

Public Health Services COVID-19 Situation Report & Organizational Update

Board of Health
February 19, 2021

Overview

1. Overall Status Update
2. Provincial Response Framework & Metrics
3. COVID-19 Situation Report
 - Case Activity
 - Outbreak Activity
4. Hamilton COVID-19 Response Table Updates
5. Targeted Rapid Testing in Schools
6. COVID-19 Vaccine Update






Overall Status

- COVID-19 case activity is decreasing in Hamilton; however, variants of concern remain a significant threat
- Approach to case and contact management has been revised in accordance with the provincial interim guidance, including:
 - Increased sensitivity to identifying close contacts
 - Immediately testing all close contacts
 - Testing all close contacts around day 10 of their 14-day quarantine
 - All household members of a close contact of a positive case will be required to stay home except for essential activities
 - All household contacts of symptomatic individuals are required to quarantine until a negative result has been confirmed

Overall Status

- Collection of social determinants of health data will resume February 22, 2021
- Vaccination program has really just begun. As of end of day February 16, 2021 there were 25,593 doses administered across the City.
- Focus will continue to be on Ministry of Health prioritized groups through Phase 1 and 2 (phase 2 runs to August)
- Continuing to follow public health measures is vital as these are the best protection against the variants of concern

Provincial Response Framework Indicators

 PREVENT (Standard Measures)	 PROTECT (Strengthened Measures)	 RESTRICT (Intermediate Measures)	 CONTROL (Stringent Measures)	 LOCKDOWN (Maximum Measures)
<p>Epidemiology</p> <ul style="list-style-type: none"> Weekly incidence rate is < 10 per 100,000 % positivity is < 0.5 $R_t < 1$ Outbreak trends/ observations Level of community transmission/non-epi linked cases stable <p>Health System Capacity</p> <ul style="list-style-type: none"> Hospital and ICU capacity adequate <p>PH System Capacity</p> <ul style="list-style-type: none"> Case and contact follow up within 24 hours adequate 	<p>Epidemiology</p> <ul style="list-style-type: none"> Weekly incidence rate is 10 to 24.9 per 100,000 % positivity is 0.5-1.2% R_t is approximately 1 Repeated outbreaks in multiple sectors/settings OR increasing/# of large outbreaks Level of community transmission/non-epi linked cases stable or increasing <p>Health System Capacity</p> <ul style="list-style-type: none"> Hospital and ICU capacity adequate <p>PH System Capacity</p> <ul style="list-style-type: none"> Case and contact follow up within 24 hours adequate 	<p>Epidemiology</p> <ul style="list-style-type: none"> Weekly incidence rate is 25 to 39.9 per 100,000 % positivity is 1.3-2.4% R_t is approximately 1 to 1.1 Repeated outbreaks in multiple sectors/settings, increasing/# of large outbreaks Level of community transmission/non-epi linked cases stable or increasing <p>Health System Capacity</p> <ul style="list-style-type: none"> Hospital and ICU capacity adequate or occupancy increasing <p>PH System Capacity</p> <ul style="list-style-type: none"> Case and contact follow up within 24 hours adequate or at risk of becoming overwhelmed 	<p>Epidemiology</p> <ul style="list-style-type: none"> Weekly incidence rate ≥ 40 per 100,000 % positivity $\geq 2.5\%$ R_t is ≥ 1.2 Repeated outbreaks in multiple sectors/settings, increasing/# of large outbreaks Level of community transmission/non-epi linked cases increasing <p>Health System Capacity</p> <ul style="list-style-type: none"> Hospital and ICU capacity at risk of being overwhelmed <p>PH System Capacity</p> <ul style="list-style-type: none"> Public health unit capacity for case and contact management at risk or overwhelmed 	<p>Trends continue to worsen after measures from Control level are implemented.</p>

Returning to Red-Control Category



- Limits for all organized public events and social gatherings:
 - 5 people indoors
 - 25 people outdoors
- Restaurants can reopen with capacity limits of 10 patrons indoors
- Sports and recreational fitness facilities may reopen with capacity limits
- Retail establishments may reopen with capacity limits and screening:
 - 75% for supermarkets and other stores that primarily sell groceries, convenience stores, pharmacies
 - 50% for all other retail
- Most personal care services may reopen

Provincial Response Framework Indicators

Epidemiology

	Previous (Feb 4)	Previous (Feb 11)	CURRENT (Feb 18)	Trend
Weekly incidence rate/100,000	71.4	49.1	39.4	↓
% positivity	2.6%	2.3%	1.9%	↓
Effective reproductive number (R_e)	0.78	0.88		--
% of community-acquired cases	24.9%	25.5%	28.7%	--
Outbreak activity has decreased but continues in long-term care homes, retirement homes, workplaces, and congregate settings. Total of 17 active outbreaks; 4 outbreaks > 10 cases.				

