

**MARCH 1, 2021**

**SUMMARY:**

This week marks the one year anniversary of the recognition of the first COVID case in Massachusetts.

Last weekend Barnstable County crossed the following thresholds: 10,000 confirmed cases and 400 fatalities. As such, the Barnstable County Case Fatality Rate (CFR) is 4%, second only to Berkshire County (5.4%).

COVID-19 Cases and Fatalities in Massachusetts, March 1, 2020 - March 1, 2021									
	TOTAL CASES	CASES per 100,000 Pop.	Daily Avg. in Last 7 DAYS	CASES per 100,000 Pop.	TOTAL DEATHS	DEATHS per 100,000 Pop.	Daily Avg. in Last 7 DAYS	DEATHS per 100,000 Pop.	Case Fatality Rate (CFR)
Massachusetts	581,148	8,432	1,695	25	16,118	234	41.7	0.61	2.8%
Barnstable ›	10,088	4,736	40	19	404	190	1.9	0.87	4.0%
Berkshire ›	4,867	3,895	9	7	261	209	1.6	1.26	5.4%
Bristol ›	55,734	9,861	130	23	1,501	266	5	0.88	2.7%
Dukes ›	862	4,973	2	13	—	—	—	—	Pending
Essex ›	83,792	10,620	186	24	2,163	274	5.4	0.69	2.6%
Franklin ›	1,978	2,818	4	5	101	144	0.1	0.2	5.1%
Hampden ›	41,742	8,950	143	31	1,332	286	3.9	0.83	3.2%
Hampshire ›	7,395	4,598	42	26	261	162	0.9	0.53	3.5%
Middlesex ›	111,798	6,937	303	19	3,438	213	8	0.5	3.1%
Nantucket ›	1,161	10,185	2	14	2	18	—	—	0.2%
Norfolk ›	45,485	6,436	161	23	1,617	229	2.9	0.4	3.6%
Plymouth ›	40,274	7,727	117	23	1,294	248	3.6	0.69	3.2%
Suffolk ›	78,277	9,737	213	26	1,697	211	3.4	0.43	2.2%
Worcester ›	65,363	7,869	174	21	2,039	245	5.1	0.62	3.1%
Unknown	32,332	—	171	—	8	—	—	—	0.0%

Source: Data, MA DPH; Analysis, V.Harik BCDHS

**1. New Cases:** DPH new cases reported yesterday:

- Barnstable County:** 40 new cases
- Martha's Vineyard:** 2 new cases
- Nantucket:** 1 new case.

**2. Hospitalizations and Fatalities:** 3-day avg. hospitalizations have fallen to 16 (were in the mid-60s last month ago). ICU patient numbers have fallen as well; 2 patients were in the ICUs last night. There have been 6 COVID fatalities reported since Friday (inclusive). Today CCH and Falmouth Hospital re-open to limited visitation.

Recent data on COVID fatalities in Barnstable County suggest that residents of Long Term Care/Skilled Nursing Facilities/Rest Homes represent 42.5% of all fatalities (167 of 393 fatalities, as of 2/23/21). This is a lower percentage than that seen during phase 1 of the pandemic last spring (over 65%), and this percentage continues to fall. Indeed, between 1/5/21 and 2/23/21 only 20% (28) of 137 fatalities occurred among LTC residents.

**3. Schools and Childcare Centers:** Due to the mildness of the flu season the DPH has removed the requirement that all school children receive a flu vaccination on or before 2/28/21. School districts remain in a hybrid learning model. However, DESE Commissioner Jeffrey Riley has proposed plans to compel schools to return to 100% in-person learning, starting with elementary schools, in April.

4. **Testing; Test Positivity Rates** (14-day, as of 2/23/21):

Barnstable County: 3.07%

Dukes & Nantucket Counties: 2.40%

A test percent positivity rate below 5% suggests that an outbreak is on the way to **containment**.

5. **Weekly Town Risk, and Statewide Cluster Analyses:** See charts below.

