

Risk factors for COVID-19  
complications  
versus  
NATS membership demographics

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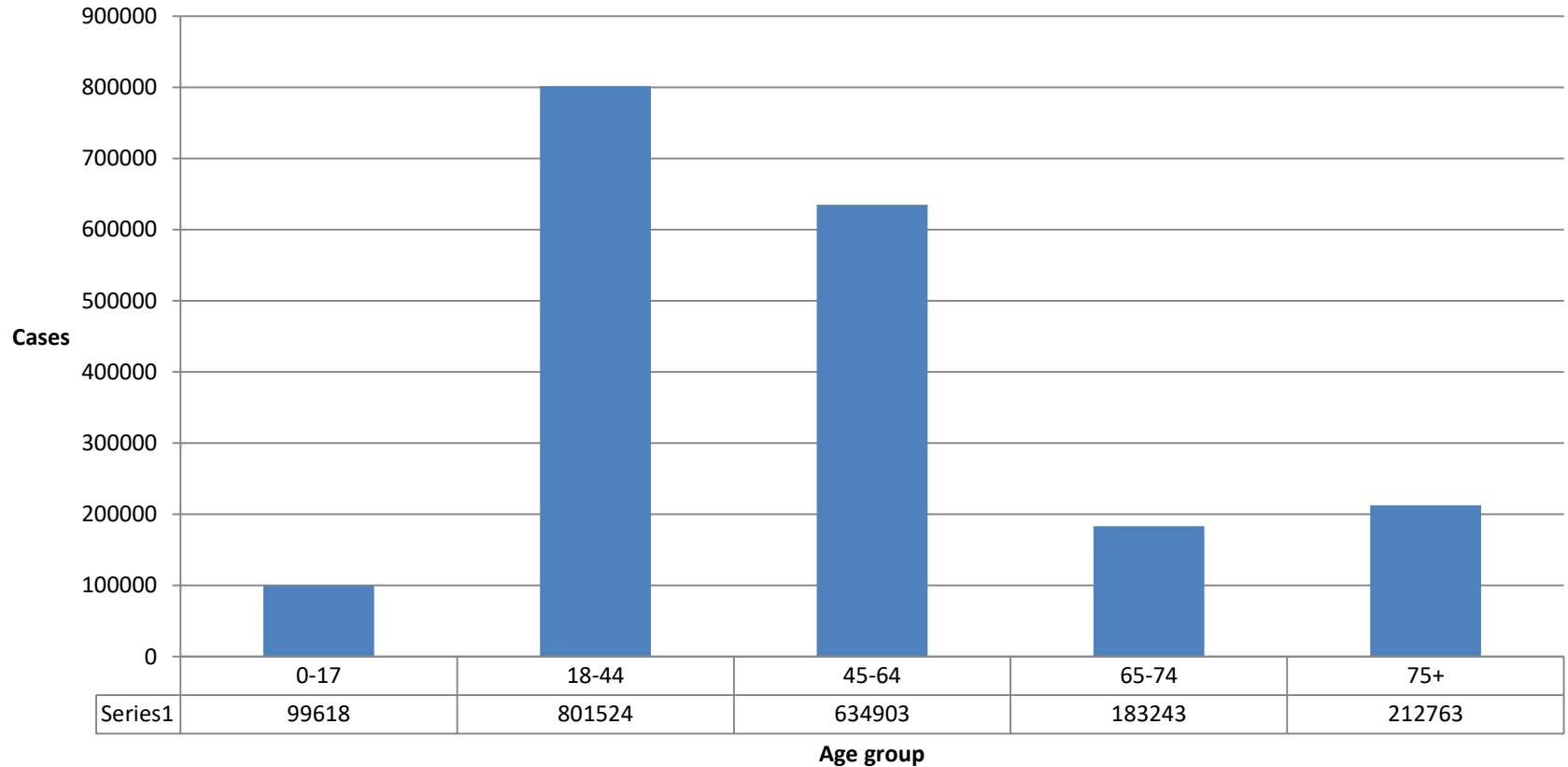


