CPAD combines data and analytic resources to build evidence around health system needs and performance.

Our work informs policy development, program design, quality improvement, and accountability by transforming data into insights and insights into strategic guidance.

Our products provide analysis and insights to ministry clients and health system partners to support and strengthen their decision making processes.
Branches of the Capacity Planning and Analytics Division

**Health Data Branch**
Provides data and services in support of the on-going management and use of business-relevant health care data. HDB’s work and processes are continuously evolving to meet the demands of the broader health care system.

**Health Analytics and Insights Branch**
The ministry’s centralized, in-house analytic-support branch, providing high-quality information, analyses, and methodological support to enhance evidence-based decision making.

**Capacity and Health Workforce Planning Branch**
Aligns health system resources with the needs of the population to ensure Ontarians have access to the right health care providers and services now and in the future.

**Health Data Science Branch**
Drives improvements in ministry priority projects through data science and the provision of analytical insights focused on the future.
CPAD Data Collection and Analysis

• Ontario’s health data sources are used to continuously improve COVID-19 surveillance capabilities at the provincial and local levels.

• Information gathered from our reporting systems feed directly into executive-level decision making processes to trigger immediate actions and preventive measures.

• Various dashboards and analytic tools have been produced to inform the tables responsible for Ontario’s COVID-19 response and stabilization strategies.
A wide array of data is collected from across health sectors.
Long-Term Care Homes in Ontario

- Over 600 LTC Homes with nearly 80,000 residents
- LTC Homes have different types of operators and different design standards

**Number of Residents in Old vs. New Homes**

- **Non-profit**
  - Homes: 58%
  - Beds: 54%
- **Municipal**
  - Homes: 26%
  - Beds: 25%
- **For-profit**
  - Homes: 16%
  - Beds: 21%

Total Homes: 623
Total Beds: 78,760
LTC Residents in Ontario – A Health Profile

Top Health conditions for LTC Residents, March 2019

- Dementia: 65.3% 47,068
- Hypertension: 63.7% 45,882
- Arthritis: 44.4% 33,965
- Depression: 33.3% 24,002
- Osteoporosis: 30.7% 22,098
- Diabetes: 27.0% 19,457
- Gastrointestinal disease: 26.7% 19,260
- Stroke: 23.4% 16,891
- Allergies: 23.3% 16,775
- Hypothyroidism: 19.8% 14,264
- Anemia: 17.3% 12,450
- Other cardiovascular disease: 16.2% 11,703
- Arteriosclerotic: 14.8% 10,684
- Anxiety disorder: 14.8% 10,395
- Emphysema/COPD: 14.2% 10,251
Monthly Trend of Total LTC Deaths, FY2015-2019

• Typically, around 22,000 LTC residents die every year (roughly 1,800 per month).
• There is seasonal variation, with deaths spiking in the winter due to flu season and other environmental factors.
• Approximately one quarter of resident deaths occur outside the home, primarily in acute care or the ED.
• These data establish the baseline for ‘normal’ or ‘expected’ LTC resident deaths.

<table>
<thead>
<tr>
<th>Month</th>
<th>FY2015</th>
<th>FY2016</th>
<th>FY2017</th>
<th>FY2018</th>
<th>FY2019</th>
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<td>March</td>
<td>2,020</td>
<td>2,038</td>
<td>2,199</td>
<td>2,021</td>
<td>1,722</td>
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<tr>
<td>Total</td>
<td>21,186</td>
<td>22,466</td>
<td>23,078</td>
<td>22,495</td>
<td>21,833</td>
</tr>
</tbody>
</table>

Source: Registered Persons Data Base (RPDB)
Note: Numbers for FY2019 may be underestimated due to a lag in RPDB data collection resulting from the pandemic
COVID-19 Data Drives Situational Awareness and Decision Making

- The information is organized to reflect the patient journey and pillars of the COVID response
- Consistency of information across COVID-19 reporting channels is critical to decision-making
## Key Health System Data Sources for Tracking COVID-19

Health system dashboards largely rely on the following four data sources for timely and critical COVID-19 information:

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Data Entry</th>
<th>Data Collection</th>
<th>Frequency</th>
<th>Examples of Key Metrics</th>
</tr>
</thead>
</table>
| Integrated Public Health Information System/ Case Contact Management System (iPHIS/CCM) | Public Health Units | Public Health Ontario | Daily     | • LTC outbreaks  
• COVID cases  
• COVID deaths  
• Epidemic curves  
• Reproduction number (Rt) |
| Daily Bed Census Summary (DBCS)                  | Clinical staff      | Ministry of Health | Daily     | • Number of COVID inpatients admitted and discharged  
• Hospital inpatient deaths  
• Type of beds for each service delivered  
• Hospital bed occupancy |
| Critical Care Information System (CCIS)          | ICU staff           | Critical Care Services Ontario | Daily     | • ICU bed occupancy  
• ICU ventilator bed occupancy  
• COVID patients in ICU beds  
• COVID patients in ICU with ventilators |
| Ontario Laboratory Information System (OLIS)     | Testing facility staff | Ontario Health     | Daily     | • #/% Tested  
• #/% Positive or Negative  
• #/% Ontarians tested |
Long-Term Care Data Sources

LTC data is captured and reported through various systems, each with its own unique set of fields and processes.

<table>
<thead>
<tr>
<th>Source</th>
<th>Description</th>
</tr>
</thead>
</table>
| iPHIS/CCM                                   | • Primary data source for Ontario’s public health information.  
• PHUs are mandated to enter COVID-19 information into the system and submit to Public Health Ontario daily  
• Contains individual-level information for positive COVID-19 cases (age, sex, risk factors, etc.)  
• Captures data on COVID-19 outbreaks at the facility level. |
| MLTC Inspectors Dataset                     | • Inspectors call LTC homes daily and log their COVID-19 cases and deaths information in their database  
• Facility-level information is reported by the LTC home staff  
• The updated number of cases, deaths and outbreaks are rolled up into the LTC Daily Summary Report |
| Ontario Laboratory Information System (OLIS) | • Ontario’s primary lab test data repository, including data for all tests that are covered by OHIP.  
• Contains comprehensive test history for patients and can be used to monitor progress of treatments, support chronic disease management and monitor COVID-19 case growth.  
• Data are updated and disseminated daily by Ontario Health |
| Continuing Care Reporting System (CCRS)     | • Managed by the Canadian Institute for Health Information (CIHI)  
• Contains demographic, clinical, functional and utilization data about LTC homes and their residents.  
• Allows for detailed analysis of LTC residents based on clinical characteristics  
• Data are updated quarterly so not a reliable source for COVID-19 information |
| Coroner’s Data                              | • LTC homes mandated to submit the COVID-19 status of resident deaths from April 14 to June 23, 2020  
• Captured individual-level records of COVID-19 deaths within hours of the death being confirmed at the home.  
• Deaths are categorized as confirmed or probable COVID-19 based on assessment of a qualified clinician.  
• Did not include staff deaths or LTCH residents who died in hospital |
Before COVID-19, the Continuing Care Reporting System (CCRS) was the primary source for LTC deaths.
• Managed by the Canadian Institute for Health information (CIHI), it contains demographic, clinical, functional and resource utilization data about long-term care homes and their residents.
• A limitation of this data source is that it’s not very timely and does not include cause of death.

During the Pandemic, the Chief Coroner began receiving death data directly from long-term care homes with information about the COVID-19 status of deaths. Data reporting began April 14, 2020.
• Data is reported within a day and contains detailed the clinician-informed cause of death.
• LTC deaths are categorized as ‘Non-COVID’, ‘Confirmed’ or ‘Probable/Suspected’:
  • **Confirmed COVID**: lab-confirmed COVID-19 positive and COVID-19 listed as cause of death
  • **Probable/Suspected**: Clinician reported cause of death as probable or suspected COVID-19 based on clinical presentation and exposure information but without laboratory confirmation
• Some data elements were not tracked from this source, including LTC staff deaths and LTC residents who died in a hospital
• Coroner’s data collection on COVID-19 was performed from April 14 to June 23, 2020.
Applications of Ontario Health System Data
Monitoring COVID-19 in Long-Term Care Homes

- The COVID-19 CT Dashboard is an online interactive reporting tool that contains provincial information/data for key stakeholders. Examples of type of information include:
  - COVID-19 cases
  - Lab tests
  - ICU Beds
  - Acute Beds
  - Telehealth Calls
  - Assessment Centres
  - LTC homes
  - Retirement homes
  - Homecare

- Confirmed cases of COVID-19 in LTC homes and retirement homes are tracked through the LTC Daily Tracker and displayed on the COVID-19 Interactive Dashboard.