6. **Vaccination:**

-Groups eligible for vaccination now are those in Phase 1, and Phase 2/Group 1 (persons aged 75+), and Phase 2/Group 2 (65+, 2+ comorbidities, residents and staff of low-income senior housing) depending upon availability of vaccine. **Caregivers (regardless of age) accompanying a 75+ person to their vaccination appointment remain eligible for vaccination.**

-Plans for 4-5 sub-regional mass vaccination sites on Cape Cod, for operation during Phase 2, are in place. **A Cape Cod Regional Vaccine Consortium** has been established via a partnership between the Barnstable County Health Dept, Local Town Boards of Health (LBOHs), Community Health Centers (CHCs), and Cape Cod Healthcare, and has received support from the DPH. The Consortium will establish a **vaccination site at Cape Cod Community College** in the coming weeks and is also working with LBOHs and CHC to **organize in-reach to homebound persons** to vaccinate them. **The DPH is responsible for providing sufficient vaccine in order for the Consortium to reach its full potential.**

-Phase 2 of the State Vaccination Plan began on February 1. Vaccination at local clinics during Phase 2 are by appointment only and **appointments are announced and able to be scheduled once County and local health authorities are sure of vaccine availability from the DPH.** The public is being given notice of planned vaccination clinics for eligible persons in Phase 2.

7. **COVID Mutation and Changes in Transmissibility/Virulence/Other:** **There are four variants of concern: B117 (UK), B1351 (S. Africa), P1 (Brazil), and now B1526 (New York City) which.** B1526 (NYC) emerged in November. All appear to be significantly more transmissible than the virus which dominated Wave 1 of the pandemic. Within two months of the B117 variant being identified in the UK (October) it became the dominant strain circulating there. The CDC is now posting surveillance information on the emergence of the B117 variant in the US: <https://www.cdc.gov/coronavirus/2019-ncov/transmission/variant-cases.html>. Existing vaccines may be less effective against these new strains. The degree to which this may be so is being investigated. Moderna and Pfizer are working on a booster shot to counter these new strains.

**-B117 and B1351 have been identified in Massachusetts.**

**DETAIL:**

**1. New Cases**

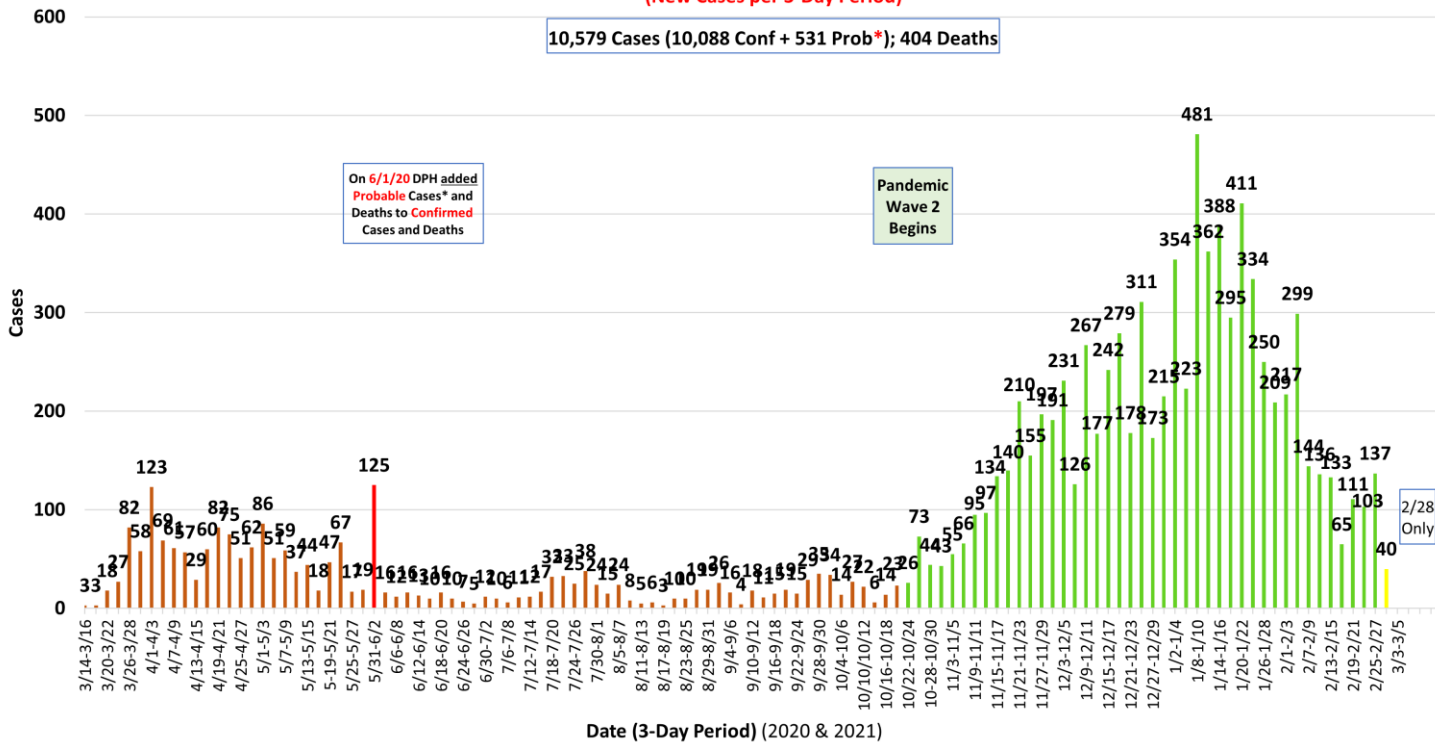
Daily new case numbers in Barnstable County have risen slightly this week following a major decline since the holiday season surge. **40** cases were reported yesterday. The 7-day average new cases per 100,000 (now **19/100K**) has risen slightly since last week, with Barnstable County acquiring an **average of 40 cases per day over the past 7 days.**

