



Massachusetts Department of Public Health Bureau of Infectious Disease and Laboratory Sciences

MAIC Meeting 1/28/20 **Influenza Season 2019-2020**

- Quick Update
 - National flu data
 - Key observations
 - State flu data
- Novel Coronavirus (2019-nCoV) in Wuhan, China
- Resources



Influenza Season 2019-2020

- Influenza B (Victoria) has been the most frequently identified influenza virus subtype reported by US public health laboratories this season followed by A (H1N1)pdm09.
- Nationally, there have been 54 pediatric deaths reported so far this season. (As of 1/24/20 there has been 1 pediatric flu death reported in MA.)



MMWR and HAN Alert from CDC

CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives. Protecting People™

[A-Z Index](#)

Search



Morbidity and Mortality Weekly Report (MMWR)

CDC



<https://www.cdc.gov/mmwr/volumes/69/wr/mm6902e1.htm>

Early Season Pediatric Influenza B/Victoria Virus Infections Associated with a Recently Emerged Virus Subclade — Louisiana, 2019

Weekly / January 17, 2020 / 69(2);40–43

On January 10, 2020, this report was posted online as an MMWR Early Release.

Daniel Owusu, DrPH^{1,2}; Julie Hand, MSPH³; Mark W. Tenforde, MD, PhD^{1,2}; Leora R. Feldstein, PhD²; Juliana DaSilva, MA²; John Barnes, PhD²; Grace Lee, MD⁴; Juliet Tran, MD⁴; Theresa Sokol, MPH³; Alicia M. Fry, MD²; Lynnette Brammer, MPH²; Melissa A. Rolfes, PhD² ([View author affiliations](#))

Elevated Influenza Activity: Influenza B/Victoria and A(H1N1)pdm09 Viruses are the Predominant Viruses



<https://emergency.cdc.gov/han/han00425.asp>

Distributed via the CDC Health Alert Network
January 10, 2020, 1140 ET (11:40 AM ET)
CDCHAN-00425

The Centers for Disease Control and Prevention reminds clinicians that influenza B viruses can cause severe illness in people of all ages, including children. CDC continues to recommend influenza vaccination and prompt antiviral treatment of high-risk outpatients and hospitalized patients with suspected influenza.

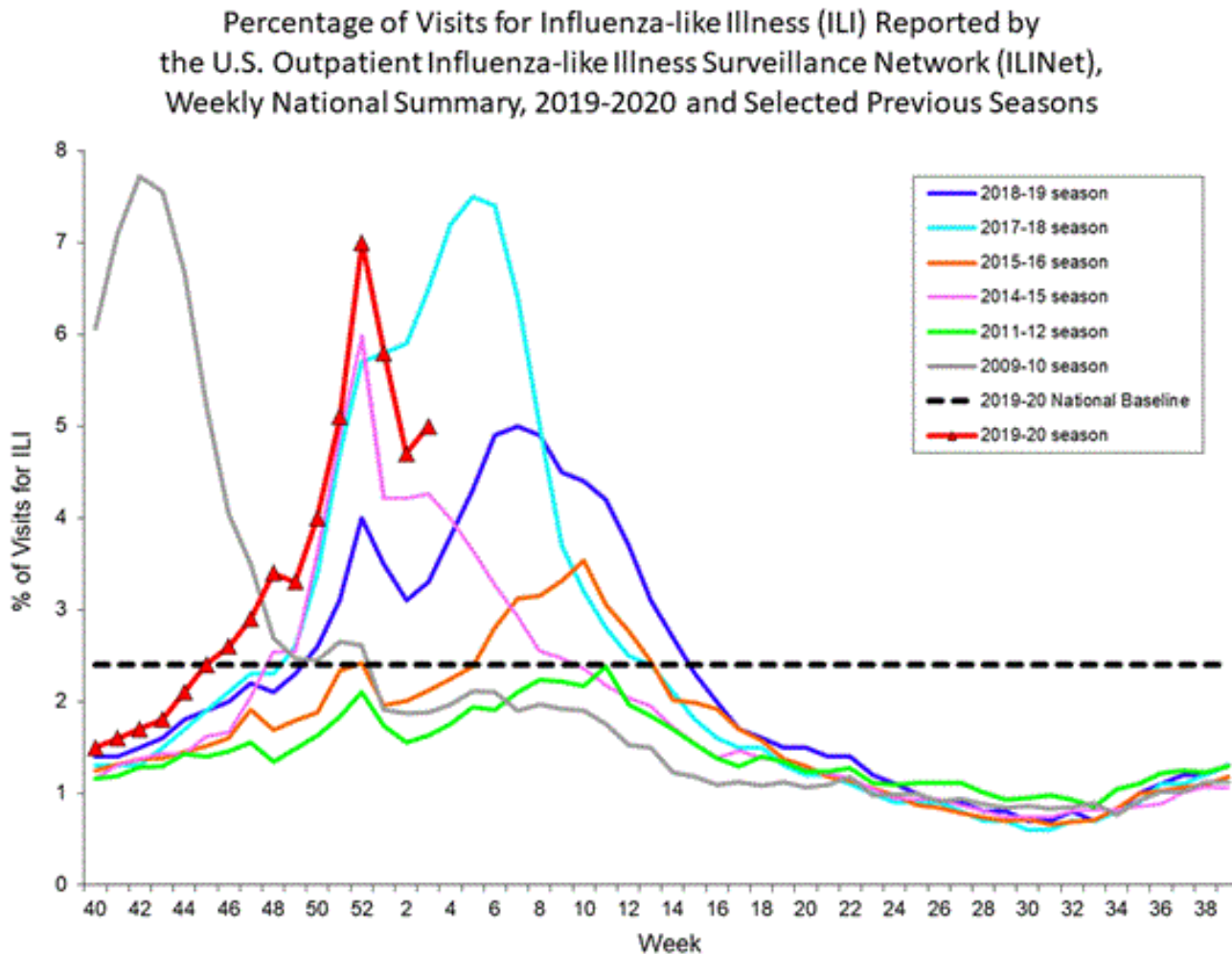
Summary

This health advisory notifies clinicians that influenza activity remains high in the United States.

[illegible]

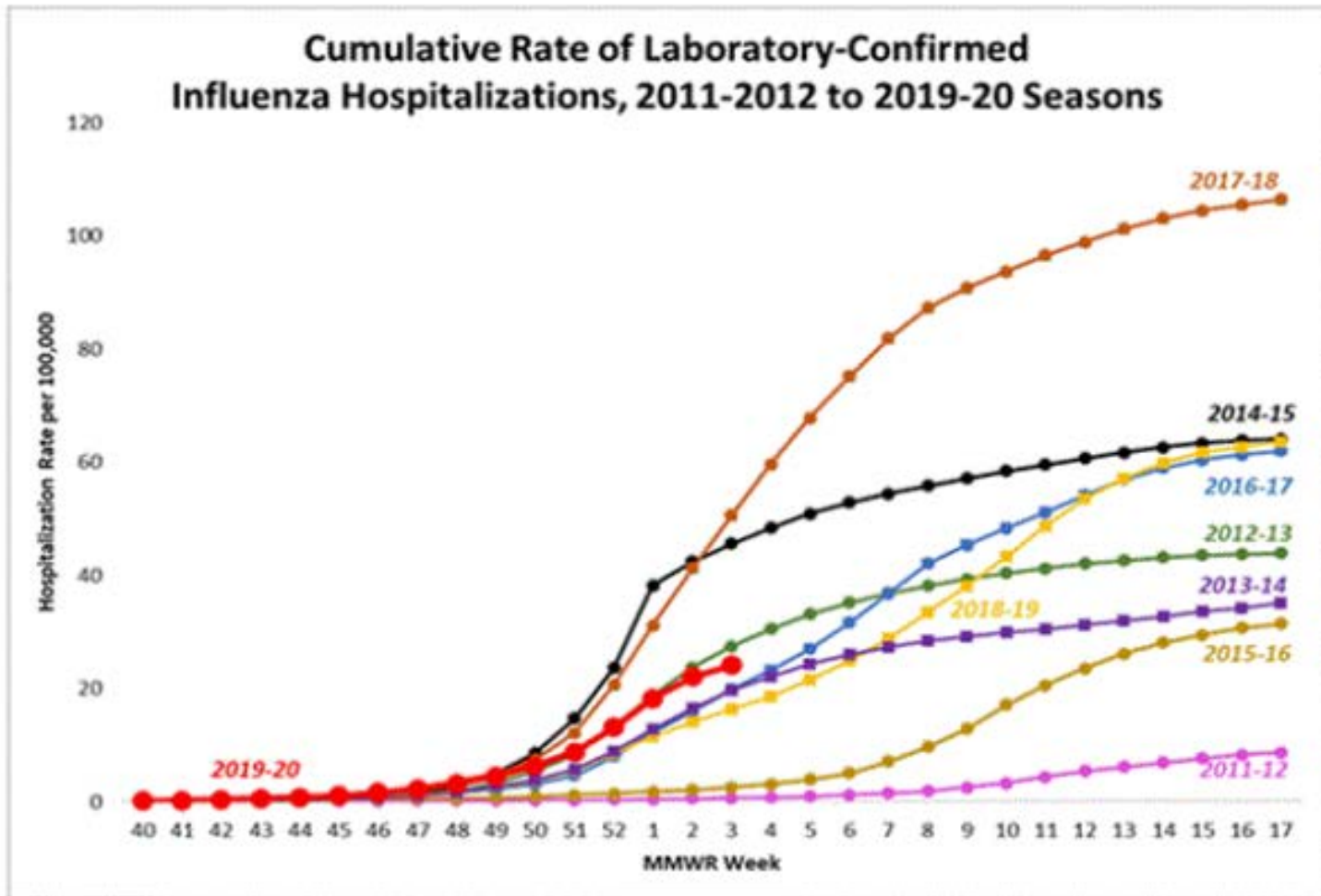


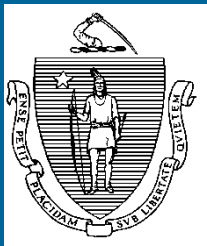
Outpatient Illness Surveillance ILINet





Influenza-Associated Hospitalizations





2019-2020 U.S. Flu Season: Preliminary Burden Estimates

CDC estimates that, from October 1, 2019, through January 18, 2020, there have been:

15,000,000 – 21,000,000
flu **illnesses**



7,000,000 – 10,000,000
flu **medical visits**



140,000 – 250,000
flu **hospitalizations**



8,200 – 20,000
flu **deaths**





Influenza Vaccination Coverage Among Health Care Personnel

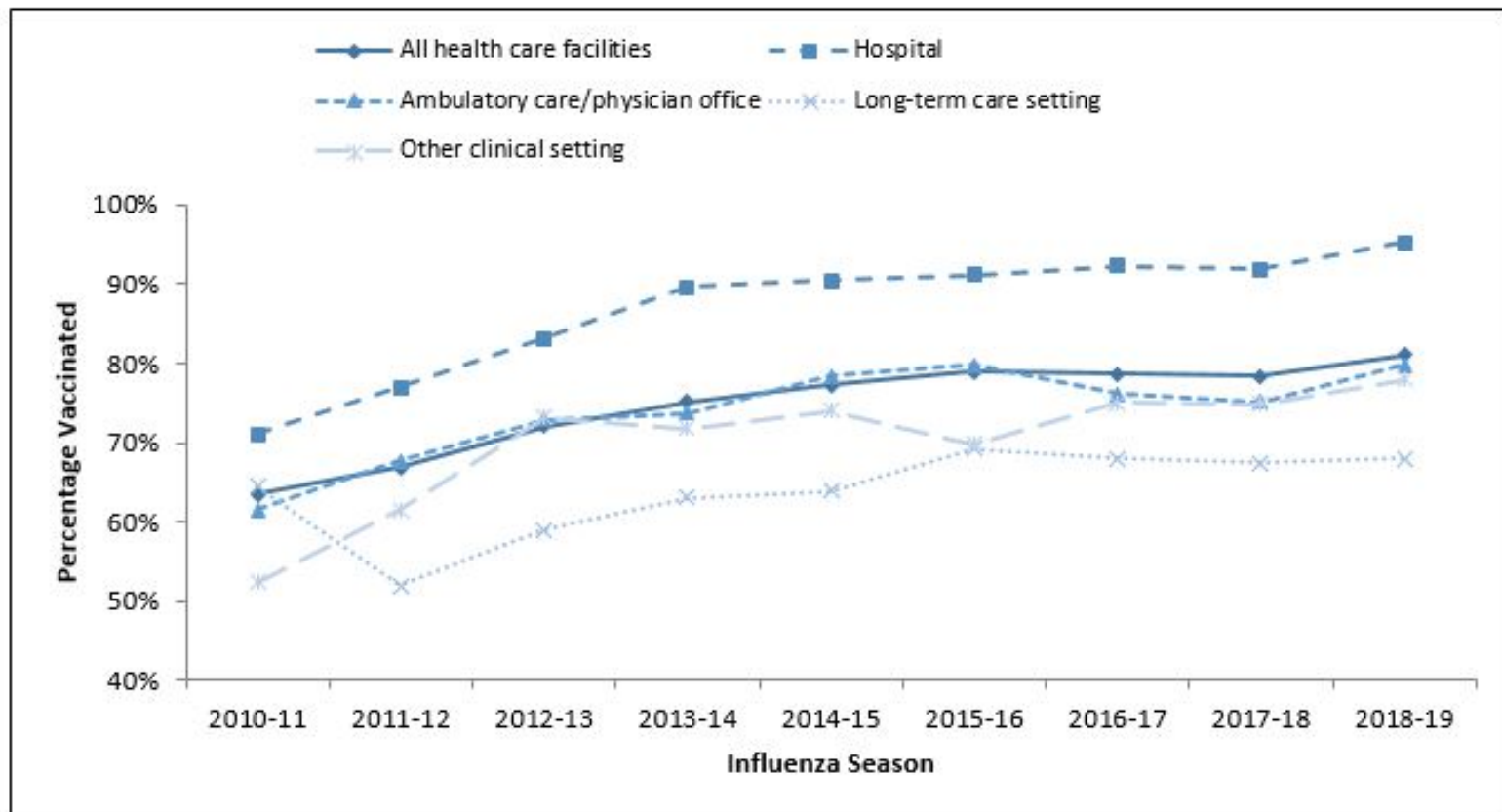
How Many Health Care Workers Got Vaccinated Last Season?

- 2018-19 flu vaccination coverage among health care personnel (HCP) was 81%, similar to coverage during the past four seasons (77% - 79%).
 - Flu vaccination coverage
 - Meets HP 2020 Goal of 90%
 - physicians (97%),
 - nurses (98%),
 - pharmacists (92%),
 - nurse practitioners and physician assistants (91%)
 - Doesn't meet HP 2020 goal of 90%
 - Other clinical health care personnel (86%),
 - other clinical health care personnel (86%),
 - assistants and aides (73%),
 - nonclinical health care personnel (76%).



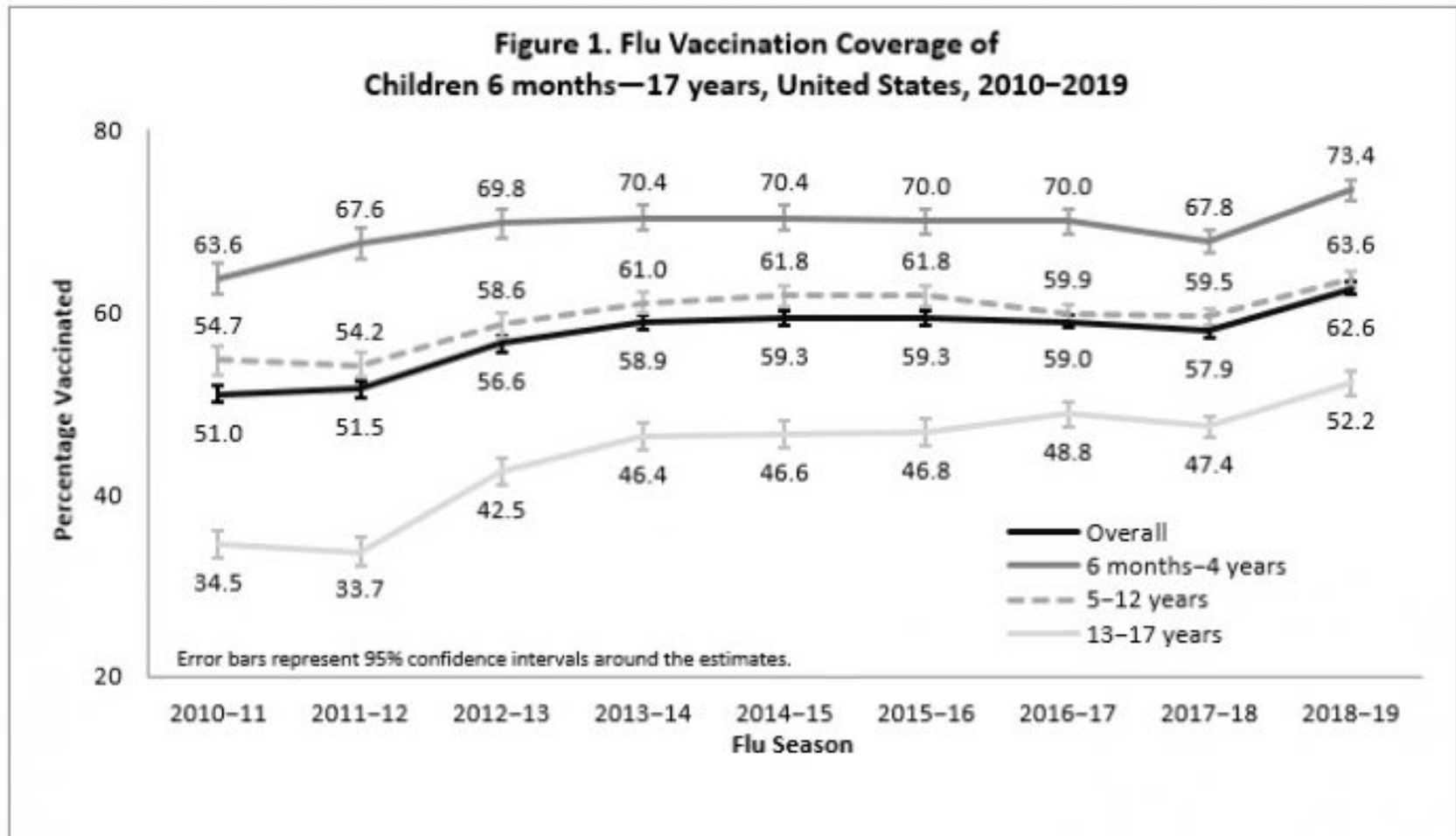
Influenza Vaccination Coverage Among Health Care Personnel