Public Health System Capacity

	Previous (Feb 4)	Previous (Feb 11)	CURRENT (Feb 18)	Trend
% newly reported cases reached within 1 day of reported date	96.6%	93.9%	92.0%	--
% newly identified close contacts reached within 1 day of contact ID date	92.9%	88.2%	84.0%	--

Provincial Response Framework Indicators

Health System Capacity				
	Hospital	Previous (Feb 4)	Previous (Feb 11)	CURRENT (Feb 18)
Overall adult acute medicine & surgical hospital occupancy/funded acute beds	SJHH	83%	89%	89%
	HHS	90%	93%	97%
Overall adult acute alternate level of care (ALC) hospital occupancy/funded acute beds	SJHH	24%	27%	23%
	HHS	18%	18%	17%
Overall adult critical care occupancy/funded intensive care unit (ICU) beds	SJHH	74%	89%	74%
	HHS	86%	87%	91%

SJHH: St. Joseph's Healthcare Hamilton

HHS: Hamilton Health Sciences

Additional Local Indicators

	Previous (Feb 4)	Previous (Feb 11)	CURRENT (Feb 18)	Trend
Mental health-related emergency department visits	157	123	173	--
Substance misuse-related emergency department visits	67	76	67	--
Paramedic incidents for suspected opioid overdose	17	15	14	↑
Violence-related emergency department visits	0	3	7	--
Police response to domestic violence	141	120	131	--
Social impacts and environmental exposure-related emergency department visits	25	18	17	--

	Stable or decreasing trend below historical threshold
	Increasing trend for several weeks
	Increasing trend and above historical threshold
	Not available

Phases of COVID-19 in Hamilton

Wave 2

Phase 1: Pre-Peak Sept 2020

- 180 cases reported
- 2 outbreaks
- 7 hospitalizations and 1 death
- 25,220 tests completed at Hamilton Assessment Centres

Phase 2: Peak 1 Oct 2020

- 691 cases reported
- 27 outbreaks
- 18 hospitalizations and 2 deaths
- 27,943 tests completed at Hamilton Assessment Centres
- Infections mainly due to direct contact with other cases and undetermined sources