### COVID-19 Epidemiological Curve--New Cases (Confirmed + Probable)

Barnstable County, as of 2/28/21 5:00 pm

(New Cases per 3-Day Period)

10,579 Cases (10,088 Conf + 531 Prob\*); 404 Deaths



First presumptive positive case was quarantined on 3/6/20;

Incubation Period = 14 Days; Data presented in 3-day periods which equal ~1/4 of the Incubation Period; \*Estimate based on Barn. County percentage of state population (3.13%)

\* Probable Cases Updated thru 12/6/20 only.

Source: V. Harik, BCDHS

**Nantucket's 7-day average cases per 100,000 population (now 14/100K) remains lower; Nantucket is picking up approximately 2 new cases per day. 1 new case was reported yesterday.**

**Martha's Vineyard's 7-day average cases per 100,000 population (now 13/100K) remains lower. Dukes County is gaining approximately 2 new cases per day. 2 cases were reported by the DPH yesterday.**

### Trailing 14-Day Testing and Cases by County:

In the context of adequate availability of testing and contact tracing, which our three counties appear to have achieved, **a test percent positivity rate below 5% suggests that an outbreak is on the way to containment.** Rates below 3% and 1% are further important containment milestones.

### **Test Positivity Rates (14-day, as of 2/23/21):**

Barnstable County: 3.07%

Dukes & Nantucket Counties: 2.40%

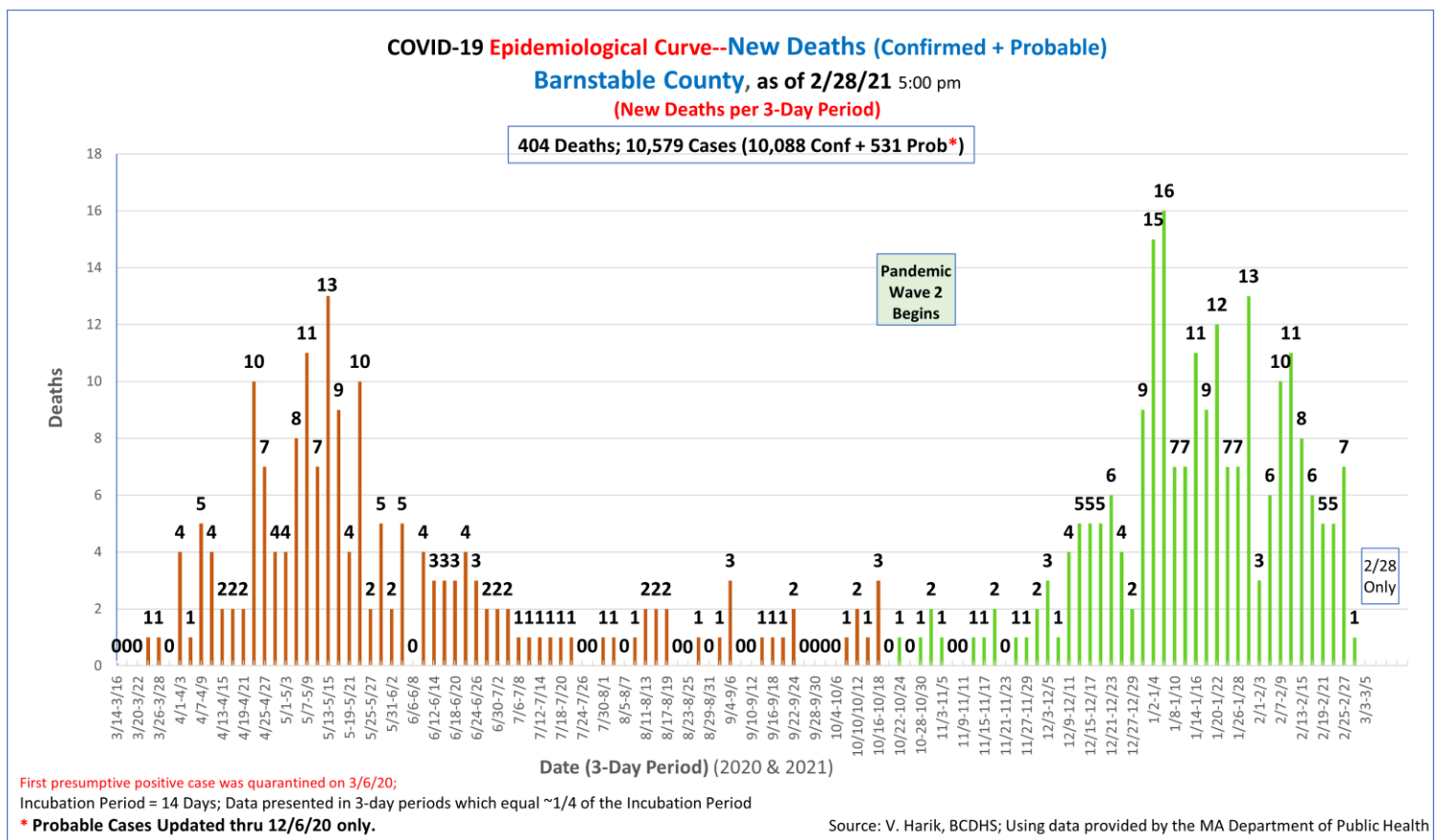
## 2. Hospitalizations and Fatalities

**Hospitalizations and acuity of illness** have increased very significantly since the second week of November and remain elevated. Cape Cod Hospital and Falmouth Hospital have **resumed limited visitation** of inpatients. **Non-essential surgeries and other elective procedures remain halted.**

Hospitalizations, Last Report:		Not Cumulative		Cumulative		3-Day Avg. of Persons in Hosp. (Med/Surg + ICU)	ICU Percent of Beds Occupied
