

Epidemiologic Summary

COVID-19 in Ontario: January 15, 2020 to April 23, 2020

This report includes the most current information available from the integrated Public Health Information System (iPHIS) as of **4 p.m. April 23, 2020** and from the Toronto Public Health Coronavirus Rapid Entry System (CORES) as of **2 p.m. April 23, 2020**.

Purpose

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

Highlights

- There are 13,519 confirmed cases of COVID-19 in Ontario reported to date in iPHIS. This represents an increase of 640 confirmed cases from the previous report.
 - 41.7% of cases are male, 57.2% are female.
 - 44.8% of cases are 60 years of age and older.
 - Greater Toronto Area public health units account for 59.1% of cases.
 - 11.5% of cases were hospitalized.
- 763 deaths have been reported (please note there may be a reporting delay for deaths in iPHIS). This is an increase of 50 deaths from the previous report.
- 143 outbreaks have been reported in long-term care homes. This is an increase of 8 outbreaks from the previous report.
- 463 deaths have been reported among residents/patients in long-term care homes. This is an increase of 105 deaths from the previous report.

Case Characteristics

Table 1. Summary of cases of COVID-19: Ontario, January 15, 2020 to April 23, 2020

	Number	Percentage
Number of cases ¹	13,519	N/A
Change from previous report	640	5.0% increase
Gender: Male	5,640	41.7
Gender: Female	7,737	57.2
Ages: 19 and under	292	2.2
Ages: 20-39	3,052	22.6
Ages: 40-59	4,108	30.4
Ages: 60-79	3,029	22.4
Ages: 80 and over	3,029	22.4
Number of cases in health care workers	1,732	12.8

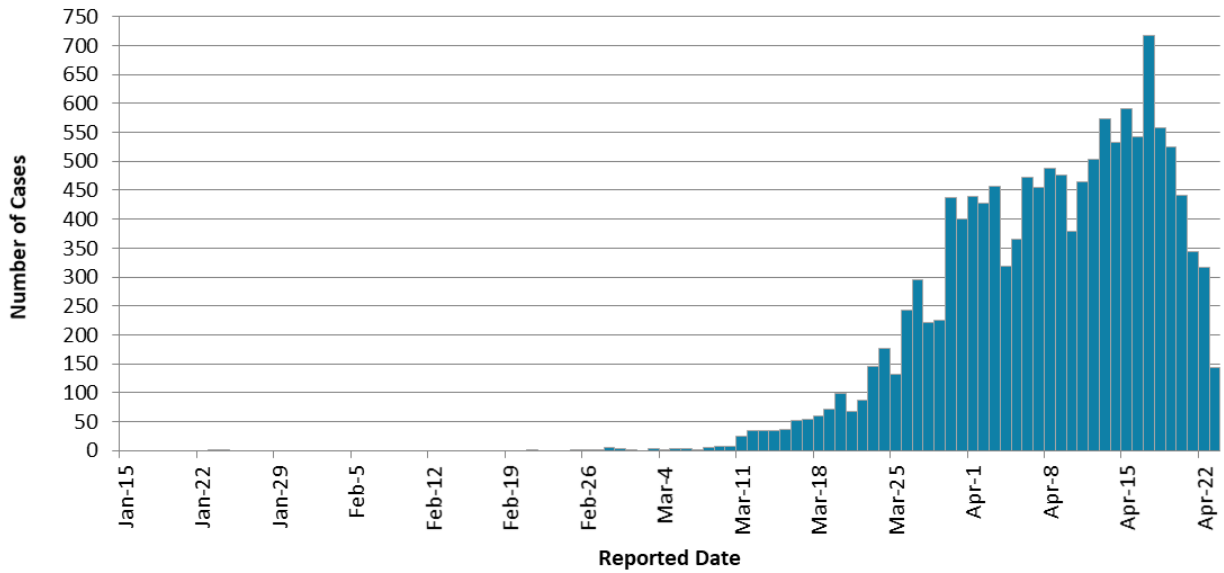
¹ Cases and rates by public health unit are provided in [Appendix A](#).

