

Public Health Services COVID-19 Situation Report & Organizational Update

Board of Health
October 18, 2021

Overview

1. Overall Status Update
2. COVID-19 Situation Report
3. Scarsin Forecast Update
4. COVID-19 Vaccine Update

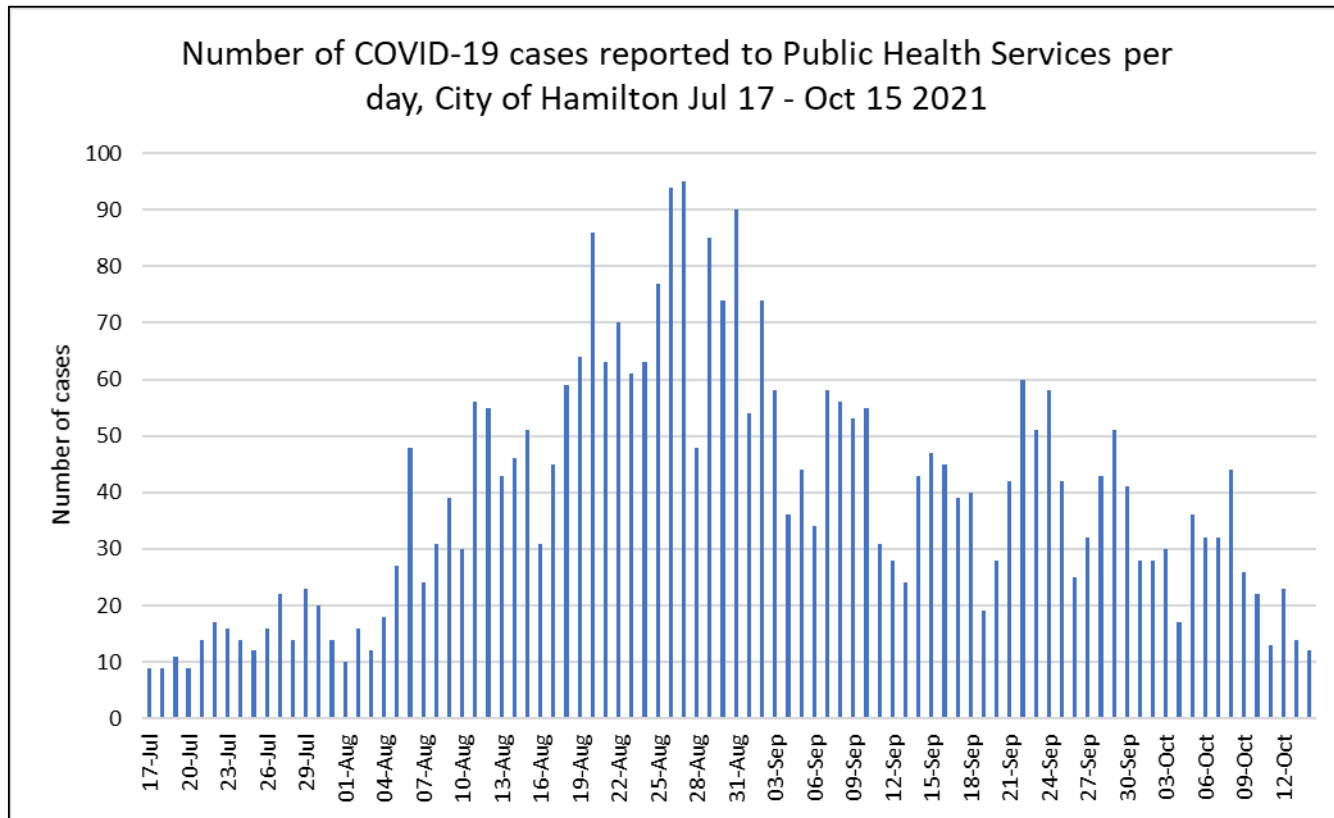
Overall Status

- Hamilton currently seeing decrease in COVID-19 case activity, including outbreaks
- As of October 14, 2021, 846,030 doses given; 84.3% of Hamiltonians 12yrs+ vaccinated with one dose and 79.4% with both doses.
- Cautiously optimistic 4th wave has been averted through Hamiltonian's adherence to public health measures in tandem with improvements in vaccination rates;
- However, COVID-19 unlikely to disappear this year; transmission risk exists with increased indoor activities and “reopening”.
- Receiving two doses of vaccine as soon as possible remains important to have strong protection against COVID-19 and Delta variant.
- Achieving equitable and high levels of vaccination coverage continues to be major focus of the COVID-19 control effort. ■

SITUATION REPORT

Stephanie Hughes, Epidemiologist

Reported cases



Key Messages

- Hamilton is currently in wave 4 of COVID-19 and trending downwards
- As of October 15, 2021, there were 25 cases of COVID-19 reported to Hamilton Public Health per day on average

Phases of COVID-19 in Hamilton – wave 4

Phase 1: Pre-peak

Jul 17 – Aug 16, 2021
(1 month)

- 757 cases reported
- 14 outbreaks
- 47 hospitalizations and 4 deaths
- Outbreaks occurring in workplace, child care, communal living settings
- Stage 3 – Provincial Roadmap to Reopen
- Vaccine doses administered decreased

Phase 2: Peak

Aug 17 – Sept 1, 2021
(0.5 month)

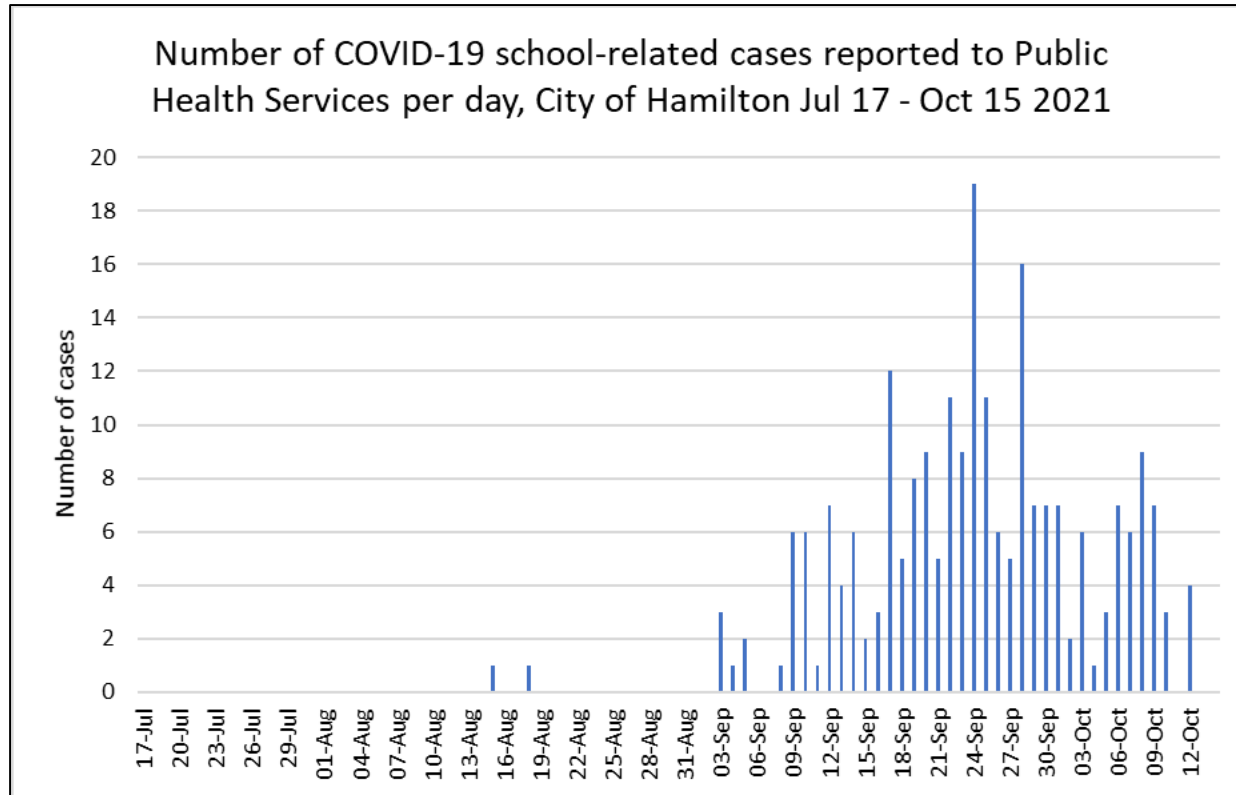
- 1,128 cases reported
- 22 outbreaks
- 67 hospitalizations and 3 deaths
- Outbreaks occurring in workplace, child care, athletic settings
- Provincial reopening stages paused, maintenance of public health measures
- Introduction of hyper-local vaccine clinics to areas of Hamilton with lower vaccine coverage

Phase 3: Post-peak

Sept 2 – Oct 15, 2021
(1.5 months)

- 1,614 cases reported
- 56 outbreaks
- 94 hospitalizations and 9 deaths
- Outbreaks occurring in workplace, child care, school, athletic, banquet hall, communal living settings
- Increase in indoor activity
- Slight increase in vaccine doses administered, particularly 2nd doses
- Vaccine passports implemented provincially