		Hospital Beds Occupied (Last Report)	ICU Beds Occupied (Last Report)	Barnstable County Cases (Confirmed)	Barnstable County Deaths		
2/28/2021	Cape Cod Hospital	10	2	10,088	404	16.0	13%
	Falmouth Hospital	4	0				
		14	2				

Since DPH reporting of hospitalizations has a 2-day lag Tina Shaw of CCHC is providing me with more recent information (thank you Tina). Yesterday evening CCHC reported that there were **16 COVID patients in hospital**, 2 of which were in the **ICUs**.

**Fatalities: 6 additional fatalities** were reported since Friday (inclusive). The total is now **404**.



Recent data on COVID fatalities in Barnstable County suggest that residents of **Long Term Care/Skilled Nursing Facilities/Rest Homes** represent **42.5%** of all fatalities (167 of 393 fatalities, as of 2/25/21). This is a **lower** percentage than that seen during phase 1 of the pandemic last spring (over 65%), and **this percentage continues to fall**. Indeed, **between 1/5/21 and 2/23/21 only 20% of the County's 137 fatalities occurred among LTC residents**.

### 3. Schools and Childcare Centers

School districts are staying vigilant and reacting well to new cases. School districts on the Cape and Islands are in a hybrid learning status, **however DESE Commissioner Jeffrey Riley has proposed plans to compel schools to return to 100% in-person learning, starting with elementary schools, in April.**

DESE and the DPH (memo of 1/8/21) announced that they are seeking to introduce COVID-19 screening testing using a pooled strategy in the school setting. Schools may elect to participate by responding to a survey that DESE/DPH have posted. The status of this initiative is unclear at this time.