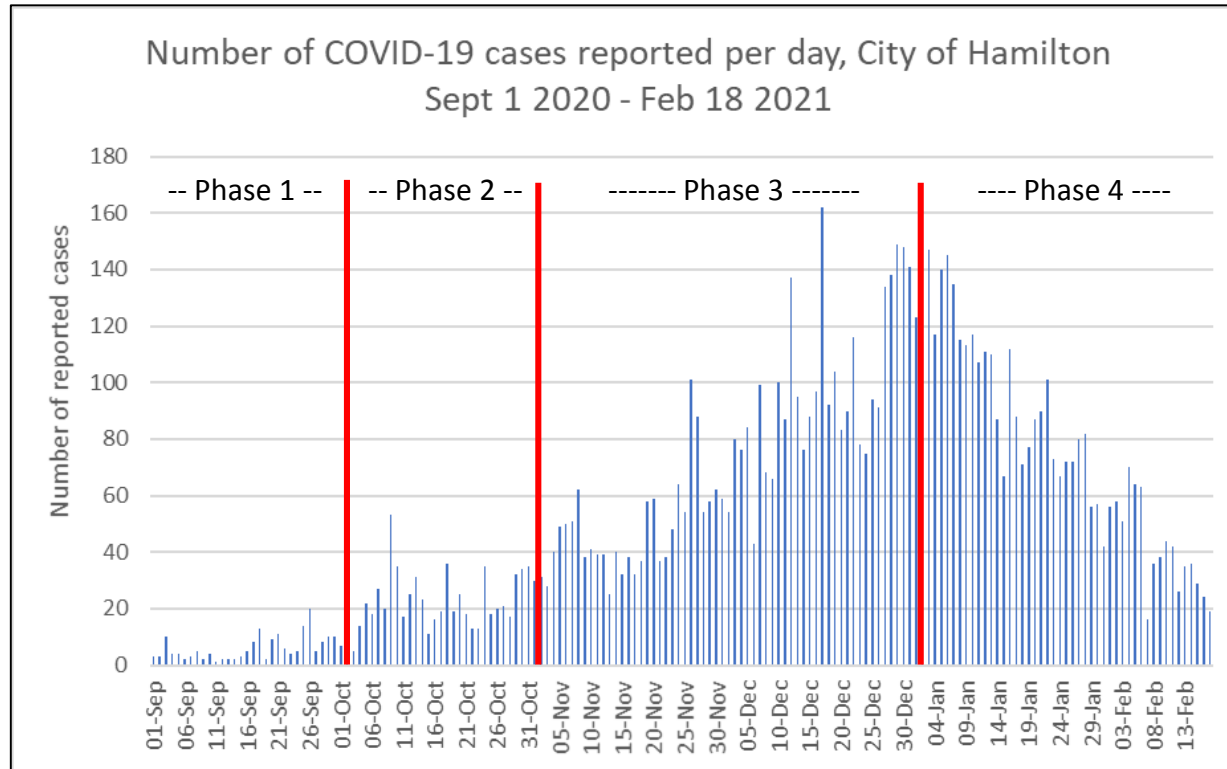
Phase 3: Peaks 2+ Nov 2020 – Dec 2020

- 4,427 cases reported
- 95 outbreaks
- 263 hospitalizations and 129 deaths
- 62,520 tests completed at Hamilton Assessment Centres
- Infections mainly due to outbreaks and direct contact with other cases, also undetermined sources

Phase 4: Post-peak Jan 2021 – Feb 18 2021

- 3,682 cases reported
- 95 outbreaks
- 307 hospitalizations and 100 deaths
- 47,704 tests completed at Hamilton Assessment Centres
- Infections mainly due to direct contact with other cases and undetermined sources, also outbreaks
- City of Hamilton went under lockdown Dec 21 2020, Ontario began Stay-At-Home order Jan 14 2021