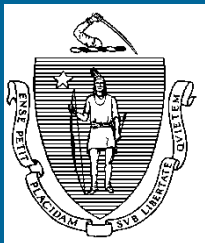
- FIGURE 1. Percentage of health care personnel who received influenza vaccination, by work setting* — Internet panel surveys,[†] United States, 2010–11 through 2018–19 influenza**



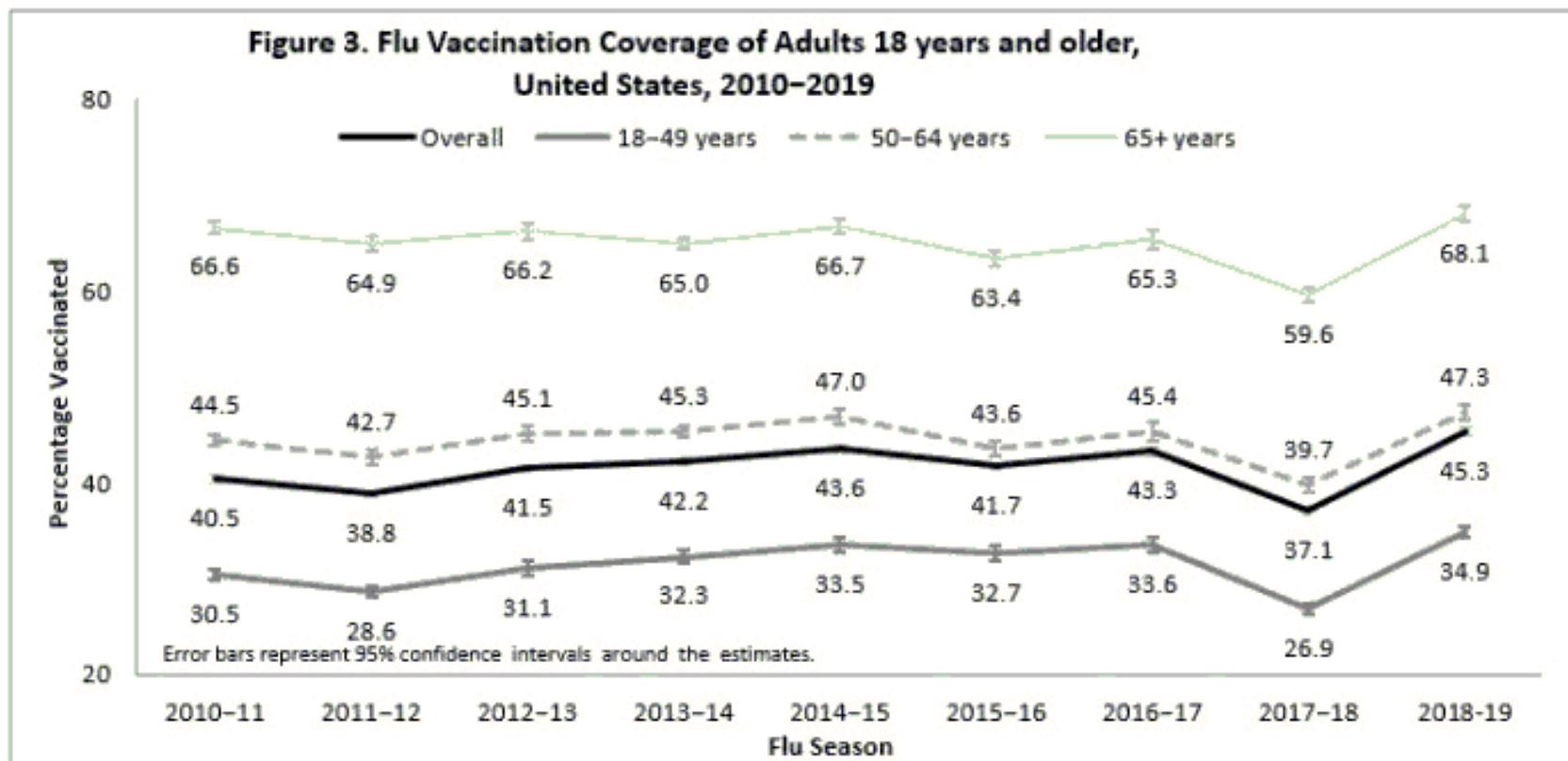


Flu Vaccination Coverage of Children





Flu Vaccination Coverage of Adults

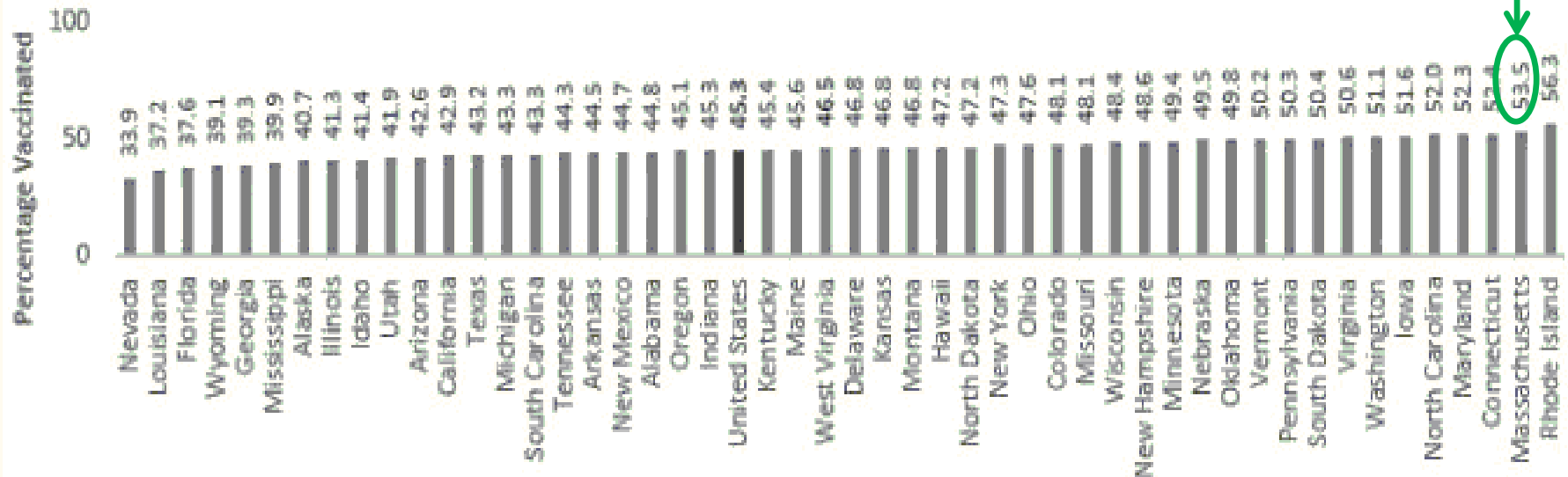




Flu Vaccination Coverage for Adults by State

MA 53.5%

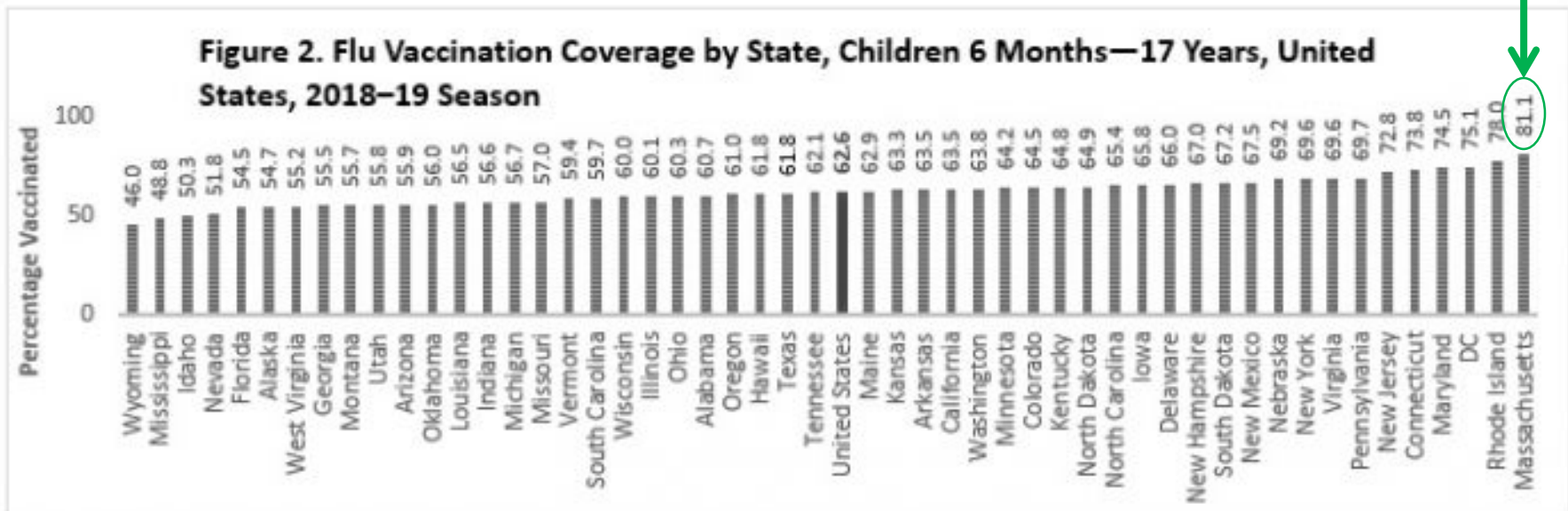
Figure 4. Flu Vaccination Coverage by State, Adults, United States, 2018–19 Season