# Who is at higher risk of severe complications from COVID-19?

- 65 and older
- Chronic lung disease or moderate to severe asthma
- Serious heart conditions
- Immunocompromised (cancer treatment, smoking, transplant recipients, immune deficiencies, HIV/AIDS, long term use of steroids)
- Obesity
- Sickle cell disease
- Type 2 diabetes
- Chronic kidney disease
- Liver disease
- Sources: <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html>. Accessed 6-21-2020;  
<https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/groups-at-higher-risk.html>

# COVID-19 cases by age

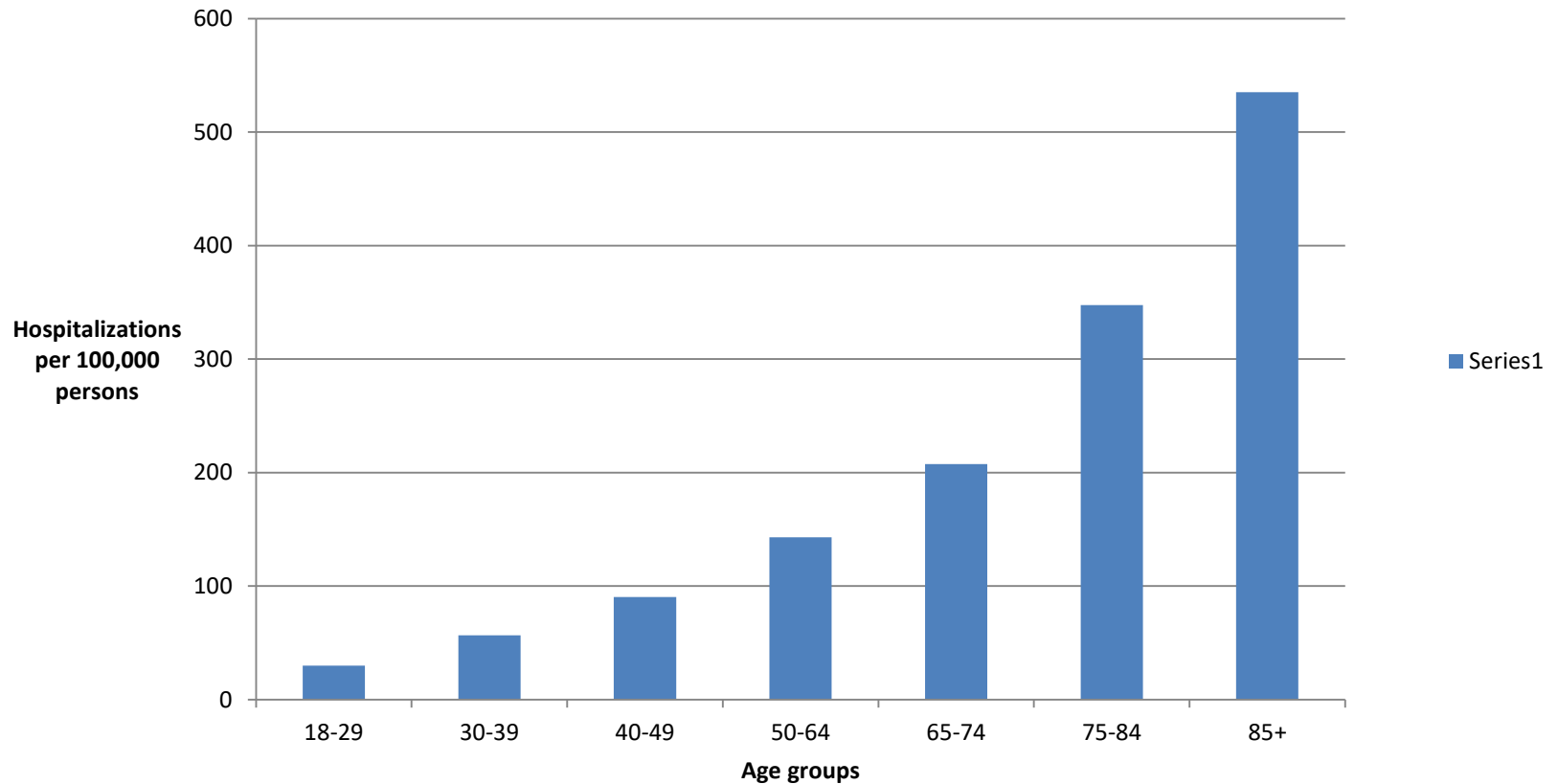
US COVID Cases by Age (6/21/2020) N=1,932,051



