

Crosswalk for Local Public Health Units and Health Regions in Canada

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Crosswalk for Local Public Health Units and Health Regions in Canada¹²³

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Executive Summary

Public health services and programs in Canada are operated and administered through more or less decentralized regional and local public health units. This decentralization poses a challenge to researchers, complicating efforts to gather nationally-comparable evidence on public health systems and services. For example, the COVID-19 Canada Open Data Working Group has been collecting and organising data on key COVID-19 indicators at the health region level. However, due to discrepancies in definitions, structures, and boundaries of these health regions and different regional and local public health units, it has been challenging for researchers to link this data with the actions taken by local level units. In order to address this need, the UPHN Research Group has created a crosswalk for relating the two geographies (i.e., health regions and local public health units). This crosswalk provides a tool for researchers who want to study public health services at the regional level in Canada. In particular, this crosswalk can be used to relate LPHU to the COVID-19 data reported by COVID-19 Canada Open Data Working Group (CCODWG), enabling the evaluation of COVID-19-related policies at the local level in Canada. This document and its accompanying dataset provides this mapping and detailed notes on how it was created.

Kevwords

Public health, health services research, regional health planning, local public health unit

Context

The structure of public health at regional and local levels in Canada is complex and dynamic. Public health services and programs in Canada are operated and administered through more or less decentralized regional and local public health units (RPHU and LPHU). This decentralization poses a challenge to researchers, complicating efforts to gather nationally-comparable evidence on public health systems and services and impeding the kinds of intraregional comparison that are essential for driving public health system learning. For example, since March 2020, the COVID-19 Canada Open Data Working Group (CCODWG) has been collecting and organizing data on key COVID-19 indicators from different public sources at the health region, province/territory, and national levels. Due to discrepancies in definitions, structures, and boundaries of different regional and local public health units, it has been challenging for researchers to link this data with the actions taken by local level units.

The Urban Public health Network (UPHN) Research Group has proposed definitions for local public health unit (LPHU) and regional public health unit (RPHU), which can be applied uniformly throughout the country to identify common units of public health operation and support intra-regional comparative research on public health systems and services. They define LPHU as the lowest unit of independent (or delegated) responsibility for a defined population, having direct responsibility for the administration of public health programs and services, and led (or co-led) by a qualified Medical Health Officer/Medical Officer of Health. LPHU commonly administer and provide their services through multiple local public health delivery points. The team defines RPHU as the same as LPHU but having responsibility for a defined population above the local level. In some jurisdictions, LPHU are embedded within RPHU and may share responsibility and oversight for some public health programs and

services. LPHU are also known to change over time. Table 1 lists the LPHU and RPHU that were identified by the UPHN Research Group in 2021.

Although providing these definitions is helpful in order for them to be used effectively to advance comparative research, they need to also be related to leading statistical resources, including those provided by Statistics Canada. Semi-regularly, Statistics Canada identifies health regions in Canada for reporting purposes and disseminates population health outcomes for these geographies.^{3,4} Statistics Canada defines health regions as "legislated administrative areas defined by provincial ministries of health that are responsible for hospital boards or regional health authorities" ("health regions" are called by different names across different provinces; for example, in British Columbia, they are called "Health Authorities," while in Alberta and Nova Scotia they are called "Zones").⁴ Like local public health units, regions are defined administratively for the purpose of delivering health services and so tend to change periodically. For the most part, health regions align with other recognized administrative groupings such as counties or municipalities. This is especially true in the Atlantic provinces, Quebec, and Ontario (with minor exceptions in Northern Ontario). In the western provinces, health regions are less likely to follow existing boundaries.

Statistics Canada's health regions may or may not overlap in a one-to-one fashion with the LPHUs defined by the UPHN Research Group depending on how different provinces and regions elect to co-distribute responsibility for health service and/or public health decision making. Thus the UPHN Research Group has created a crosswalk for relating the two geographies. This document and its accompanying dataset provides this mapping and detailed notes on how it was created. Relating the list of LPHU developed by the UPHN to these health regions will allow researchers to associate population health data with public health systems and services data at the local level.

Due to the timeliness of concerns relating to COVID, we also extended the crosswalk to the geographies being used by the COVID-19 Canada Open Data Working Group (CCODWG), a leading collator and distributor of pandemic outcomes.⁵

The Crosswalk

The COVID-19 Canada Open Data Working Group (CCODWG) has been providing comprehensive data on the COVID-19 epidemic in Canada in their open-source GitHub data repository from the early stage of the COVID-19 in Canada. CCODWG reports data on key COVID-19 indicators by province/territory, health region, and Canada. The health region is the smallest spatial unit for which CCODWG distributes COVID-19 data. For the purpose of populating data at the health region level, CCODWG adopted the Statistics Canada health region boundaries. Statistics Canada assigns each health region a four-digit numeric code. The first two digits represent the province or territory in which the region is located, and the second two digits represent the health region. For example, the code assigned to Oxford Elgin St. Thomas Health Unit is 3575, in which 35 refers to the provincial code for Ontario and 75 refers to the health region. These codes are the same as the codes used by the provincial ministries of health and could be found on Statistics Canada's website.

The UPHN Research Group has related the health regions, as reported by CCODWG,⁵ to the LPHU, as previously identified by the UPHN Research Group.¹ There are some discrepancies between the CCODWG health region codes and Statistics Canada's in one-to-one alignment. This is because British Columbia has reported COVID-19 outcomes at the RPHU level and Saskatchewan has not reported COVID-19 outcomes based on any recognized administrative boundaries. Specifically, CCODWG made the following changes

in the 2018 Statistics Canada health regions⁷ to reflect how sub-provincial COVID-19 data have been reported:⁵

- Renamed Oxford Elgin St. Thomas Health Unit (3575) to Southwestern Public Health Unit (3575).
- Removed Huron County Health Unit (3539) and Perth District Health Unit (3554) and replaced them with Huron Perth Public Health Unit (3539).
- Replaced British Columbia's 16 Health Service Delivery Areas (5911, 5912, 5913, 5914, 5921, 5922, 5923, 5931, 5932, 5933, 5941, 5942, 5943, 5951, 5952, 5953) with the 5 amalgamated Regional Health Authorities (591, 592, 593, 594, 595).
- Replaced Saskatchewan's 13 Regional Health Authorities (4701, 4702, 4703, 4704, 4705, 4706, 4707, 4708, 4709, 4710, 4711, 4712, 4713) with the 13 new zones (4711, 4712, 4713, 4721, 4722, 4723, 4731, 4732, 4741, 4751, 4761, 4762, 4763).

Table 2 presents the crosswalk for Statistics Canada and CCODWG health region codes.

