EVIDENCE SYNTHESIS BRIEFING NOTE

TOPIC: **DATA COLLECTION ON ETHNICITY AND COVID-19**

This Briefing Note was completed by the Research, Analysis, and Evaluation Branch (Ministry of Health).
Information finalized as of January 27, 2021.[a]

Purpose: This note summarizes how jurisdictions are capturing ethnicity data in relation to COVID-19.

Key Findings: Information was identified on seven jurisdictions or health organizations. Ethnicity data, along with other socio-demographic data (e.g., race, household income, occupation), is collected to better understand and strengthen capacity to address whether COVID-19 may be disproportionately affecting certain population groups. Ethnicity or ethno-racial categories for data collection include:

- **Toronto Public Health**: 1) Arab, Middle Eastern, or West Asian; 2) Black; 3) Latin American; 4) South Asian or Indo-Caribbean; 5) Southeast Asian; and 6) White.
- **Peel Public Health**: 1) Black; 2) East/Southeast Asian (Chinese, Filipino, Southeast Asian, Korean, and Japanese); 3) Latino (Latin American); 4) Middle Eastern (Arab and West Asian); 5) South Asian; 6) White (not a visible minority, minus Aboriginal ancestry); 7) other (Aboriginal and non-Aboriginal ancestries, visible minority not included elsewhere, and multiple visible minorities); and 8) prefer not to answer.
- **British Columbia**: 1) First Nations; 2) Métis; 3) Inuit; 4) White (European descent); 5) Chinese; 6) South Asian (e.g., East Indian, Pakistani, Sri Lankan); 7) Black (e.g., African or Caribbean); 8) Filipino; 9) Latin American/Hispanic; 10) Southeast Asian (e.g., Vietnamese, Cambodian, Malaysian, Laotian); 11) Arab; 12) West Asian (e.g., Iranian, Afghan); 14) Korean; 15) Japanese; 16) other; and 17) prefer not to answer. These categories are collapsed into broader categories for data analyses (e.g., Indigenous, Chinese, South Asian, White, and all other ethnicities combined).
- **Manitoba**: 1) African; 2) Black; 3) Chinese; 4) Filipino; 5) Latin American; 6) North American; 7) South Asian; 8) Southeast Asian; 9) White; and 10) other. Countries or regions of origin are provided as examples of these identifier categories.
- **United States**: As of August 1, 2020, racial and ethnic data for COVID-19 test results must be available in all reporting to state and local public health departments, and subsequently the Centers for Disease Control and Prevention. In addition, the COVID-19 Racial Data Tracker by The Atlantic, the American Medical Association, and the National Academy for State Health Policy uses this publicly available data to track states' reporting. For example, as of January 27, 2021, 51 of 56 states/territories report race/ethnicity data for COVID-19 cases and deaths. In some states (e.g., Alabama), ethnicity categories are separated from race categories and include: 1) Hispanic or Latino; and 2) Not Hispanic or Latino. In other states (e.g., Arizona), race and ethnicity categories are combined together: 1) Black or African American alone; 2) Hispanic or Latino; 3) Asian alone; 4) Hawaiian and Pacific Islander alone; 5) American Indian or Alaska Native alone; 6) two or more races; 7) White alone; and 8) some other race alone.
- **United Kingdom**: 1) White (White British, Irish, Gypsy or Irish Traveller, and Other White); 2) Mixed/Multiple Ethnic Groups (White and Black Caribbean, White and Asian, White and Black African, and Other Mixed); 3) Indian; 4) Bangladeshi and Pakistani; 5) Chinese; 6) Black (Black Caribbean; Black African; and Black Other); and 7) other ethnic group (Asian other, Arab, and Other ethnic group).
- **Brazil**: 1) Branco (White); 2) Preto (Black); 3) Amarelo (East Asian); 4) Indígeno (Indigenous); or 4) Pardo (mixed ethnicity).

Implementation Implications: Ethnicity data collection during COVID-19 can be used to identify health disparities and promote health equity.

[a] This briefing note includes current available evidence as of the noted date. It is not intended to be an exhaustive analysis, and other relevant findings may have been reported since completion.

