

Epidemiologic Summary

COVID-19 in Ontario: January 15, 2020 to April 21, 2020

This report includes the most current information available from the integrated Public Health Information System (iPHIS) as of **4 p.m. April 21, 2020** and from the Toronto Public Health Coronavirus Rapid Entry System (CORES) as of **2 p.m. April 21, 2020**.

Purpose

- This daily report provides an epidemiologic summary of COVID-19 activity in Ontario to date.

Highlights

- There are 12,245 confirmed cases of COVID-19 in Ontario reported to date in iPHIS. This represents an increase of 510 confirmed cases from the previous report.
 - 42.2% of cases are male, 56.8% are female.
 - 44.0% of cases are 60 years of age and older.
 - Greater Toronto Area public health units account for 59.3% of cases.
 - 11.9% of cases were hospitalized.
- 659 deaths have been reported (please note there may be a reporting delay for deaths in iPHIS). This is an increase of 37 deaths from the previous report.
- 125 outbreaks have been reported in long-term care homes. This is an increase of 4 outbreaks from the previous report.
- 295 deaths have been reported among residents/patients in long-term care homes. This is an increase of 22 deaths from the previous report.

Case Characteristics

Table 1. Summary of cases of COVID-19: Ontario, January 15, 2020 to April 21, 2020

	Number	Percentage
Number of cases*	12,245	N/A
Change from previous report	510	4.3% increase
Gender: Male	5,169	42.2
Gender: Female	6,952	56.8
Ages: 19 and under	270	2.2
Ages: 20-39	2,781	22.7
Ages: 40-59	3,798	31.0
Ages: 60-79	2,778	22.7
Ages: 80 and over	2,609	21.3
Number of cases in health care workers	1,499	12.2

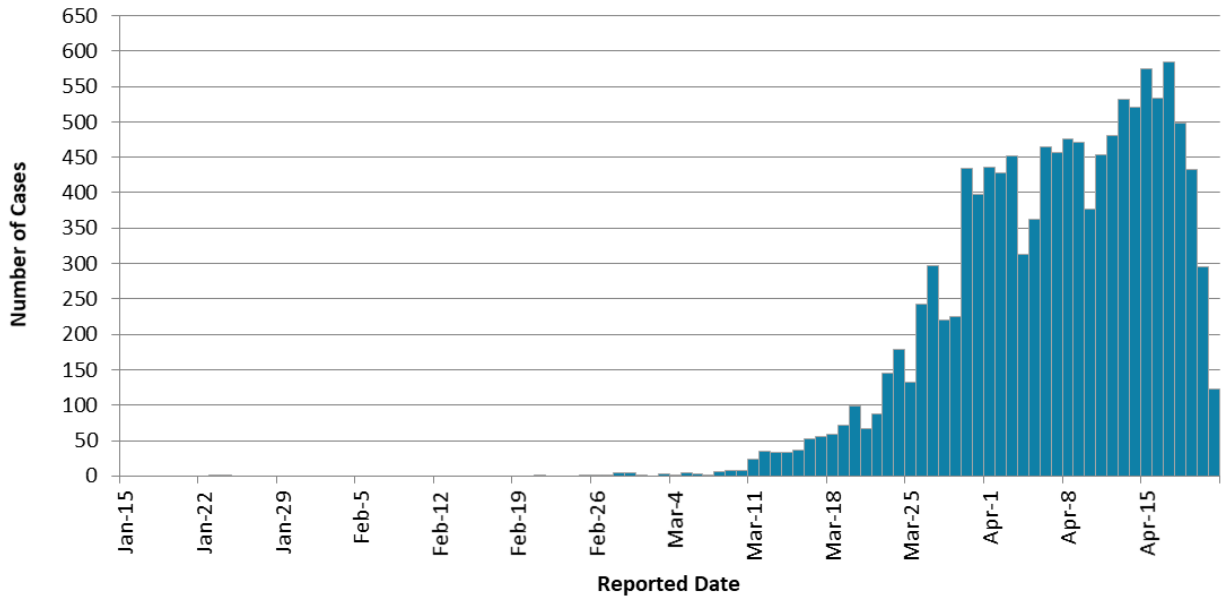
* Cases and rates by public health unit are provided in [Appendix A](#).