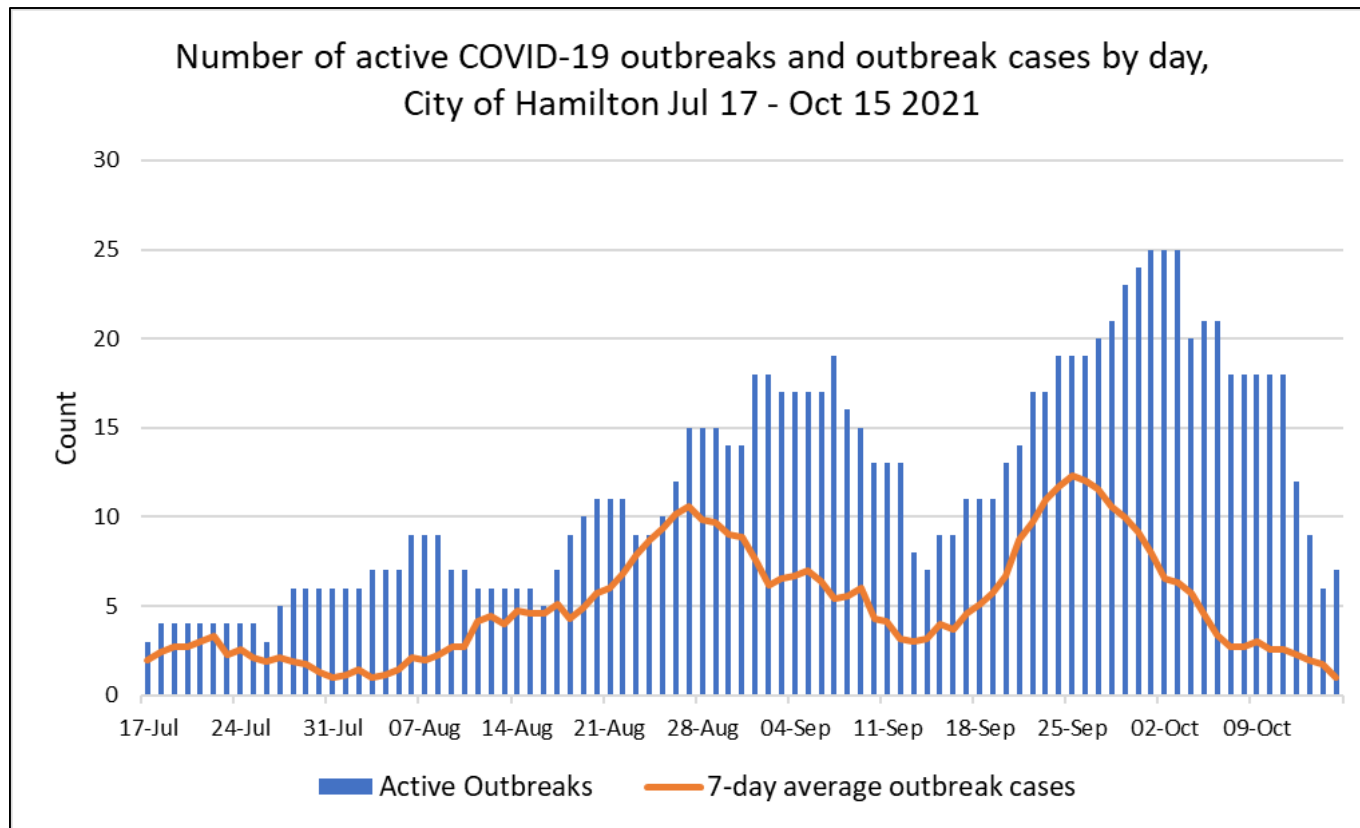
Reported school-related cases



Key Messages

- School-related COVID-19 case activity in Hamilton hit a peak near the end of September 2021
- As of October 15, 2021, school-related case activity has been maintaining

Active outbreaks



Key Messages

- COVID-19 outbreak activity in wave 4 peaked around late September 2021
- The number of active COVID-19 outbreaks in recent weeks has decreased

SCARSIN FORECAST

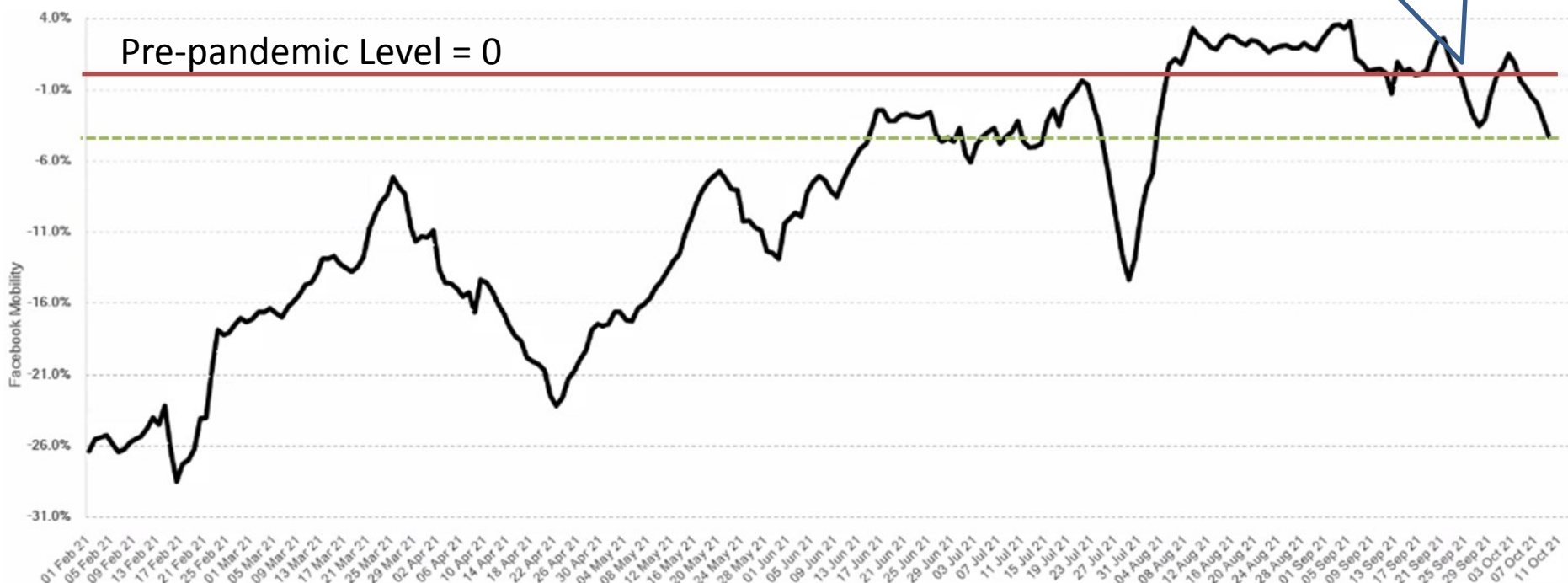
Ruth Sanderson, Epidemiologist

Scarsin Forecast

- Cautiously optimistic that Hamilton's 4th wave may have been contained by current levels of vaccination and adherence to public health measures
- Forecast predicts that cases, hospitalizations and deaths may level off; however, COVID-19 is unlikely to disappear entirely this year:
 - Anticipate increase transmission risks this fall/winter with increased indoor activities, return to workplaces and "reopening"
- As Hamiltonians continue to get vaccinated, continued public health measures can help prevent increased transmission in November

Overall Mobility, Hamilton

Introduction of proof-of-vaccination system
Sep 22, 2021

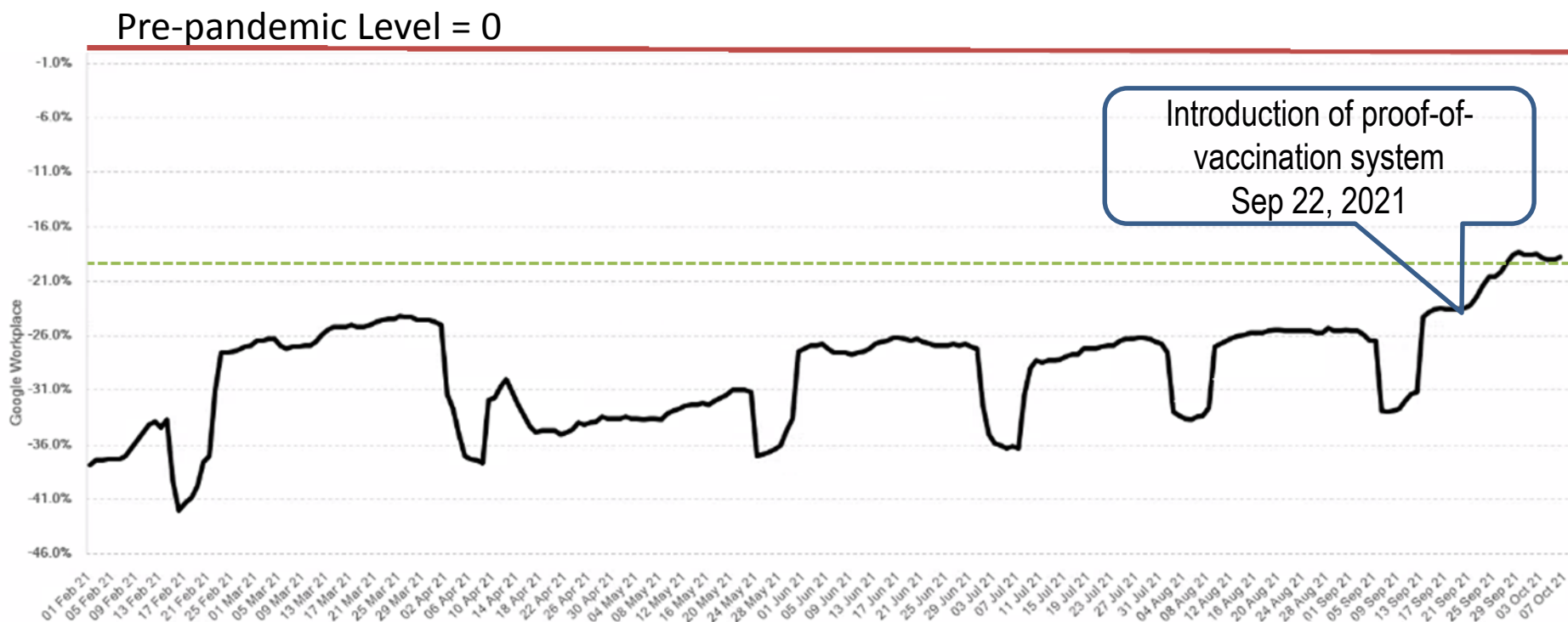


Data Source: Scarsin Decision Support System retrieved Oct 12, 2021

Key Messages:

Hamilton's community mobility has remained around the pre-pandemic level since the introduction of Ontario's mandatory proof of vaccination system.