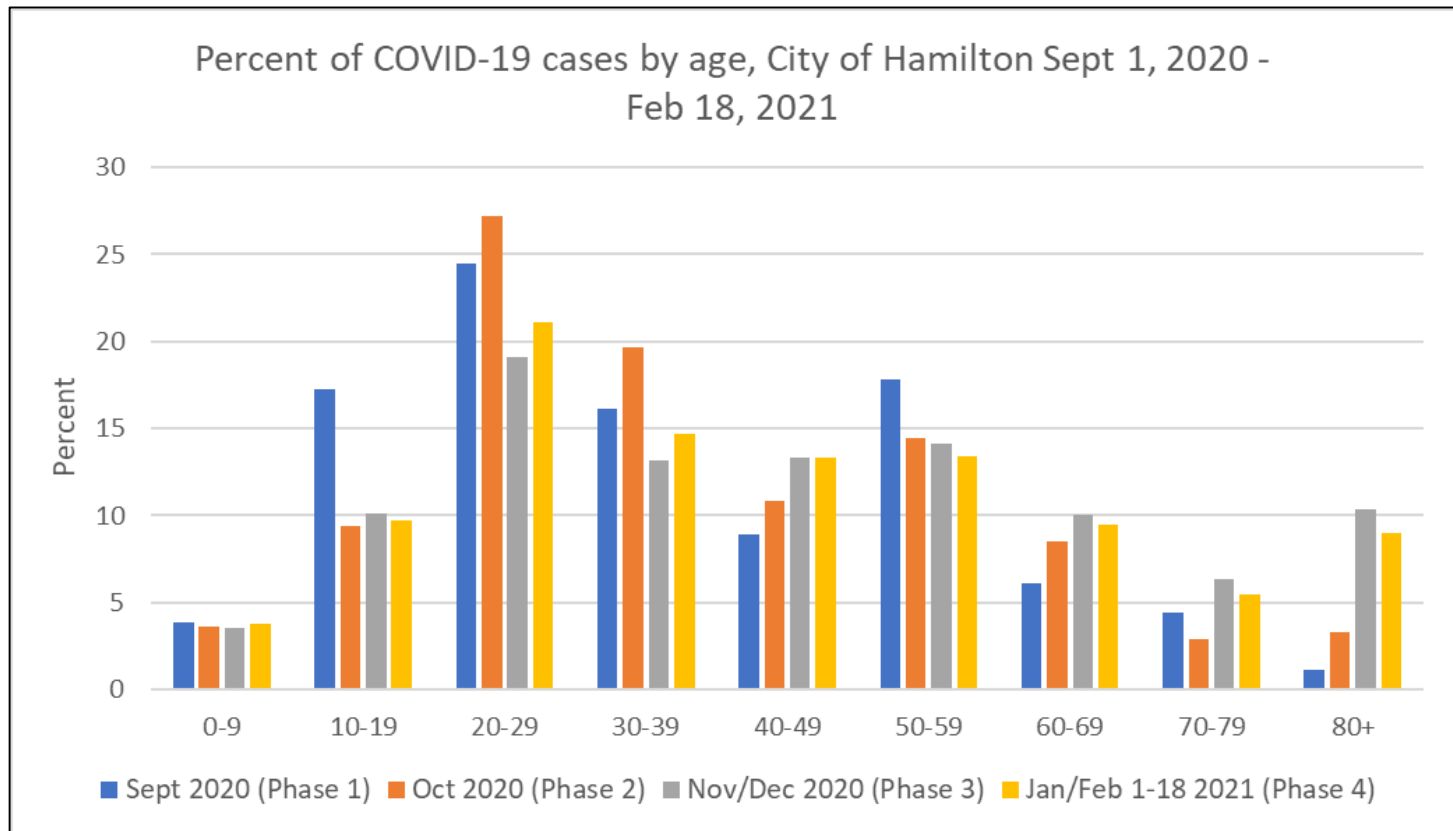
Reported cases



Key Messages

- COVID-19 case activity increased drastically in the City of Hamilton between phases 1-3 of wave 2, and is now steadily decreasing
- As of Feb 18, 2021, the average number of cases reported per day to Hamilton Public Health is 34

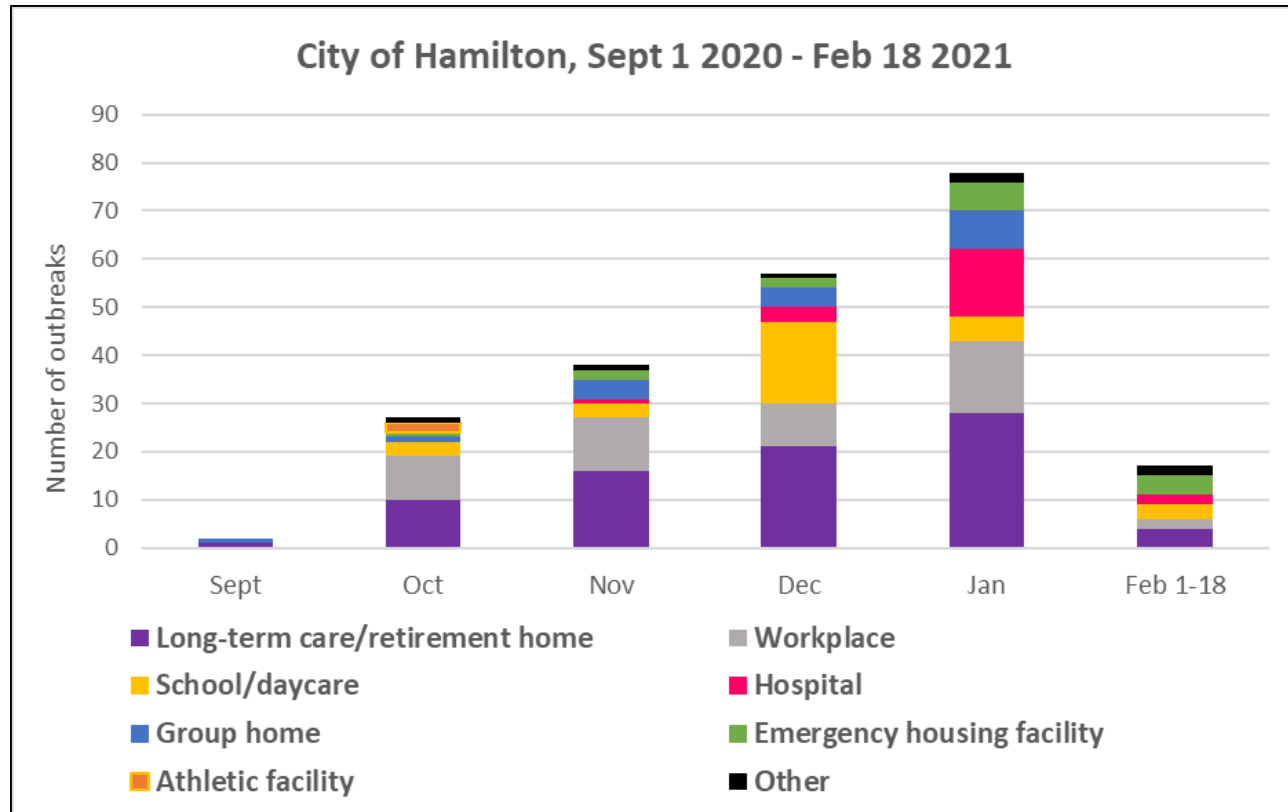
Age distribution



Key Messages

- Overall, the highest percentage of cases occurred in the 20-29 year age group
- Over the course of wave 2, there has been a noticeable rise in the percentage of cases in the 80+ year age group. It has been established mortality is related to increasing age.

