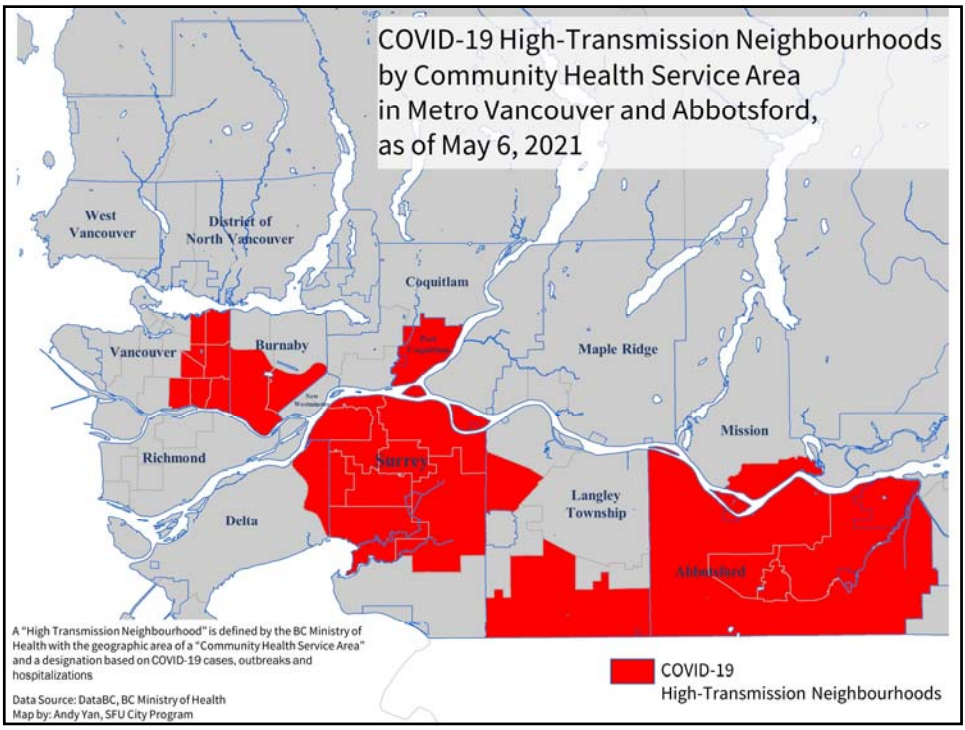
Contacts
 Name: Mohi Analytics
 Email: MOHAnalytics@bc.ca
 Organization: Health Sector Information Analysis and Reporting
 Role: Point of Contact