Workplace Mobility, Hamilton



Data Source: Scarsin Decision Support System retrieved Oct 12, 2021

Key Messages:

Workplace mobility increased since the introduction of Ontario's proof of vaccination system and has now levelled off at 19% below pre-pandemic levels. Levels have not been this high in Hamilton since Mar 2020

Scarsin Forecast – Overview of Scenarios

Scenario 1 – Base

–Maintained public health measures throughout the year (e.g., 70% masking to end-of year)

Scenario 2 – Lower Public Health Measures

Increased risk through reduced adherence to public health measures (e.g., reduced masking to 60% starting in mid-October)

Scenarios assume:

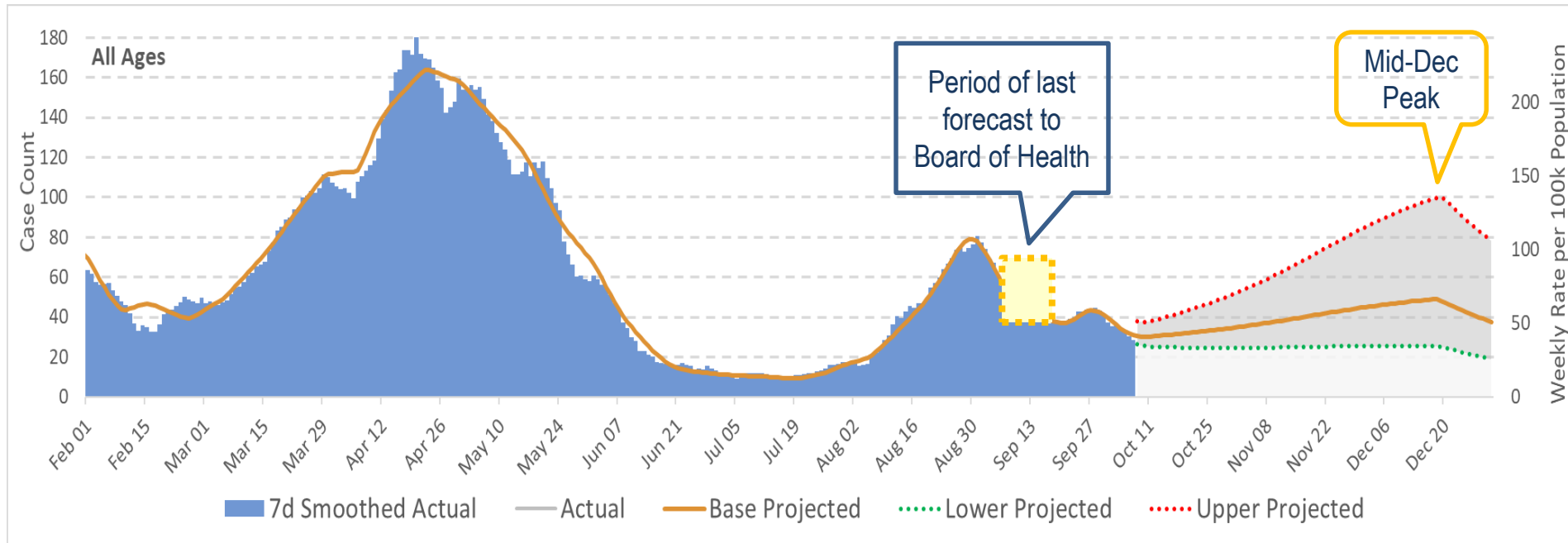
- Increased transmission risk with increased activity indoors due to cooler weather and “reopening” activities
- 80% vaccination in eligible population by late Oct 2021
- Increased workplace mobility after Oct 1, 2021 to -10% by Dec 31; 2021
- kept community mobility at 0% Sep 6, 2021 to Dec 31, 2021
- Delta variant circulating at 99.5% of cases as of Sep 20, 2021
- Immunity curves adjusted for vaccine type
- First dose immunity adjusted for Delta
- Reduced dosing interval to 4 weeks in July, 2021
- Fall in-class learning schools/ universities

-Updated data:

- Case data retrieved Oct 10, 2021
- Updated mobility data
- Vaccination data retrieved Oct 10, 2021

Scarsin Forecast

Scenario 1: COVID-19 Cases among Hamiltonians



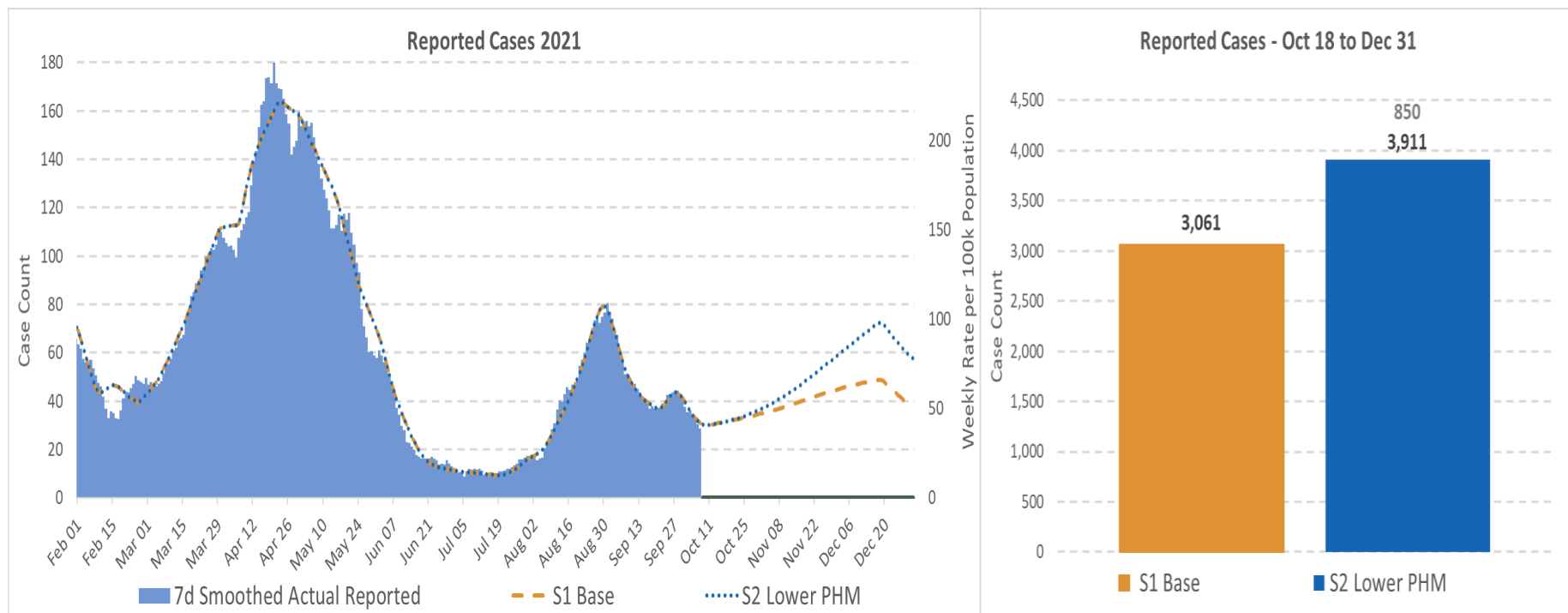
Data Source: Scarsin Decision Support System retrieved Oct 12, 2021

Key Messages:

The 4th wave appears to have receded with continued public health measures and increasing vaccination levels. Fall/ winter brings added transmission risk with increased indoor activity and “reopening”. Cases are predicted to remain below 50 per day but could get as high as 100 cases at the peak or hover below 30 cases.

Scarsin Forecast

Scenario Comparisons, COVID-19 Cases among Hamiltonians



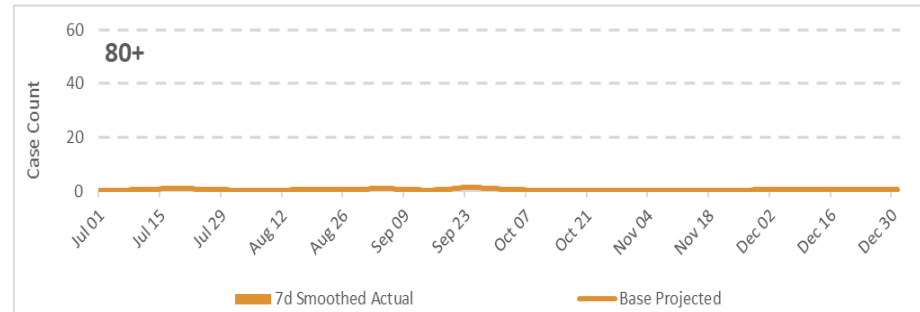
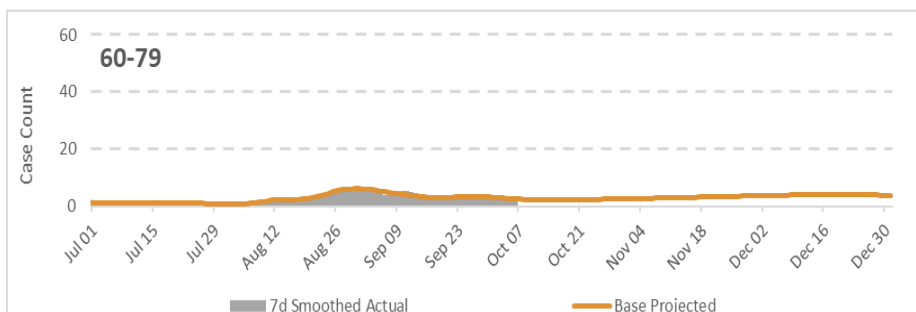
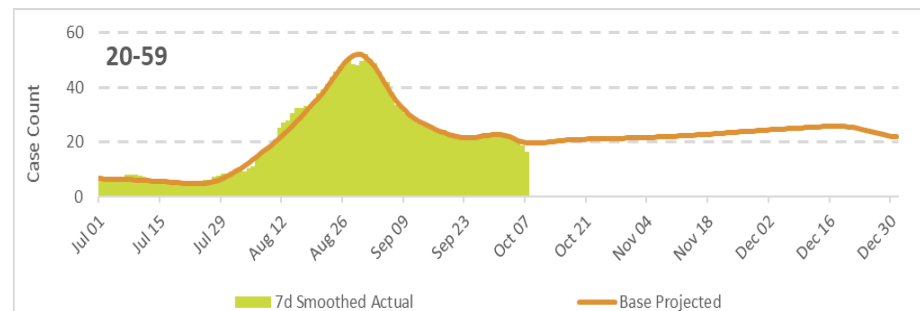
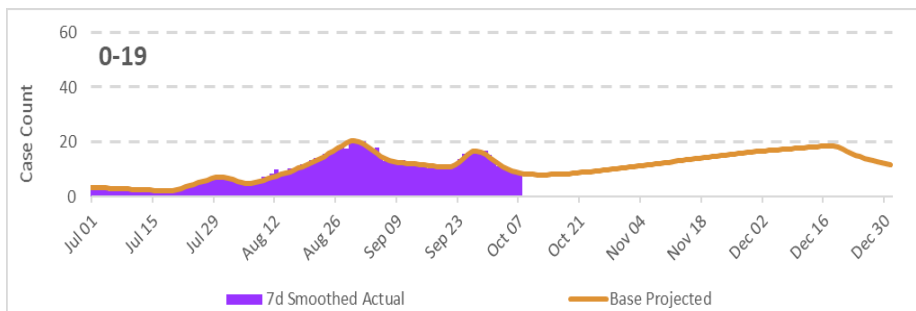
Data Source: Scarsin Decision Support System retrieved Oct 12, 2021

Key Messages:

If public health measures are lowered before we boost vaccination levels, cases could quickly increase (S2 blue). In this comparative scenario (e.g., reduction of compliance with masking from 70% to 60% as well as reduced distancing and contact avoidance), forecast predicts approximately 850 additional cases between Oct 18–Dec 31, 2021.