~~For the 2020-2021 school year the DPH has mandated that all school children be vaccinated for seasonal influenza. This week the DPH extended the deadline for doing so from 12/31/20 to 2/28/21. This mandate has been canceled by the DPH.~~

During Phase 2 of the state vaccination rollout **childcare center** staff are to be vaccinated alongside school staff.

### 4. Testing

Additional testing locations in Barnstable County for both symptomatic and asymptomatic persons remain open in **Falmouth** at the Fairgrounds and in **Hyannis** at Cape Cod Hospital (the Melody Tent site has been given over to vaccination clinics). Daily testing capacity is 50 at the Falmouth site and 350 at the Hyannis site. Neither site is open daily and persons must call ahead for an appointment. Details: <https://www.capecodhealth.org/medical-services/infectious-disease/coronavirus/covid-19-testing-process/>.

In late December additional testing by **Outer Cape Community Health Services** began and continues at its 3 locations in Wellfleet, Harwich Port, and Provincetown (<https://outercape.org/2020/12/23/outer-cape-health-services-to-offer-covid-19-asymptomatic-testing-beginning-december-23/>). The **Community Health Center of Cape Cod** is also offering testing at its locations. These sites may not open be daily and persons must call ahead for an appointment.

Eligibility criteria for the testing include residency in Barnstable County. Testing is done by appointment only. Tests cost \$75, \$110 for travel-related tests, and no one will be turned away if unable to pay for a test.

DPH-mandated **routine testing** in skilled nursing facilities/long term care settings (SNF/LTC) continues. This provides critical surveillance and allows these facilities to stay ahead of asymptomatic spread amongst staff and residents. Routine testing in SNF/LTC settings is conducted weekly for staff.

In addition, the State's **BinaxNOW rapid testing program** (available to **schools**) has been extended to visitors of **nursing homes** and rest home residents (LTC settings) to allow visitation of residents while limiting the risk of infection from visitors. DPH has published guidance on this. The program has also been extended to **childcare centers** (? Checking...) and **homeless shelters** and management of these facilities may apply to the EEC and DPH for testing kits.

## 5. Weekly Town Risk and Statewide Cluster Analyses

MA DPH Data Dashboard, WEEKLY REPORT of 2/25/21 (for the Period 2/7/21 to 2/20/21)										
City/Town	Population	(March 2020 to Present) Total Case Count	Case Count Last 14 Days	Average Daily Incidence Rate per 100K	Relative Change in Case Count	(March 2020 to Present) Total Tests	Total Tests Last 14 Days	Positive Tests Last 14 Days	Percent Positivity Last 14 Days	Change in Percent Positivity
Barnstable	44,773	2,895	136	21.7	Lower	58,600	3,919	158	4.03%	Lower
Bourne	21,026	1,009	67	22.8	Lower	33,545	2,640	76	2.88%	Higher
Brewster	9,926	371	14	10.1	Lower	14,930	1,063	16	1.51%	Lower
Chatham	5,830	254	11	13.5	Lower	7,457	403	14	3.47%	Lower
Dennis	13,088	558	28	15.3	Lower	15,520	1,101	32	2.91%	Lower
Eastham	4,603	115	9	14.0	Lower	4,105	273	12	4.40%	Lower
Falmouth	31,190	1,168	54	12.4	Higher	49,257	2,917	63	2.16%	Higher
Harwich	12,589	574	30	17.0	Lower	15,489	953	33	3.46%	Lower
Mashpee	15,535	608	35	16.1	Lower	20,090	1,295	37	2.86%	Lower
Orleans	5,620	245	20	25.4	Lower	5,886	459	23	5.01%	Lower
Provincetown	2,583	61	0	0	Lower	4,112	233	1	0.43%	Lower
Sandwich	21,078	860	32	10.8	Lower	23,763	1,444	40	2.77%	Lower
Truro	1,968	38	3	10.9	Lower	1,795	87	3	3.45%	Lower
Wellfleet	2,760	55	3	7.8	No Change	2,618	181	3	1.66%	Lower
Yarmouth	24,062	1,100	66	19.6	Lower	31,867	2,118	74	3.49%	Higher
<b>Barnstable County</b>	<b>216,629</b>	<b>9,911</b>	<b>508</b>	<b>16.8</b>	<b>Lower</b>	<b>289,034</b>	<b>19,086</b>	<b>585</b>	<b>3.07%</b>	<b>Lower</b>
Aquinnah	261	0	0	0	No Change	498	18	0	0%	No Change
Chilmark	759	15	1	18.8	No Change	3,308	175	2	1.14%	Lower
Edgartown	4,086	255	9	15.7	Lower	10,433	510	10	1.96%	Lower
Gosnold	45	5	0	0	No Change	123	1	0	0%	No Change
Oak Bluffs	5,209	227	11	15.1	Lower	7,070	350	14	4.00%	Lower
Tisbury	4,174	261	13	22.2	Lower	13,250	757	14	1.85%	Lower
West Tisbury	2,871	91	5	12.4	Lower	4,676	252	5	1.98%	Lower
<b>Dukes County</b>	<b>17,404</b>	<b>859</b>	<b>40</b>	<b>16.4</b>	<b>Lower</b>	<b>39,358</b>	<b>2,063</b>	<b>45</b>	<b>2.18%</b>	<b>Lower</b>
Nantucket	11,416	1,152	35	21.9	Lower	22,068	1,353	37	2.73%	Lower
<b>Dukes and Nantucket Counties</b>	<b>28,820</b>	<b>2,010</b>	<b>75</b>	<b>18.6</b>	<b>Lower</b>	<b>61,426</b>	<b>3,416</b>	<b>82</b>	<b>2.40%</b>	<b>Lower</b>
<b>State</b>	<b>6,964,383</b>	<b>543,696</b>	<b>22,732</b>	<b>23.3</b>	<b>Lower</b>	<b>15,776,531</b>	<b>1,232,633</b>	<b>26,554</b>	<b>2.15%</b>	<b>Lower</b>