Note: 124 cases did not specify male or female. Nine cases had an unknown age.

Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database.

Time

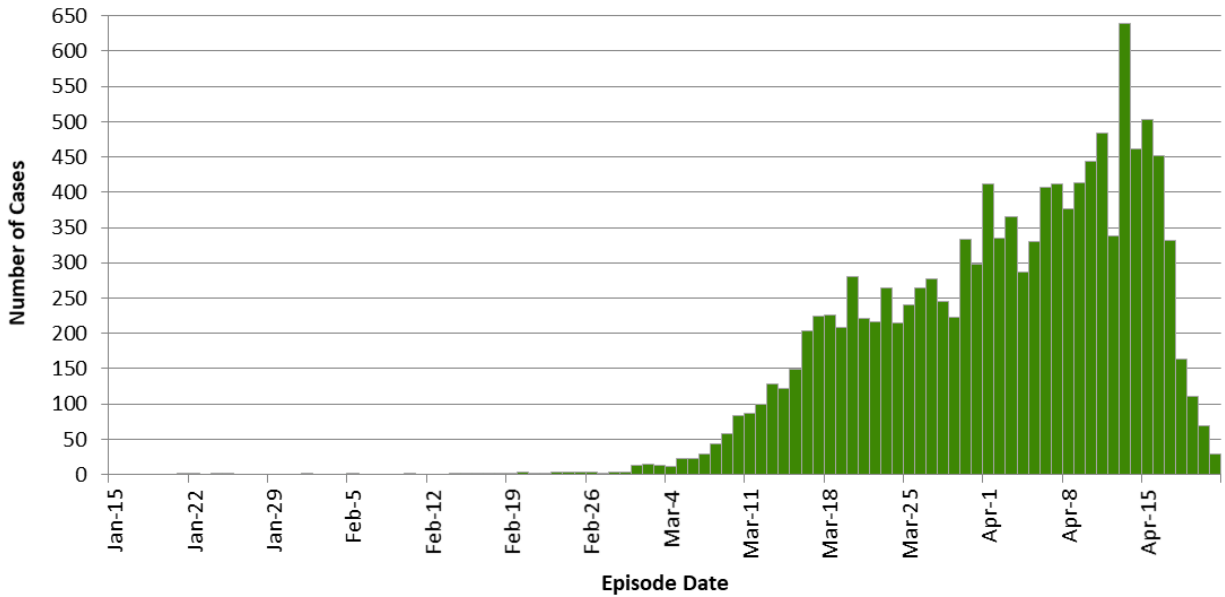
Figure 1. Confirmed cases (n=12,245) of COVID-19 by reported date: Ontario, January 15, 2020 to April 21, 2020*



*Interpret case counts for the most recent days (approximately 3 days) with caution due to reporting lags.

Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database.

Figure 2. Confirmed cases (n=12,245) of COVID-19 by an approximation of symptom onset date*: Ontario, January 15, 2020 to April 21, 2020**