Scarsin Forecast

Scenario 1: COVID-19 Cases by Age Groups, Hamiltonians



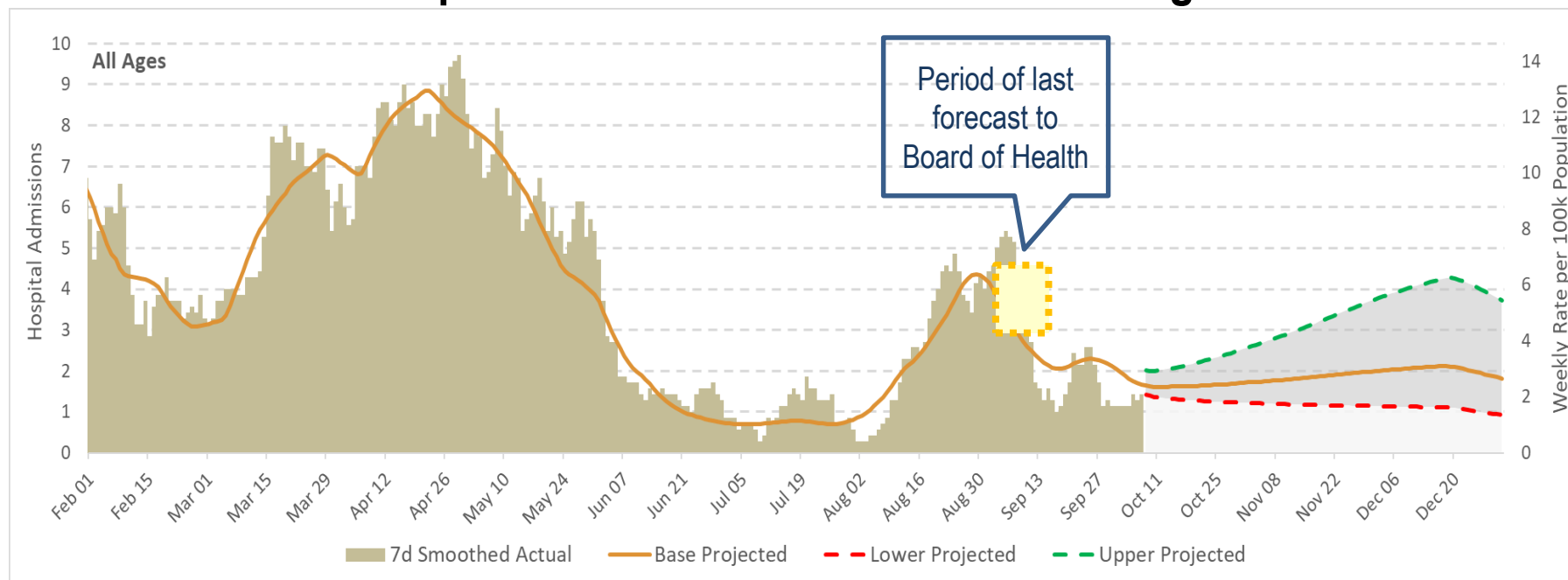
Data Source: Scarsin Decision Support System retrieved Oct 12, 2021

Key Messages:

In the base forecast, cases will primarily be in those 20-59 (57%) and those 0-19 years old (34%). Predict approximately 3000 cases between Oct 18, 2021 and Dec 31, 2021. The affected age groups are the same in S2.

Scarsin Forecast

Scenario 1: Hospital Admissions for COVID-19 among Hamiltonians



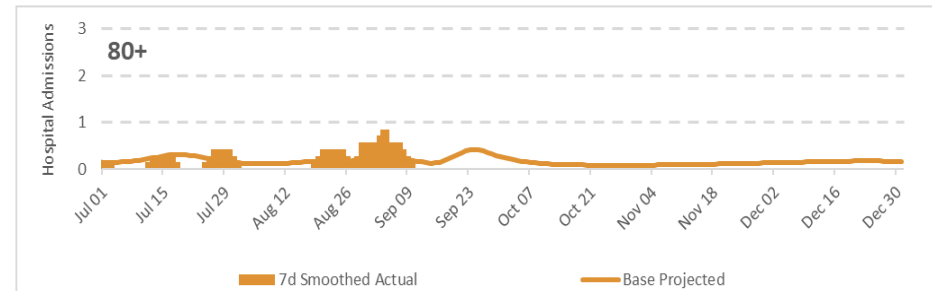
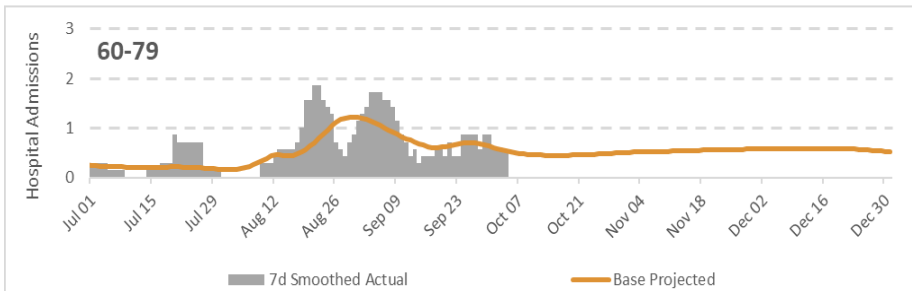
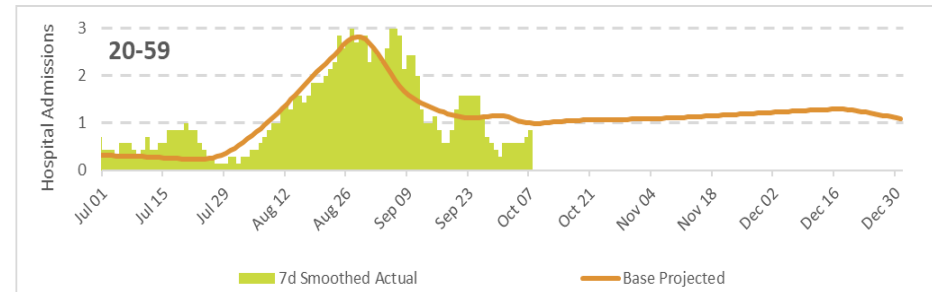
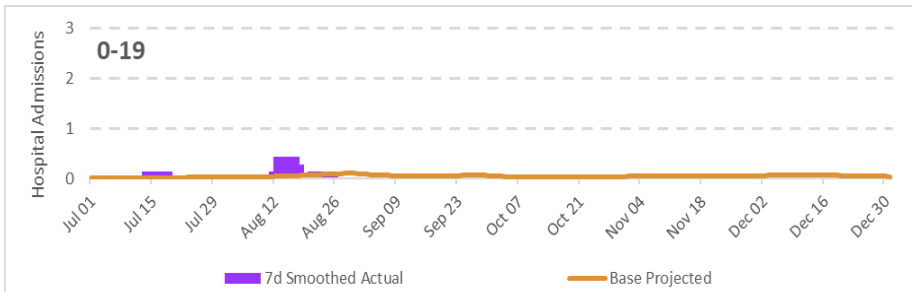
Data Source: Scarsin Decision Support System retrieved Oct 12, 2021

Key Messages:

Provided public health measures remain in place and vaccination levels continue to increase, hospital admissions are predicted to remain at, or below, two admissions per day for Hamiltonians from now to the end of the year (range 1–4). Approximately 140 hospitalizations are predicted between Oct 18, 2021 and Dec 31, 2021.

Scarsin Forecast

Scenario 1: Hospital Admissions for COVID-19 by Age Groups, Hamiltonians



Data Source: Scarsin Decision Support System retrieved Oct 12, 2021

Key Messages:

Hospitalizations will primarily be in those 20-59 years old (62%) and those 60-79 years old (29%).

Anticipate 11 deaths between Oct 18, 2021 and Dec 31, 2021; primarily in those over 60 years old (not shown).