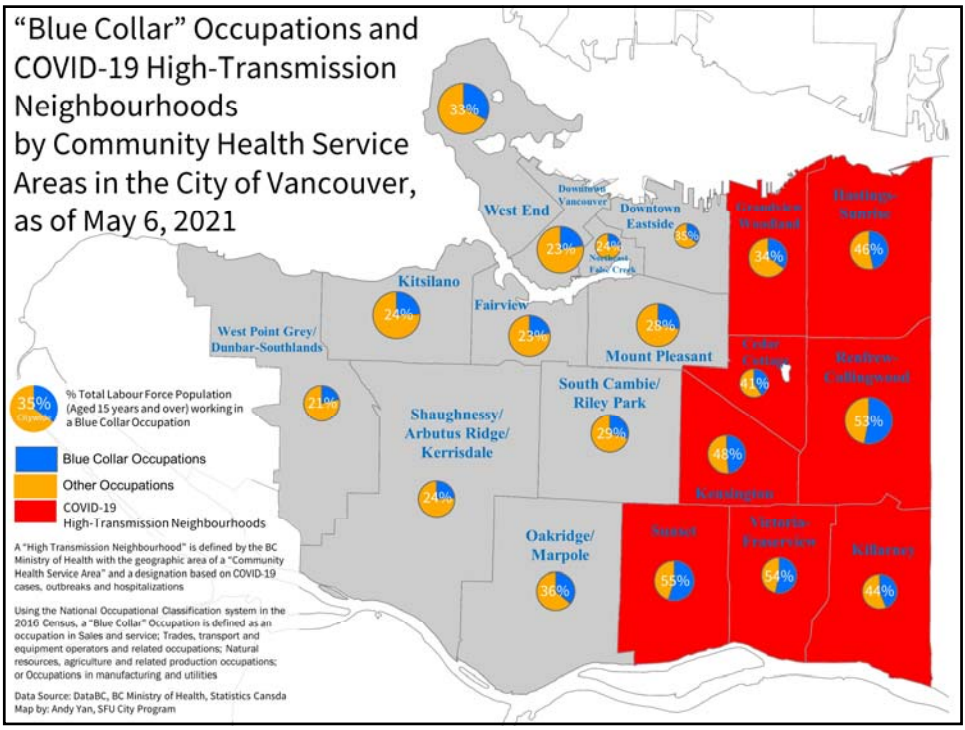
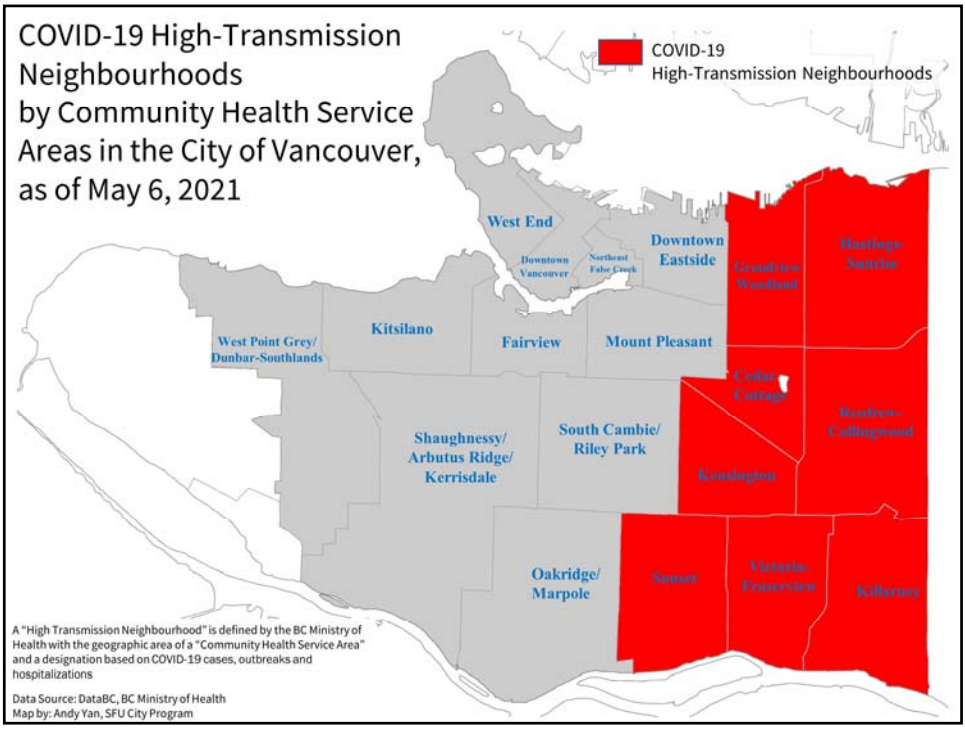
Purpose
 The Community Health Service Areas (CHSAs) were created to produce a standard geographic definition for community-level analysis of health needs and service provision.