- The example of the interactive map (right) shows locations of LTC homes with COVID-19 cases (outbreaks, cases and resolved), as well as nearby ICU and acute care bed capacity (size of green circle is proportional to the number of beds).

- Access to the dashboard is controlled. Users must request access and login to the web application using their unique credentials.
Regional Dashboards

- CPAD provides web-based, external-facing COVID-19 dashboards for each of the five OH Regions.

- The Regional Dashboards provide a wide-ranging view of health system utilization and capacity, each one tailored with data specific to the region.
Long-Term Care Daily Statistics (as of April 28, 2020)

**Confirmed Cases** (Residents & Staff)
- **Yesterday** = 3696
- **A week ago** = 2942

**COVID Deaths** (Residents & Staff)
- **Yesterday** = 706
- **A week ago** = 448

**LTC Home Beds**
- 77,352 (long-stay) + 1,415 (short-stay)

**LTC Homes with Outbreak** (Outbreaks as declared by the PHU or LTC home)
- 34 LTC H Resolved

**Residents diagnosed with COVID**
- **Yesterday** = 2491
- **A week ago** = 1985

**Staff diagnosed with COVID**
- **Yesterday** = 1205
- **A week ago** = 957

**Retirement Homes**

**Confirmed Cases** (Residents & Staff)
- **Yesterday** = 3696
- **A week ago** = 2942

**COVID Deaths** (Residents & Staff)
- **Yesterday** = 706
- **A week ago** = 448

**Retirement Homes with Outbreak** (MSAA dashboard April 23, 2020)
- 19 resolved

**Retirement Homes suites**
- 61,031

**Data source**: Long-Term Care Inspections Branch Daily Report – COVID 19. Extracted Apr 28, 2020 15:30 h
Approach to LTC COVID-19 Modelling

- In the general Ontario population, a single epidemic curve can be used.
- In the LTC sector, a multi-step approach must be utilized to account for the closed institutional setting.

**STEP 1**
Predict how many homes will have outbreaks based on rates of community COVID-19 infection

**STEP 2**
Predict which homes will enter outbreak status

**STEP 3**
Model the number of cases and deaths within each home predicted to enter outbreak status to determine full impact.
Forecasting LTC Homes in Outbreak with Repeat Outbreaks

### High volume
Actuals where every repeat outbreak in LTVCIC home is counted separately (cumulative number of outbreaks)

### Low volume
Actuals where LTCH homes counted as they have an outbreak only once (cumulative number of homes in outbreak)
Forecasting COVID-19 Cases and Deaths among LTC Residents
Forecasting LTC Outbreaks with Community Spread Levels

Reproduction Number for Community (orange) vs LTC (blue)

Measuring Lag Time from Community Incidence to LTC Outbreak

<table>
<thead>
<tr>
<th>Province/LHIN</th>
<th>Estimated Lag from COVID-19 Community Incidence to LTC Outbreak (Days)</th>
<th>Population Density per sq. km</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONTARIO</td>
<td>23</td>
<td>14.80</td>
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<tr>
<td>01-ESC</td>
<td>46</td>
<td>85.70</td>
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<tr>
<td>02-SW</td>
<td>30</td>
<td>45.60</td>
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<tr>
<td>03-WW</td>
<td>20</td>
<td>161.22</td>
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<tr>
<td>04-HNHB</td>
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<td>216.12</td>
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<tr>
<td>05-CW</td>
<td>3</td>
<td>355.88</td>
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<tr>
<td>06-MH</td>
<td>22</td>
<td>1104.62</td>
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<tr>
<td>07-TC</td>
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<td>08-CENTRAL</td>
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<td>09-CE</td>
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<td>10-SE</td>
<td>17</td>
<td>26.43</td>
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<td>11-CHAMPLAIN</td>
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<td>72.93</td>
</tr>
<tr>
<td>12-NSM</td>
<td>23</td>
<td>54.94</td>
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</table>
Monitoring Long-Term Care Home Outbreaks

- Confirmed LTC outbreaks are tracked through the LTC Daily Summary Report and displayed on a GANTT chart to show homes with repeat outbreaks and their number of confirmed COVID-19 cases.