In most cases, the health regions, LPHU, and CCODWG geographies overlap with one another in a one-to-one fashion. Table 2 also maps LPHU and both sets of health regions and their full names across all Canadian provinces and territories. The similarities and differences between the UPHN Research Group's LPHU, health regions reported by Statistics Canada in 2018, 7 and the health regions used by CCODWG to report COVID-19 data, are summarized as follows:

- The UPHN Research Group identified 16 LPHU in British Columbia, which are parallel to the health regions identified by Statistics Canada. However, CCODWG replaced these 16 health regions with the five amalgamated regional health authorities based on RPHU membership; COVID-19 data in British Columbia are reported based on these five health regions.
- Alberta has five LPHU that are denoted as zones that coordinate and oversee public health services in Alberta. These five LPHU are also identified as five health regions by Statistics Canada, and CCODWG also reports COVID-19 data based on these five health regions.
- Statistics Canada recognizes 13 health regions in Saskatchewan in 2018, which are
 denoted as 'regional health authorities,' in 2021. However, the UPHN team identified
 4 LPHU in the province because the 13 health regions did not fit the definition of
 LPHU or RPHU since Saskatchewan's health region amalgamation in 2017.
 Furthermore, CCODWG adopted the pre-identified 13 'regional health authorities' in
 Saskatchewan and replaced them with 13 new 'zones' using different codes.
- There are five LPHU in Manitoba. Statistics Canada uses these five health regions to report data in the province, which are named as health authorities, and COVD-19 data are also reported based on these five health regions by CCODWG.
- In Ontario, public health services are operated and coordinated through public health units (PHUs). The team identified 34 LPHU in Ontario. Statistics Canada prepared a total of 35 health regions that are denoted as Public Health Units (PHUs). However, CCODWG removed Huron County Health Unit (3539) and Perth District Health Unit (3554) and replaced them with Huron Perth Public Health Unit (3539). COVID-19 data are reported by different data repositories based on updated thirty-four health regions in the province.

- In Québec, there are a total of 18 LPHU that administer public health programs and services. Statistics Canada prepared 18 health regions with the same names and geographies in the province, and similarly, CCODWG reports COVID-19 data based on these 18 health regions.
- The public health services and programs are operated in New Brunswick by four LPHU, which are denoted as regions. Statistics Canada, however, recognizes seven health regions in the province, which are called 'zones.' These seven zones are adopted by CCODWG for the purpose of reporting COVID-19 data at the regional level in New Brunswick.
- Likely, in Nova Scotia, public health services are operated by four LPHU, which are denoted as 'zones.' Statistics Canada and CCODWG use these 4 regions to report data at the health region level in Nova Scotia.
- In Newfoundland and Labrador, local-level public health services are administered by four LPHU as identified by the UPHN Research Group. These LPHU are the same as health regions used by Statistics Canada and CCODWG and are called 'health authorities.'
- Yukon, Nunavut, Prince Edward Island, and Northwest Territories have a single LPHU on their respective delegations. In these provinces/territories, CCODWG reports COVID-19 data based on one health region which is the same as the identified LPHU. Similarly, Statistics Canada uses the one health region in these provinces/territories to distribute population health data.

A computer friendly version of the crosswalk of LPHU and Statistics Canada and CCODWG health regions has also been prepared by our research team, which can be found in Appendix A. This crosswalk contains LPHU, RPHU, health regions' names and codes, as well as their annual populations which can be combined with outcome events to calculate rates. Statistics Canada has recently released the estimates of population by health regions across Canada ³. CCODWG used these estimates and adjusted them to the health regions for which they are reporting COVID-19 data. For Saskatchewan's 13 health regions, however, CCODWG obtained the health regions' population counts from Saskatchewan.ca dashboard ⁹ and not from Statistics Canada. The crosswalk in this paper contains the Statistics Canada population estimates from 2016 to 2021, and the population counts published on CCODWG GitHub from 2019 to 2021. Since the population counts for Saskatchewan are not published by CCODWG for the years 2019 and 2020, these cells were left out blank in the crosswalk. A glossary of the variables listed in the computer friendly crosswalk is also provided in Appendix B.

This crosswalk provides a tool for researchers who want to study public health services at the regional level in Canada. In particular, this crosswalk can be used to relate LPHU to the COVID-19 data reported by CCODWG, enabling the evaluation of COVID-19-related policies at the local level in Canada.

Table 1. Regional and local public Province/Territory	c health units by province and territories in Regional Public Health Unit (RPHUs)	accordance with UPHN proposed definition. Local Public Health Units (LPHUs)						
Alberta	Alberta Health	South Zone						
		Calgary Zone						
		Central Zone						
		Edmonton Zone						
		North Zone						
British Columbia	Interior Health	East Kootenay						
		Kootenay Boundary						
		Okanagan						
		Thompson Cariboo Shuswap						
	Fraser Health	Fraser East						
		Fraser North						
	V C (III III A d)	Fraser South						
	Vancouver Coastal Health Authority	Richmond Vancouver						
		North Shore/Coast Garibaldi						
	Vancouver Island Health	South Vancouver Island						
	vancouver island ricardi	Central Vancouver Island						
		North Vancouver Island						
	Northern Health	Northwest						
		Northern Interior						
		Northeast						
Manitoba	N/A	Winnipeg Regional Health Authority						
		Prairie Mountain Health						
		Interlake-Eastern Regional Health Authority						
		Northern Health Region						
New Brunswick	N/A	East Region						
		South Region						
		Central Region						
		North Region						
Newfoundland and Labrador	N/A	Eastern Health						
		Central Health						
		Western Health						
		Labrador-Grenfell Health						
Nova Scotia	N/A	Western Zone						
		Northern zone						
		Eastern Zone						
N. d. att. in it.	N/4	Central Zone						
Northwest Territories	N/A	Health and Social Services						
Nunavut	N/A	Department of Health						
Ontario	N/A	Algoma Public Health Unit						
		Brant County Health Unit						
		Durham Region Health Department						
		Grey Bruce Health Unit						
		Haldimand-Norfolk Health Unit						
		Haliburton, Kawartha, Pine Ridge District Health Unit						
		Halton Region Health Department						
		Hamilton Public Health Services						
		Hastings and Prince Edward Counties Health						
		Unit						
		Huron Perth Health Unit						
		Chatham-Kent Health Unit						
		Kingston, Frontenac and Lennox & Addington						
		Health Unit						
		Lambton-Health Unit						
		Leeds, Grenville and Lanark District Health						
		Unit						
		Middlesex-London Health Unit Niagara Region Public Health Department						
		North Bay Parry Sound District Health Unit						
		Northwestern Health Unit Ottawa Public Health						
		Peel Public Health						
		Peel Public Health Peterborough Public Health						
		Peterborough Public Health Porcupine Health Unit						
		Renfrew County and District Health Unit						
		Eastern Ontario Health Unit						
		Simcoe Muskoka District Health Unit						
		Sudbury and District Health Unit						
		Thunder Bay District Health Unit						
		Timiskaming Health Unit						
		Region of Waterloo, Public Health						
		Wellington-Dufferin-Guelph Health Unit						
		Windsor-Essex County Health Unit						
		York Region Public Health Services						
		Southwestern Public Health						
		Toronto Public Health						
Prince Edward Island	N/A	Health PEI						
Quebec	N/A	Bas-Saint Laurent						
		Saguenay-Lac Saint Jean Health Region						
		Capitale-Nationale						
		Mauricie-et-Center-du-Québec						
		Estrie						
		Montreal						
		Outaouais						
		Abitibi-Témiscamingue						
		North Shore						
		Nord-du-Québec						
		Gaspésie – Îles-de-la-Madeleine						
		Chaudière-Appalaches						
		Laval						
		Lanaudière						
		Laurentians						
		Montérégie						
		Nunavik						
		Terres-Cries-de-la-Baie-James						
S. 1. 4.1	0.1.(1	NI d						
Saskatchewan	Saskatchewan Health Authority	North						
Saskatchewan	Saskatchewan Health Authority	Urban (Saskatoon)						
Saskatchewan	Saskatchewan Health Authority	Urban (Saskatoon) Urban (Regina)						
Saskatchewan Yukon Territory	Saskatchewan Health Authority N/A	Urban (Saskatoon)						