Supporting Evidence

Table 1 presents information on how ethnicity data in relation to COVID-19 are being collected by Toronto Public Health, Peel Public Health, British Columbia, Manitoba, the United States, the United Kingdom, and Brazil. The majority of the information presented was taken directly from the original articles. The findings should be interpreted with caution based upon the following limitations:

- The information presented was identified in 0.5 working days and represents information identified in this timeframe, and not an exhaustive analysis of the scientific literature. The findings presented may not represent consensus positions or the most updated literature, particularly as the literature on COVID-19 is continuously being updated as the evidence evolves.
- The search was limited to English sources and therefore may not capture the full extent of initiatives in non-English speaking countries.

Table 1: Overview of How Jurisdictions are Collecting Ethnicity Data in Relation to COVID-19

Jurisdiction	Description of Data Collection Method
Toronto Public Health (TPH), Ontario	• On July 30, 2020, TPH released the findings and trends from recently collected individual-level COVID-19 case data on reported ethno-racial identity, household income, and household size. TPH added socio-demographic questions to the case follow-up process to better understand and strengthen capacity to address whether or not COVID-19 may be disproportionately affecting certain people in the city.[1] • The data was collected from people infected with COVID-19 and who answered voluntary questions on these topics. These data are collected at the individual case level but reported as overall data summaries and trends. This ensures that data are not identifiable and remain confidential.[2] ○ Data are not currently collected from people living in long-term care homes due to challenges in liaising with the client themselves.[3] • TPH started collecting data on ethno-racial group on May 20, 2020. The ethno-racial categories included: 1) Arab, Middle Eastern, or West Asian; 2) Black; 3) Latin American; 4) South Asian or Indo-Caribbean; 5) Southeast Asian; and 6) White.[4]

Peel Public Health, Ontario	• Peel Public Health collects sociodemographic information from COVID-19 cases to inform public health planning. Systematic data collection for ethno-racial identity and occupation for Peel COVID-19 cases began in mid-April 2020.[5]
	  ○ Data on proportion of COVID-19 cases and Peel's population by race is updated on a monthly basis. Race and ethnicity are markers for other circumstances that impact health, including socioeconomic status, access to health care, and increased exposure to the virus due to occupation (e.g., frontline workers).[6]
	• Race data were classified into seven categories, and visible minority categories were collapsed into these race categories:
	  ○ *Black*: Black
	  ○ *East/Southeast Asian*: Chinese, Filipino, Southeast Asian, Korean, and Japanese
	  ○ *Latino*: Latin American
	  ○ *Middle Eastern*: Arab and West Asian
	  ○ *South Asian*: South Asian
	  ○ *White*: Not a visible minority subtracting Aboriginal ancestry (Aboriginal and non-Aboriginal ancestries)
	  ○ *Other* (including Indigenous and mixed race): Aboriginal ancestry (Aboriginal and non-Aboriginal ancestries), visible minority not included elsewhere, and multiple visible minorities
	  ○ *Prefer not to answer*[7]
	• Race categories were developed according to the Canadian Institute for Health Information's Proposed Standards for Race-Based and Indigenous Identity Data Collection and Health Reporting in Canada.[8]
	• Population counts for Peel region for each category were obtained from the 2016 Canadian Census. These data may look different in 2020.[9]