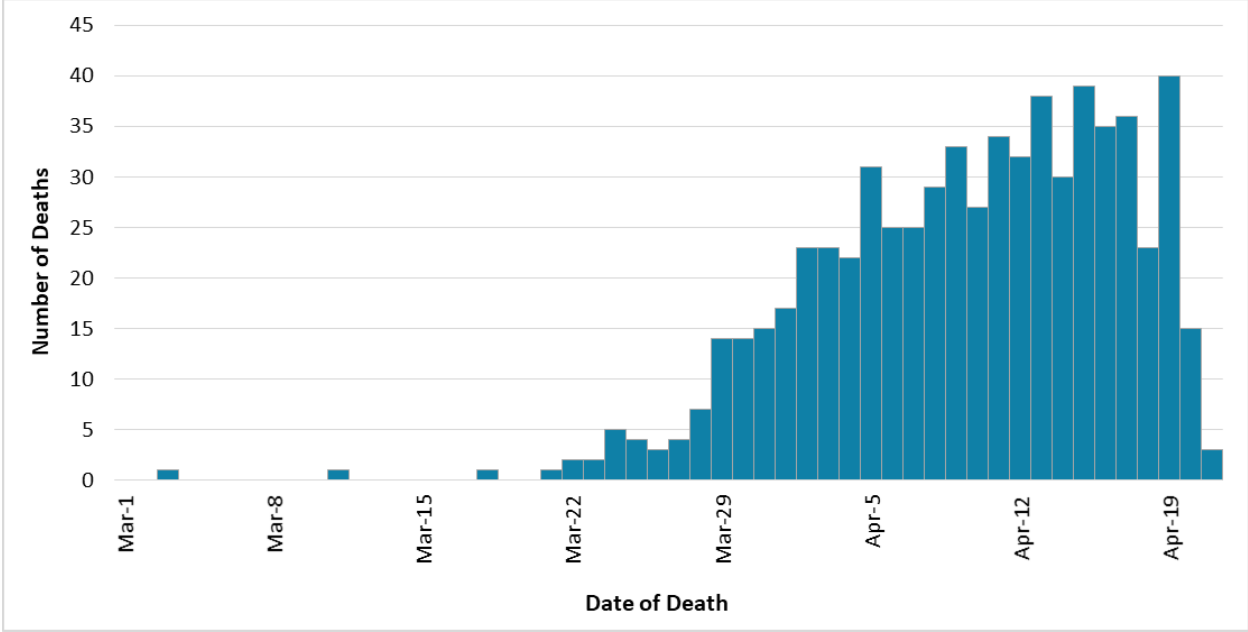


*This date, referred to as episode date, is intended to approximate symptom onset date. It is calculated based on either the date of symptom onset, specimen collection/test date, or the date reported to public health.

**Interpret case counts for the most recent days (approximately 14 days) with caution due to reporting lags.

Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database.

Figure 3. Confirmed deaths (n=654*) among COVID-19 cases by date of death: Ontario, January 15, 2020 to April 21, 2020**



*This count excludes the 5 cases that did not have a date of death reported.

**Interpret case counts for the most recent days with caution due to reporting lags.

Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database.

Exposure

Table 2. Confirmed cases (n=12,245) of COVID-19 by exposure type: Ontario, January 15, 2020 to April 21, 2020

	Number	Percentage
Travel*	1,275	10.4
Close contact of a confirmed case	2,205	18.0
Community transmission	3,836	31.3
Information pending	4,929	40.3

*Travel within the 14 days prior to becoming ill.

Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database.

Severity

Table 3. Confirmed cases (n=12,245) of COVID-19 by severity: Ontario, January 15, 2020 to April 21, 2020

	Number	Percentage
Cumulative deaths reported (please note there may be a reporting delay for deaths in iPHIS)	659	5.4
Change from previous report	37	5.9% increase
Deaths reported in ages: 19 and under	0	0.0
Deaths reported in ages: 20-39	1	0.0
Deaths reported in ages: 40-59	36	0.9
Deaths reported in ages: 60-79	181	6.5
Deaths reported in ages: 80 and over	441	16.9
Cumulative intensive care*	382	3.1
Cumulative hospitalized*	1,452	11.9
Number of resolved** cases	6,221	50.8