Data Source: MA DPH, 2/18/21 Weekly COVID Report (<https://www.mass.gov/info-details/covid-19-response-reporting>); Analysis: V. Harik BCDHS.

### Massachusetts COVID Testing Rates, As Applied to Barnstable County (Thru 2/23/21)

Sources: Census.gov; MA DPH Weekly COVID Report, 2/25/21. Analysis: V. Harik, BCDHS

	MA	Barnstable County
Population Estimate (via DPH)	6,964,383	216,629
	<b>Barnstable County % of MA Pop.</b>	<b>3.11%</b>
	Barn. County % of Total MA Tests	1.83%
	<b>Barn. County % of MA Tests, Past Two Weeks</b>	<b>1.55%</b>
	Barn. County % of MA <u>Total Confirmed Cases</u>	1.82%
	<b>Barn. County % of MA Confirmed Cases, Past Two Weeks</b>	<b>2.23%</b>
	MA % Positive Tests Last 14 Days	2.15%
	<b>Barnstable County % Positive Tests Last 14 Days</b>	<b>3.07%</b>



## Active COVID Clusters by Exposure Setting Type for the Period 1/24/20 to 2/20/21 (as of 2/25/21)

Source: <https://www.mass.gov/info-details/covid-19-response-reporting>. Tabulation: V. Harik, Barnstable County DHS

Sorted by Number of Cases in New Cluster Settings

	Exposure Setting	New Clusters (Identified 1/24/21 – 2/20/21)			Ongoing Clusters (Meeting Criteria for Closing)			Total		
		Clusters	Confirmed Cases	Close Contacts	Clusters	Confirmed Cases	Close Contacts	Clusters	Confirmed Cases	Close Contacts
1	Household	8,767	22,319	---	30,601	5,643	---	39,368	27,962	---
2	Child Care	77	291	289	276	129	310	353	420	599
3	Colleges & Universities	42	264	49	17	51	22	59	315	71
4	Organized Athletics/Camps	35	142	239	50	37	20	85	179	259
5	Long Term Care Facilities	33	114	---	209	882	---	242	996	---
6	Senior Living	10	61	1	135	179	26	145	240	27
7	24/7 Congregate Settings	17	53	13	83	31	5	100	84	18
8	Social Gatherings	9	45	21	42	17	1	51	62	22
9	K-12 Schools	13	44	72	37	67	89	50	111	161
10	Industrial Settings	6	34	1	47	102	66	53	136	67

## 6. Vaccination

Groups eligible for vaccination now are those in Phase 1, Phase 2/Group 1 (persons aged 75+), and Phase 2/Group 2 (65+, 2+ comorbidities, and residents and staff of low-income senior housing) depending upon availability of vaccine. Caregivers (regardless of age) accompanying a 75+ person to their vaccination appointment remain eligible for vaccination.