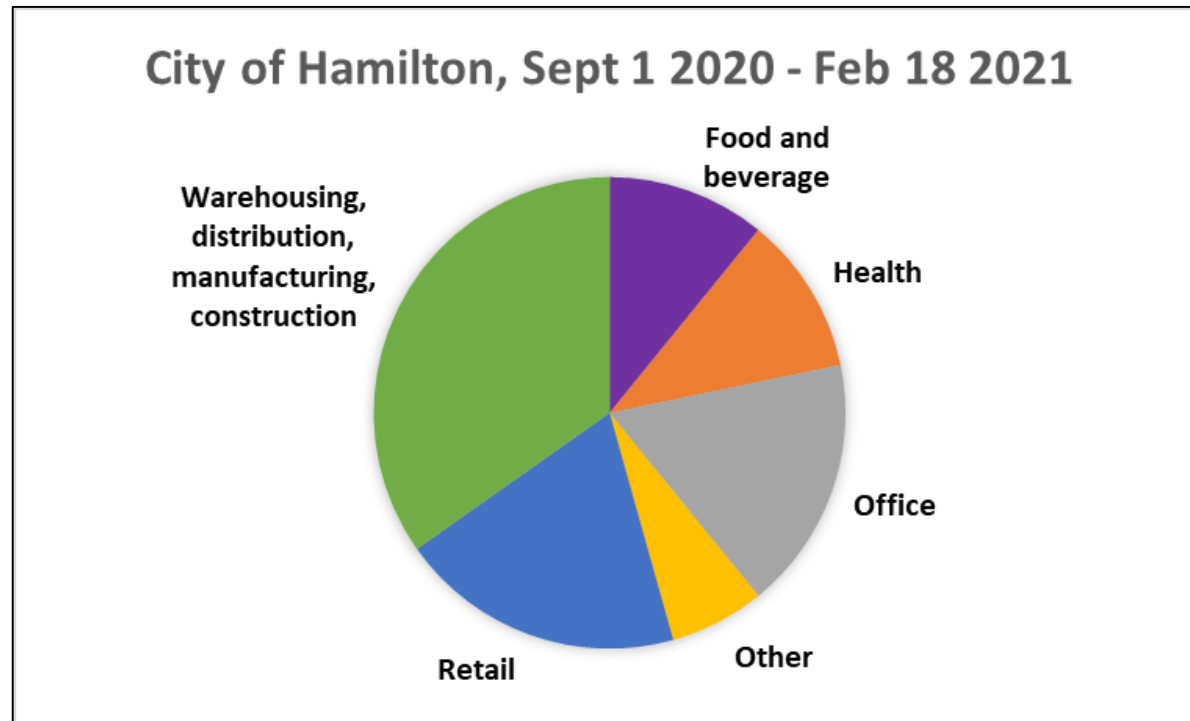
Number of COVID-19 outbreaks by facility type



Key Messages

- A shift in affected facility types occurred throughout wave 2
- An increase in school/daycare outbreaks was observed in December 2020, an increase in hospital outbreaks was observed in January 2021, and an increase in retirement home outbreaks was observed in December 2020 & January 2021

Number of COVID-19 workplace outbreaks by type



Key Messages

- A total of 46 COVID-19 workplace outbreaks have occurred in Hamilton during wave 2 thus far
- Outbreaks were most commonly identified in warehousing/distribution/manufacturing/construction settings

COVID-19 outbreak cases by facility type (Sept 1, 2020 – Feb 18, 2021)

Facility type	Total # outbreaks	Total cases	Staff cases	Resident/ patient/patron/ student cases	Visitor/other cases	Deaths
Long-term care/retirement home	80	1,110	468	623	19	141
Workplace	46	253	244	9	0	1
School/daycare	31	95	47	48	0	0
Hospital	20	423	206	215	2	30
Group home	18	49	35	14	0	1
Emergency housing facility	15	45	18	27	0	0
Athletic facility	2	79	3	76	0	0
Other	7	77	28	45	4	3
Total	219	2,131	1,049	1,057	25	176

Key Messages

- The largest proportion of outbreak-associated cases in wave 2 thus far have been in long-term care/retirement homes (N=1,110)
- The number of cases per outbreak high for long-term care/retirement homes and hospitals, low for workplaces and schools/daycares

Hamilton COVID-19 Response Table Update

- Hamilton Paramedic Services to provide pop-up testing sites in priority neighbourhoods.
- Developed partnership with local hotel to provide isolation space for community members with COVID-19 who cannot effectively isolate at home.
- Health care worker accommodations available at McMaster University for those who would like to live away from home due to potential exposure risk.
- Ongoing support to congregate settings in crisis.