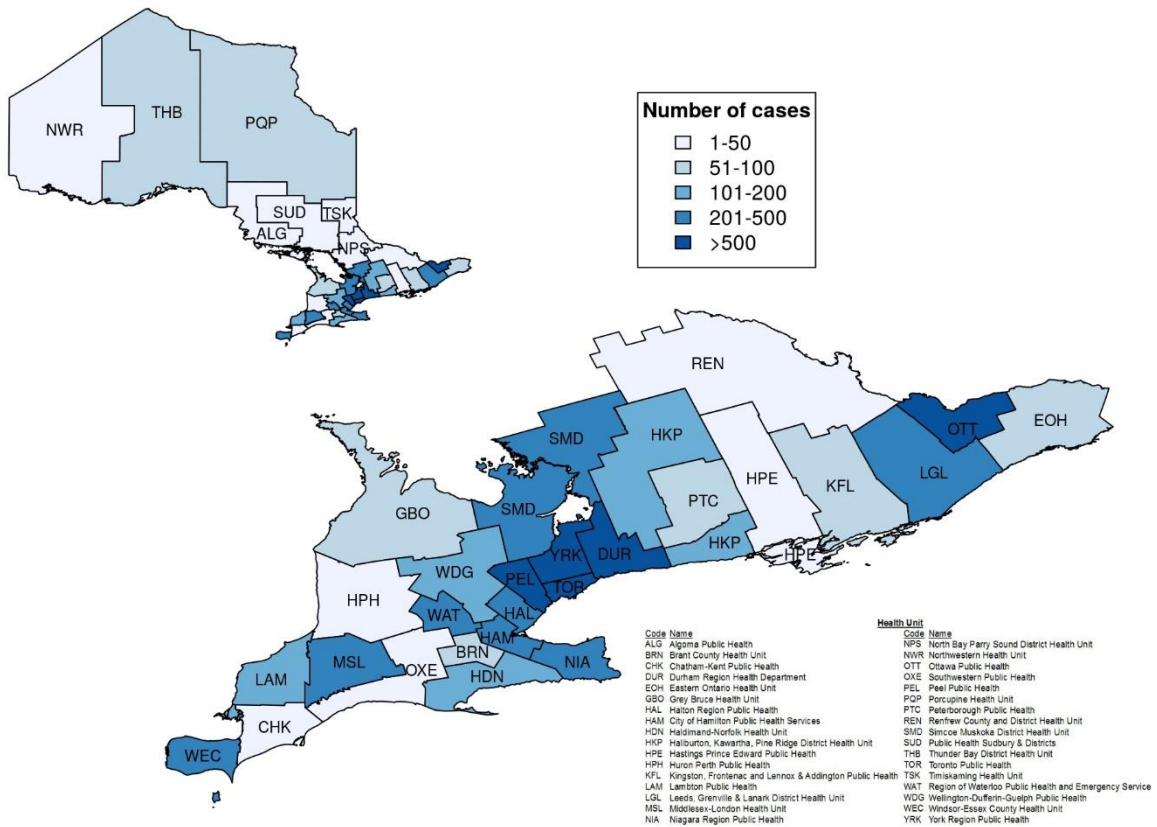
* These refer to all hospitalized or ICU admitted cases, not cases that are currently hospitalized or in ICU.

** Cases that are 14 days past symptom onset (if available) or 14 days past the episode date are classified as resolved for non-fatal cases that are not currently listed as hospitalized. Cases are also classified as resolved if the case is reported as “recovered” in iPHIS.

Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database.