Table 2. Local Public Health Un		sponding Statistics Canada and CCODWG health region codes a							
Province/Territory	Province/Territo	HR name (StatsCan)	HR code (StatsCan)	HR name (ccodwg)	HR code (ccodwg)	RPHU	LPHU		
Alberta	48	South Zone	4831	South	4831	Alberta Health	South Zone		
		Calgary Zone	4832	Calgary	4832		Calgary Zone		
		Central Zone Edmonton Zone	4833 4834	Central Edmonton	4833 4834		Central Zone Edmonton Zone		
		North Zone	4835	North	4835		North Zone		
British Columbia	59	East Kootenay Health Service Delivery Area	5911	Interior	591	Interior Health	East Kootenay		
		Kootenay-Boundary Health Service Delivery Area Okanagan Health Service Delivery Area	5912 5913	-			Kootenay Boundary Okanagan		
		Thompson/Cariboo Health Service Delivery Area	5914	1			Thompson Cariboo Shuswap		
		Fraser East Health Service Delivery Area	5921	Fraser	592	Fraser Health	Fraser East		
		Fraser North Health Service Delivery Area Fraser South Health Service Delivery Area	5922 5923	-			Fraser North Fraser South		
		Richmond Health Service Delivery Area	5931	Vancouver Coastal	593	Vancouver	Richmond		
		Vancouver Health Service Delivery Area	5932			Coastal Health Authority	Vancouver		
		North Shore/Coast Garibaldi Health Service Delivery Area South Vancouver Island Health Service Delivery Area	5933 5941	Island	594	Vancouver Island	North Shore/Coast Garibaldi South Vancouver Island		
		Central Vancouver Island Health Service Delivery Area	5942			Health	Central Vancouver Island		
		North Vancouver Island Health Service Delivery Area	5943				North Vancouver Island		
		Northwest Health Service Delivery Area Northern Interior Health Service Delivery Area	5951 5952	Northern	595	Northern Health	Northwest Northern Interior		
		Northeast Health Service Delivery Area	5953	1			Northeast		
Manitoba	46	Winnipeg Regional Health Authority	4601	Winnipeg	4601	N/A	Winnipeg Regional Health Authority		
		Prairie Mountain Health Interlake-Eastern Regional Health Authority	4602 4603	Prairie Mountain Interlake-Eastern	4602 4603	-	Prairie Mountain Health Interlake-Eastern Regional Health Authority		
		Northern Regional Health Authority	4604	Northern	4604		Northern Health Region		
		Southern Health	4605	Southern Health	4605		Southern Health		
New Brunswick	13	Zone 1 (Moncton area) Zone 2 (Saint John area)	1301	Zone 1 (Moncton area) Zone 2 (Saint John area)	1301	N/A	East Region South Region		
		Zone 2 (Saint John area) Zone 3 (Fredericton area)	1302	Zone 2 (Saint John area) Zone 3 (Fredericton area)	1302	1	Central Region		
		Zone 4 (Edmundston area)	1304	Zone 4 (Edmundston area)	1304		North Region		
		Zone 5 (Campbellton area) Zone 6 (Bathurst area)	1305 1306	Zone 5 (Campbellton area) Zone 6 (Bathurst area)	1305	-	North Region North Region		
		Zone 6 (Batnurst area) Zone 7 (Miramichi area)	1306	Zone 6 (Batnurst area) Zone 7 (Miramichi area)	1307	1	East Region		
Newfoundland and Labrador	10	Eastern Regional Health Authority	1011	Eastern	1011	N/A	Eastern Health		
		Central Regional Health Authority Western Regional Health Authority	1012	Central Western	1012	+	Central Health Western Health		
		Labrador-Grenfell Regional Health Authority	1013	Labrador-Grenfell	1013	1	Labrador-Grenfell Health		
Nova Scotia	12	Zone 1 - Western	1201	Zone 1 - Western	1201	N/A	Western Zone		
		Zone 2 - Northern Zone 3 - Eastern	1202 1203	Zone 2 - Northern Zone 3 - Eastern	1202	-	Northern zone Eastern Zone		
		Zone 3 - Eastern Zone 4 - Central	1203	Zone 3 - Eastern Zone 4 - Central	1203	1	Eastern Zone Central Zone		
Northwest Territories	61	Northwest Territories	6101	NWT	6101	N/A	Health and Social Services		
Nunavut	62	Nunavut	6201	Nunavut	6201	N/A	Department of Health		
Ontario		The District of Algoma Health Unit Brant County Health Unit	3526 3527	Algoma Brant	3526 3527	N/A	Algoma Public Health Unit Brant County Health Unit		
		Durham Regional Health Unit	3530	Durham	3530		Durham Region Health Department		
		Grey Bruce Health Unit	3533	Grey Bruce	3533		Grey Bruce Health Unit		
		Haldimand-Norfolk Health Unit Haliburton, Kawartha, Pine Ridge District Health Unit	3534 3535	Haldimand-Norfolk Haliburton Kawartha Pineridge	3534 3535	-	Haldimand-Norfolk Health Unit Haliburton, Kawartha, Pine Ridge District Health Unit		
		Halton Regional Health Unit	3536	Halton	3536		Halton Region Health Department		
		City of Hamilton Health Unit	3537 3538	Hamilton	3537		Hamilton Public Health Services		
		Hastings and Prince Edward Counties Health Unit Huron County Health Unit	3539	Hastings Prince Edward Huron Perth	3538 3539		Hastings and Prince Edward Counties Health Unit Huron Perth Health Unit		
		Perth District Health Unit	3554						
		Chatham-Kent Health Unit	3540 3541	Chatham-Kent	3540 3541		Chatham-Kent Health Unit		
		Kingston, Frontenac and Lennox and Addington Health Unit Lambton Health Unit	3541	Kingston Frontenac Lennox & Addington Lambton	3541	1	Kingston, Frontenae and Lennox & Addington Health Un Lambton-Health Unit		
		Leeds, Grenville and Lanark District Health Unit	3543	Leeds Grenville and Lanark	3543		Leeds, Grenville and Lanark District Health Unit		
		Middlesex-London Health Unit	3544	Middlesex-London	3544		Middlesex-London Health Unit		
		Niagara Regional Area Health Unit North Bay Parry Sound District Health Unit	3546 3547	Niagara North Bay Parry Sound	3546 3547	-	Niagara Region Public Health Department North Bay Parry Sound District Health Unit		
		Northwestern Health Unit	3549	Northwestern	3549		Northwestern Health Unit		
		City of Ottawa Health Unit	3551	Ottawa	3551		Ottawa Public Health		
		Peel Regional Health Unit Peterborough County—City Health Unit	3553 3555	Peel Peterborough	3553 3555		Peel Public Health Peterborough Public Health		
		Porcupine Health Unit	3556	Porcupine	3556		Porcupine Health Unit		
		Renfrew County and District Health Unit	3557	Renfrew	3557		Renfrew County and District Health Unit		
		The Eastern Ontario Health Unit Simcoe Muskoka District Health Unit	3558 3560	Eastern Simcoe Muskoka	3558 3560	1	Eastern Ontario Health Unit Simcoe Muskoka District Health Unit		
		Sudbury and District Health Unit	3561	Sudbury	3561	1	Sudbury and District Health Unit		
		Thunder Bay District Health Unit	3562	Thunder Bay	3562	1	Thunder Bay District Health Unit		
		Timiskaming Health Unit Waterloo Health Unit	3563 3565	Timiskaming Waterloo	3563 3565	1	Timiskaming Health Unit Region of Waterloo, Public Health		
		Wellington-Dufferin-Guelph Health Unit	3566	Wellington Dufferin Guelph	3566	1	Wellington-Dufferin-Guelph Health Unit		
		Windsor-Essex County Health Unit	3568	Windsor-Essex	3568	1	Windsor-Essex County Health Unit		
		York Regional Health Unit Oxford Elgin St. Thomas Health Unit	3570 3575	York Southwestern	3570 3575	1	York Regional Public Health Services Southwestern Public Health		
		City of Toronto Health Unit	3595	Toronto	3595		Toronto Public Health		
Prince Edward Island	11	Prince Edward Island	1100	Prince Edward Island	1100	N/A N/A	Health PEI		
Quebec	24	Région du Bas-Saint-Laurent Région du Saguenay—Lac-Saint-Jean	2401 2402	Bas-Saint-Laurent Saguenay	2401 2402	IN/A	Bas-Saint Laurent Saguenay-Lac Saint Jean Health Region		
		Région de la Capitale-Nationale	2402	Capitale-Nationale	2403	1	Capitale-Nationale		
		Région de la Mauricie et du Centre-du-Québec	2404	Mauricie	2404	1	Mauricie-et-Center-du-Québec		
		Région de l'Estrie Région de Montréal	2405 2406	Estrie Montréal	2405 2406	+	Estrie Montreal		
		Région de Montreal Région de l'Outaouais	2407	Outaouais	2407		Outaouais		
		Région de l'Abitibi-Témiscamingue	2408	Abitibi-Témiscamingue	2408	1	Abitibi-Témiscamingue		
		Région de la Côte-Nord Région du Nord-du-Québec	2409 2410	Côte-Nord Nord-du-Québec	2409 2410	+	North Shore Nord-du-Québec		
		Région de la Gaspésie—Îles-de-la-Madeleine	2411	Gaspésie-Îles-de-la-Madeleine	2411		Gaspésie – Îles-de-la-Madeleine		
		Région de la Chaudière-Appalaches	2412	Chaudière-Appalaches	2412	4	Chaudière-Appalaches		
		Région de Laval Région de Lanaudière	2413 2414	Laval Lanaudière	2413 2414	+	Laval Lanaudière		
		Région de Lanaudrete Région des Laurentides	2415	Laurentides	2415	1	Laurentians		
		Région de la Montérégie	2416	Montérégie	2416		Montérégie		
		Région du Nunavik Région des Terres-Cries-de-la-Baie-James	2417 2418	Nunavik Terres-Cries-de-la-Baie-James	2417 2418	-	Nunavik Terres-Cries-de-la-Baie-James		
Saskatchewan	47	Region des Terres-Cries-de-la-Baie-James Keewatin Yatthé Regional Health Authority	4712	Far North West	4711	Saskatchewan	North		
		Athabasca Regional Health Authority	4713	Far North Central	4712	Health Authority	North		
		Mamawetan Churchill River Regional Health Authority	4711	Far North East	4713	4	North North		
		Prairie North Regional Health Authority Prince Albert Parkland Regional Health Authority	4710 4709	North West North Central	4721 4722	1	North North		
		Kelsey Trail Regional Health Authority	4708	North East	4723		North		
		Heartland Regional Health Authority	4707	Central West	4731	1	Rural		
		Sunrise Regional Health Authority Saskatoon Regional Health Authority	4705 4706	Central East Saskatoon	4732 4741	-	Rural Urban (Saskatoon)		
		Regina Qu'Appelle Regional Health Authority	4704	Regina	4741	1	Urban (Regina)		
		Cypress Regional Health Authority	4703	South West	4761	1	Rural		
					_	4			
		Five Hills Regional Health Authority Sun Country Regional Health Authority	4702 4701	South Central South East	4762 4763		Rural Rural		