Targeted Rapid Testing in Schools

- Schools chosen because they are situated in neighbourhoods where:
 - the uptake of testing is low
 - COVID-19 rates are higher
 - history of school outbreaks
- Targeted rapid COVID-19 testing was offered at two Hamilton schools on February 13, 2021
 - Bishop Ryan Catholic Secondary School
 - Orchard Park Secondary School
- Total of 86 rapid antigen tests completed; no positive results
- Next steps to be determined

COVID-19 Vaccine Update – Overview

1. Update on Vaccines Administered - Data
2. Planning Assumptions
3. Vaccination Approach
4. Updated Vaccine Sequencing
5. Risks
6. Efficacy in long-term care homes and retirement homes
7. Next Steps

Data Updates

- As of end of day February 16, 2021 there were 25,593 doses administered
- Approximately 9,060 of these are second doses.
- Currently, the City's website displays some preliminary COVID-19 data, the information will continue to expand and change as capability and availability expands.
 - Total doses administered
 - Total doses administered (by site)
 - Number of COVID-19 vaccine doses administered by client reason for vaccination

Update on Vaccine Administration in LTCH/RH

- Mobile site clinic is currently vaccinating residents in long-term care and high-risk retirement homes, retirement homes and alternative level of care (ALC) patients preparing to enter long-term care homes.
- We have visited 42 homes and have 20 left to complete.

Moving Forward: Overall Planning Assumptions

- Plan is evergreen; planning must be flexible, adaptable
- Uncertain vaccine supply, timelines, products available
- Currently plan assumes 2 doses are required
- Local and regional planning will align with provincial prioritization framework/tools/guidance;
- COVax is mandatory and will be available to support IT requirements; concerns around registration and scheduling
- Regular engagement with broad range of stakeholders, transparent communication and decision making required
- Additional vaccination sites will be implemented beginning in March 2021 (dependent on available vaccine supply, equipment, staffing, appropriate clinic sites & size)

HAMILTON COVID-19 VACCINATION PLAN: OVERVIEW

TIMING OF VACCINE ROLLOUT (INCLUDING DATES OF EACH PHASE & CLINIC OPERATION) ARE SUBJECT TO CHANGE & ARE DEPENDENT ON PROVINCIAL DIRECTION AND/OR AVAILABLE SUPPLY OF VACCINE

Dec 2020 > Jan 2021 > Feb 2021 > Mar 2021 > Apr 2021 > May 2021 > Jun 2021 > Jul 2021 > Aug 2021 > Beyond

PHASE

Provincial Phase 1: High-Risk Population Vaccination

Provincial Phase 2: Increasing Scale of Delivery of Vaccine

Provincial Phase 3: Steady State

Provincial Priority Populations by Phase

DESCRIPTION

Phase 1 Immediate Priority (*In Progress*)

- Staff, essential caregivers, residents in long-term care, high-risk retirement homes
- Alternate level of care (ALC) patients preparing to enter long-term care
- Highest Priority followed by Very High Priority health care workers
- Indigenous adults in high risk communities

Phase 1 Next Priority

- Adults 80 years of age and older
- Staff, residents, caregivers in retirement homes, congregate care settings for seniors
- High Priority health care workers
- All Indigenous adults
- Adult recipients of chronic home care

Phase 2

- Continue Phase 1 Priority Populations
- Older Adults (60 – 79)
- Staff, residents of high-risk congregate settings (e.g. shelters, community living)
- Frontline essential workers
- Individuals with high-risk chronic conditions and caregivers
- At-risk populations
- Adults 16 - 60

Phase 3

- Remaining Hamiltonians in the general population who wish to be vaccinated will receive the vaccine

Vaccination Modalities

TIMING

Large Scale Clinics

Mobile & On-Site Clinics

Primary Care & Pharmacy Clinics

DESCRIPTION

Large Scale Clinics

Hamilton Health Sciences Large Scale Clinic
St. Joseph's Healthcare Hamilton Large Scale Clinic
Additional Public Health Large Scale Clinics



Anticipated Throughput: 8,400 doses / day at peak

Supports large scale vaccination of the

Mobile & On-Site Clinics

Mobile Bus Clinics
Pop-Up Facility Clinics
Rolling Clinics
Drive Through Clinics



Anticipated Throughput: 750 doses / day at peak
Provides vaccination through accessible channels

Primary Care & Pharmacy Clinics

Primary care practice-based vaccinations
Pharmacy-based vaccinations



Anticipated Throughput: >1,000 doses / day at peak
Provides vaccination through usual channels

Local Vaccination Targets: Assumptions

To achieve a vaccine coverage level of **at least 75%** of eligible Hamiltonians, the following assumptions have been made to supporting planning:

Description	Number
2021 Hamilton Population \geq 16 Years Old ¹	501,268
% Uptake to be Achieved	75%
Eligible Population to be Vaccinated (75%)	375,951
# Vaccinated by February 28, 2021	30,000
Remaining Population to be Vaccinated as of March 1, 2021	345,951
Total Doses Required ²	691,902

Footnotes

1) Source: Ontario Ministry of Finance

2) Assumes two doses of vaccine required based on available products; as additional products become available plan will be amended