British Columbia	• The BC COVID-19 SPEAK survey asked BC residents about their experience, knowledge, and actions early in the COVID-19 pandemic. The results examine risk perception as well as any broader impacts of COVID-19, including social, economic, physical health, mental wellness, and community resiliency.
	  ○ Almost 400,000 British Columbians participated in the survey from May 12 to May 31, 2020. Results are available from across BC and at regional levels.
	  ○ The data have been used by Public Health, government, and community stakeholders in government since July to inform different public health guidance.
	  ○ The survey asked a range of socio-demographic questions such as education level, income, and ethnicity to make sure the survey represented BC's population. Further, people's background and circumstances influence their experiences of health and well-being, so this information may help public health meet the needs of a diverse population.[10]
	• **Target Population**: The target population for the survey was residents of British Columbia who were 18 years of age or older. In order to achieve a large and representative sample, a response target of 2% of the urban population and 4% for rural/remote communities were set as determined by the Community Health Service Area density designation.
	  ○ Population sample targets were created at a 4% margin of error and were used as the main target if this estimate was larger than the population proportion. Targets were also established for age, gender, income, education and ethnicity by each geographic area. Progress towards these targets was monitored daily and purposeful promotion and stakeholder outreach was done in order to better reach certain geographies and population demographics.
	  ○ Through partnerships and collaboration, a final sample of 394,382 responses was achieved and used in the final analytical dataset reaching 456% of the crude provincial target (by population proportion).[11]
	• **Ethnicity Categories**: Two questions were asked in the survey to determine ethnicity:
	  ○ Participants were asked '*Do you consider yourself to be (check all that apply)*':
	  ▪ First Nations
	  ▪ Métis
	  ▪ Inuit
	  ▪ White (European descent)
	  ▪ Chinese
	  ▪ South Asian (e.g., East Indian, Pakistani, Sri Lankan)
	  ▪ Black (e.g. African or Caribbean)
	  ▪ Filipino
	  ▪ Latin American/Hispanic
	  ▪ Southeast Asian (e.g., Vietnamese, Cambodian, Malaysian, Laotian)
	  ▪ Arab
	  ▪ West Asian (e.g., Iranian, Afghan)
	  ▪ Korean
	  ▪ Japanese
	  ▪ Other
	  ▪ Prefer not to answer
	  ○ Participants were asked 'Are you status First Nations':
	  ▪ Yes
	  ▪ No
	  ▪ I don't know
	  ▪ Prefer not to answer
	  ○ A respondent's ethnicity was derived from their ethnicity response and status First Nations response:

	▪ Ethnicity = *First Nations/Métis/Inuit* if 1) one or more of First Nations/Métis/Inuit were checked; or 2) Yes was checked for "Are you status First Nations", regardless if any other choices were checked. ▪ Ethnicity = *White* if 1) only White was checked; or 2) only White and one or more of Latin American/Hispanic or Arab or West Asian was checked. ▪ Ethnicity = *Chinese* if only Chinese is checked. ▪ Ethnicity = *South Asian* if only South Asian is checked. ▪ Ethnicity = *Southeast Asian/Filipino* if only Southeast Asian or Filipino is checked. ▪ Ethnicity = *West Asian/Arab* if only one of West Asian or Arab is checked. ▪ Ethnicity = *Japanese/Korean* if only one of Japanese or Korean is checked. ▪ Ethnicity = *Latin American/Hispanic* if only Latin American/Hispanic is checked. ▪ Ethnicity = *Multiple/Other* if multiple ethnicities were checked or other is checked.[12] • **Data Weighting**: The final survey sample was weighted using 2016 Canadian Census data by geography for age, sex, education level, and ethnicity to account for residual differences in sample demographics and to ensure that the sample is as representative as possible of the overall geographic population that is being reported on. ○ Each survey weight is derived from three weights based on whether the education variable and ethnicity variable is complete or whether a sex determination could be assigned. Ethnicity was categorized into five groups to limit stratifications included in weights while optimizing representativeness across the survey region: 1) Indigenous (First Nations, Métis, Inuit); 2) Chinese; 3) South Asian; 4) White; and 5) all other ethnicities combined.[13]
Manitoba	• As of May 1, 2020, Shared Health Manitoba directed all health care providers completing the COVID-19 Case Investigation Form to ask a mandatory question regarding racial/ethnic identity. This is in addition to the collection of First Nations, Metis, and Inuit identifiers which began on April 3, 2020. ○ Leaders are broadly recognizing the need for reporting on the impacts of COVID-19 by race, ethnicity, and indigeneity (REI). Organizational leaders and health professions from BIPOC (Black, Indigenous, People of Color) communities, human rights organizations, public health organizations, community serving organizations, and the public in general are requesting the data. The ability to monitor and report on the impacts of COVID-19 by REI is important because: ▪ Emerging evidence from other jurisdictions about COVID-19 and past experience with respiratory illnesses show disproportionate negative impacts on Black and Indigenous peoples. ▪ Epidemiological and surveillance information is necessary to empower informed health system responses to these disproportionate impacts on members of different communities. ▪ Racism in the health system has the potential to be amplified during the COVID-19 response and the health system needs to be able to monitor and respond promptly. ▪ BIPOC communities rely more on community organizations for essential services and these organizations have the potential to play a vital role in targeted health and social services that can mitigate the anticipated disproportionate impacts. Information could help inform planning, resourcing, and evaluation of these services.[14] • The script that public health staff are required to use to ask the question about REI identity is: *'We recognize this list of racial or ethnic identifiers may not exactly match how you would describe yourself. Keeping that in mind, which of the following best describes the racial or ethnic community that you belong to?'* Sometimes clients may need help with selecting the right category for them, so countries or regions of origin that are associated with the REI Identifier categories, where that is applicable, are provided as examples. The client is asked and encouraged to answer the question but responding is voluntary; if the client does not wish to answer the question it should be documented as "Declined." ▪ *African*: Algeria, Cameroon, Cote d'Ivoire, Democratic Republic of the Congo, Egypt, Eritrea, Ethiopia, Kenya, Morocco, Nigeria, Somalia, South Africa, and Tunisia. There are 50+ countries in Africa. These examples are based on Census information on Place of birth for Immigrants to Manitoba and this list should not be considered exhaustive. ▪ *Black*: Canada, United States, Caribbean, and Africa. ▪ *Chinese*: N/A