### LTC Daily Summary Report

<table>
<thead>
<tr>
<th>Region</th>
<th>Municipality</th>
<th>LTCH_name</th>
<th>Beds</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>Sept</th>
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<td>1 1 1 1 1</td>
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<td>Orangeville</td>
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<td>1 1 1 1 1</td>
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<tr>
<td>04_East</td>
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<td>Extendicare West End Villa</td>
<td>242</td>
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<td></td>
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<td>1 1 1 1 1</td>
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<tr>
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<tr>
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<td>Chartwell Aurora Long Term Care Residence</td>
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<tr>
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<td>Lakeside Manor</td>
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<td>1 1 1 1 1</td>
<td>1 1 1 1 1</td>
</tr>
</tbody>
</table>

**Data Source:** MLTC Daily Reports.

*0.9: In some cases a home is instructed by Public Health Unit to maintain their outbreak status, even though there are no longer any confirmed cases, but there are cases waiting for test results. When the test results come back and they are negative, PH would then agree to declare an outbreak is over. To keep consistency with the outbreak status, recode 0 case under this circumstance to 0.9 case, indicating the outbreak status is still on for the home on the reporting day.

Municipalities where the COVID-19 community rate is >10/100,000 are in **bold italics**.

**Homes in red** Repeat Outbreak (for homes in current outbreak) **Municipal home**

**Homes shaded blue** Homes with >50% C/D beds **Days in outbreak. Darker shading = more COVID cases**

**Homes outlined** In outbreak in past week

**Yellow/orange shading** 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Measuring the Pandemic’s Impact on Ontario’s LTC Population

Coroner’s data April 14 through June 29, 2020.

- 1,429 COVID deaths (confirmed and probable/suspected cases)
- 160 excess non-COVID deaths compared to 5 year average
- 3,483 deaths or 317 death per week on average over 5 years (2015-2019)

- Data from the pandemic period between March 25 and April 13 are not available in the Coroner’s file.
- Using MLTC data we estimate that the Coroner’s data shown to the left doesn't account for ~12% of the LTC deaths between Mar 25 and Jun 29.

Weekly LTC COVID Deaths vs Historical Average (2015-19)
Identifying and Analyzing Higher Risk Homes

If a home is in a community with >10/100,000 active cases, the home is considered high risk, regardless of other criteria.

Homes are also reviewed according to the following four criteria to determine if they are high risk:

- **Older homes; part of a chain**
- **Homes had outbreak/repeat outbreak**
- **Home was red status for ‘x’ days**
- **Crowdedness Index**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Homes in community with >10 active cases per 100,000** | Community defined as *municipality*  
COVID case rate examined for community overall and non-LTC residents |
| **Older, homes that are part of a chain** | Homes with >50% C/D beds; and  
Homes part of a chain |
| **Home has repeat outbreak** | Home recorded more than 1 outbreak since March 29 |
| **Homes in RED** | Homes in RED for >5 days |
| **Crowdedness** | Homes considered ‘high’ (>=3) according to crowdedness index |
Categories for Monitoring Higher Risk Homes

Based on COVID community risk and the four risk criteria, the following four categories are used for monitoring higher risk homes:

The list of homes that correspond to these categories is contained in the appendix of this document.

**Homes in Higher Risk Communities (COVID is >10/100,000)**

- **Group 1**
  - Communities with COVID >10/100,000
  - No additional risk criteria
  - 60 homes
  - 10% of all homes
  - The higher rate of COVID in these areas puts the homes at some risk of COVID entering the home.

- **Group 2**
  - Communities with COVID >10/100,000
  - Meet 1-2 criteria
  - 72 homes
  - 17% of all homes
  - The higher rate of COVID in these areas plus at least 1 risk factor puts the homes at higher risk of COVID entering the home.

- **Group 3**
  - Communities with COVID >10/100,000
  - AND meet 3+ criteria
  - 6 homes
  - 1% of all homes
  - These homes are in higher risk communities and also meet 3 or more of the additional risk criteria.

**Homes in Lower Risk Communities (COVID is <10/100,000)**

- **Group 4**
  - Communities with COVID <10/100,000 AND meet 3+ criteria
  - 11 homes
  - 2% of all homes
  - Although COVID risk is lower in the community, these homes are at higher risk on account of meeting 3 or more of additional risk criteria.