Appointments (<https://www.cic-health.com/vaccines-location>) may not be immediately available due to overwhelming demand and still-limited supply of vaccine from the manufacturers. Appointments for local vaccination clinics are only being scheduled once County and local health authorities can be sure of vaccine availability from the DPH. The public is being given notice of planned vaccination clinics for eligible persons in Phase 2.

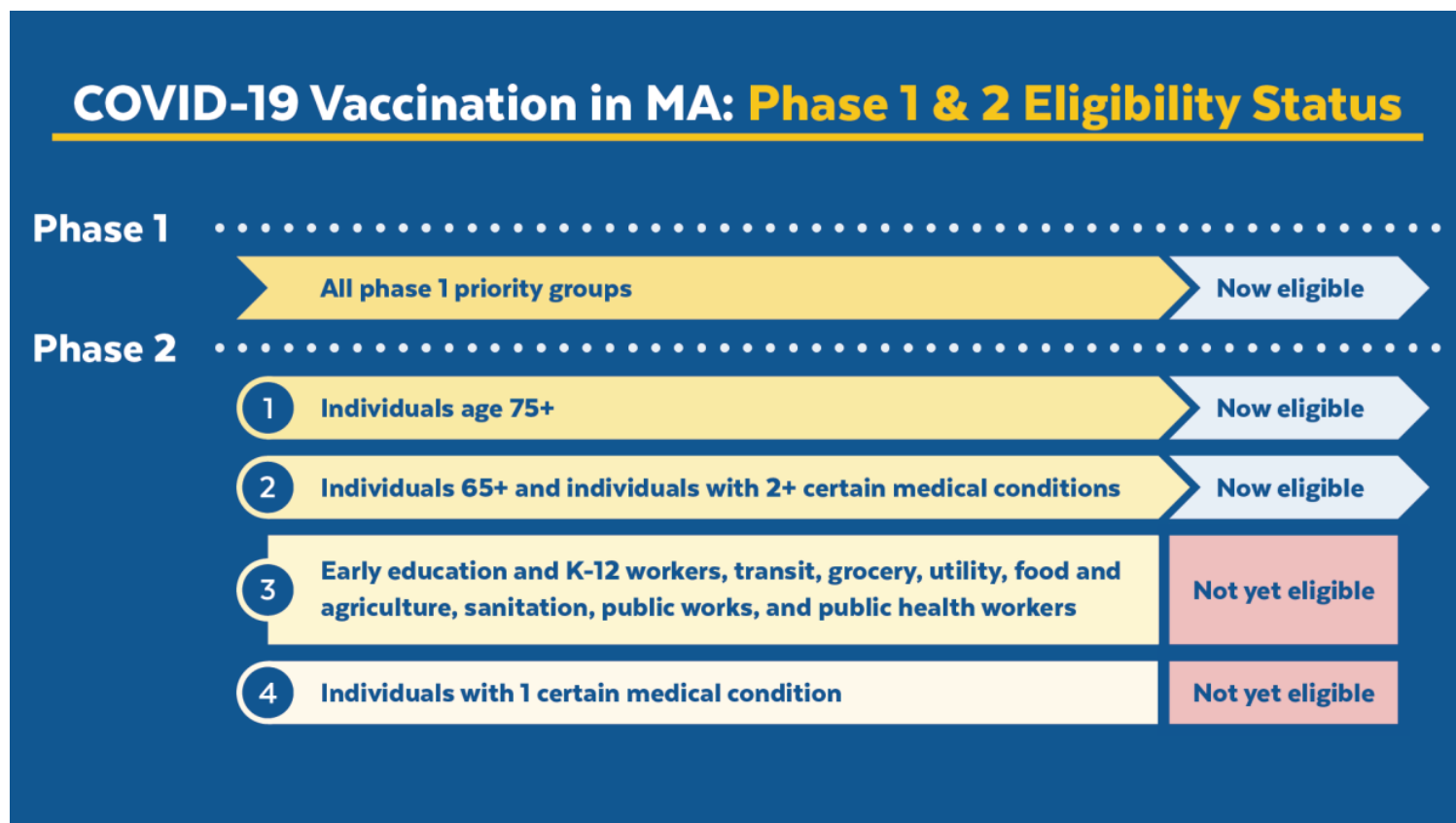
Vaccination is available at several State-run mass vaccination sites around Massachusetts. The closest ones to Cape Cod are at Gillette Stadium in Foxboro and in Dartmouth. Appointments can be scheduled by visiting <https://www.cic-health.com/vaccines-location>, or calling 2-1-1 and following the prompts.