Flu Vaccination Coverage for Children by State

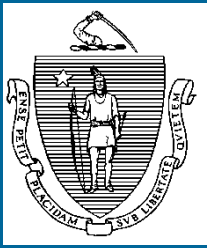
MA 81.1%





MA Flu Vaccination Rates for MA vs US

	MA 2017-18	MA 2018-19	US 2018-19
<i>*Statistically significant</i>			
Everyone 6 mos+	50%	#2 59%*	49%
Children 6 mos – 17 yrs	74%	#1 81%*	63%
○ Children 6 mos – 4 yrs	76%	#1 88%*	73%
○ Children 5 – 12 yrs	74%	#1 82%*	64%
○ Adolescents 13 – 17 yrs	72%	#1 76%	52%
○ Adults 18 +	44%	#2 54%*	45%
○ Adults 18 – 64 y/o	40%	#2 48%*	39%
○ Adults HR 18 – 64 y/o	46%	55%*	48%
○ Adults 50 – 64 y/o	46%	54%*	47%
○ Adults 65+	58%	72%*	68%



People at High Risk for Influenza Complications for Whom Antiviral Treatment is Recommended

- Children <2 years old (although all children <5 years old are considered at high risk for complications, highest risk is for children <2 years old)
- Adults age 65 years and over
- Pregnant/postpartum women
- Children <18 years old receiving long-term aspirin therapy
- American Indians/Alaska Natives
- People with underlying medical conditions (e.g., pulmonary, cardiac, immunosuppression, neurologic and neurodevelopment conditions)
- Residents of nursing homes/chronic care facilities



CDC - Flu Antiviral Drugs Guidance

Influenza (Flu)



🏠 Seasonal Influenza (Flu)

About Flu +

Who is at High Risk for Flu +
Complications

Flu Season +

Prevent Flu +

Flu Vaccines Work +

Symptoms & Diagnosis +

Treatment +

Influenza Antiviral Medications: Summary for Clinicians

[Español](#)

The information on this page should be considered current for the 2019-2020 influenza season for clinical practice regarding the use of influenza antiviral medications. Clinicians may also wish to consult the [IDSA antiviral treatment and antiviral chemoprophylaxis recommendations](#) [↗](#), the [AAP Recommendations for Prevention and Control of Influenza in Children, 2019-2020](#) [↗](#), and the [ATS-IDSA Adult CAP Guidelines](#) [↗](#).

MedFinder

Need to fill a prescription for flu antivirals?

[↗ Find Flu Medication](#)

Massachusetts 2019-2020

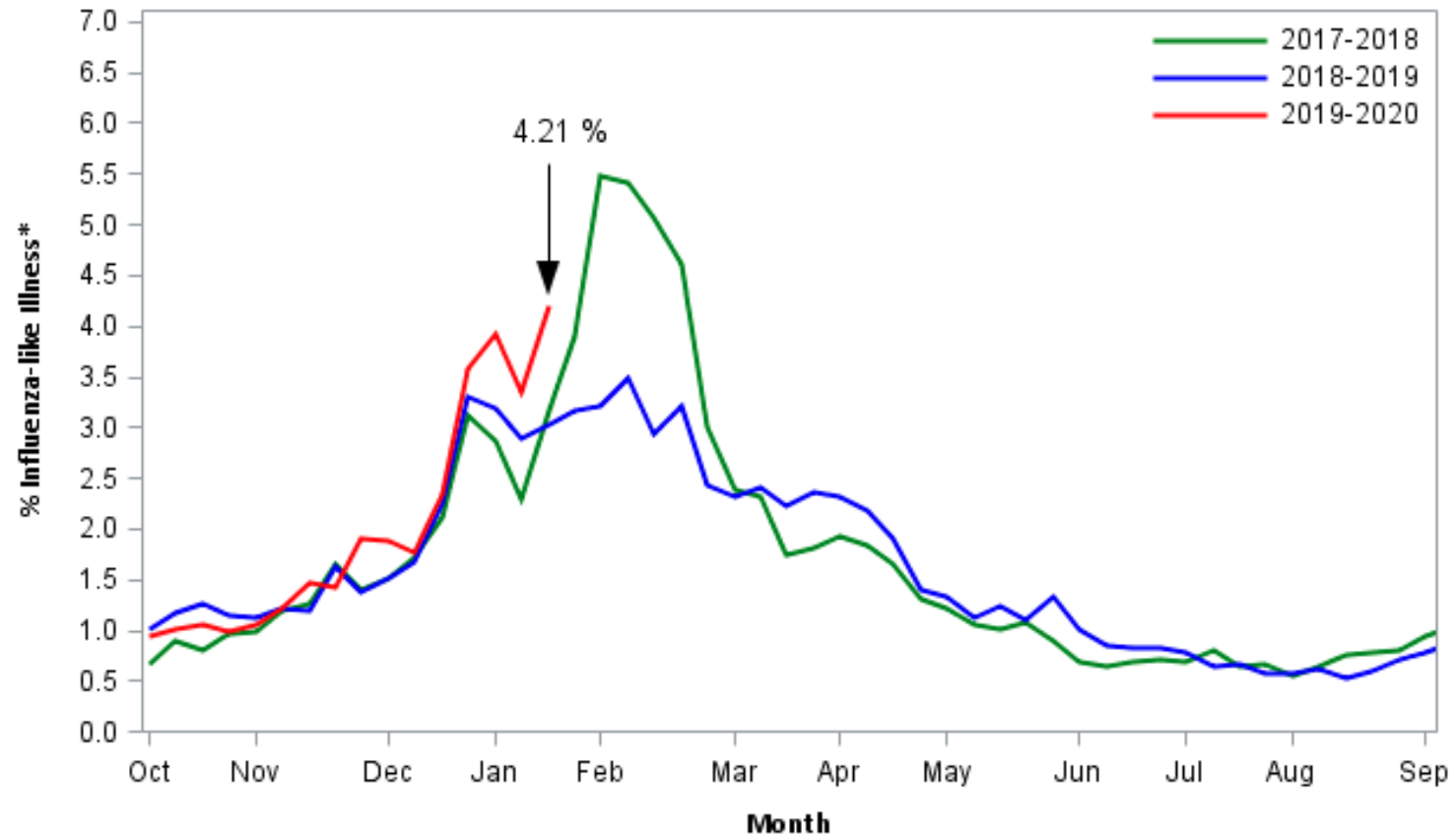
September 29, 2019 – January 18, 2020

<https://www.mass.gov/influenza>



Massachusetts – Percent of ILI Visits 2019-2020

(reported by sentinel sites)

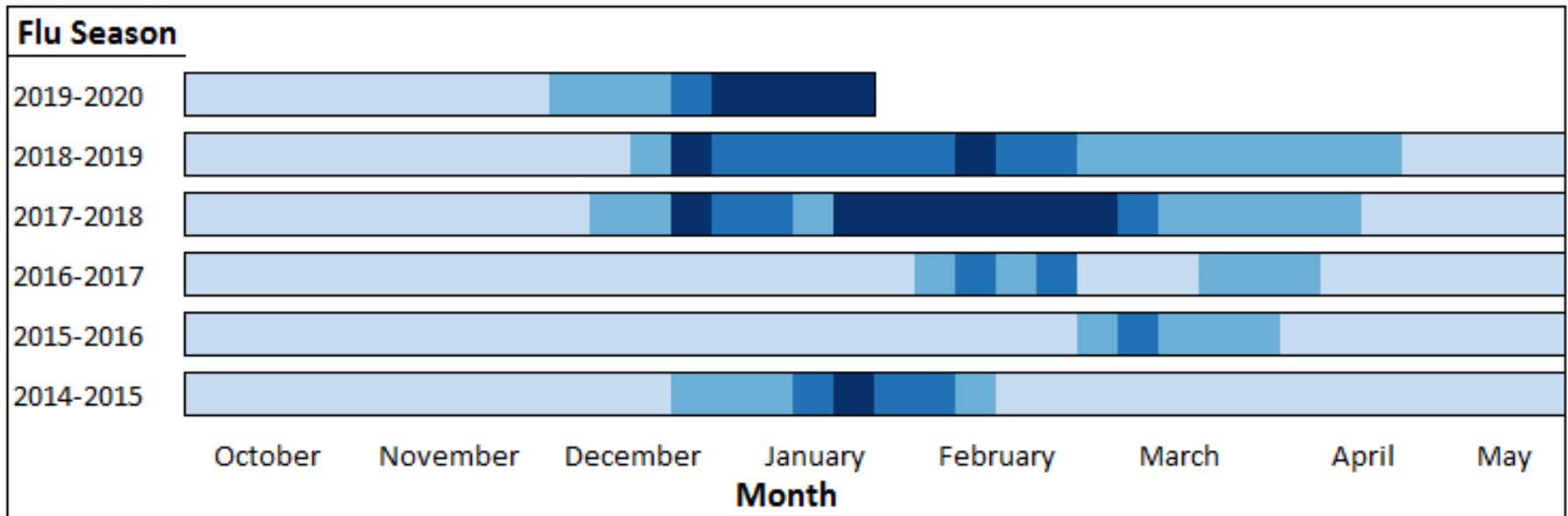


**influenza-like illness (ILI, defined by fever >100F and cough and/or sore throat), as reported by Massachusetts sentinel surveillance sites*