	▪ *Filipino*: N/A ▪ *Latin American*: Mexico, Brazil, Colombia, El Salvador, Guyana, Peru, Argentina, Venezuela, Cuba, and other countries in Central and South America. ▪ *North American Indigenous* (i.e., First Nations, Metis, or Inuit): N/A ▪ *South Asian*: India, Pakistan, Bangladesh, Sri Lanka, Bhutan, Nepal, and Maldives. ▪ *Southeast Asian*: Vietnam, Cambodia, Laos, Thailand, Singapore, Malaysia, Indonesia, Timor-Leste, Myanmar (Burma), and Brunei. ▪ *White*: Canada, United States, Britain, France, other European countries, Australia, and New Zealand. ▪ *Other*: N/A[15] • The information from the Case Investigation Form are recorded in the Public Health Information Monitoring System.[16]
United States (US)	• According to a study published on October 22, 2020, on June 4, 2020, the Trump Administration – responding to criticisms regarding the incompleteness of racial and ethnic data for COVID-19 test results (and other demographic data), including as reported by the US Centers for Disease Control and Prevention (CDC) – released new reporting requirements. The guidance stated: "this information should be made available in all reporting (including through methods using existing technical infrastructure such as an Health Information Exchange) to state and local public health departments and subsequently the CDC as soon as possible, but no later than August 1, 2020". ○ The current CDC demographic tracker for COVID-19 cases first reported data on August 28, 2020, at which time 2,263,017 (51%) of its 4,458,258 cases were missing data on race and ethnicity. As of September 16, 2020, 2,445,731 (50%) of its 4,880,315 reported cases were missing these data. Mathematically, this means that 43% of the 422,057 cases added between these two dates were missing racial and ethnic data.[17] • The COVID-19 Racial Data Tracker by the COVID Tracking Project at The Atlantic reports on race and ethnicity data from every US state and territory that reports it. The tracker uses publicly available data from state and local health departments, as well as the CDC. Their dashboard updates data twice per week. These data are presented alongside corresponding population data for each racial or ethnic group from the Census Bureau's 2019 ACS 5-Year estimates. Standard Census categories for race and ethnicity are used throughout the dashboard, but many states are currently reporting their data using non-standard categories.[18] ○ On September 13, 2020, in regards to ethnicity data, the tracker noted that among the 6,448,573 cases recorded, the range of percent missing extended from none (Minnesota, South Dakota) to 100% (Louisiana, North Dakota), with a median of 24%. However, several states do not appear to report any ethnicity data at all (West Virginia, Hawaii, New York). In states that are the home base for leaders of the US Government (President, Vice President, Senate Majority Leader, and Speaker of the US House of Representatives), data on race and ethnicity are missing for upwards of a quarter to over a third of COVID-19 cases. ○ As of January 27, 2021, 51 of 56 states/territories report race/ethnicity data for COVID-19 cases and deaths. In some states (e.g., Alabama), ethnicity categories are separated from race categories and include: 1) Hispanic or Latino; and 2) Not Hispanic or Latino. In other states (e.g., Arizona), race and ethnicity categories are combined together: 1) Black or African American alone; 2) Hispanic or Latino; 3) Asian alone; 4) Hawaiian and Pacific Islander alone; 5) American Indian or Alaska Native alone; 6) two or more races; 7) White alone; and 8) some other race alone.[19] • The American Medical Association (AMA) and its Center for Health Equity believe the nationwide collection and release of race and ethnicity data will be a pivotal step in the war against COVID-19 for the most vulnerable communities. To protect minoritized and marginalized patients, the AMA worked with members of Congress to draft a bill on COVID-19 race and ethnicity data collection, which was introduced in 2020.[20] ○ As of October 18, 2020, the racial and ethnic breakdown of COVID-19 cases and deaths, as well as gaps in data reporting, for all US states are available here. The race/ethnic categories used are: 1) White; 2) Black; 3) Hispanic; 4) Asian; 5) Native American; 6) Pacific Islander; and 7) multi-race.[21] ○ According to the AMA, even though more states are reporting race and ethnicity data, data for other minoritized groups including Latinx, Asian American/Pacific Islander, and Native American communities is systematically missing or not accurately captured in these reports.[22] • As of April 13, 2020, the National Academy for State Health Policy (NASHP) noted that US states use race and ethnicity data to identify disparities and inform their COVID-19 responses, including targeting or soliciting funding, tailoring stakeholder outreach and engagement, informing public health initiatives, and strengthening governmental processes to address disparities strategically and comprehensively. A NASHP analysis of state public health websites found that 25 states (Alabama, Arkansas, Arizona, California, Connecticut, Georgia, Idaho, Illinois, Indiana, Louisiana, Massachusetts, Maryland, Michigan, Minnesota, New York, North Carolina,