-Plans for 4-5 sub-regional mass vaccination sites on Cape Cod, for operation during Phase 2, are in place. A Cape Cod Regional Vaccine Consortium has been established via a partnership between the Barnstable County Health Dept, Local Town Boards of Health (LBOHs), Community Health Centers (CHCs), and Cape Cod Healthcare, and has received support from the DPH. The Consortium will establish a vaccination site at Cape Cod Community College in the coming weeks and is also working with LBOHs and CHC to organize in-reach to homebound persons to vaccinate them. The DPH is responsible for providing sufficient vaccine in order for the Consortium to reach its full potential.

-Phase 2 of the State Vaccination Plan began on February 1. Vaccination at local clinics during Phase 2 are by appointment only and appointments are announced and able to be scheduled once County and local health authorities are sure of vaccine availability from the DPH. The public is being given notice of planned vaccination clinics for eligible persons in Phase 2.

Childcare staff will be eligible for vaccination alongside school staff in Phase 2.

The State has contracted with CVS and Walgreens to arrange vaccination of older adults in SNFs/congregate care. CVS, Walgreens, and Stop & Shop pharmacies are also scheduling vaccinations for the groups in Phase 2, again depending upon vaccine supply.



## 7. COVID Mutation and Changes in Transmissibility/Virulence/Other

The emergence of a variant of the COVID-19 virus in the UK, classified as B.1.1.7, was identified in September and publicized in early December. Reports hold that B117 is 50% - 70% more contagious than our predominant variant now circulating (D614G). Within three months of the variant being identified in the UK it became dominant strain circulating there. Additional variants of concern have emerged internationally: B1351 (South Africa) and Brazil (P1) which are also highly transmissible. An additional variant, B1526, emerged in New York City in November. Its features are being studied.

All variants appear to be significantly more transmissible than the virus which dominated Wave 1 of the pandemic.



**The first three variants are spreading globally and have been detected in the US.**

**The B117 and B1351 variants have been identified by the DPH as being in circulation in MA.**

Researchers are working to determine if the variants differ from D614G (the Wave 1 configuration) in terms of: **1.** How sick people become, **2.** If natural immunity is different following infection with D614G, and **3.** If immunity from vaccination differs since the vaccine was developed during the period that D614G has been predominant. **The existing vaccines may be less effective against the new strains. Moderna and Pfizer are working on booster shots to counter these new strains.**

The CDC is posting surveillance information on the emergence of the variants in the US: <https://www.cdc.gov/coronavirus/2019-ncov/transmission/variant-cases.html>.

According to an article by Andrew Joseph from StatNews, "Coronaviruses evolve more slowly than viruses like flu, but they do pick up mutations as they spread. **SARS-CoV-2 has been adding one or two changes a month to its RNA genome since it emerged late last year in China**, and different versions of the virus have been continuously circulating throughout the course of the pandemic. **But this variant (B.1.1.7 or VUI-202012/01) showed up with at least 17 mutations**, according to one genetic analysis." (Source: [https://www.statnews.com/2020/12/21/looming-questions-new-variant-coronavirus/?utm\\_source=STAT+Newsletters&utm\\_campaign=1a74bda2ca-MR\\_COPY\\_01&utm\\_medium=email&utm\\_term=0\\_8cab1d7961-1a74bda2ca-150158417](https://www.statnews.com/2020/12/21/looming-questions-new-variant-coronavirus/?utm_source=STAT+Newsletters&utm_campaign=1a74bda2ca-MR_COPY_01&utm_medium=email&utm_term=0_8cab1d7961-1a74bda2ca-150158417) ).

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