Scarsin Forecast Summary

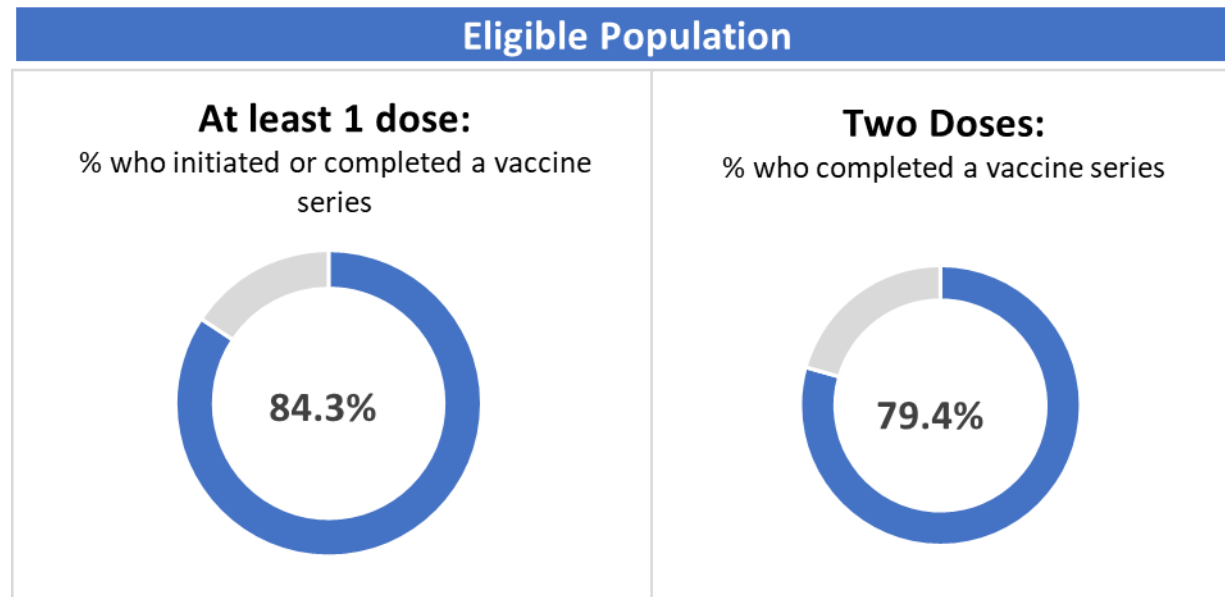
- Forecast predicts that Wave 4 has peaked in Hamilton; public health measures in tandem with improvements in vaccination rates may have succeeded in moderating the impact of the Delta variant.
- Anticipate an increased risk of transmission in Nov/Dec, 2021 as Hamiltonians move indoors and reopening continues. Without continued adherence to public health measures, cases could increase quickly.
- Cases/ hospitalizations and deaths continue to be predicted to be lower than in the 3rd wave.

COVID VACCINE UPDATE

Melissa Biksa, Manager – COVID-19 Vaccine

COVID-19 Vaccine – Overall Coverage

Estimated as of End Of Day Oct 14, 2021



Note: Includes Hamilton residents and individuals vaccinated in Hamilton who cannot be assigned to a health unit region.

Eligible population includes individuals born in 2009 or earlier.

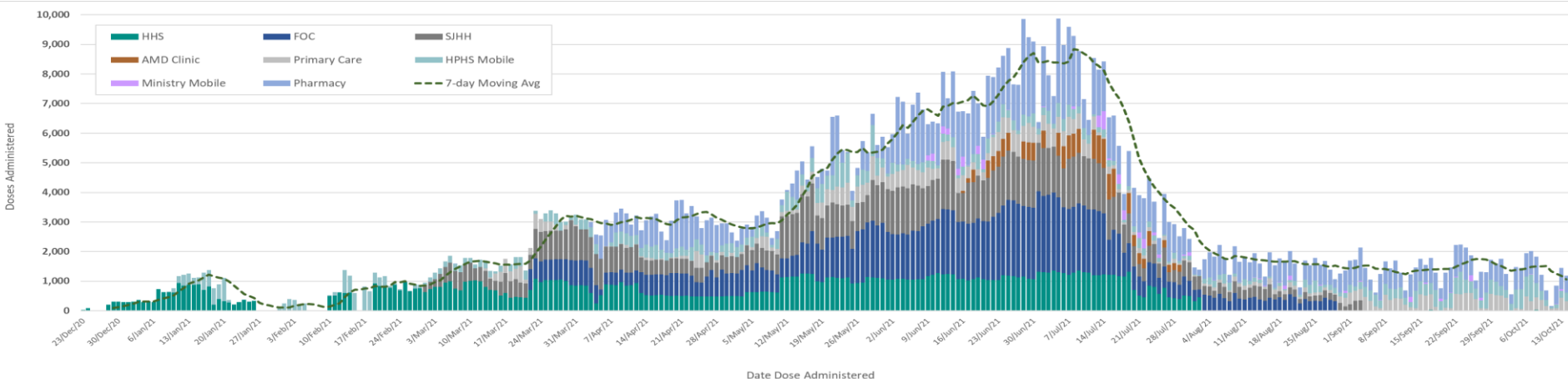
Sources: IntelliHealth (COVAXon Data Load); IntelliHealth (Population Projections, 2020).

COVID-19 Vaccine – Vaccine Distribution Over Time

Estimated as of End Of Day Oct 14, 2021

Product	Pfizer	Moderna	AstraZeneca
Total doses administered	591,700	211,300	43,030

Total Doses Administered in Hamilton by Day



Source: IntelliHealth (COVAXon Data Load).

COVID-19 Vaccine Uptake

	Previous (Oct 1)	Previous (Oct 8)	CURRENT (Oct 15)	Trend
% change in first-dose coverage among Hamilton's eligible population in the past week	83.3% (+0.8%)	83.8% (+0.5%)	84.3% (+0.5%)	--
% change in second-dose coverage among Hamilton's eligible population in the past week	77.4% (+1.3%)	78.5% (+1.1%)	79.4% (+0.9%)	↓
# of first- and second-doses administered to Hamilton residents in the past week	10,440	8,025	6,674	↓
▪ % of first- and second-doses administered to Hamilton residents in Hamilton	90.7%	90.1%	90.8%	--
▪ % of first- and second-doses administered to Hamilton residents outside of Hamilton	9.3%	9.9%	9.2%	--

Target: Move first-dose coverage from 80% to 90%

51,956

First-doses remaining to achieve 90% coverage

29,475

22,481

29,475

Target: Move second-dose coverage from 75% to 90%

77,934

Second-doses remaining to achieve 90% coverage

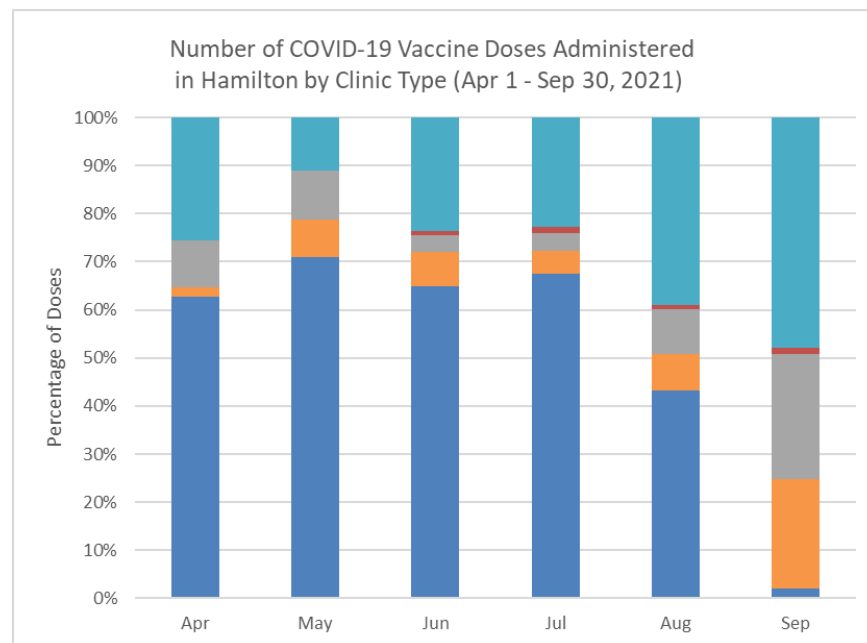
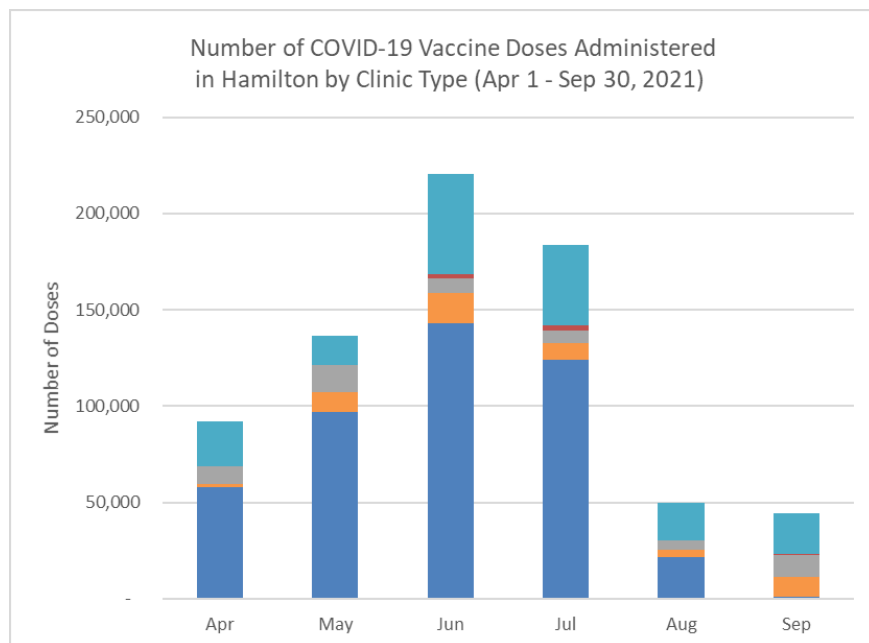
55,027