Massachusetts – ILI Activity 2019-2020

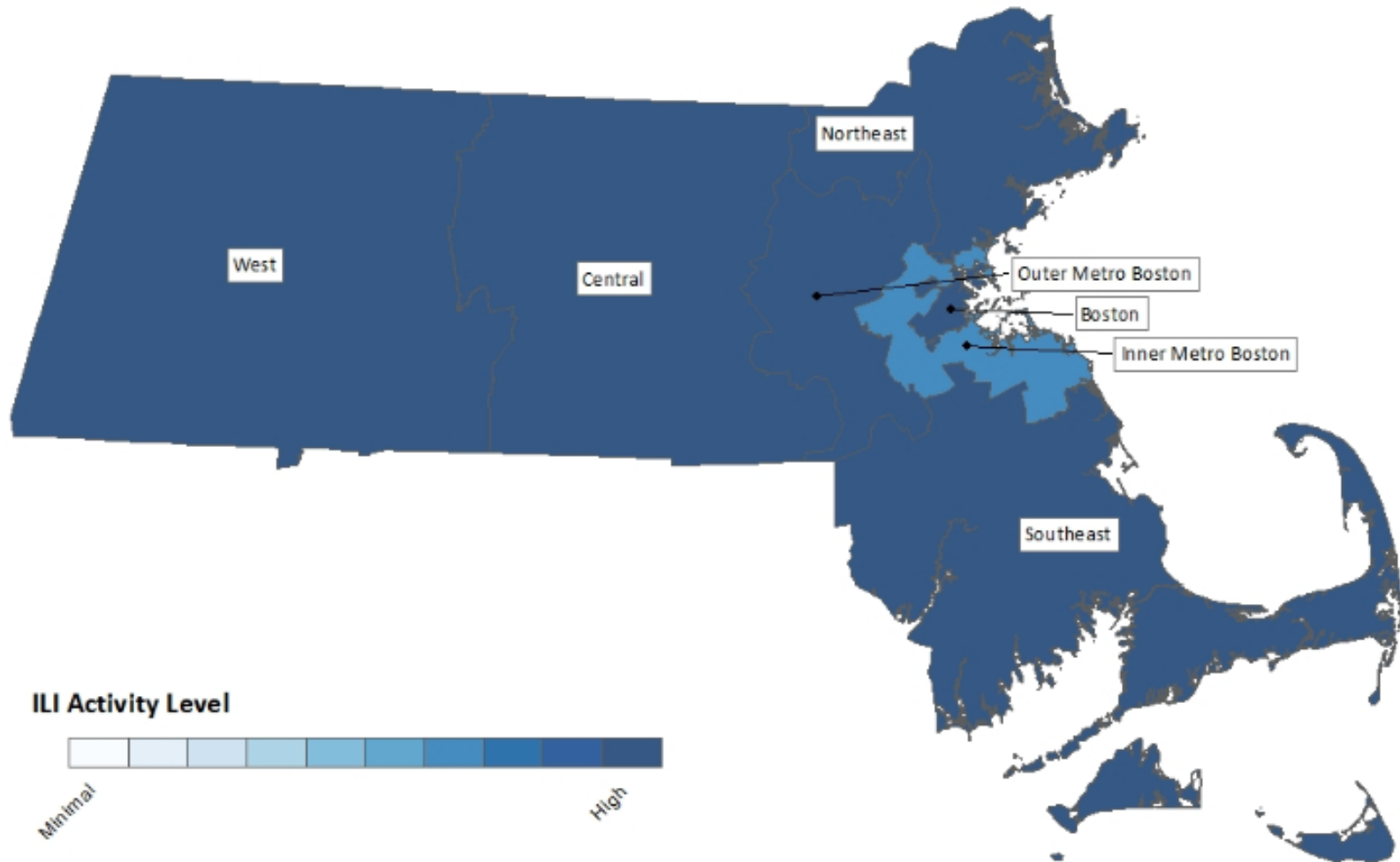
(reported by sentinel sites)





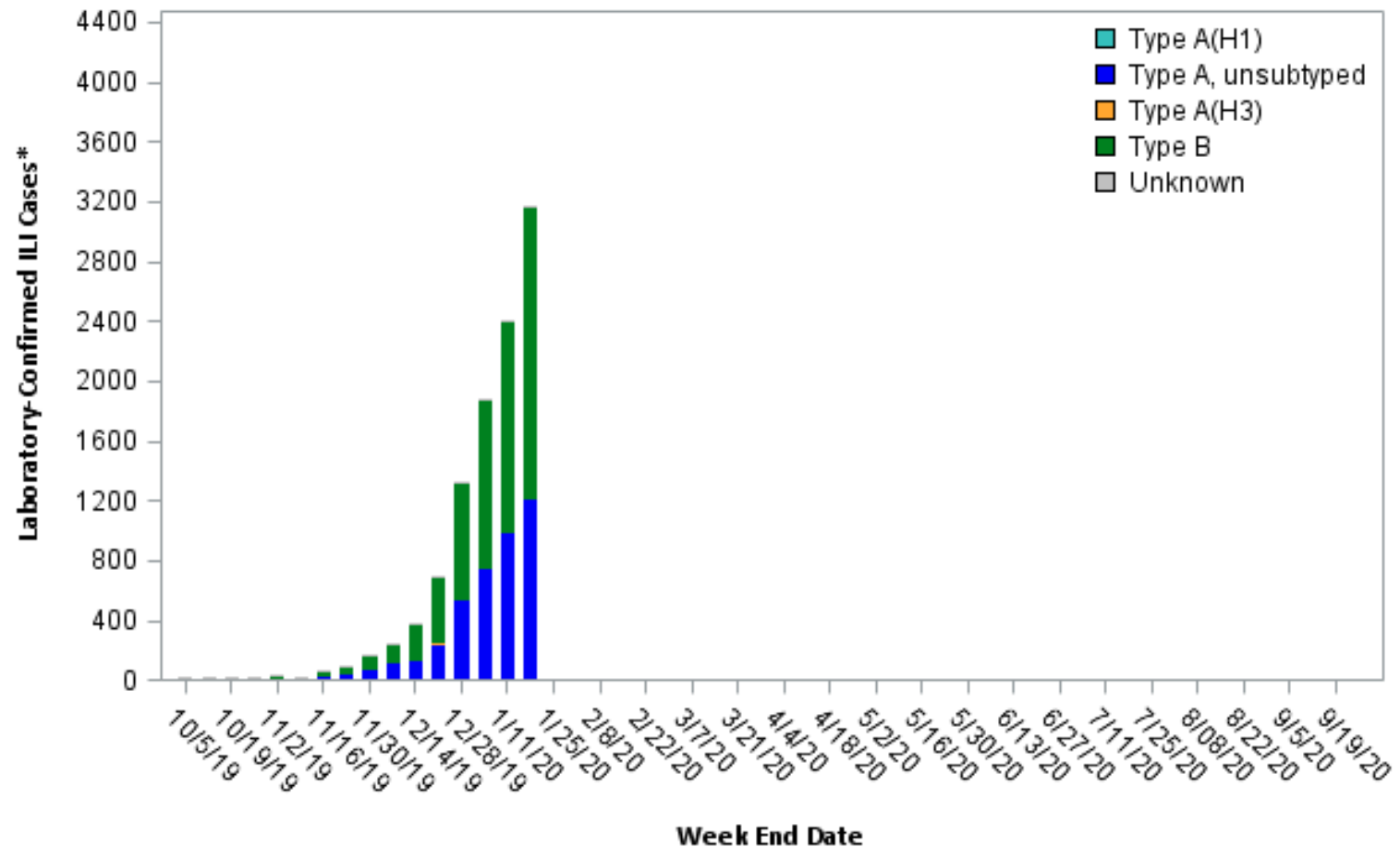
Massachusetts by Region – ILI Activity 2019-2020

(reported by sentinel sites)