Note: 142 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

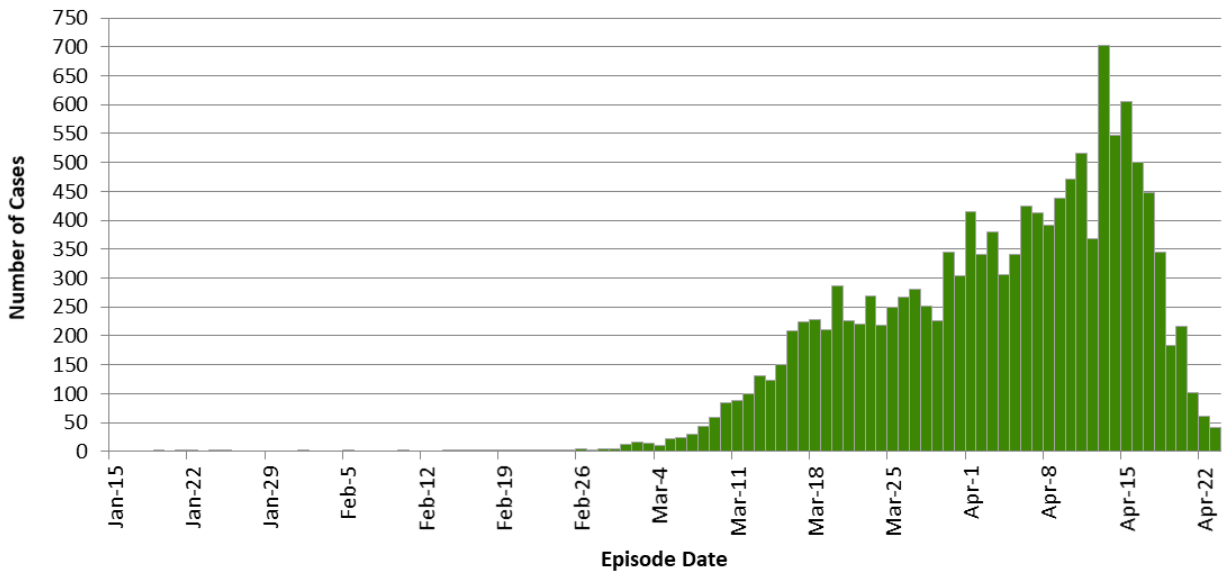
Figure 1. Confirmed cases (n=13,519) of COVID-19 by reported date: Ontario, January 15, 2020 to April 23, 2020¹



¹ 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=13,519) of COVID-19 by an approximation of symptom onset date¹: Ontario, January 15, 2020 to April 23, 2020²