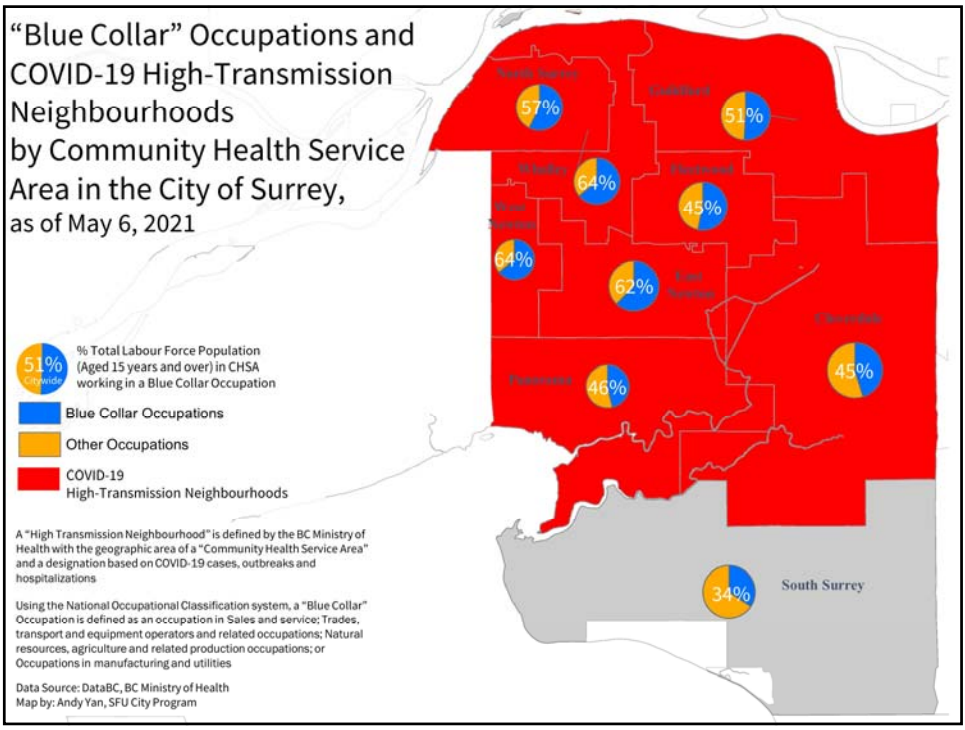
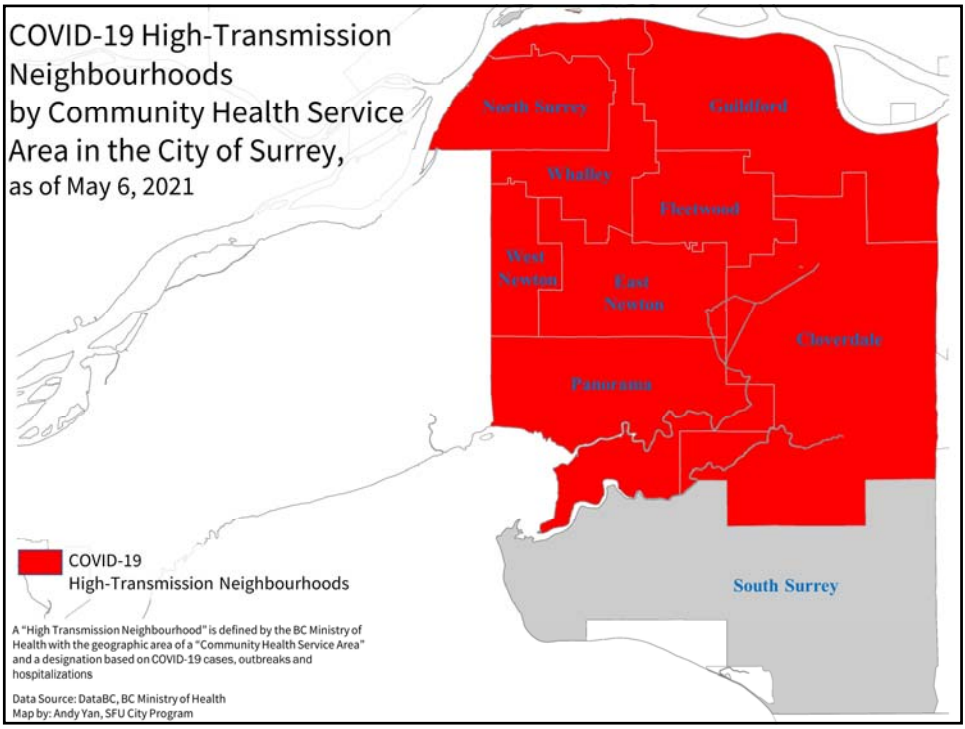
Resources