References

- 1. Plante, C., Sandhu, N., Bandara, T., & Neudorf, C. Toward a Definition of "Local Public Health Unit" for Public Health Systems and Services Research in Canada. Urban Public Health Network Research. 2022.
- 2. CCODWG. Epidemiological data from the COVID-19 outbreak in Canada. COVID-19 Canada Open Data Working Group. 2020.
- 3. Statistics Canada. Table 17-10-0134-01 Estimates of population (2016 Census and administrative data), by age group and sex for July 1st, Canada, provinces, territories, health regions (2018 boundaries) and peer groups. Government of Canada, Statistics Canada. 2022.
- 4. Statistics Canada. Health regions and peer groups. Statistics Canada. 2018.
- 5. Berry I, O'Neill M, Sturrock SL, Wright JE, Acharya K, Brankston G, et al. A subnational real-time epidemiological and vaccination database for the COVID-19 pandemic in Canada. 2021.
- 6. Statistics Canada. Health region boundary files. Statistics Canada. 2018.
- 7. Statistics Canada. Health regions in Canada, 2018. Statistics Canada. 2018.
- 8. Statistics Canada. Health regions and peer groups. Statistics Canada. 2015.
- 9. Government of Saskatchewan. Saskatchewan's Dashboard. Government of Saskatchewan. 2021.