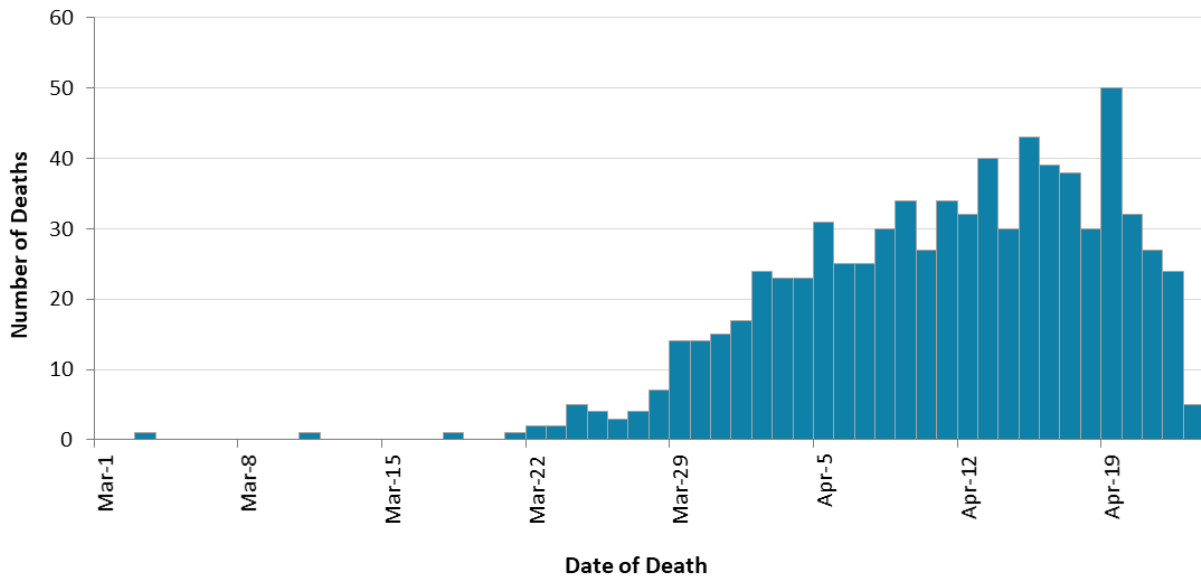


¹ This date, referred to as episode date, is intended to approximate symptom onset date. It is calculated based on either the date of symptom onset, specimen collection/test date, or the date reported to public health.

² 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=757¹) among COVID-19 cases by date of death: Ontario, January 15, 2020 to April 23, 2020²



¹This count excludes the 6 cases that did not have a date of death reported.

² 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=13,519) of COVID-19 by exposure type: Ontario, January 15, 2020 to April 23, 2020

	Number	Percentage
Travel ¹	1,298	9.6
Close contact of a confirmed case	2,464	18.2
Community transmission	4,656	34.4
Information pending	5,101	37.7