22,907

55,027

COVID-19 Vaccine – Vaccine Distribution Over Time

Estimated as of End Of Day Sept 30, 2021

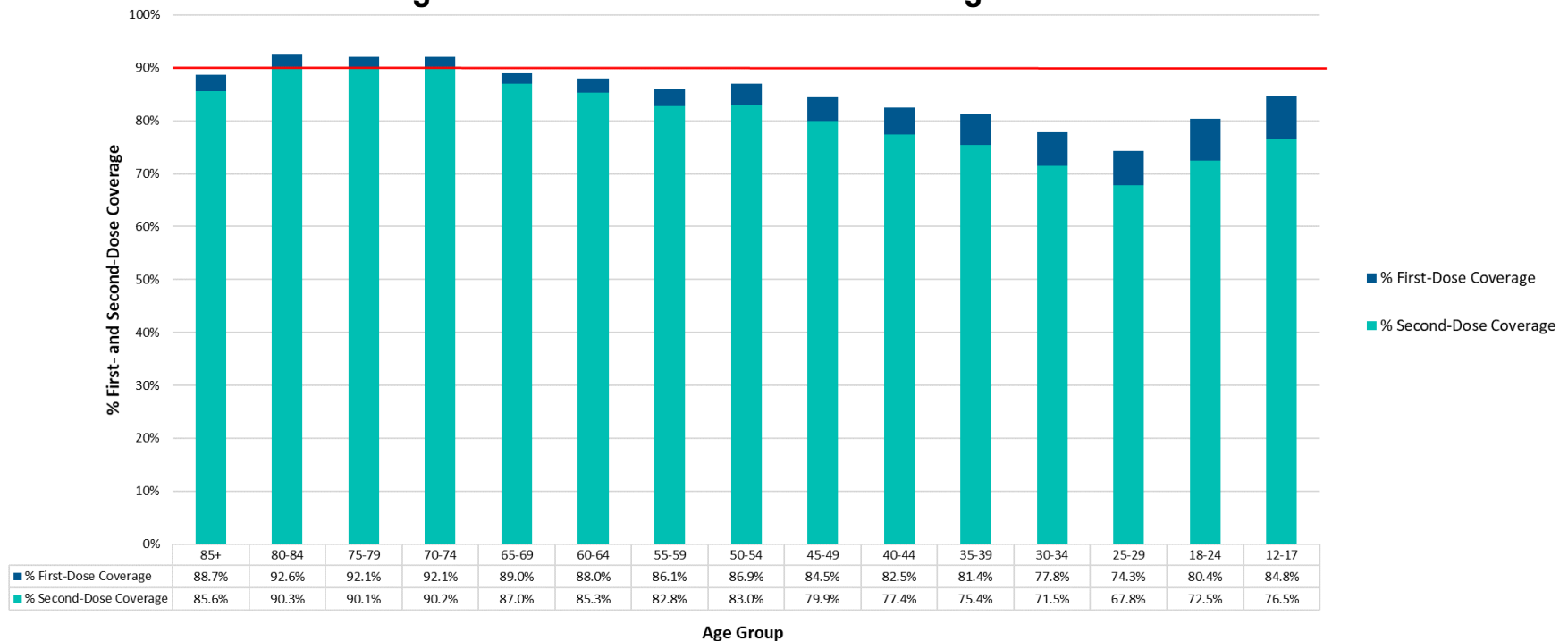


■ Large scale clinic ■ Primary care clinic ■ Mobile/pop-up clinic ■ Ministry clinic ■ Pharmacy

Source: IntelliHealth (COVAXon Data Load).

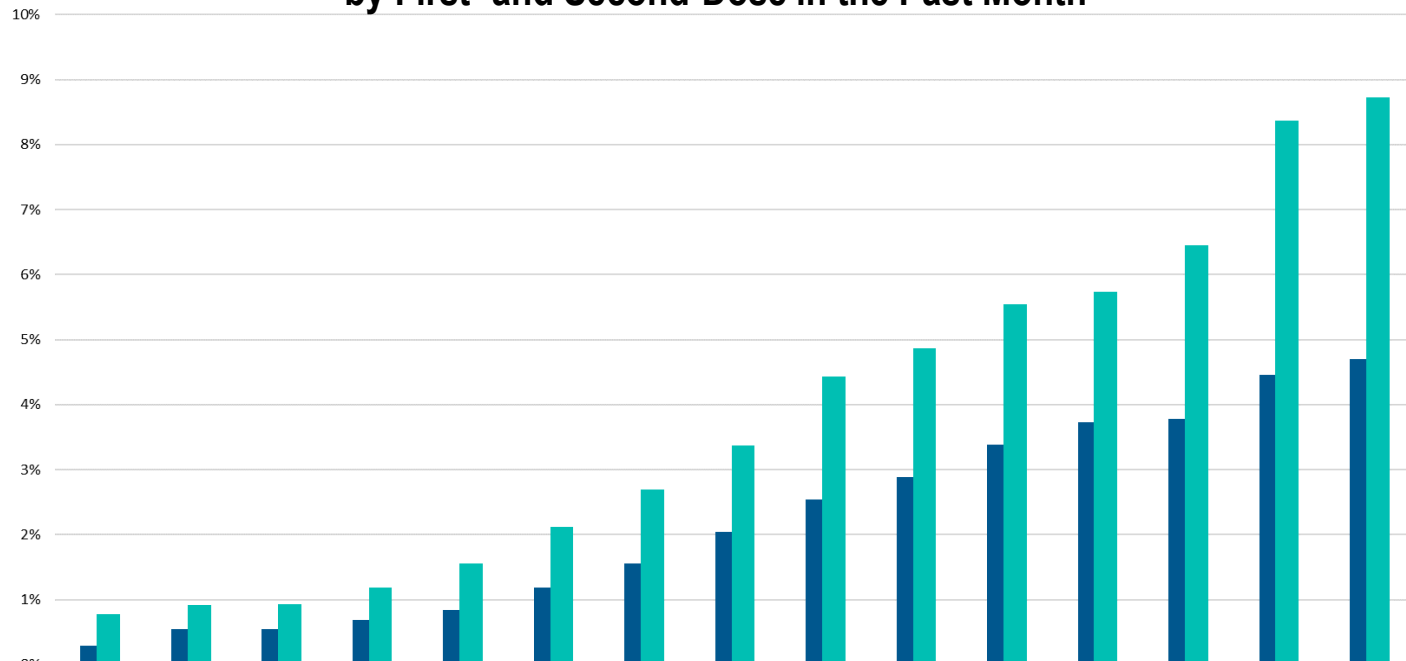
COVID-19 Vaccine Uptake by Age

Aged-Based COVID-19 Vaccine Coverage



COVID-19 Vaccine Uptake by Age

**Percent Change in COVID-19 Vaccine Coverage
by First- and Second-Dose in the Past Month**

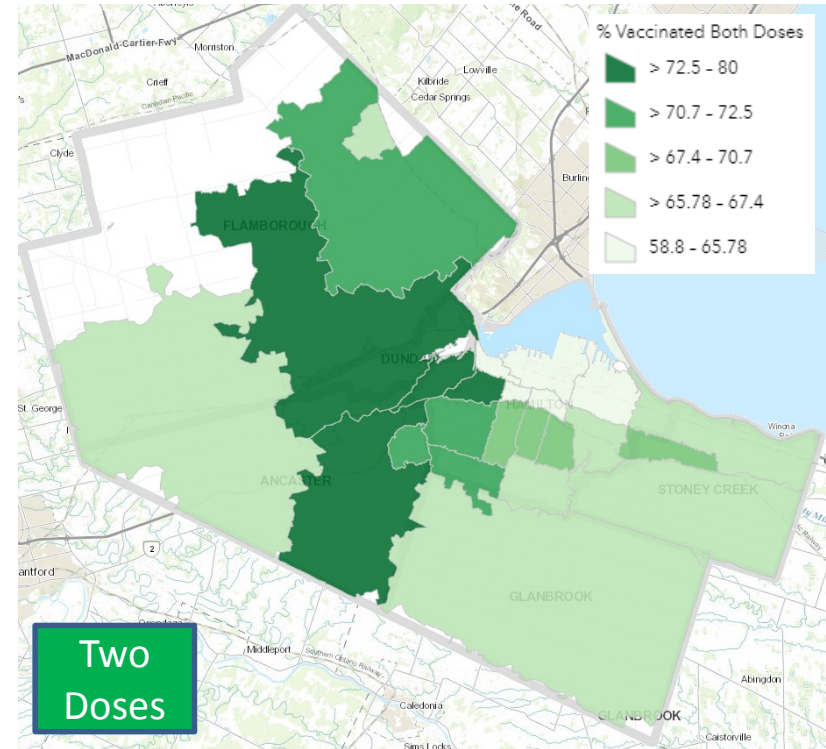
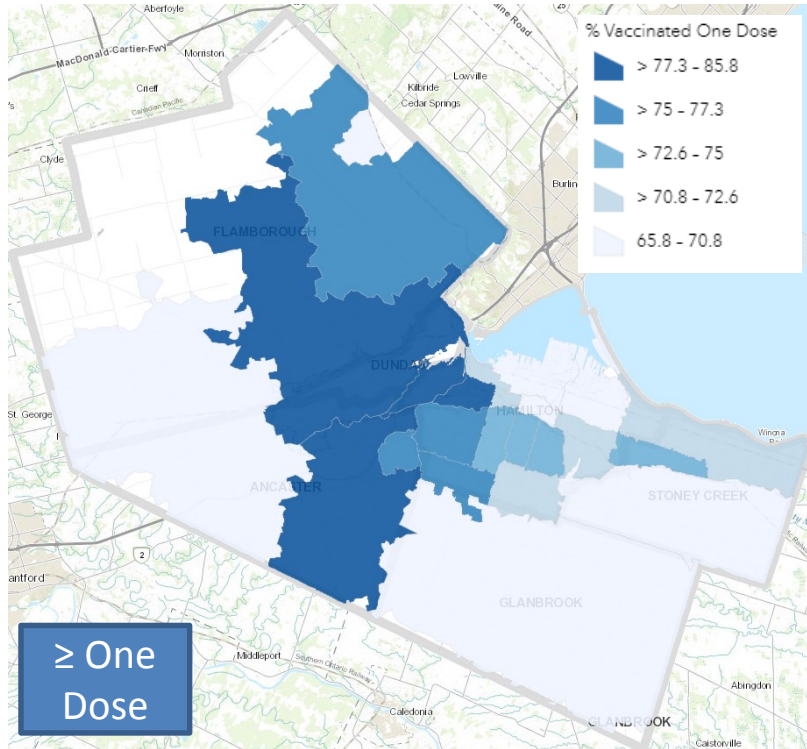


■ Percent Change in First-Dose Vaccine Coverage	0.3%	0.5%	0.6%	0.7%	0.8%	1.2%	1.6%	2.0%	2.5%	2.9%	3.4%	3.7%	3.8%	4.5%	4.7%
■ Percent Change in Second-Dose Vaccine Coverage	0.8%	0.9%	0.9%	1.2%	1.6%	2.1%	2.7%	3.4%	4.4%	4.9%	5.5%	5.7%	6.5%	8.4%	8.7%

Age Group

COVID-19 Vaccine – Coverage by Forward Sortation Area

Estimated Vaccine Coverage by Forward Sortation Area (All Ages) (up to October 4, 2021)



Source: ICES COVID-19 Dashboard, Applied Health Research Questions (AHRQ) # 2021 0950 080 000. Toronto: ICES; 2020.