Appendices

Appendix A: Local Public Health Units, Statistics Canada, and COVID-19 Canada Open Data Working Group crosswalk with population counts.

Appendix B: Labels of variables used in the data table of the crosswalk for Local Public Health Units and Statistics Canada Health Regions.

	pr_code 48	hr_ste South Zone	hr_stc_code 4831	hr_ccod South	hr_ccod_code 4831	rphu Alberta Health	lphu South Zone	pop_hr_stc_2016 299,059	pop_hr_stc_2017 300.805	pop_hr_stc_2018 303,493	pop_hr_stc_2019 305.937	pop_hr_stc_2020 307.967	pop_hr_stc_2021 308.346	pop_hr_ccod_201 305.937	9 pop_hr_ccod_20 307.967	308,346
Alberta Alberta	48	Calgary Zone	4832	South Calgary	4832	Alberta Health	Calgary Zone	1,602,335	1,623,652	1,649,350	1,681,326	1,712,691	1,726,962	1,681,326	1,712,691	1,726,962
lberta lberta	48	Central Zone Edmonton Zone	4833 4834	Central Edmonton	4833 4834	Alberta Health Alberta Health	Central Zone Edmonton Zone	473,270	473,612 1 388 734	475,378 1.413.467	476,750 1 440 779	476,648 1.465.496	475,379 1.477.309	476,750 1.440,729	476,648 1.465.496	475,379 1.477.309
berta berta	48	Edmonton Zone North Zone	4834	Edmonton North	4834 4835	Alberta Health Alberta Health	Edmonton Zone North Zone	1,363,736 457,661	1,388,734 454,297	1,413,467 456,587	1,440,729 457,834	1,465,496 457,227	1,477,309 454,883	1,440,729 457,834	1,465,496 457,227	1,477,309 454,883
itish Columbia	59	East Kootenay Health Service Delivery Area	5911	Interior	591	Interior Health	East Kootenay	82,935	83,704	84,852	85,901	86,589	87,613	807,888	817,893	829,666
itish Columbia itish Columbia	59	Kootenay-Boundary Health Service Delivery Area Okanagan Health Service Delivery Area	5912 5913	Interior Interior	591	Interior Health Interior Health	Kootenay Boundary	81,434	82,109	82,946	83,785	84,263	84,989	807,888	817,893	829,666
itish Columbia itish Columbia	59	Okanagan Health Service Delivery Area Thompson/Caribon Health Service Delivery Area	5913 5914	Interior	591	Interior Health	Okanagan Thormson Caribon Shuswan	377,350 228,179	384,164 231,873	392,087 236,579	398,936	405,946 241,095	414,038	807,888 807.888	817,893 817,893	829,666 829,666
tish Columbia	59	Fraser East Health Service Delivery Area	5921	Fraser	592	Fraser Health	Fraser East	309,349	316,585	324,893	331,410	335,281	339,900	1,910,339	1,940,980	1,974,706
itish Columbia itish Columbia	59	Fraser North Health Service Delivery Area Fraser South Health Service Delivery Area	5922 5923	Fraser Fraser	592 592	Fraser Health Fraser Health	Fraser North Fraser South	670,478 821.970	679,139 832.855	689,562 845.875	699,533 879,396	707,782 897.917	716,618 918.188	1,910,339	1,940,980	1,974,706 1,974,706
stish Columbia itish Columbia	59	Richmond Health Service Delivery Area	5923	Vancouver Coastal	592	Vancouver Coastal Health Authority	Fraser South Richmond	821,970 207,266	832,855 210,072	845,875 213,410	879,396 213,875	897,917 215,393	918,188 216,280	1,910,339	1,940,980	1,974,706
itish Columbia	59	Vancouver Health Service Delivery Area	5932	Vancouver Coastal	593	Vancouver Coastal Health Authority	Vancouver	682,697	692,336	704,074	712,367	719,700	713,057	1,230,939	1,242,304	1,240,517
ritish Columbia ritish Columbia	59	North Shore/Coast Garibaldi Health Service Delivery Area South Vancouver Island Health Service Delivery Area	5933 5941	Vancouver Coastal Island	593 594	Vancouver Coastal Health Authority Vancouver Island Health	North Shore/Coast Garibaldi South Vancouver Island	296,756 400,562	300,985 406,681	305,132 413,016	304,697 419,827	307,211 426,121	311,180 432,062	1,230,939 847,137	1,242,304 857,768	1,240,517 868,946
ritish Columbia	59	Central Vancouver Island Health Service Delivery Area	5942	Island	594	Vancouver Island Health	Central Vancouver Island	280,982	285,846	290,209	419,827 294,154	296,970	300,307	847,137	857,768	868,946 868,946
itish Columbia	59	North Vancouver Island Health Service Delivery Area	5943	Island	594	Vancouver Island Health	North Vancouver Island	126,815	129,040	131,301	133,156	134,677	136,577	847,137	857,768	868,946
itish Columbia itish Columbia	59	Northwest Health Service Delivery Area Northern Interior Health Service Delivery Area	5951 5952	Northern Northern	595 595	Northern Health Northern Health	Northwest Northern Interior	74,743 146,614	74,779 148,133	75,047 150,049	75,690 151,087	76,449 151,707	77,014 152,023	298,493 298,493	299,783 299,783	300,970 300,970
itish Columbia	59	Northeast Health Service Delivery Area	5953	Northern	595	Northern Health	Northeast	71,120	71,083	71,444	71,716	71,627	71,933	298,493	299,783	300,970
anitoba	46	Winnipeg Regional Health Authority	4601	Winnipeg	4601	N/A	Winnipeg Regional Health Authority	742,047	756,955	769,458	779,626	785,032	785,200	779,626	785,032	785,200
anitoba anitoba	46 46	Prairie Mountain Health Interlake-Eastern Regional Health Authority	4602 4603	Prairie Mountain Interlake-Eastern	4602 4603	N/A N/A	Prairie Mountain Health Interlake-Eastern Regional Health Authority	169,180 130,459	170,154 131,335	171,019 132,704	172,092 134,350	172,939 135,564	172,526	172,092	172,939 135,564	172,526 136,029
anitoba	46	Northern Regional Health Authority	4604	Northern	4604	N/A	Northern Health Region	75,134	75,649	75,590	75,801	75,784	75,585	75,801	75,784	75,585
anitoba	46	Southern Health	4605	Southern Health	4605	N/A	Southern Health	197,319	200,697	204,054	208,085	211,329	214,425	208,085	211,329	214,425