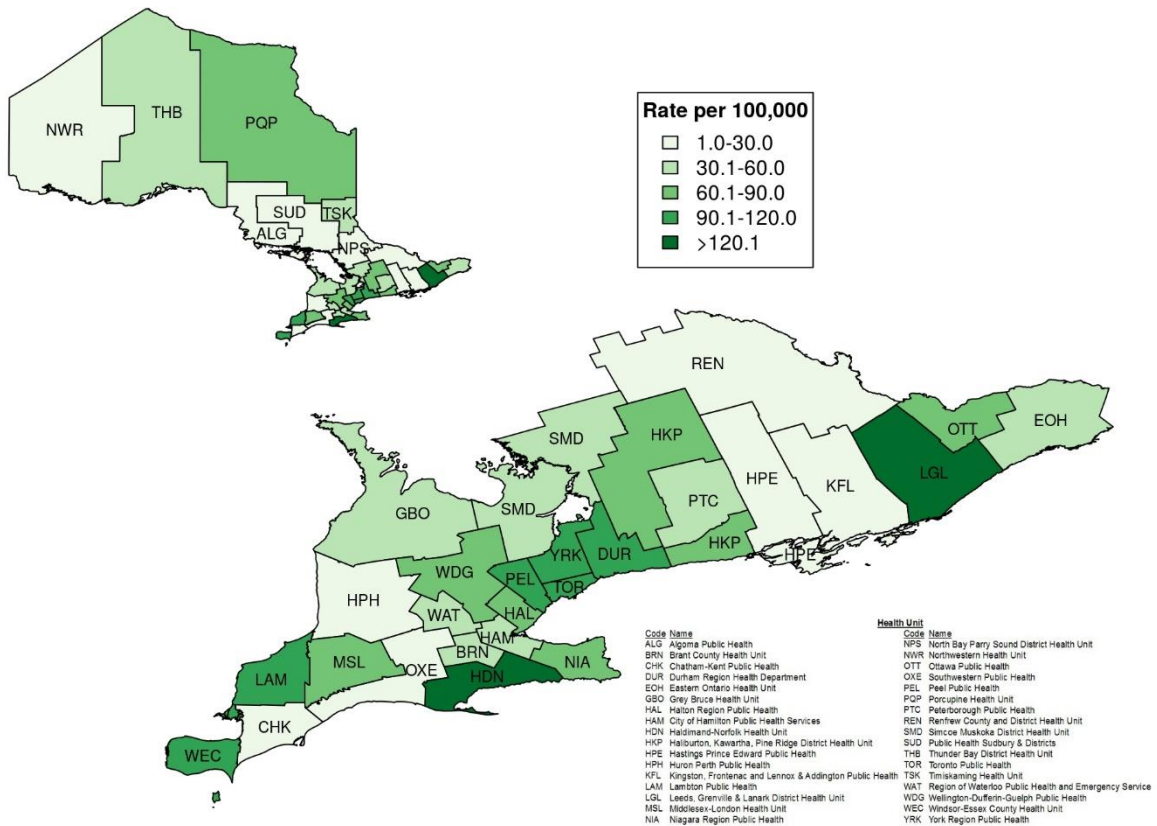
Geography

Figure 4. Confirmed cases (n=12,245) of COVID-19 by public health unit: Ontario, January 15, 2020 to April 21, 2020



Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database.

Figure 5. Rate of confirmed cases of COVID-19 by public health unit: Ontario, January 15, 2020 to April 21, 2020



Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database.

Outbreaks in Institutions and Public Hospitals

Table 4. Confirmed COVID-19 outbreaks reported in long-term care homes and hospitals and total number of associated cases: Ontario, January 15, 2020 to April 21, 2020

Indicator	Long-Term Care Homes	Hospitals
Number of confirmed COVID-19 outbreaks	125	35
Total number of cases*,** reported as part of the confirmed COVID-19 outbreaks	2,339	242
Cases reported among residents/patients	1,587	139
Cases reported among staff	748	101
Total number of deaths*,** reported as part of the confirmed COVID-19 outbreaks	296	13
Deaths reported among residents/patients	295	13
Deaths reported among staff	1	0

*Includes all outbreak-related cases and deaths reported in aggregate outbreak summary counts, regardless of whether the case was laboratory confirmed (deaths among non-laboratory confirmed cases reported here are not included in Table 3).

**May include cases and deaths other than residents/patients or staff, such as volunteers. As a result, the total number of cases and deaths may be greater than the number of cases and deaths reported in residents or staff.

Data Source: integrated Public Health Information System (iPHIS) database.

Technical Notes

Data Sources (Case Data)

- The data for this report were based on information extracted from the Ontario Ministry of Health (MOH) integrated Public Health Information System (iPHIS) database, as of **April 21, 2020 at 4 p.m.** and data extracted from the Toronto Public Health (Coronavirus Rapid Entry System) CORES, as of **April 21, 2020 at 2 p.m.**
- iPHIS and CORES are dynamic disease reporting systems, which allows ongoing updates to data previously entered. As a result, data extracted from iPHIS and CORES represent a snapshot at the time of extraction and may differ from previous or subsequent reports.
- Ontario population projection data for 2020 were sourced from Ontario Ministry of Health, IntelliHEALTH Ontario. Data were extracted on November 26, 2019.

Data Caveats:

- The data only represent cases reported to public health and recorded in iPHIS and CORES. As a result, all counts will be subject to varying degrees of underreporting due to a variety of factors, such as disease awareness and medical care seeking behaviours, which may depend on severity of illness, clinical practice, changes in laboratory testing, and reporting behaviours.
- Lags in iPHIS and CORES data entry due to reduced holiday and weekend staffing may result in lower case counts than would otherwise be recorded.
- Only cases meeting the confirmed case classification as listed in the MOH [COVID-19 case definition](#) are included in the report counts from iPHIS or CORES.
- Case episode date is based on an estimate of the best date of disease onset. This date is calculated based on either the date of symptom onset, specimen collection/test date, or the date reported to public health.
- Orientation of case counts by geography is based on the diagnosing health unit (DHU). DHU refers to the case's public health unit of residence at the time of illness onset and not necessarily the location of exposure. Cases for which the DHU was reported as MOH (to signify a case that is not a resident of Ontario) have been excluded from the analyses.
 - GTA health units include: Durham Region Health Department, Peel Public Health, Toronto Public Health and York Region Public Health
- Exposure type is determined by examining the exposure and risk factor fields from iPHIS to determine whether a case travelled, was a contact of a case or neither. A hierarchy has been applied as follows: Travel-related > Close contact of a confirmed case > Community transmission > Information pending.
- Exposure type is determined from CORES by examining the risk factor fields from CORES to determine whether a case travelled, was a contact of a case or neither. A hierarchy has been