Local Vaccination Target: Throughput by Clinic Type

To administer a total of at least **10,000 doses of vaccine per day**, the following distribution channels would be used:

Clinic Type	Potential Throughput
Large Scale Clinics (5) - Centrally located, near bus routes	~8400 / day
Mobile / On-Site Clinics - Suburban and rural areas (eg Waterdown, Binbrook, Dundas) - Targeted, less mobile, lower access populations	~750 / day
Pharmacy – once have suitable vaccine	~1000 / day
Primary Care – once have suitable vaccine	<i>Throughout participate in vaccination at above sites</i>
Total	~10,150 / day

Mobile/On-Site Clinic: Potential Modalities

Pop-Up Facility Clinics

- Mobile clinics held at facilities with enough space to accommodate a safely distanced clinic
 - i.e., retirement homes, libraries, rec-centres, correctional facility
- Target Population lower social determinants of health, rural, urban indigenous, retirement/nursing homes, senior centres, Barton Correctional, On-Site Primary Care clinics

Mobile Bus Clinics

- Mobile clinics held on a clinical bus, driven to different locations. Used when targeting many locations with very small populations
 - i.e., Cancer care bus, retrofitted HSR bus
- Target Population: Shelter health, consumption site, farm with temporary foreign workers, residential care facilities, other congregate settings