ew Brunswick ew Brunswick	13	Zone 1 (Moneton area) Zone 2 (Saint John area)	1301 1302	Zone 1 (Moneton area) Zone 2 (Saint John area)	1301 1302	N/A N/A	East Region South Region	214,317 174,085	216,337 174,559	218,750 175,339	222,877 176,351	226,961 177,398	231,476 178,110	222,877 176,351	226,961 177,398	231,476 178,110
w Brunswick	13	Zone 3 (Fredericton area)	1303	Zone 3 (Fredericton area)	1303	N/A	Central Region	178,445	180,013	181,562	183,426	184,914	185,853	183,426	184,914	185,853
rw Brunswick	13	Zone 4 (Edmundston area)	1304	Zone 4 (Edmundston area)	1304	N/A	North Region	48,669	48,505	48,224	48,163	48,015	47,909	48,163	48,015	47,909
ew Brunswick ew Brunswick	13	Zone 5 (Campbellton area) Zone 6 (Bathurst area)	1305 1306	Zone 5 (Campbellton area) Zone 6 (Bathurst area)	1305 1306	N/A N/A	North Region North Region	25,688 77,778	25,533 77.505	25,367 77.040	25,219 76,928	25,079 76,748	24,900 76,696	25,219 76,928	25,079 76,748	24,900 76,696
rw Brunswick	13	Zone 7 (Miramichi area)	1307	Zone 7 (Miramichi area)	1307	N/A	East Region	44,368	44,169	44,019	44,164	44,089	44,281	44,164	44,089	44,281
wfoundland and Labrador	10	Eastern Regional Health Authority	1011	Eastern	1011	N/A	Eastern Health	319,835	319,910	318,936	318,598 91,527	318,204	318,149	318,598	318,204	318,149
rwfoundland and Labrador rwfoundland and Labrador	10	Central Regional Health Authority Western Regional Health Authority	1012 1013	Central Western	1012 1013	N/A N/A	Central Health Western Health	93,868 78,922	93,204 78,403	92,426 77,710	91,527 77,067	90,701 76,388	90,402 75,930	91,527 77,067	90,701 76,388	90,402 75,930
ewfoundland and Labrador	10	Labrador-Grenfell Regional Health Authority	1014	Labrados-Grenfell	1014	N/A	Labrador-Grenfell Health	36,801	36,732	36,488	36,235	36,071	36,072	36,235	36,071	36,072
ova Scotia	12	Zone 1 - Western Zone 2 - Northern	1201	Zone 1 - Western Zone 2 - Northern	1201	N/A N/A	Western Zone Northern zone	197,620	198,256 148,454	198,613 148,362	198,891	199,456	200,719	198,891	199,456 149,084	200,719
ova Scotia ova Scotia	12	Zone 2 - Northern Zone 3 - Eastern	1202	Zone 2 - Northern Zone 3 - Eastern	1202	N/A N/A	Northern zone Eastern Zone	148,711	160,656	160,412	148,535	161,269	150,132 159,934	148,535	149,084	150,132 159,934
ova Scotia	12	Zone 4 - Central	1204	Zone 4 - Central	1204	N/A	Central Zone	434,996	442,742	451,019	460,946	472,080	481,270	460,946	472,080	481,270
orthwest Territories unavut	61	Northwest Territories Numerant	6101 6201	NWT Nunavut	6101 6201	N/A N/A	Health and Social Services Department of Health	44,649 36,975	44,891 37,546	44,981 38,143	45,070 38,592	45,372 39,155	45,504 39,403	45,070 38,592	45,372 39,155	45,504 39,403
ntario	35	The District of Algoma Health Unit	3526	Algoma	3526	N/A	Algoma Public Health Unit	116,545	116,295	116,390	117,138	117,698	117,178	117,138	117,698	117,178
ntario	35	Brant County Health Unit	3527 3530	Beant Darborn	3527	N/A	Brant County Health Unit	145,532	147,376	149,189	151,439	153,665	156,506	151,439	153,665	156,506
stario	35	Durham Regional Health Unit Grey Bruce Health Unit	3530 3533	Durham Grey Bruce	3530 3533	N/A N/A	Durham Region Health Department Grey Bruce Health Unit	665,990 166,251	674,872 168.738	685,455 171,165	698,265 173.707	713,826 176,272	727,328 178.618	698,265 173.707	713,826 176,272	727,328 178.618
tario	35	Haldimand-Norfolk Health Unit	3534	Haldimand-Norfolk	3534	N/A	Haldimand-Norfolk Health Unit	112,907	114,077	117,102	118,939	120,055	122,098	118,939	120,055	122,098
stario	35	Haliburton, Kawartha, Pine Ridge District Health Unit	3535	Haliburton Kawartha Pineridge	3535	N/A	Haliburton, Kawartha, Pine Ridge District Health Unit	183,365	186,281	188,160	189,551	191,210	193,129	189,551	191,210	193,129
stario stario	35	Halton Regional Health Unit City of Hamilton Health Unit	3536 3537	Halton Hamilton	3536 3537	N/A N/A	Halton Region Health Department Hamilton Public Health Services	565,106 552,272	572,951 559,673	584,019 566,144	597,974 574,343	611,390 583,354	619,069 587,192	597,974 574,343	611,390 583,354	619,069 587,192
ntario	35	Hastings and Prince Edward Counties Health Unit	3538	Hastings Prince Edward	3538	N/A	Hastings and Prince Edward Counties Health Unit	165,361	167,016	169,029	170,783	172,967	173,947	170,783	172,967	173,947
ntario ntario	35	Huron County Health Unit Perth District Health Unit	3539 3554	Huron Perth Huron Perth	3539 3539	N/A N/A	Huron Perth Health Unit Huron Perth Health Unit	60,732 78,970	61,088	62,066	62,597	63,190	63,912 84,062	144,689	146,433	147,974
ntario ntario	35	Perth District Health Unit Chatham-Kent Health Unit	3554 3540	Chatham-Kent	3539 3540	N/A N/A	Huron Perth Health Unit Chatham-Kent Health Unit	78,970 104,771	79,896 105,259	81,062 105,756	82,092 106,074	83,243 107,032	84,062 107,923	144,689 106,074	146,433 107,032	147,974 107,923
stario	35	Kingston, Frontenac and Lennox and Addington Health Unit	3541	Kingston Frontenac Lennox & Addington	3541	N/A	Kingston, Frontenac and Lennox & Addington Health Unit	198,850	202,132	205,535	207,713	209,445	209,734	207,713	209,445	209,734
ntario ntario	35	Lambton Health Unit Leeds, Grenville and Lanark District Health Unit	3542 3543	Lambton Leeds Grenville and Lanark	3542 3543	N/A N/A	Lambton-Health Unit Leeds, Grenville and Lanark District Health Unit	129,364	129,797	131,275	132,277	132,714	132,611	132,277	132,714	132,611