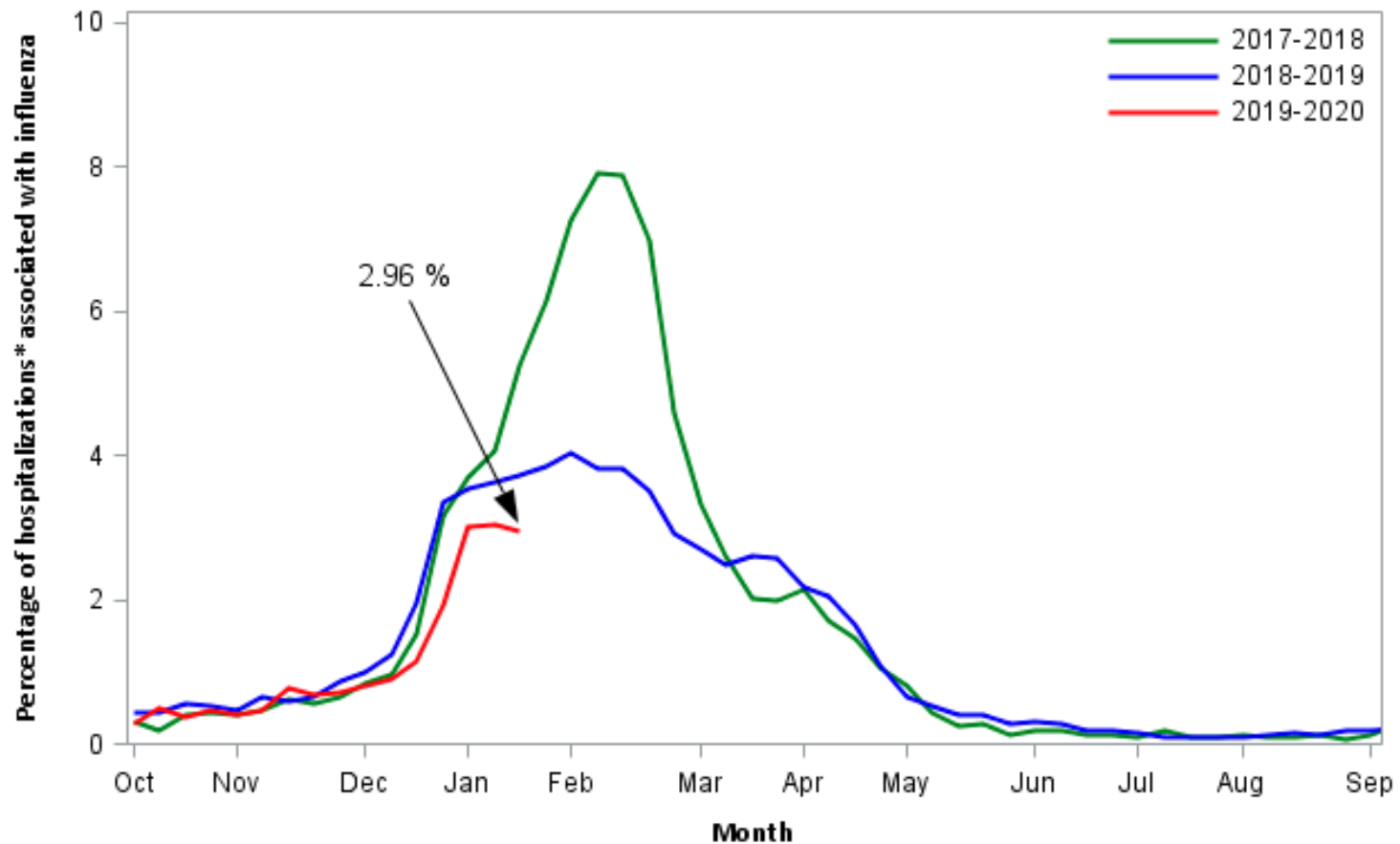
Massachusetts – Laboratory-Confirmed Flu



*Influenza cases confirmed via viral culture or PCR test by specimen collection date.



Massachusetts - Influenza Activity 2019-2020 Hospitalizations



**All patients admitted through hospital emergency departments as captured by syndromic surveillance*



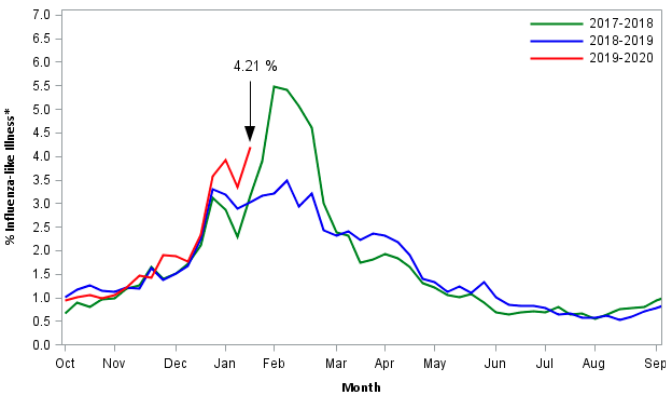
Massachusetts – Severity of Flu in 2019-2020

Okay, so how bad is it this year?



Massachusetts – Severity of Flu in 2019-2020

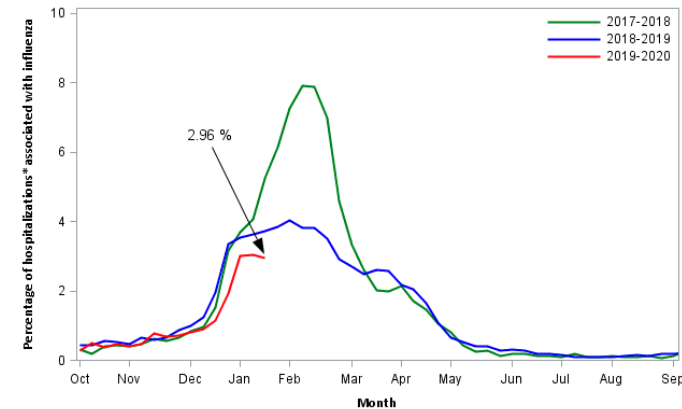
Okay, so how bad is it this year?



*Influenza-like illness (ILI, defined by fever >100°F and cough and/or sore throat), as reported by Massachusetts sentinel surveillance sites

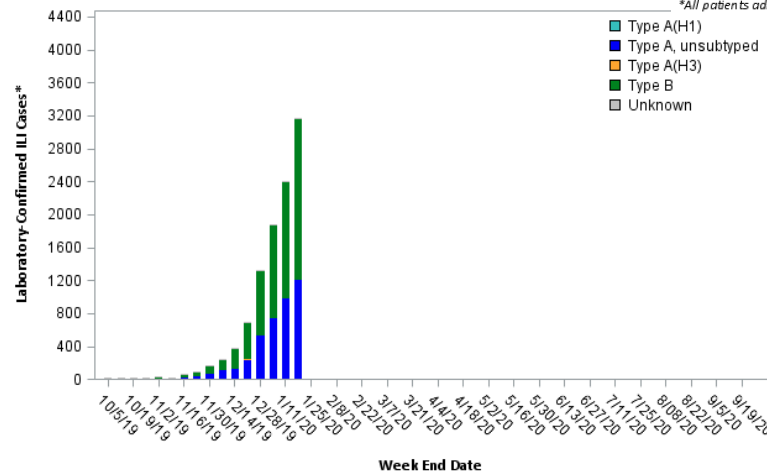
% ILI

Confirmed
Positive Labs



*All patients admitted through hospital emergency departments as captured by syndromic surveillance

% Hospitalizations



*Influenza cases confirmed via viral culture or PCR test by specimen collection date.

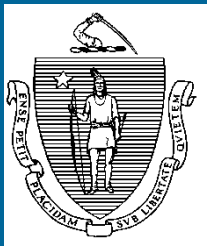


Massachusetts – Severity of Flu in 2019-2020

Okay, so how bad is it this year?

High

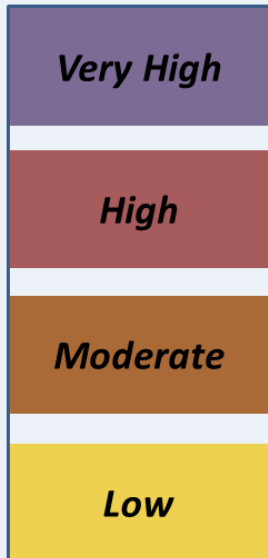




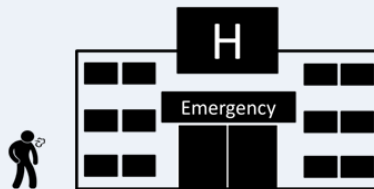
Massachusetts – Severity Splash Page

Massachusetts Flu Season at a Glance September 29, 2019 – January 18, 2020

Flu Severity Level



15,000 – 20,000
Emergency Room Visits for Flu



2,000 – 3,000
Hospitalized with Flu



Fight the Flu!

1. **Get your flu shot.**
2. **Wash your hands and cover your cough.**
3. **Sick? Stay home!**



Flu severity level is based on flu tests, medical and emergency visits, and hospitalization estimates from syndromic surveillance data.



Other MDPH Sources of Information

Weekly Email and Flu Report

- MDPH sends out a weekly email that highlights recent local and national flu activity and associated guidance. If you are interested in receiving these flu updates, please email Joyce Cohen (joyce.cohen@state.ma.us).
- MDPH provides a weekly Flu Report that can be found at <https://www.mass.gov/influenza>



Influenza News

Clinicians Should Prescribe Antivirals to Very Sick and High Risk Patients
With ongoing elevated influenza activity expected to continue for weeks, CDC continues to recommend vaccination and rapid antiviral treatment of very sick and high-risk patients with suspected flu illness. CDC issued a [health advisory](#) to remind clinicians about this guidance and that early treatment with antivirals improves outcomes.

Influenza Activity in the U.S.



MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH (MDPH)
WEEKLY INFLUENZA UPDATE
January 3, 2020

Estimated Weekly Severity of Influenza
(12/22/19 – 12/28/19)



Weekly severity is determined by combining three key markers of influenza activity and distribution: influenza-like illness, hospitalizations, and influenza positive test results reported to the Massachusetts Department of Public Health. MDPH analyzes data on these markers weekly and classifies the severity using historical data collected during past influenza seasons. For more information about how the severity indicator is calculated, please visit <https://www.cdc.gov/flu/about/classifies-flu-severity.htm>.

All data in this report are preliminary and subject to change as more information is received. Data collected through December 28, 2019 are included in this report.



CDC Main Flu Website

<https://www.cdc.gov/flu/index.htm>

Influenza (Flu)



Language: English (US)

TAKE ACTION TO PREVENT THE FLU.



Flu vaccination has been shown to prevent flu illnesses, doctors' visits and hospitalizations and can be life-saving in children

Influenza Updates:

- Flu activity in the U.S. is low now, but expected to pick up in the coming weeks.

CDC on Flu Vaccine:

- CDC's [vaccine recommendations for the 2018-2019 flu season](#) are now available.
- CDC recommends yearly flu vaccination for people 6 months and older.
- Get vaccinated by the end of October.
- See how much [2018-2019 flu vaccine has been distributed](#).