Notes:

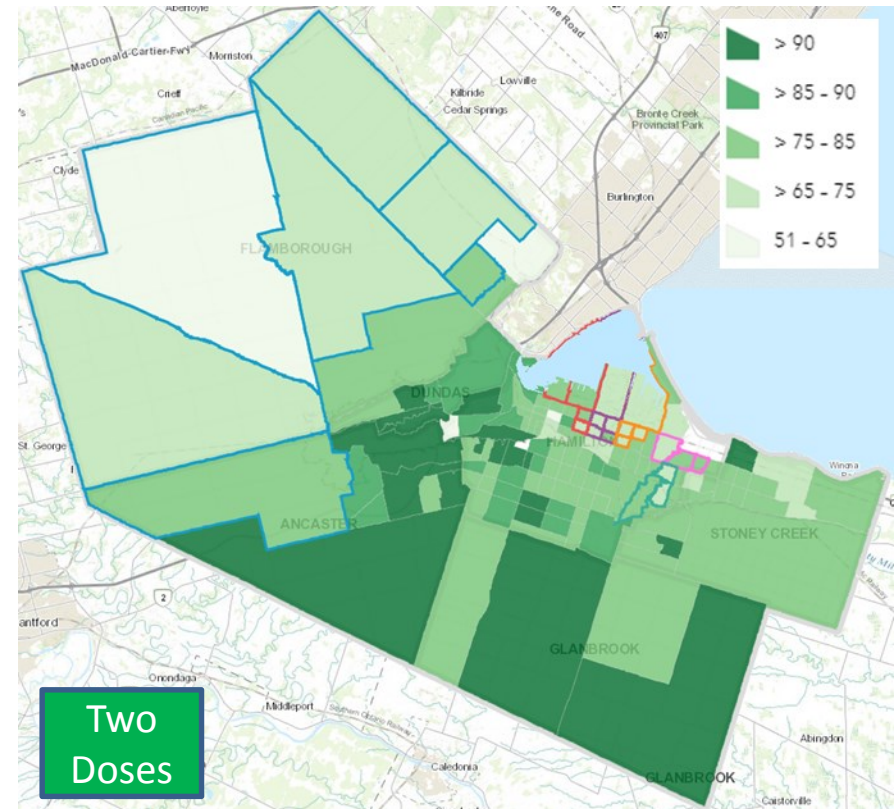
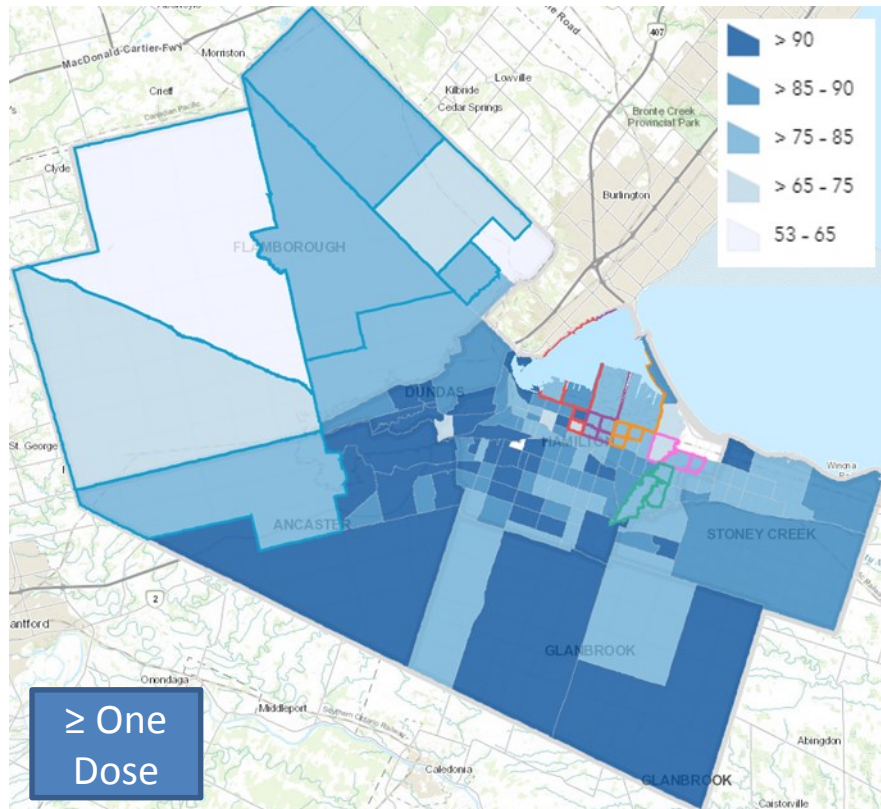
1. Coverage estimates are for all ages and include ages in the estimated population size that may not be eligible for vaccination. Estimates are therefore lower than overall coverage for the eligible population.
2. Interpret with caution. Numerators may be under-counted due to missing or incorrect postal codes in COVAXon; denominators may be under-estimated due to limitations of enumerating people in the Registered Persons Database (ICES).
3. Some FSAs cross multiple health regions and include a mix of Hamilton and non-Hamilton residents, especially LOR.

	Vaccine Coverage (Eligible Population) up to Oct 4, 2021		Change Since Sept 12, 2021	
FSA (Approximate Geography)	Estimated % vaccinated with ≥1 dose	Estimated % vaccinated with 2 doses	Absolute change in ≥1 dose coverage	Absolute change in 2 doses coverage
Average/Total	84.3%	78.6%	2.3%	3.7%
L8B (Waterdown Area)	85.7%	81.8%	1.7%	2.5%
L8E (Lower East)	82.3%	76.3%	2.3%	4.3%
L8G (Lower East)	83.1%	78.3%	2.0%	3.4%
L8H (Lower Central)	77.0%	69.7%	3.0%	4.4%
L8J (Upper East)	83.1%	77.6%	2.3%	4.2%
L8K (Red Hill Valley)	81.0%	75.1%	2.4%	3.9%
L8L (Lower Central)	76.6%	68.4%	2.9%	4.5%
L8M (Lower Central)	79.1%	72.2%	2.4%	4.0%
L8N (Lower Central)	81.5%	73.9%	2.6%	4.0%
L8P (Lower West)	86.3%	81.9%	1.5%	3.0%
L8R (Lower Central)	82.2%	74.2%	2.9%	4.1%
L8S (Lower West)	94.9%	88.4%	2.9%	4.3%
L8T (Upper Central)	84.8%	79.3%	2.1%	3.6%
L8V (Upper Central)	84.1%	78.4%	2.3%	4.1%
L8W (Upper Central)	83.5%	77.6%	2.6%	4.0%
L9A (Upper Central)	85.1%	79.2%	2.4%	4.1%
L9B (Upper Central)	86.4%	81.6%	2.0%	3.3%
L9C (Upper West)	88.1%	82.6%	2.1%	3.7%
L9G (Ancaster Area)	88.7%	85.5%	1.2%	2.6%
L9H (Dundas Area)	88.7%	85.7%	1.1%	2.2%
L9K (Ancaster Area)	87.2%	82.9%	1.8%	3.4%
L0R** (Mostly Rural)	77.5%	72.9%	1.9%	3.3%

Source: ICES COVID-19 Dashboard, Applied Health Research Questions (AHRQ) # 2021 0950 080 000. Toronto: ICES; 2020.

COVID-19 Vaccine – Coverage by Census Tracts (“neighbourhoods”)

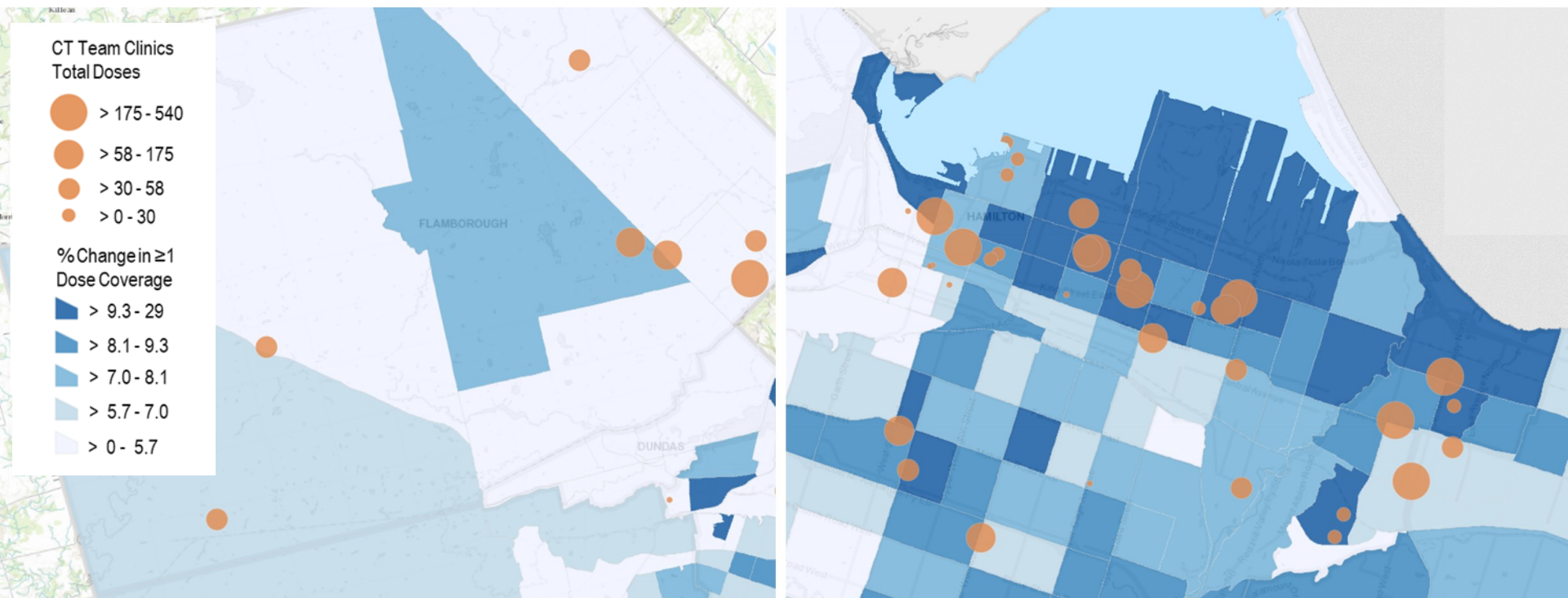
Estimated Vaccine Coverage by Census Tract (Eligible Population) (up to October 12, 2021)



Note: Map is a prototype and should be used with caution until its accuracy is validated.