stario	35	Leeds, Grenville and Lanark District Health Unit Middlesex-London Health Unit	3543	Leeds Grenville and Lanark Middlesex-London	3543	N/A N/A	Middlesex-London Health Unit	173,415 471 332	174,124 481 820	175,955	178,014 502 557	179,966 510.738	181,549 515 114	178,014 502 557	179,966 510.738	181,549 515 114
ntario	35	Niagara Regional Area Health Unit	3546	Niagara	3546	N/A	Niagara Region Public Health Department	459,262	465,509	472,108	478,085	481,938	484,840	478,085	481,938	484,840
ntario ntario	35	North Bay Parry Sound District Health Unit Northwestern Health Unit	3547 3549	North Bay Parry Sound Northwestern	3547 3549	N/A N/A	North Bay Parry Sound District Health Unit Northwestern Health Unit	127,137 80.786	128,277 81.066	128,964 81.341	129,262 81.368	129,764 81.465	130,788 81.611	129,262 81.368	129,764 81.465	130,788 81.611
ntario	35	Northwestern Health Unit City of Ottawa Health Unit	3549	Ottawa Ottawa	3549	N/A N/A	Northwestern Health Unit Ottawa Public Health	80,786 964,341	81,066 983,739	81,341 1,004,802	81,368 1,025,354	1,046,260	81,611 1,054,800	81,368 1,025,354	81,465 1,046,260	81,611 1,054,800
ntario	35	Peel Regional Health Unit	3553	Peel	3553	N/A	Peel Public Health	1,432,969	1,462,205	1,496,113	1,533,899	1,561,757	1,571,328	1,533,899	1,561,757	1,571,328
ntario ntario	35	Peterborough County—City Health Unit Poscupine Health Unit	3555 3556	Peterborough	3555 3556	N/A N/A	Peterborough Public Health Porcupine Health Unit	141,724 86,433	143,866 85,739	146,741 85,192	147,345 85,281	147,925 85,040	147,749 84,201	147,345 85,281	147,925 85,040	147,749 84,201
stario	35	Renfrew County and District Health Unit	3557	Renfiew	3557	N/A	Renfrew County and District Health Unit	106,349	106,956	85,192 107,417	108,071	108,778	109,323	108,071	108,778	109,323
stario	35	The Eastern Ontario Health Unit	3558	Eastern	3558	N/A	Eastern Ontario Health Unit	208,218	209,321	211,068	213,501	216,112	217,983	213,501	216,112	217,983
stario stario	35	Simcoe Muskoka District Health Unit Sudbury and District Health Unit	3560 3561	Simcoe Muskoka Sudbury	3560 3561	N/A N/A	Simcoe Muskoka District Health Unit Sudbury and District Health Unit	556,881 201,690	570,106 202,079	582,140 203,962	594,236 204,622	605,321 205,208	616,474 205,481	594,236 204,622	605,321 205,208	616,474 205,481
ntario	35	Thunder Bay District Health Unit	3562	Thunder Bay	3562	N/A	Thunder Bay District Health Unit	156,337	156,763	157,036	157,615	157,515	156,022	157,615	157,515	156,022
stario	35	Timiskaming Health Unit	3563	Timiskaming	3563	N/A	Timiskaming Health Unit	33,859	33,825	33,829	33,915	34,010	34,180	33,915	34,010	34,180
stario stario	35 35	Waterloo Health Unit Wellington-Dufferin-Gueloh Health Unit	3565 3566	Waterloo Wellington Dufferin Gueloh	3565 3566	N/A N/A	Region of Waterloo, Public Health Wellington-Dufferin-Guelph Health Unit	553,437 293,464	564,985 298,634	579,197 303,892	592,983 308 152	605,611	611,493 316,676	592,983 308 152	605,611	611,493 316,676
ntario	35	Windsor-Essex County Health Unit	3568	Windsor-Essex	3568	N/A	Windsor-Essex County Health Unit	412,050	415,308	421,687	426,042	428,157	426,246	426,042	428,157	426,246
stario	35	York Regional Health Unit	3570	York	3570	N/A	York Regional Public Health Services	1,144,859	1,149,236	1,161,386	1,182,745	1,201,331	1,209,914	1,182,745	1,201,331	1,209,914
stario stario	35 35	Oxford Elgin St. Thomas Health Unit City of Toronto Health Unit	3575 3595	Southwestern Toronto	3575 3595	N/A N/A	Southwestern Public Health Toronto Public Health	205,437 2,819,398	208,471 2,862,661	211,906 2,917,915	215,535 2,963,227	219,173 2,990,856	222,904 2,974,293	215,535 2,963,227	219,173 2,990,856	222,904 2,974,293
ince Edward Island	11	Prince Edward Island	1100	Prince Edward Island	1100	N/A	Health PEI	146,969	150,402	153,396	157,419	161,329	164,318	157,419	161,329	164,318
achec	24	Région du Bas-Saint-Laurent	2401 2402	Bas-Saint-Laurent	2401 2402	N/A N/A	Bas-Saint Laurent	197,802	197,550	197,291 277,388	197,530	198,063	199,097	197,530 278,032	198,063 278,946	199,097 279,949
sebec	24	Région du Saguenay—Lac-Saint-Jean Région de la Capitale-Nationale	2402 2403	Saguenay Capitale-Nationale	2402 2403	N/A N/A	Saguenay-Lac Saint Jean Health Region Capitale-Nationale	277,076 733.847	277,174 738,620	277,388 744,399	278,032 751,442	278,946 757.031	279,949 761.029	278,032 751.442	278,946 757.031	279,949 761.029
sebec	24	Région de la Mauricie et du Centre-du-Québec	2404	Mauricie	2404	N/A	Mauricie-et-Center-du-Québec	510,387	513,971	516,951	520,711	525,757	532,860	520,711	525,757	532,860
achec achec	24	Région de l'Estrie Région de Montréal	2405 2406	Estrie Montréal	2405 2406	N/A N/A	Estric Montreal	474,740 1,959,014	478,864 1,986,067	484,026 2,028,244	489,986 2,066,038	497,573 2,072,645	506,560 2,025,928	489,986 2,066,038	497,573 2,072,645	506,560 2,025,928
achec achec	24	Région de Montréal Région de l'Outaouais	2406 2407	Montréal Outaouais	2406 2407	N/A N/A	Montreal Outaousis	1,959,014 385,385	1,986,067 388,330	2,028,244 392,200	2,066,038 397,007	2,072,645 401,280	2,025,928 404,265	2,066,038	2,072,645 401,280	2,025,928 404,265
aebec	24	Région de l'Abitibi-Témiscamingue	2408	Abitibi-Témiscamingue	2408	N/A	Abitibi-Témiscamingue	147,293	147,609	147,607	147,634	147,960	148,242	147,634	147,960	148,242