Community Health Service Areas (zipped .shp)	shp	10.6 MB	Access/Download	View
BC Health Region Master 2018	xlsx	177.3 KB	Access/Download	View
BC Geographic Warehouse Custom Download	other		Access/Download	View
WMS getCapabilities request	wms		Access/Download	View
KML Network Link	kml		Access/Download	View
CHSA Descriptions 2018	xlsx	175.3 KB	Access/Download	View

Source: Data Catalogue. (2019, July 10). Province of British Columbia. Retrieved November 18, 2021, from <https://catalogue.data.gov.bc.ca/dataset/community-health-service-areas-chsa>



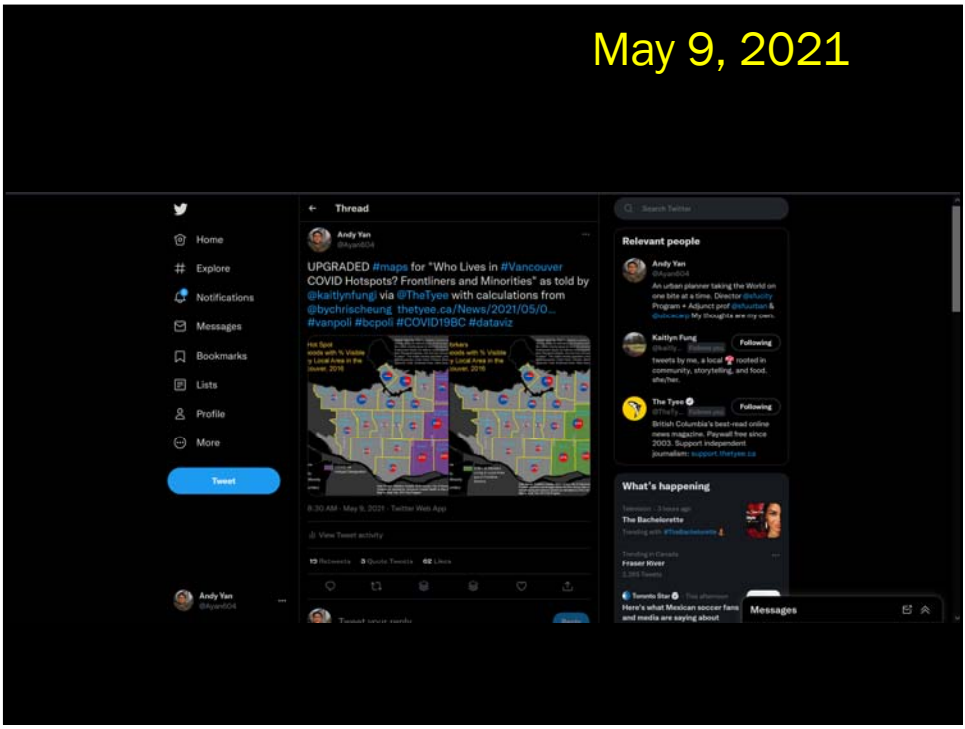




Rank	Variables	Hot spot
1	9 Occupations in manufacturing and utilities	.637**
2	3 or more household maintainers	.593**
3	South Asian	.556**
4	Private households by household size - 5 or more persons	.543**
5	0 Management occupations	-.538**
6	Southeast Asian	.489**
7	Second generation	.465**
8	Black	.450**
9	1 Business, finance and administration occupations	-.447**
10	Census families in private households by family size - 5 or more persons	.431**
11	Private households by household size - 2 persons	-.430**
12	7 Trades, transport and equipment operators and related occupations	.405**
13	Not suitable	.401**
14	Suitable	-.400**
15	\$80,000 to \$89,999	.399**
16	\$60,000 to \$69,999	.383**
17	Filipino	.376**
18	1 household maintainer	-.348**
19	4 Occupations in education, law and social, community and government services	-.346**
20	Census families in private households by family size - 2 persons	-.331**