	Ohio, Oklahoma, South Carolina, Tennessee, Texas, Virginia, Washington, and Wisconsin) and Washington, DC are reporting COVID-19 data by race and/or ethnicity. ○ Six states report case data (laboratory-confirmed positive cases), three report mortality data, and 17 report both cases and mortality by race and/or ethnicity. ○ States use a variety of categories to report race and ethnicity data. For example: ▪ Louisiana reports race data for the following categories: American Indian/Alaska Native, Asian, black, Native Hawaiian/Pacific Islander, other, unknown, and white. Louisiana reports ethnicity data as either Hispanic/Latino or non-Hispanic/Latino. ▪ Connecticut reports Hispanic, non-Hispanic white, non-Hispanic black, non-Hispanic Asian, non-Hispanic other, and non-Hispanic unknown. ○ Eighteen states report a large proportion of unknown (or missing) race/ethnicity. ○ Fourteen states illustrate racial or ethnic disparities where the percentage of deaths or cases for one population is disproportionately high, compared to the demographic breakdown of the state. For example, Mississippi reported that 72% of its deaths from COVID-19 have been in the African American population, despite the fact that African Americans make up only 38% of the state's overall population.[23]
United Kingdom (UK)	• The Office for National Statistics (ONS) collects data on COVID-19-related deaths by ethnic group in England and Wales. ○ Ethnicity is not recorded on the death certificate. Deaths involving COVID-19 have been linked to the 2011 Census, which allowed ONS to ascertain the self-reported ethnicity of the deceased and other demographic factors. Analysis included those aged nine years and above. Where COVID-19 was mentioned on death certificates, comparison of deaths is made by broad age group, sex, and ethnic group using linked census and mortality records on deaths registered up to April 17, 2020. This data includes death counts, cause-specific mortality ratios, and odds ratios to identify differential risks of COVID-19-related deaths. For more details, see the Technical Appendix. ○ As of May 7, 2020, the breakdown of ethnicity was guided by the number of deaths available for use in analyses and its distribution across ethnic groups. ONS will repeat this analysis in the future as more data become available; this will include age-standardized mortality rates of deaths involving COVID-19 and, where possible, more detailed breakdowns. The ethnic group categories used were: ▪ *White*: White British; Irish; Gypsy or Irish Traveller; Other White ▪ *Mixed/Multiple Ethnic Groups*: White and Black Caribbean; White and Asian; White and Black African; Other Mixed ▪ *Indian*: Indian ▪ *Bangladeshi and Pakistani*: Bangladeshi and Pakistani ▪ *Chinese*: Chinese ▪ *Black*: Black Caribbean; Black African; Black Other ▪ *Other ethnic group*: Asian other; Arab; Other ethnic group ○ Data analysis from March 2, 2020 to April 10, 2020 revealed: ▪ The risk of death involving COVID-19 among some ethnic groups is significantly higher than that of those of White ethnicity. ▪ When taking age into account in the analysis, Black males are 4.2 times more likely to die from a COVID-19-related death and Black females are 4.3 times more likely than White ethnicity males and females. ▪ People of Bangladeshi and Pakistani, Indian, and Mixed ethnicities also had statistically significant raised risk of death involving COVID-19 compared with those of White ethnicity. ▪ After taking account of age and other socio-demographic characteristics and measures of self-reported health and disability at the 2011 Census, the risk of a COVID-19-related death for males and females of Black ethnicity reduced to 1.9 times more likely than those of White ethnicity. ▪ Males in the Bangladeshi and Pakistani ethnic group were 1.8 times more likely to have a COVID-19-related death than White males when age and other socio-demographic characteristics and measures of self-reported health and disability were taken into account; for females, the figure was 1.6 times more likely. ▪ These results show that the difference between ethnic groups in COVID-19 mortality is partly a result of socio-economic disadvantage and other circumstances, but a remaining part of the difference has not yet been explained.[24]