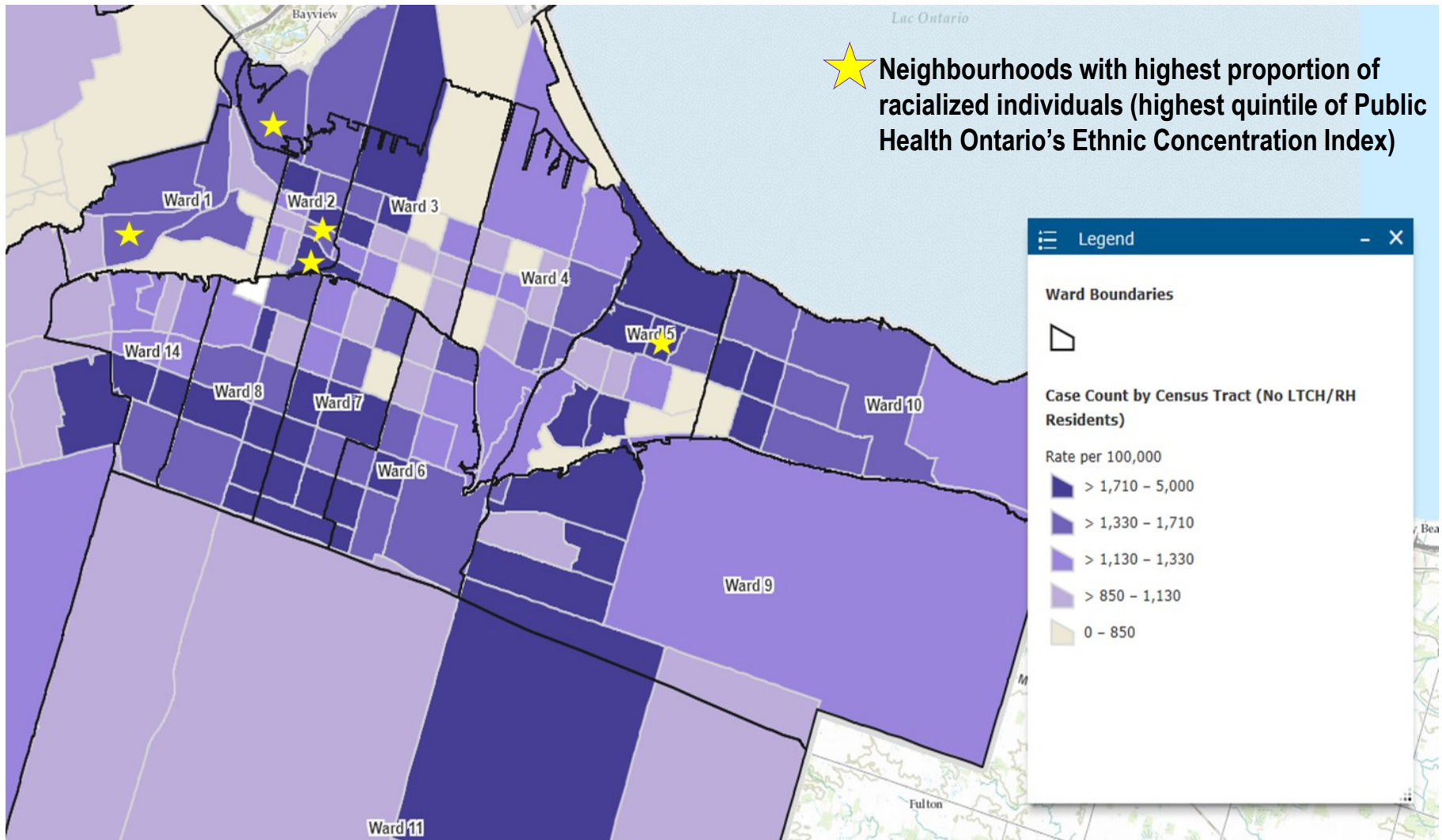
Rolling Clinic

- Mobile clinics where a “bus” filled with vaccinators stops at locations grouped together. The bus will drop a pair of vaccinators to a home and move to the next. Once all pairs are dropped off it return to pick up the first pair who would have completed aftercare by then.
- Target Population: Home care recipients living alone, residential care facilities, other congregate settings

Drive Through Clinics

- Fixed site clinic located in a space that could accommodate many cars
- Target Population: lower social determinants of health, rural, urban indigenous, home care recipients who have access to a vehicle and can leave the home

COVID-19 Incidence Rates



Large Scale Clinics: Planning Overview

Planning underway for up to 5 Large Scale Clinic sites across the City:

Organization	Location	Potential Throughput
Hamilton Health Sciences	Health Care Site/ North End	~1200 / day
St. Joseph's Healthcare Hamilton W5th	Mountain	~2000 / day
Hamilton Public Health	Downtown	~3700 / day*
Hamilton Public Health	East End	~1500 / day
Total	5 Locations	~8,400 / day
*Totals per clinic site and per mobile site is dependent upon supply and best solution to reach population		

Primary Care

Primary Care Distribution Channels

- Primary Care to continue to support large scale & mobile clinics
- Potential to provide targeted primary care based clinics to support mass vaccination efforts for specific populations in combination with the mobile clinic planning team
- Practice-based vaccination to occur in later phases once single dose vaccinations available
- Significant number of physicians available to support overall workforce (>150)

Pharmacy Distribution Channels

- Local meeting with 40+ community pharmacists held February 8th
- Estimated throughput ~1000 per day across the City; individual pharmacies estimate 40-100 clients/day
- Pharmacy working group in development to support further planning
- Survey out to wider pharmacy group in Hamilton to understand pharmacy clinic size, staffing requirements, equipment available, throughput estimates
- Pharmacy staff, students interested in participating in large scale and mobile clinic work force

Priority Populations for Vaccine

Immediate priority for first-dose vaccination:

- Staff and essential caregivers in long-term care homes, high-risk retirement homes and First Nations elder care homes, and any residents of these settings that have not yet received a first dose of vaccine.
- Alternative level of care patients in hospitals who have a confirmed admission to a long-term care home, retirement home or other congregate care home for seniors.
- Highest Priority health care workers, followed by Very High Priority health care workers, in accordance with the Ministry of Health's guidance on Health Care Worker Prioritization.
- Indigenous adults in northern remote and higher risk communities (including on-reserve and urban communities).

Next Priority for Vaccine

Next priority for first-dose vaccination:

- Adults 80 years of age and older.
- Staff, residents and caregivers in retirement homes and other congregate care settings for seniors (e.g., assisted living).
- Health care workers in the High Priority level, in accordance with the Ministry of Health's guidance on Health Care Worker Prioritization.
- All Indigenous adults.
- Adult recipients of chronic home care.

Overall Risks

- Significant staffing required to support operation of clinics;
- Significant IT support required across all delivery channels; provincial registration/booking process to be confirmed. Local solution to be implemented in the interim;
- Clinics require appropriate space to ensure public health measures adhered to; assumes available space for operation of these clinics within anticipated timelines to achieve targets
- Supply is not certain; there is risk that clinics and timelines must be adapted dependent on vaccine supply and product type
- Sequencing of populations determined provincially; processes will need to be adapted as further information is received about subsequent phases

Vaccine in Long-Term Care Homes and Impact on Outbreaks

Overall it's too early to determine vaccination impact on long-term care home outbreaks

In Hamilton on long-term care home outbreaks have had relatively lower transmission since vaccination has begun, but:

- also lower community rates of COVID-19 due to Lockdown/ Stay at Home Order
- continued focus on infection prevention and control in these settings
- second dose of vaccine has only been recently completed in many homes
- 94-95% effectiveness of vaccination seen after 7 days of second dose

Next Steps

Further work to refine vaccination plan

- Large scale clinic planning (timing of implementation, securing space, target populations dependent on sequencing direction, supply)
- Review overall staffing requirements & recommend coordinated approach for large scale, mobile/on-site clinics
- Pharmacy clinic planning underway
- Confirm required doses, supplies/equipment for all clinics by phase and populations; Validate associated supply and inventory management processes required by clinic and delivery site
- Identify and support IT requirements across clinic sites, types



QUESTIONS?