¹Travel 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=13,519) of COVID-19 by severity: Ontario, January 15, 2020 to April 23, 2020

	Number	Percentage
Cumulative deaths reported (please note there may be a reporting delay for deaths in iPHIS)	763	5.6
Change from previous report	50	7.0% increase
Deaths reported in ages: 19 and under	0	0.0
Deaths reported in ages: 20-39	3	0.1
Deaths reported in ages: 40-59	36	0.9
Deaths reported in ages: 60-79	209	6.9
Deaths reported in ages: 80 and over	515	17.0
Cumulative intensive care ¹	397	2.9
Cumulative hospitalized ¹	1,559	11.5
Number of resolved ² cases	7,087	52.4

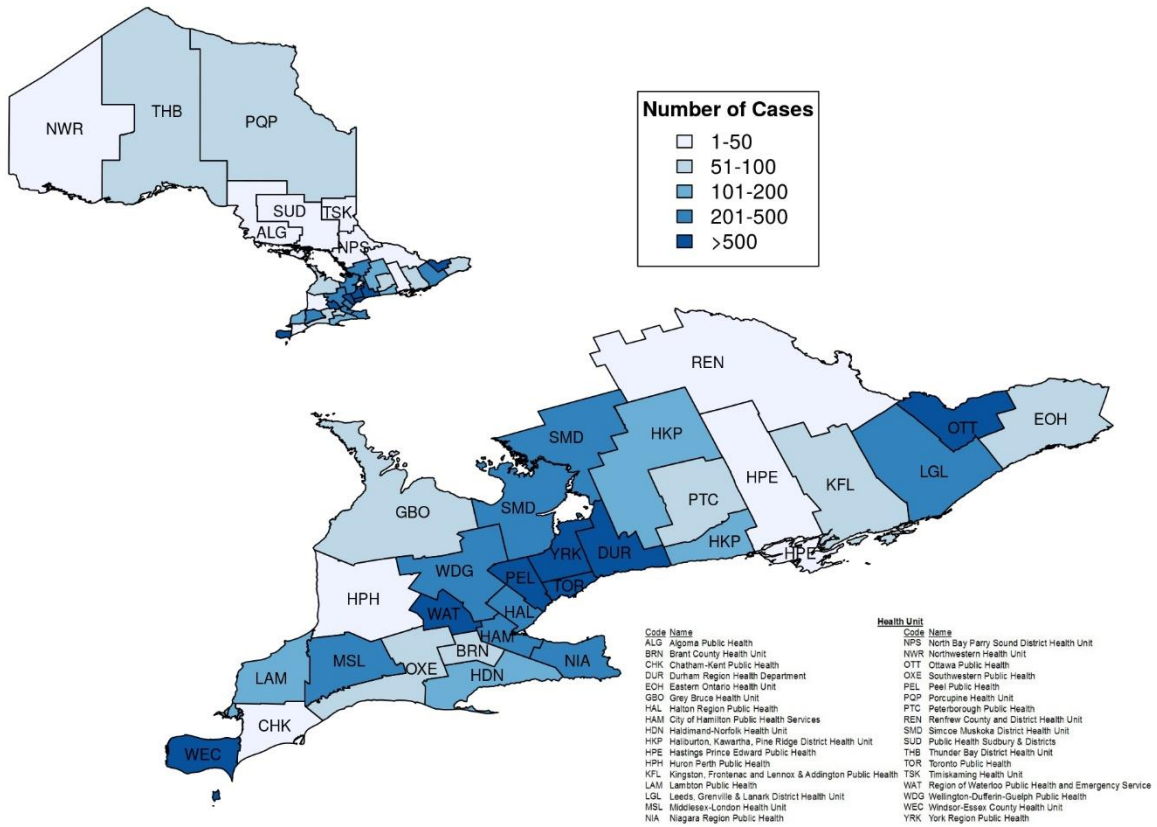
¹ These refer to all hospitalized or ICU admitted cases, not cases that are currently hospitalized or in ICU.