applied as follows: Travel-related > Close contact of a confirmed case > Community transmission > Information pending

- Deaths are determined by using the outcome field in iPHIS. Any case marked 'Fatal' is included in the deaths data. Deaths are included whether or not COVID-19 was determined to be a contributing or underlying cause of death as indicated in the iPHIS field Type of Death.
 - The date of death is determined using the outcome date field for cases marked as 'Fatal' in the outcome field.
- iPHIS cases for which the Disposition Status was reported as ENTERED IN ERROR, DOES NOT MEET DEFINITION, DUPLICATE-DO NOT USE, or any variation on these values have been excluded.
- To provide a measure of the impact of COVID-19 on long-term care homes and hospitals, the number of outbreaks and the associated cases are reported. To obtain the case and deaths data for these outbreaks, the aggregate counts recorded by public health units in the outbreak's summary counts section of iPHIS is used. This information is presented in table 4.
 - Previously only a select number of persons in institutional outbreaks would be tested for COVID-19, and there could still be circumstances where not all individuals end up being tested (e.g., the person dies before they can be tested).
 - These counts may not be updated as frequently as the information for laboratory-confirmed cases.
 - The information in the aggregate counts can not necessarily be reconciled with the laboratory-confirmed case data.

Appendix A

Table 1. Confirmed cases (n=12,245) of COVID-19 by public health unit: Ontario, January 15, 2020 to April 21, 2020

Public Health Unit Name	Cases	Rate per 100,000 population
Northwestern Health Unit	13	14.8
Thunder Bay District Health Unit	51	34.0
TOTAL NORTH WEST	64	26.9
Algoma Public Health	12	10.5
North Bay Parry Sound District Health Unit	14	10.8
Porcupine Health Unit	52	62.3
Public Health Sudbury & Districts	46	23.1
Timiskaming Health Unit	12	36.7
TOTAL NORTH EAST	136	24.3
Ottawa Public Health	913	86.6
Eastern Ontario Health Unit	70	33.5
Hastings Prince Edward Public Health	35	20.8
Kingston, Frontenac and Lennox & Addington Public Health	58	27.3
Leeds, Grenville & Lanark District Health Unit	279	161.1
Renfrew County and District Health Unit	14	12.9
TOTAL EASTERN	1,369	71.1
Durham Region Health Department	713	100.1
Haliburton, Kawartha, Pine Ridge District Health Unit	137	72.5
Peel Public Health	1,805	112.4

Public Health Unit Name	Cases	Rate per 100,000 population
Peterborough Public Health	59	39.9
Simcoe Muskoka District Health Unit	209	34.9
York Region Public Health	1,157	94.4
TOTAL CENTRAL EAST	4,080	91.1
Toronto Public Health	3,584	114.9
TOTAL TORONTO	3,584	114.9
Chatham-Kent Public Health	31	29.2
Grey Bruce Health Unit	63	37.1
Huron Perth Public Health	36	25.8
Lambton Public Health	146	111.5
Middlesex-London Health Unit	349	68.8
Southwestern Public Health	48	22.7
Windsor-Essex County Health Unit	488	114.9
TOTAL SOUTH WEST	1,161	68.7
Brant County Health Unit	82	52.8
City of Hamilton Public Health Services	342	57.8
Haldimand-Norfolk Health Unit	164	143.8
Halton Region Public Health	393	63.5
Niagara Region Public Health	388	82.1
Region of Waterloo Public Health and Emergency Services	283	48.4
Wellington-Dufferin-Guelph Public Health	199	63.8
TOTAL CENTRAL WEST	1,851	65.0
TOTAL ONTARIO	12,245	82.4

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For Further Information

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