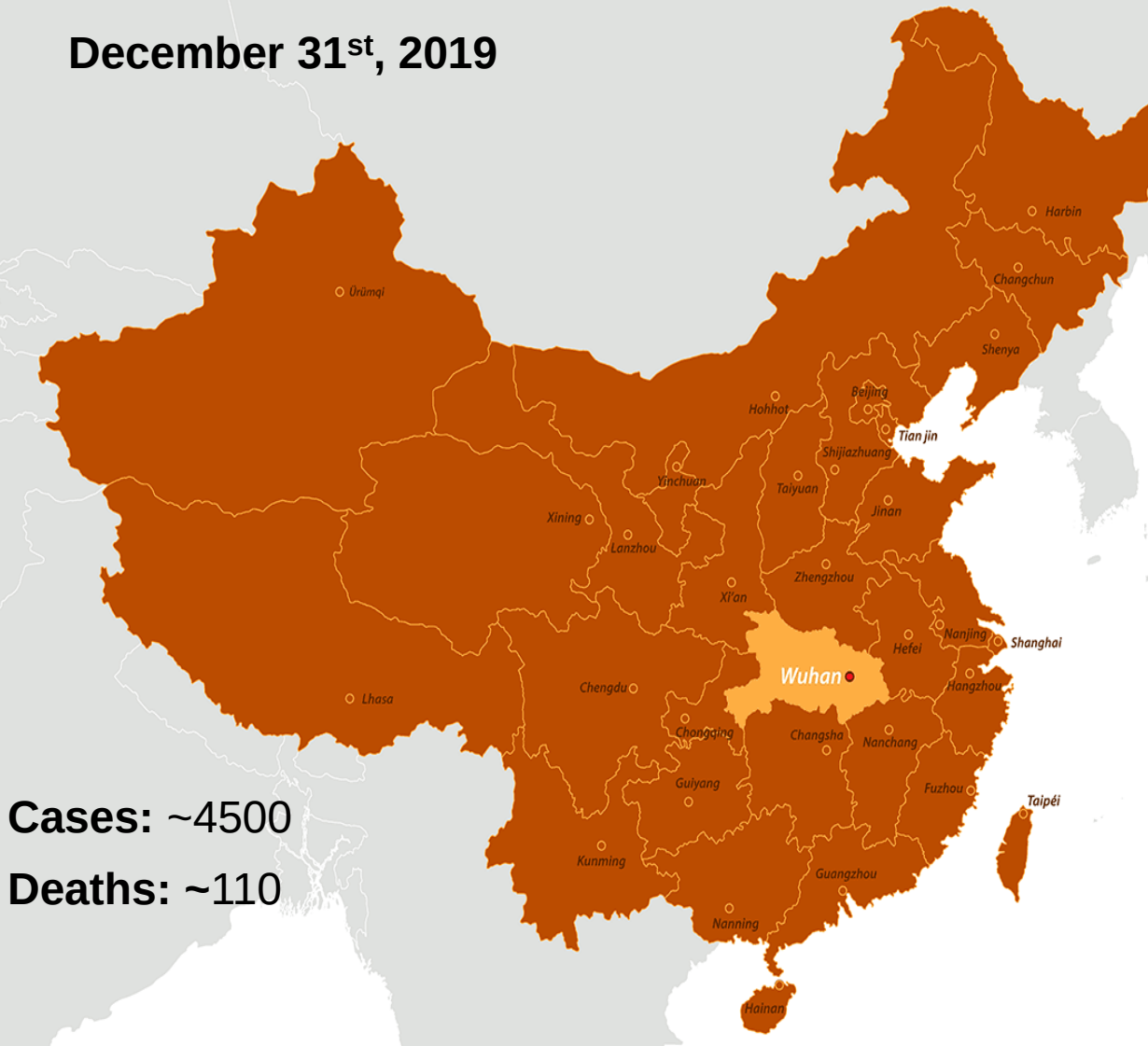
[Flu Report >](#)





2019 Novel Coronavirus – Wuhan, China

December 31st, 2019



Cases: ~4500

Deaths: ~110

- **Likely origin:** Meat and seafood market (possibly from snakes).
- **Symptoms:** Cough, headache, difficulty breathing, fever (some)
- **Incubation:** Likely, 2-14days
- **Transmission:** Animal to Human *and* close contact between persons. $R^0 = \sim 2$
- **Infectious period:** Unknown
- HCW affected
- Genetically similar to SARS
- Screening in China, and in 20 US airports.



2019 Novel Coronavirus – Criteria to Guide Evaluation of Patients Under Investigation (PUI)

Clinical Features	&	Epidemiologic Risk
Fever ¹ and symptoms of lower respiratory illness (e.g., cough, difficulty breathing)	and	In the last 14 days before symptom onset, a history of travel from Wuhan City, China. – or – In the last 14 days before symptom onset, close contact ² with a person who is under investigation for 2019-nCoV while that person was ill.
Fever ¹ or symptoms of lower respiratory illness (e.g., cough, difficulty breathing)	and	In the last 14 days, close contact ² with an ill laboratory-confirmed 2019-nCoV patient.

✓ Call **617-983-6800** if there is any suspicion.

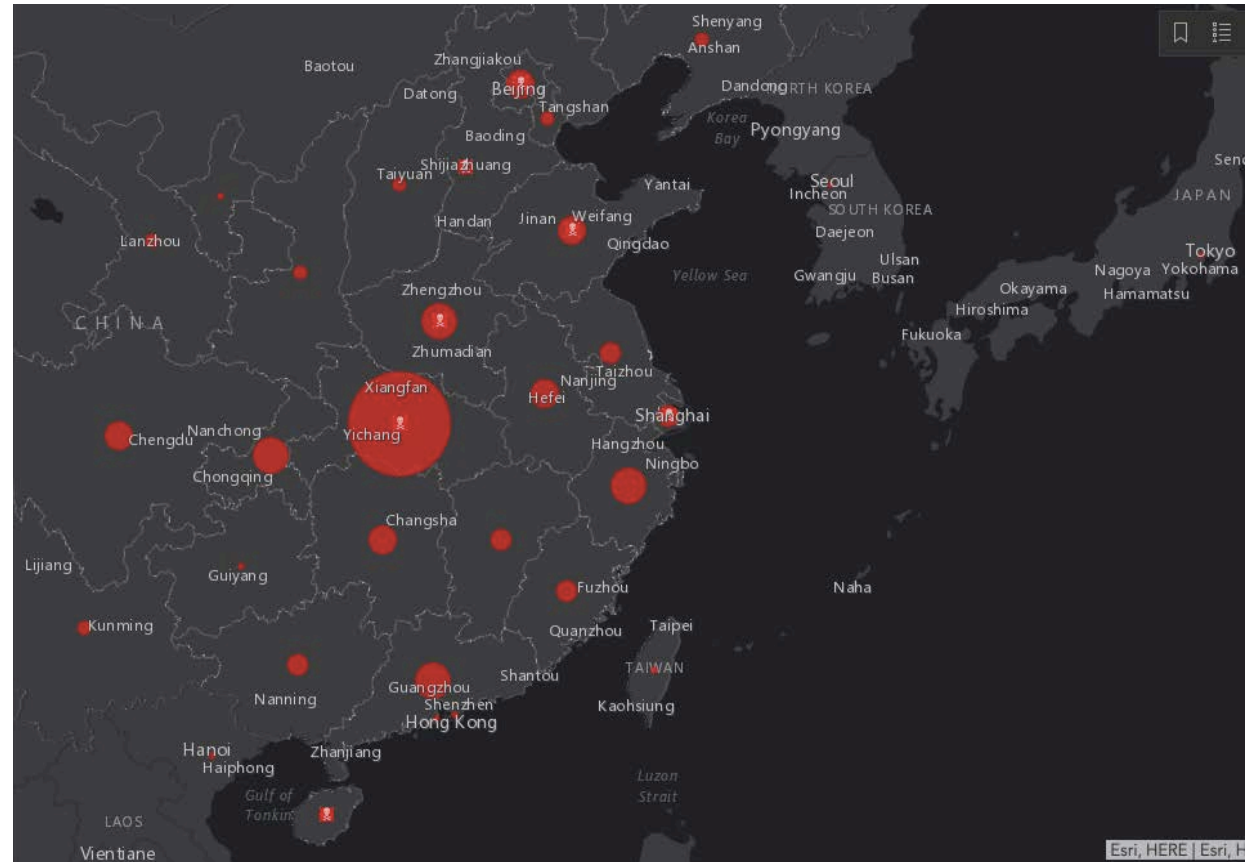


2019 Novel Coronavirus – Wuhan, China

Number of cases – January 27, 2020

China - ~4400

- Hubei Prov (Wuhan)	- 2714
- Zhejiang prov	- 173
- Henan prov	- 168
- Guangdong prov	- 151
- Chongqing City	- 132
- Hunan prov	- 100
- Beijing	- 80
- Shanghai	- 66
- Hong Kong	- 8



Deaths:

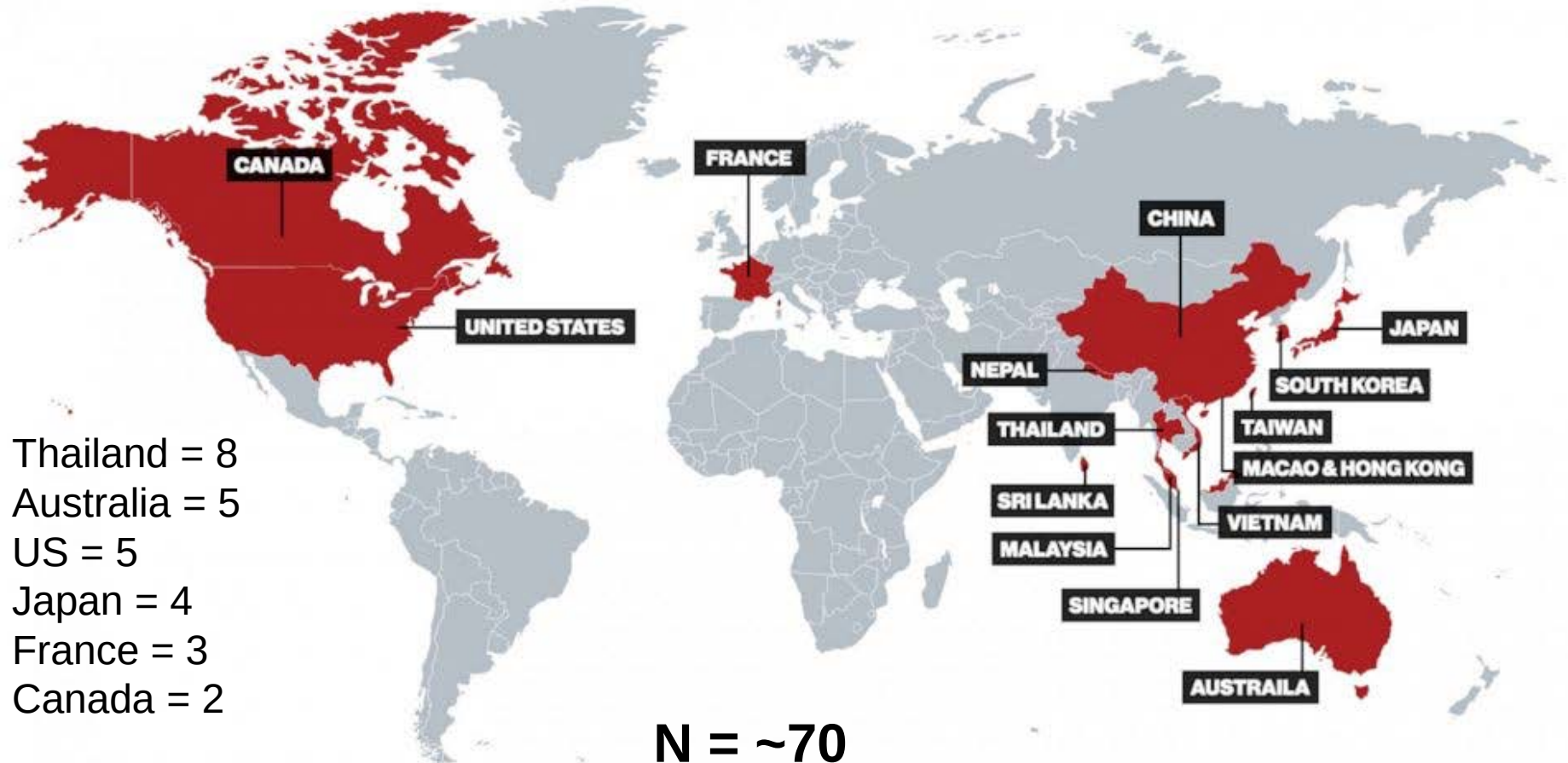
Hubei Prov (Wuhan)	- 100
Everywhere else	- ≤ 1



2019 Novel Coronavirus – Wuhan, China

Countries with cases – January 27, 2020

COUNTRIES WITH CONFIRMED CORONAVIRUS CASES



SOURCE: WHO, CDC, NHC, Dingxiangyuan, local governments



2019 Novel Coronavirus – Wuhan, China

Number of cases – January 27, 2020

CONFIRMED CORONAVIRUS CASES





2019 Novel Coronavirus – Wuhan, China



CDC confirms 5th case of new coronavirus in U.S.

SHARE THIS



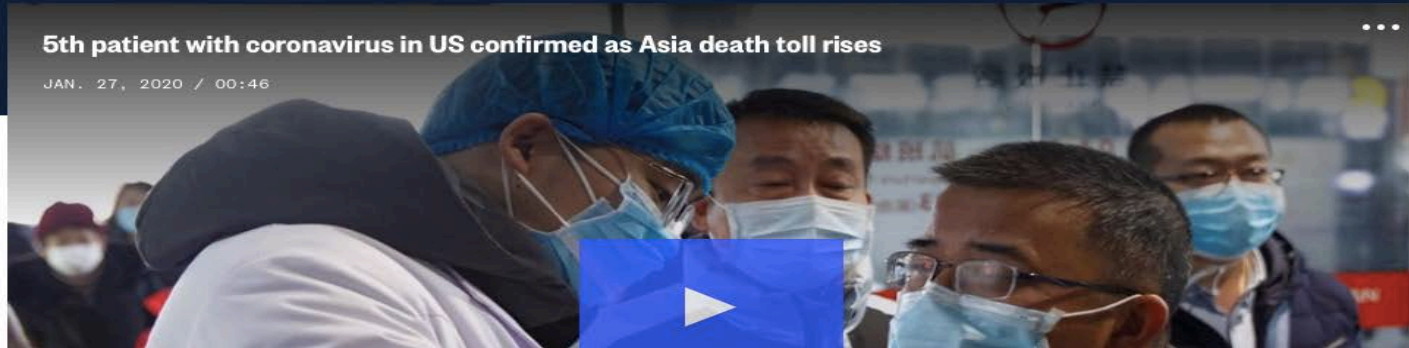
CORONAVIRUS

CDC confirms 5th case of new coronavirus in U.S.

All of the U.S. cases are patients who have recently traveled from Wuhan, China.

5th patient with coronavirus in US confirmed as Asia death toll rises

JAN. 27, 2020 / 00:46



- ✓ All cases recently travelled to Wuhan.
- ✓ Middle age adults, no deaths
- ✓ No person to person transmission in U.S.



2019 Novel Coronavirus – Wuhan, China

<u>Disease</u>	<u>Ro value</u>
2019-nCoV	2.6 (1.5 - 3.5)
Measles	12 - 15
SARS	2 - 4
Flu	1 - 2
MERS	< 1

Ro value: The estimated number of people infected by one case.



CDC Guidance for Healthcare Professionals 2019 Novel Coronavirus, Wuhan, China



Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

[A-Z Index](#)

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2019 Novel Coronavirus, Wuhan, China



 2019 Novel Coronavirus
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2019-nCoV Situation +
Summary

About 2019-nCoV +

FAQ

Healthcare Professionals +

Interim Guidance for Healthcare Professionals

Limited information is available to characterize the spectrum of clinical illness associated with 2019-nCoV. No vaccine or specific treatment for 2019-nCoV infection is available; care is supportive.

The CDC clinical criteria for a 2019-nCoV patient under investigation (PUI) have been developed based on what is known about MERS-CoV and SARS-CoV and are subject to change as additional information becomes available.



Contact
your local or
state health
department
Healthcare providers



DPH Clinical Advisory on the Outbreak of 2019 Novel Coronavirus (2019-nCoV) in Wuhan, China

OFFERED BY **Department of Public Health**

CLINICAL ADVISORY

Update and Interim Guidance on Outbreak of 2019 Novel Coronavirus (2019-nCoV) in Wuhan, China

DATE: 01/22/2020

ORGANIZATION: Department of Public Health

REFERENCED SOURCES: [CDC: 2019 Novel Coronavirus, Wuhan, China](#)

TO: Healthcare Providers and Institutions, Infection Preventionists, Emergency Departments, Hospital Laboratories, EMS and LBOH

Please see below for information from CDC about the outbreak of a novel coronavirus causing respiratory disease in Wuhan, China. On January 21, CDC announced the



DPH Immunization Program Contact Information



Immunization Program Main Number

For questions about immunization recommendations, disease reporting, etc.

- Phone: 617-983-6800
- Fax: 617-983-6840
- Website: www.mass.gov/dph/imm

MIIS Help Desk

- Phone: 617-983-4335
- Fax: 617-983-4301
- Email: miishelpdesk@state.ma.us
- Websites: www.contactmiis.info | www.mass.gov/dph/miis

MDPH Vaccine Unit

- Phone: 617-983-6828
- Fax: 617-983-6924
- Email: dph-vaccine-management@state.ma.us
- Website: www.mass.gov/dph/imm (click on Vaccine Management)

Links – Influenza and 2019 Novel Coronavirus (2019-nCoV)

[CDC HAN. Elevated Influenza Activity: influenza B/Victoria and A\(H1N1\) 1-10-20](https://emergency.cdc.gov/han/han00425.asp)

<https://emergency.cdc.gov/han/han00425.asp>

[CDC HAN: Update and Interim Guidance on Outbreak of 2019 Novel Coronavirus \(2019-nCoV\) in Wuhan, China, 1-17-20](https://emergency.cdc.gov/han/han00426.asp)

<https://emergency.cdc.gov/han/han00426.asp>

[MDPH Clinical Advisory. Update and Interim Guidance on Outbreak of 2019 Novel Coronavirus \(2019-nCoV, 1-22-20](https://www.mass.gov/clinical-advisory/update-and-interim-guidance-on-outbreak-of-2019-novel-coronavirus-2019-ncov-in)

<https://www.mass.gov/clinical-advisory/update-and-interim-guidance-on-outbreak-of-2019-novel-coronavirus-2019-ncov-in>