- The lists of homes in each category has been updated to capture changes in community COVID rates, outbreak status, red status, etc.
- Additional risk criteria are being explored for future application, including:
  - Other types of outbreaks in homes (e.g. influenza, other respiratory viruses, etc)
  - The long-term risk scoring model which assigns outbreak risk based on a series of parameters including facility attributes, demographics of community, patient population characteristics, community cases of COVID, etc (produced by Health Data Science Branch)

From Sept 1st, 2020 High Risk Homes and Scorecard Report
Supporting Ontario’s LTC Workforce

PRIOR TO COVID-19

Ensure Ontario has the right supply, distribution and mix of health care providers now and into the future.

Finalization of a new Health Workforce Strategy to ensure there was a sufficient supply of PSWs, nurses and physicians to meet the needs of Ontarians (including the expansion of the LTC sector).

DURING THE PANDEMIC

Creation of the Ontario Matching Portal (see subsequent slide)

Collection of critical LTC health workforce information (e.g., critical health workforce gaps via OH’s red/green/yellow LTC report)

Complete recalibration of Ontario’s Health Workforce Plan to address our new pandemic based environment including:

- New assessment of health workforce geographic need
- Development of programming that will increase supply of PSWs and nurses in the short term to areas in greatest need focusing on LTC homes
- Creation of long range programs that will improve retention creating a robust health workforce now & into the future
Ontario Matching Portal (OMP)

In response to the COVID-19 pandemic, CPAD launched the OMP on April 7, 2020. The portal was launched within two weeks of development and has now been running for about 5 months. The purpose of the portal was to triage and match large numbers of potential employees and volunteers who wished to help with the COVID-19 pandemic.

CPAD procured the services of Deloitte Consulting to develop the OMP and worked closely with Ontario Health Agency (Health Force Ontario), to deploy the tool across the 5 health regions.

In the very short time and under difficult conditions the portal has been extremely successful: over 25,000 people signed up to help including over 12,500 regulated health professionals. As of September 11, 2020, 1,082 organizations signed up for the portal, 40.2% of these organizations were long term care homes. Of the 1,518 requests for staff, 49.5% (752 requests for staff) were made by LTC homes. Close to 80% of LTC requests have approved matches.

Ontario Health Agency (Health Force Ontario), has leveraged the OMP throughout the COVID-19 pandemic. The agency provided emergency crisis support by working closely with employers to ensure matches met their need. They also provided critical HR administrative support to employers (e.g., onboarding, completing HR paperwork).

Due to the portal’s initial success, it has attracted interest from other ministries and the broader public sector who wanted to leverage the portal’s ability to quickly match potential staff with service provider organizations to combat COVID-19. In response to the ministries’ and sector interests, additional functionalities and features were quickly added to the portal.

Today, the portal supports multiple ministries and employers including long-term care homes, home & community care agencies, retirement homes, and hospitals.
APPENDIX
The Integrated Public Health Information System

The Integrated Public Health Information System (iPHIS) is the province’s reporting and surveillance system for COVID-19 and other reportable diseases.

- The Ministry receives iPHIS data daily from Public Health Ontario though a secure file transfer.
- The data undergo automated processing steps to structure it for our dashboards and client needs.
- iPHIS has undergone continuous development since the beginning of the pandemic with additional data fields and resource allocation for data entry.

Data Input: Public Health Units

Data Collection: Public Health Ontario

Examples of Key COVID Metrics:

- COVID outbreaks
- COVID cases
- COVID deaths
- Epidemic curves
- Reproduction number (Rt)
The Critical Care Information System

The Critical Care Information System (CCIS) contains province-wide information on access to critical care, quality of care, and outcomes for critically ill patients.

• Provides real-time data on every patient admitted to Level 2 or 3 critical care units in Ontario.
• Describes the critically ill patient population and resource utilization patterns across the province.
• Serves as an important medium for monitoring and managing the Ontario’s critical care resources.

Data Input: Critical care staff
Data Collection: Critical Care Services Ontario
Examples of Key COVID Metrics:
• ICU bed occupancy, with and without ventilator
• COVID patients in ICU beds with and without ventilator

Hospitalizations with ICU

- Hospitalized (including in ICU)
- In ICU
The Daily Bed Census Summary (dBCS) collects daily data submissions from hospitals to help inform measures of patient volumes, COVID assessments and hospital beds in use.