Source: CDC: Coronavirus Disease 2019: Cases in the U.S., June 21,2020

# Complication risk increases with age

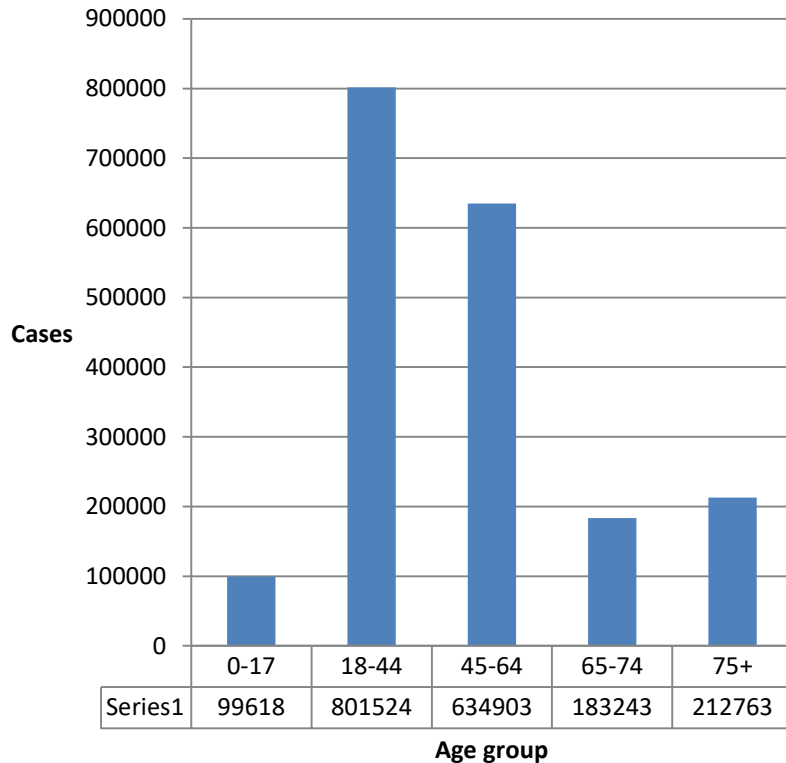
COVID-19 Hospitalization rates per 100,000 (N=30,669)



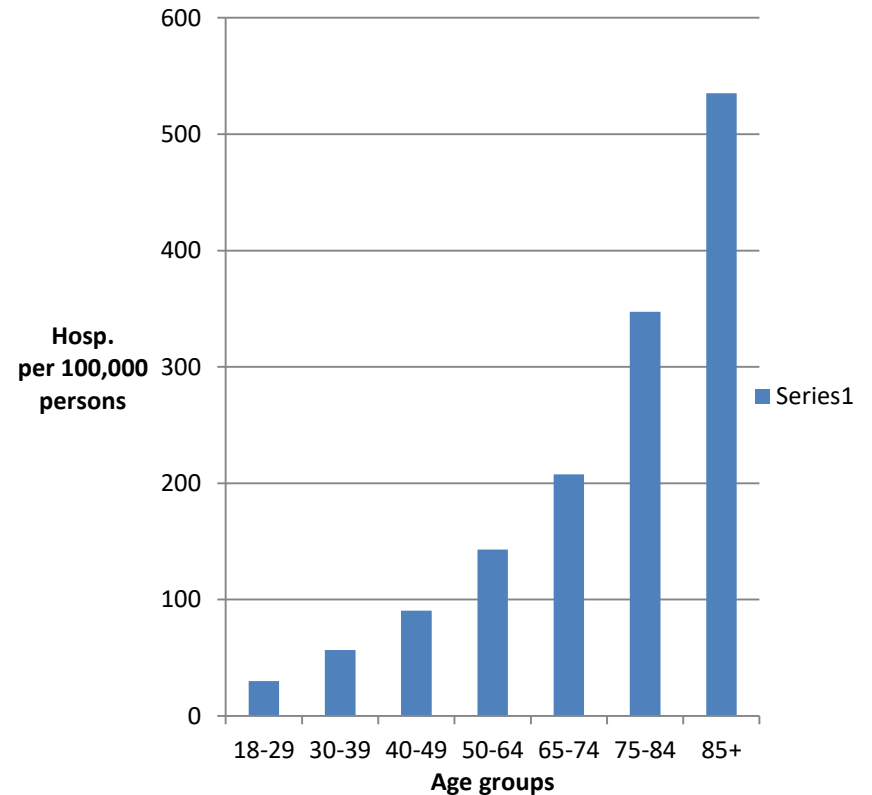
Source: from CDC, "COVIDView for 3-1-2020 to 6-13-2020"