COVID-19 Vaccine – Coverage by Census Tracts (“neighbourhoods”)

Change in ≥ 1 Dose Vaccine Coverage (Eligible Population) (August 5 to October 12, 2021)



Note: Map is a prototype and should be used with caution until its accuracy is validated.

COVID-19 Vaccination in Hamilton – Next Steps

1. Continue to work towards 90% population coverage of 1st and 2nd doses through last mile strategy
2. Anticipated expansion of 3rd doses to eligible populations
3. Approval of pediatric 5-11yrs population

COVID-19 Vaccination – Last Mile Strategy

- Continued push through mobile clinics throughout the low census tract areas
- As of October 11, 2021, CT Teams have run clinics at 45 different locations, administering over 4,800 total doses (1,906 1st doses and 2,851 2nd doses)
- Last mile strategy will continue through Fall 2021 to continue to increase uptake

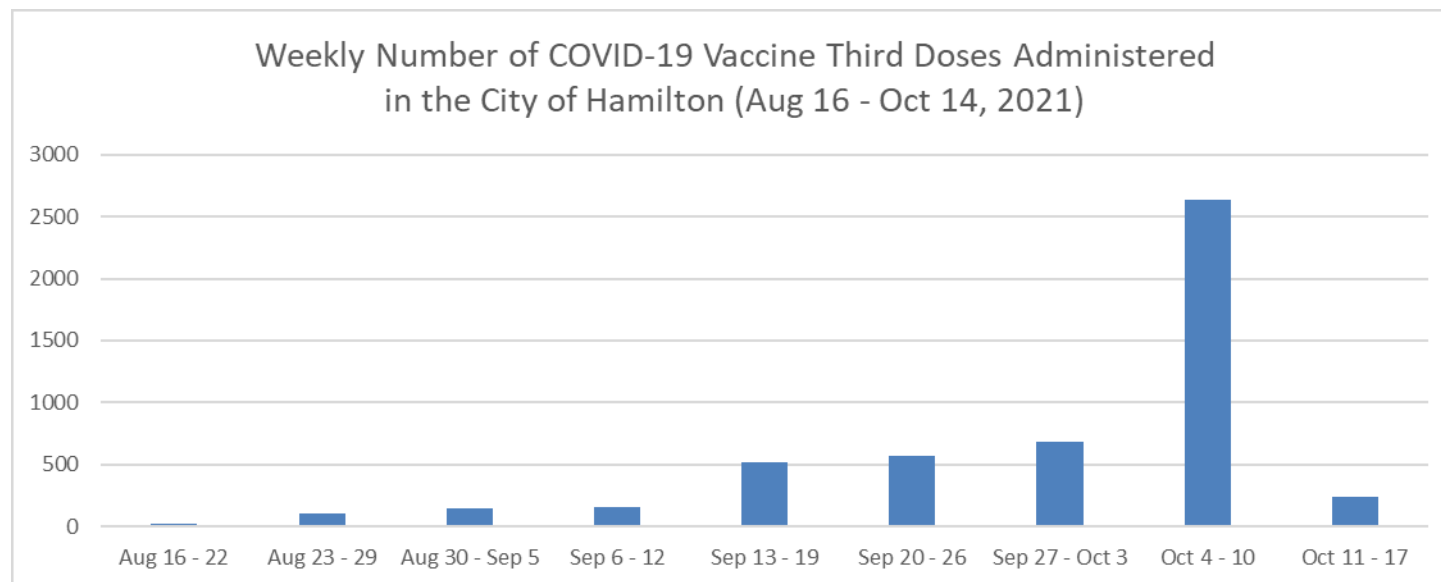
COVID-19 Vaccination – 3rd/Booster Doses

- Populations current eligible
 - Residents of LTCHs & High-Risk RHs – Complete as of October 8, 2021
 - Moderately-to-Severely Immunocompromised Individuals
 - Residents of Seniors Congregate Settings

COVID-19 Vaccine – 3rd Dose Administration

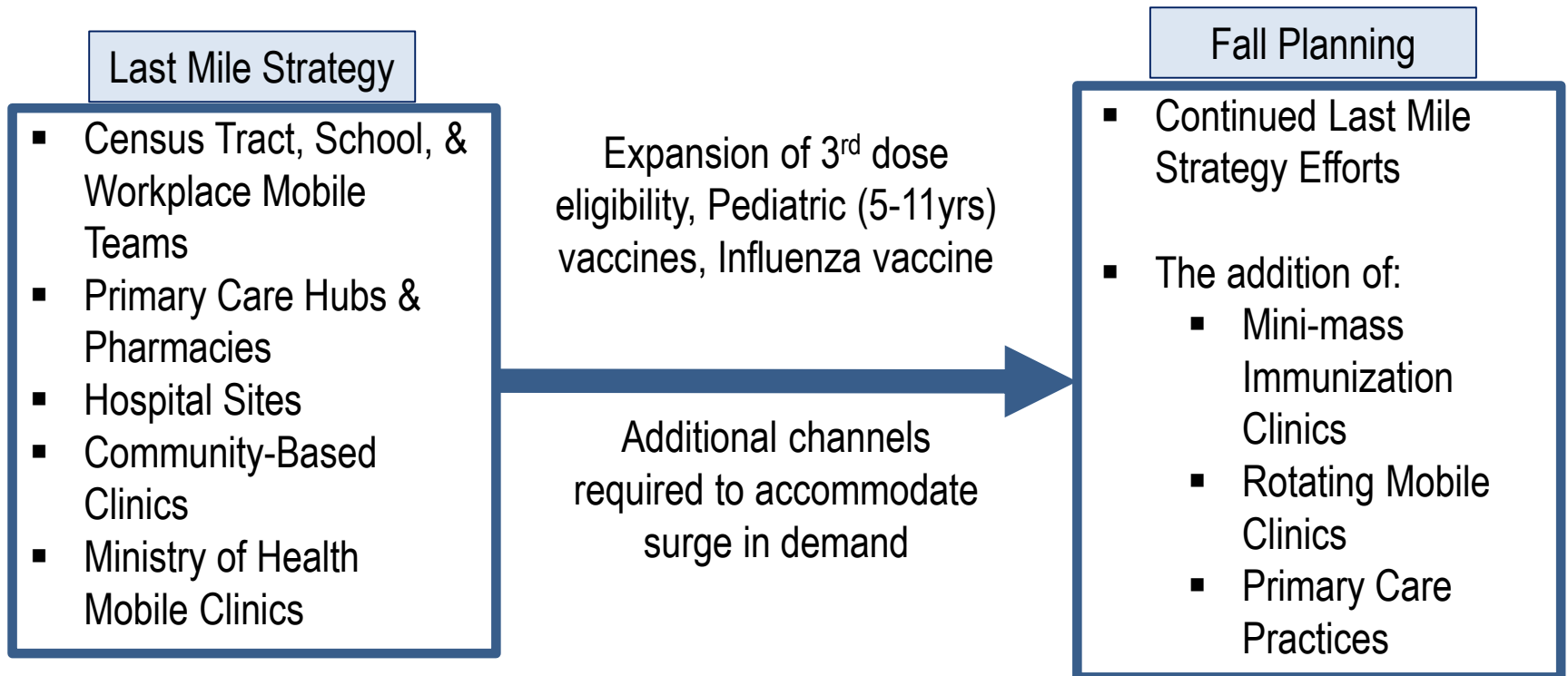
Estimated as of End Of Day October 14, 2021

- Since August 16, 2021, 5,072 3rd doses have been administered in the City of Hamilton (13% of total doses since then) with over 2,500 administered between October 4-10, 2021
- Estimated 74% of 3rd doses have been administered in long-term care and high-risk retirement homes



Source: IntelliHealth (COVAXon Data Load).

COVID-19 Vaccination – Operational Planning Update



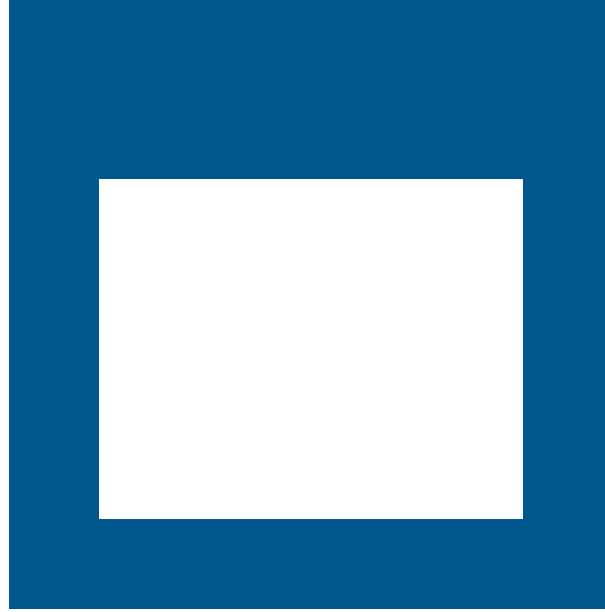
COVID-19 Vaccination – Pediatric (5-11yrs) Vaccines

- Planning underway with community partners
 - Tailoring mini-mass and mobile clinics to support children and families
 - Pharmacy and primary care streams
 - Community-based clinics for harder-to-reach populations
 - Specialized hospital hub clinic for children with additional needs
 - Population-specific vaccine confidence campaign

Key Messages

- Key to remember: Time to full immunity = 6 weeks
- Don't wait to vaccinate!
 - Visit <https://www.hamilton.ca/coronavirus/covid-19-vaccination> for clinic options





QUESTIONS?