- Data are collected directly from hospitals and feed into a variety of COVID-19 dashboards, reflecting hospital capacity, occupancy and bed type for COVID and non-COVID patients.
- New dBCS data entry forms capture COVID-19 specific information such as COVID patient hospitalizations, assessment centre testing, and COVID patient occupancy in Alternate Health Facilities.
- The system has several supporting services that facilitate submission compliance and timeliness.

Data Input: Hospital staff
Data Collection: Health Data Branch, MOH
Examples of Key COVID Metrics:
- COVID inpatient admits/discharges
- Hospital bed occupancy
- Assessment centre testing
- HHR and PPE shortages
The Ontario Laboratory Information System

The Ontario Laboratory Information System (OLIS) is the province’s primary laboratory test data repository, including data for all tests that are covered by OHIP.

- Captures the testing data submitted by hospitals and five different community labs companies.
- Contains comprehensive lab test history for patients and can be used to monitor progress of treatments and support chronic disease management.
- All COVID-19 reporting labs are required to submit their testing data to OLIS, although some under-reporting has been identified and is being addressed through corrective action.

**Data Input:** Testing laboratory staff  
**Data Collection:** Ontario Health  
**Examples of Key COVID Metrics:**
- # and % tested for COVID
- # and % positive or negative tests
- # and % Ontarians tested for COVID
**MLTC Inspections Dataset**

The **MLTC Inspections Dataset** is produced by the Ministry of Long-Term Care using information collected directly from long-term care homes during regular inspections.

- MLTC inspectors call homes and log information about their COVID-19 activity in a MLTC database.
- The data are used to populate the Long-Term Care Daily Report which provides a detailed assessment of each home’s status on a number of COVID metrics, including outbreaks, cases, deaths and resources.

**Data Input:** LTC Inspectors (collect data from homes)

**Data Collection:** LTC Inspections Branch, MLTC

**Examples of Key COVID Metrics:**
- COVID-19 cases and deaths for residents and staff
- # and % of homes in outbreak
- # and % of homes with staffing or PPE shortages

**Outbreak Timeline**

[Graph showing outbreak timeline for various care facilities in Ontario from March to June.]
Leveraging the right data source for analysis

- There are multiple data sources we can use to ascertain the number of deaths in LTC homes.
- Each one has its advantages of and disadvantages, as summarized below

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuing Care Reporting System (CCRS)</td>
<td>• Contains demographic, clinical and functional data</td>
<td>• Updated quarterly</td>
</tr>
<tr>
<td></td>
<td>• Includes resident deaths in hospitals and LTCHs</td>
<td>• Does not include the cause of death</td>
</tr>
<tr>
<td></td>
<td>• Contains individual-level resident data</td>
<td>• Does not indicate COVID status</td>
</tr>
<tr>
<td>Integrated Public Health Information System (iPHIS)</td>
<td>• Positive cases are confirmed and entered by PHU staff</td>
<td>• Not very timely</td>
</tr>
<tr>
<td></td>
<td>• Contains individual-level data on residents and staff</td>
<td>• Contains only COVID-19 deaths</td>
</tr>
<tr>
<td></td>
<td>• Includes resident deaths in all locations</td>
<td>• Variability among PHU data entry systems</td>
</tr>
<tr>
<td>MLTC Daily Tracker</td>
<td>• Timely data collection directly from the home</td>
<td>• Doesn’t capture individual-level information</td>
</tr>
<tr>
<td></td>
<td>• Contains LTC staff and resident data</td>
<td>• Data are self-reported from staff</td>
</tr>
<tr>
<td></td>
<td>• Doesn’t capture individual-level information</td>
<td>• No strict compliance to case definitions</td>
</tr>
<tr>
<td>Office of the Chief Coroner’s Data</td>
<td>• Timely data collection directly from the home</td>
<td>• No data on resident deaths in hospital</td>
</tr>
<tr>
<td></td>
<td>• Contains individual-level data</td>
<td>• No data prior to April 14th nor after June 30.</td>
</tr>
<tr>
<td>Ontario Laboratory Information System</td>
<td>• Contains positive and negative COVID test results</td>
<td>• Lag time to appearing in the dataset</td>
</tr>
<tr>
<td></td>
<td>• Can be linked to other data via encrypted health card number.</td>
<td>• Challenging to ascertain LTC residence</td>
</tr>
</tbody>
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