SHARING

May 9, 2021



May 20, 2021

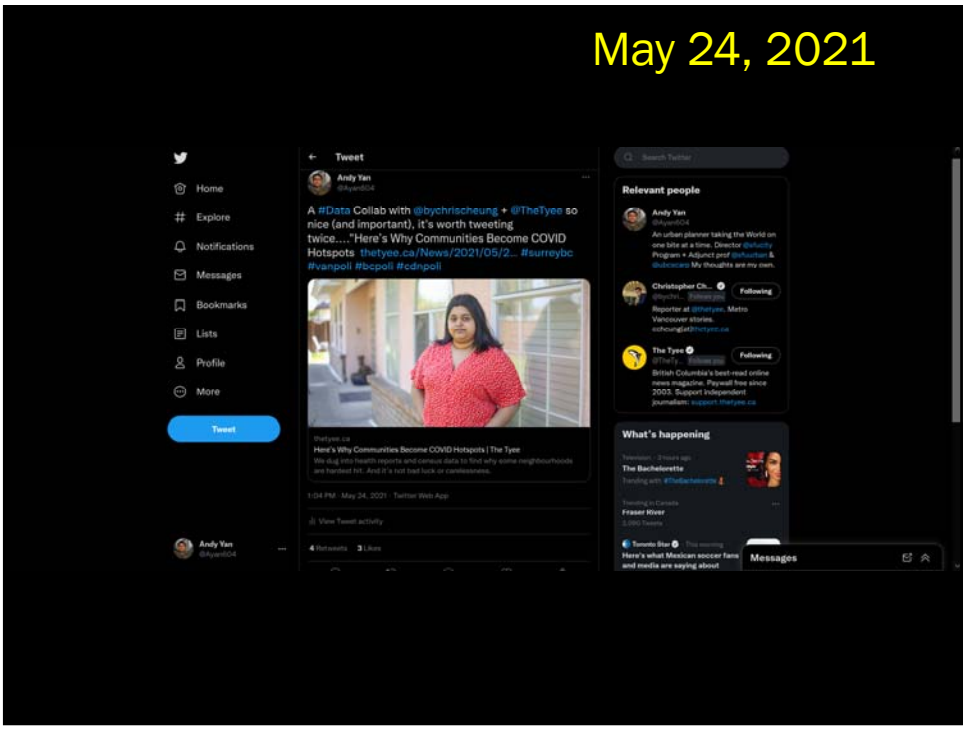


Source: Cheung, C. (2021, May 20). *Here's why communities become Covid Hotspots*. The Tyeec. Retrieved November 17, 2021, from <https://thetyee.ca/News/2021/05/20/Vancouver-Fraser-Valley-COVID-Hotspots/>.

May 20, 2021



May 24, 2021



EPILOGUE

Nov 4, 2021

Jack Webster Fdn
@JackWebsterFdn

WEBSTER AWARD WINNER ALERT! Excellence in Diversity & Inclusion Reporting goes to Christopher Cheung, The Tyee for Left behind in a pandemic

7:34 PM · Nov 3, 2021 · Twitter Web App

Source: Fdn, Jack Webster. "Webster Award Winner Alert! Excellence in Diversity & Inclusion Reporting Goes to Christopher Cheung, the Tyee for Left behind in a Pandemic Pic.twitter.com/xlh5daa01p." *Twitter*, Twitter, 4 Nov, 2021, <https://twitter.com/JackWebsterFdn/status/1456087523424231428>.