² 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.

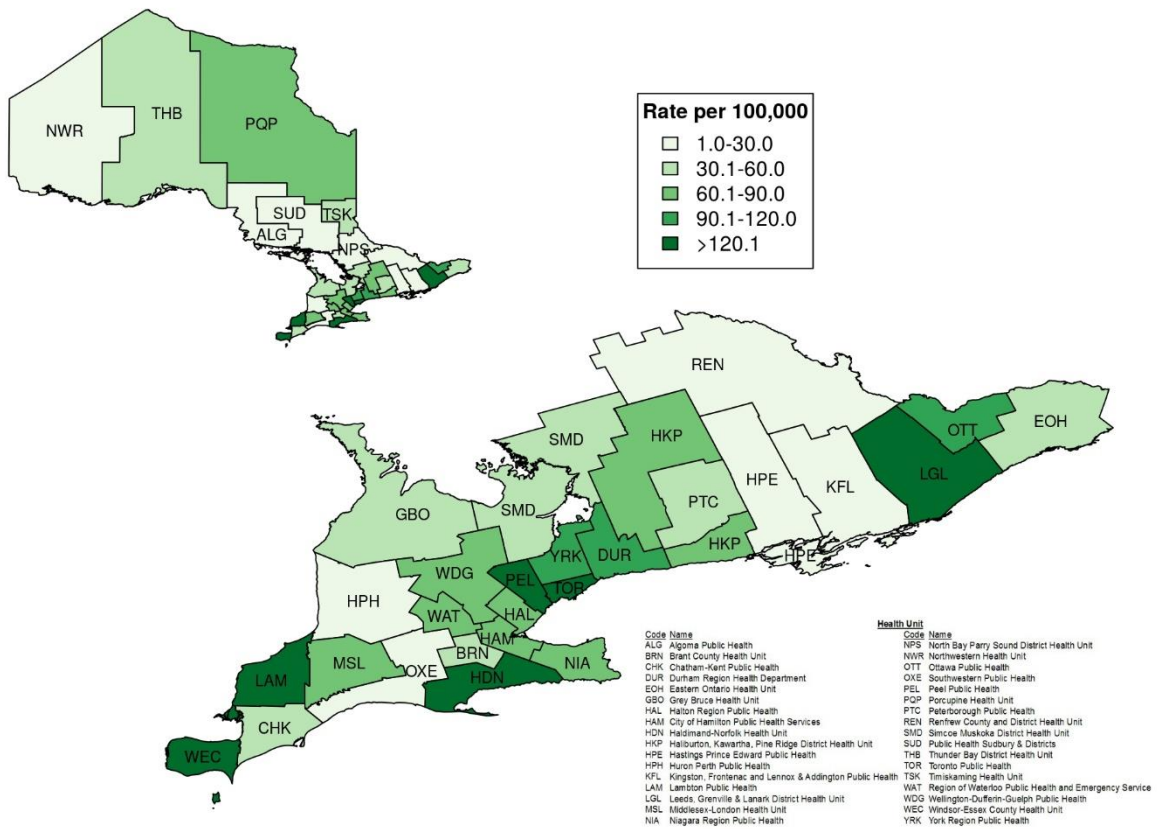
Geography

Figure 4. Confirmed cases (n=13,519) of COVID-19 by public health unit: Ontario, January 15, 2020 to April 23, 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 23, 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 23, 2020

Indicator	Long-Term Care Homes	Hospitals
Number of confirmed COVID-19 outbreaks	143	41
Total number of cases ^{1,2} reported as part of the confirmed COVID-19 outbreaks	3,085	259
Cases reported among residents/patients	2,166	149
Cases reported among staff	915	107
Total number of deaths ^{1,2} reported as part of the confirmed COVID-19 outbreaks	464	16
Deaths reported among residents/patients	463	16
Deaths reported among staff	1	0

¹ 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).

² 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 23, 2020 at 4 p.m.** and data extracted from the Toronto Public Health (Coronavirus Rapid Entry System) CORES, as of **April 23, 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=13,519) of COVID-19 by public health unit: Ontario, January 15, 2020 to April 23, 2020

Public Health Unit Name	Cases	Rate per 100,000 population
Northwestern Health Unit	15	17.1
Thunder Bay District Health Unit	59	39.3
TOTAL NORTH WEST	74	31.1
Algoma Public Health	12	10.5
North Bay Parry Sound District Health Unit	14	10.8
Porcupine Health Unit	54	64.7
Public Health Sudbury & Districts	48	24.1
Timiskaming Health Unit	12	36.7
TOTAL NORTH EAST	140	25.0
Ottawa Public Health	1,005	95.3
Eastern Ontario Health Unit	75	35.9
Hastings Prince Edward Public Health	38	22.6
Kingston, Frontenac and Lennox & Addington Public Health	58	27.3
Leeds, Grenville & Lanark District Health Unit	289	166.9
Renfrew County and District Health Unit	14	12.9
TOTAL EASTERN	1,479	76.8
Durham Region Health Department	783	109.9
Haliburton, Kawartha, Pine Ridge District Health Unit	139	73.6
Peel Public Health	1,966	122.4

Public Health Unit Name	Cases	Rate per 100,000 population
Peterborough Public Health	61	41.2
Simcoe Muskoka District Health Unit	229	38.2
York Region Public Health	1,245	101.6
TOTAL CENTRAL EAST	4,423	98.7
Toronto Public Health	3,989	127.8
TOTAL TORONTO	3,989	127.8
Chatham-Kent Public Health	40	37.6
Grey Bruce Health Unit	66	38.9
Huron Perth Public Health	39	27.9
Lambton Public Health	159	121.4
Middlesex-London Health Unit	364	71.7
Southwestern Public Health	52	24.6
Windsor-Essex County Health Unit	515	121.2
TOTAL SOUTH WEST	1,235	73.0
Brant County Health Unit	87	56.1
City of Hamilton Public Health Services	357	60.3
Haldimand-Norfolk Health Unit	167	146.4
Halton Region Public Health	413	66.7
Niagara Region Public Health	418	88.5
Region of Waterloo Public Health and Emergency Services	509	87.1
Wellington-Dufferin-Guelph Public Health	228	73.1
TOTAL CENTRAL WEST	2,179	76.5
TOTAL ONTARIO	13,519	90.9

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For Further Information

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