achec achec	24	Région de la Côte-Nord Région du Nord-dus Duébec	2409	Côte-Nord Nondeln-On-Pre-	2409	N/A N/A	North Shore North (In/Pres	92,713 13,942	91,824	91,160	90,717	90,606	90,543	90,717	90,606	90,543 13.418
sebec	24	Région de la Gaspésie—Îles-de-la-Madeleine	2410 2411	Nord-du-Quêbee Gaspésie-Îles-de-la-Madeleine	2410 2411	N/A N/A	Nord-du-Quebee Gaspésie – Îles-de-la-Madeleine	90,740	90,537	90,615	90,456	90,721	92,072	13,648 90,456	90,721	13,418 92,072
iebec	24	Région de la Chaudière-Appalaches	2412	Chaudière-Appalaches	2412	N/A	Chaudière-Appalaches	422,019	424,188	426,578	428,969	432,846	438,106	428,969	432,846	438,106
ebec ebec	24	Région de Laval Région de Lanaudière	2413 2414	Laval Lanaudière	2413 2414	N/A N/A	Laval Lanaudière	425,461 497,298	429,753 502,991	435,099 508,958	439,583 515,727	442,796 524,452	443,192 535,230	439,583 515,727	442,796 524,452	443,192 535,230
ebec ebec	24	Région de Lanaudière Région des Laurentides	2414	Lanaudière Laurentides	2414 2415	N/A N/A	Laurentians	594.981	603,209	508,958 611,917	515,727 620,648	524,452 631,873	535,230 647,179	515,727 620,648	524,452 631,873	535,230 647,179
chec	24	Région de la Montérégie	2416	Montérégie	2416	N/A	Montérégie	1,372,474	1,386,290	1,403,748	1,423,109	1,439,562	1,453,570	1,423,109	1,439,562	1,453,570
ebec	24	Région du Nunavik Région des Terres-Cries-de-la-Baie-James	2417 2418	Nunavik Terres-Cries-de-la-Baie-James	2417 2418	N/A N/A	Nunavik Terres-Cries-de-la-Baie-James	13,385 17,393	13,549 17.686	13,817	14,111 18.135	14,351 18.358	14,576 18.679	14,111 18.135	14,351 18.358	14,576 18.679
sebec skatchewan	47	Région des Terres-Cries-de-la-Baie-James Keewatin Yatthé Regional Health Authority	2418 4712	Terres-Cries-de-la-Baie-James Far North West	2418 4711	N/A Saskatchewan Health Authority	Terres-Cries-de-la-Baie-James North	17,393	17,686	17,904	18,135 11,226	18,358	18,679	18,135	18,358	18,679 29,813
katchewan	47	Athabasca Regional Health Authority	4713	Far North Central	4712	Saskatchewan Health Authority	North	2,722	2,719	2,740	2,845	2,830	2,740			2,649
katchewan	47	Mamawetan Churchill River Regional Health Authority	4711	Far North East	4713	Saskatchewan Health Authority	North	23,216	23,279	23,436	23,446	23,509	23,866			24,249
katchewan katchewan	47 47	Prairie North Regional Health Authority Prince Albert Parkland Regional Health Authority	4710 4709	North West North Central	4721 4722	Saskatchewan Health Authority Saskatchewan Health Authority	North North	77,488 77.898	77,511 78.260	77,421 78.300	77,526 78.477	77,459 78,443	77,362 78.069			82,386 88.991
katchewan	47	Kelsey Trail Regional Health Authority	4708	North East	4723	Saskatchewan Health Authority	North	40,687	40,656	40,438	39,981	39,710	39,531			41,560
katchewan	47	Heartland Regional Health Authority	4707	Central West	4731	Saskatchewan Health Authority	Rural	42,926	42,979	42,891	42,550	42,332	42,092			36,962
katchewan katchewan	47 47	Sunrise Regional Health Authority Saskatoon Regional Health Authority	4705 4706	Central East Saskatoon	4732 4741	Saskatchewan Health Authority Saskatchewan Health Authority	Rural Lithan (Saskatoon)	56,425 358,232	56,393 366,148	56,149 373,002	55,994 380,400	55,641 386,775	55,311 389,541			98,368 338,106
katchewan	47	Regina Qu'Appelle Regional Health Authority	4704	Rozina	4751	Saskatchewan Health Authority	Urban (Saskaloon) Urban (Regina)	358,232 288,188	366,148 293,945	373,002 299,061	380,400	386,775 306,053	389,541 306,025			338,106 273,351
skatchewan	47	Cypress Regional Health Authority	4703	South West	4761	Saskatchewan Health Authority	Rural	44,174	44,373	44,326	44,264	43,985	43,765			38,670
katchewan	47	Five Hills Regional Health Authority	4702	South Central	4762	Saskatchewan Health Authority	Rural	55,157	55,430	55,486	54,946	54,720	54,219			60,459
katchewan		Sun Country Regional Health Authority	4701	South East Yukon	4763	Saskatchewan Health Authority N/A	Rural	57,878	57,599 39,610	57,412 40,519	57,143 41,362	56,539 42,174	56,052 42,986	41,362	42,174	89,294 42,986

Appendix B. Labels of variables used in the data table of the crosswalk for Local Public Health Units and Statistics Canada Health Regions.

Regions.	
Variables	Variable label
pr_name	Province or territory
pr_code	Standard geographical classification (SGC) code
hr_stc_name	Statistics Canada health region name
hr_stc_code	Statistics Canada health region code
hr_ccod_name	COVID-19 Canada open data working group health region name
hr_covid_code	COVID-19 Canada open data working group health region code
rphu	Regional public health unit
lphu	Local public health unit
hr_stc_pop_2016	Statistics Canada population estimate by health region in 2016
hr_stc_pop_2017	Statistics Canada population estimate by health region in 2017
hr_stc_pop_2018	Statistics Canada population estimate by health region in 2018
hr_stc_pop_2019	Statistics Canada population estimate by health region in 2019
hr_stc_pop_2020	Statistics Canada population estimate by health region in 2020
hr_stc_pop_2021	Statistics Canada population estimate by health region in 2021
hr_ccod_pop_2019	COVID-19 Canada open data working group adjusted population for each health region in 2019
hr_ccod_pop_2020	COVID-19 Canada open data working group adjusted population for each health region in 2020
hr_ccod_pop_2021	COVID-19 Canada open data working group adjusted population for each health region in 2021