Brazil	• A study (July 2, 2020) aimed to characterize the COVID-19 pandemic in Brazil and assess variations in mortality according to region, ethnicity, comorbidities, and symptoms. ○ **Method**: The study authors conducted a cross-sectional observational study of COVID-19 hospital mortality using data from the Sistema de Informação de Vigilância Epidemiológica da Gripe (SIVEP-Gripe) dataset to characterize the COVID-19 pandemic in Brazil. The study included hospitalized patients who had a positive RT-PCR test for COVID-19 and who had ethnicity information in the dataset. Ethnicity of participants was classified according to the five categories used by the Brazilian Institute of Geography and Statistics: 1) Branco (White); 2) Preto (Black); 3) Amarelo (East Asian); 4) Indígeno (Indigenous); or 4) Pardo (mixed ethnicity). The authors assessed regional variations in patients with COVID-19 admitted to hospital by state and by two socioeconomically grouped regions (north and central-south). They used mixed-effects Cox regression survival analysis to estimate the effects of ethnicity and comorbidity at an individual level in the context of regional variation. ○ **Results**: Of 99,557 patients in the SIVEP-Gripe dataset, the authors included 11,321 patients in the study. ▪ 9,278 (82.0%) of these patients were from the central-south region, and 2,043 (18.0%) were from the north region. ▪ Compared with White Brazilians, Pardo and Black Brazilians with COVID-19 who were admitted to hospital had significantly higher risk of mortality. ▪ Pardo ethnicity was the second-most important risk factor (after age) for death. ▪ Comorbidities were more common in Brazilians admitted to hospital in the north region than in the central-south, with similar proportions between the various ethnic groups. ▪ States in the north had higher hazard ratios for risk of mortality compared with those of the central-south, except for Rio de Janeiro, which had a much higher hazard ratio than that of the other central-south states. ○ **Conclusion**: The study found evidence of two distinct but associated effects: increased mortality in the north region (regional effect) and in the Pardo and Black populations (ethnicity effect). The authors speculate that the regional effect is driven by increasing comorbidity burden in regions with lower levels of socioeconomic development. The ethnicity effect might be related to differences in susceptibility to COVID-19 and access to health care (including intensive care) across ethnicities. This analysis supports an urgent effort on the part of Brazilian authorities to consider how the national response to COVID-19 can better protect Pardo and Black Brazilians, as well as the population of poorer states, from their higher risk of dying of COVID-19.[25]

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