# Comparing cases versus hospitalization rates

**US COVID Cases by Age  
(6/21/2020) N=1,932,051**



**COVID-19 Hospitalization rates per  
100,000 (N=30,669)**



# Differences by ethnic group

Non-Hispanic American Indian or Alaska Native persons have a [hospitalization] rate approximately 5.5 times that of non-Hispanic White persons;

Non-Hispanic Black persons have a [hospitalization] rate approximately 4.5 times that of non-Hispanic White persons;

Hispanic or Latino persons have a [hospitalization] rate approximately 4 times that of non-Hispanic White persons.

From <https://www.cdc.gov/coronavirus/2019-ncov/covid-data/pdf/covidview-06-19-2020.pdf> accessed 6-21-20, p. 2

# Differences by gender

Gender (all cases)	Cases per 100K	Hospitalization percentage	Admit to ICU	Died
Male	401.1	16%	3%	6%
Female	406	12%	2%	5%

Source: <https://www.cdc.gov/mmwr/volumes/69/wr/mm6924e2.htm>  
(Coronavirus Disease 2019 Case Surveillance — United States, January 22–May 30, 2020 Weekly / June 19, 2020 / 69(24);759–765)

Data from 1,320,488 laboratory confirmed COVID-19 cases reported to the CDC January 22-May 30, 2020

# NATS Membership Statistics, 2019

Age	Percentage
19-29	4
30-39	18
<b>40-49</b>	<b>21</b>
<b>50-59</b>	<b>21</b>
<b>60-69</b>	<b>24</b>
70-79	9.5
80+	2.5
N=6124	

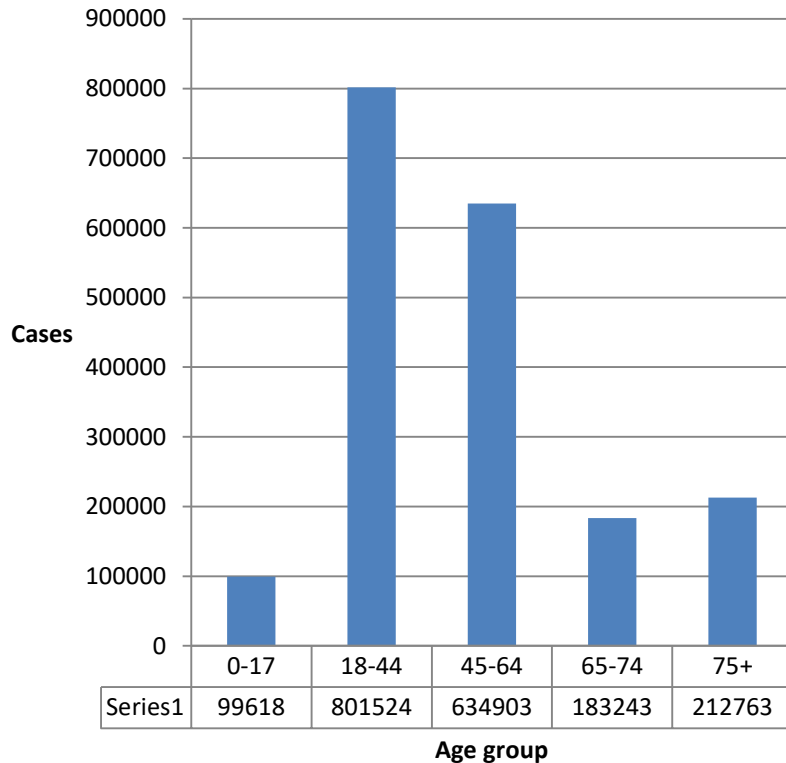
Race	Percentage
African American	3
Asian	2.8
Hispanic	2.4
Pacific Islander	0.2
White	87.3
Other	4.2
N=6,254	

Gender	Percentage
Male	26
Female	74
N=6,259	

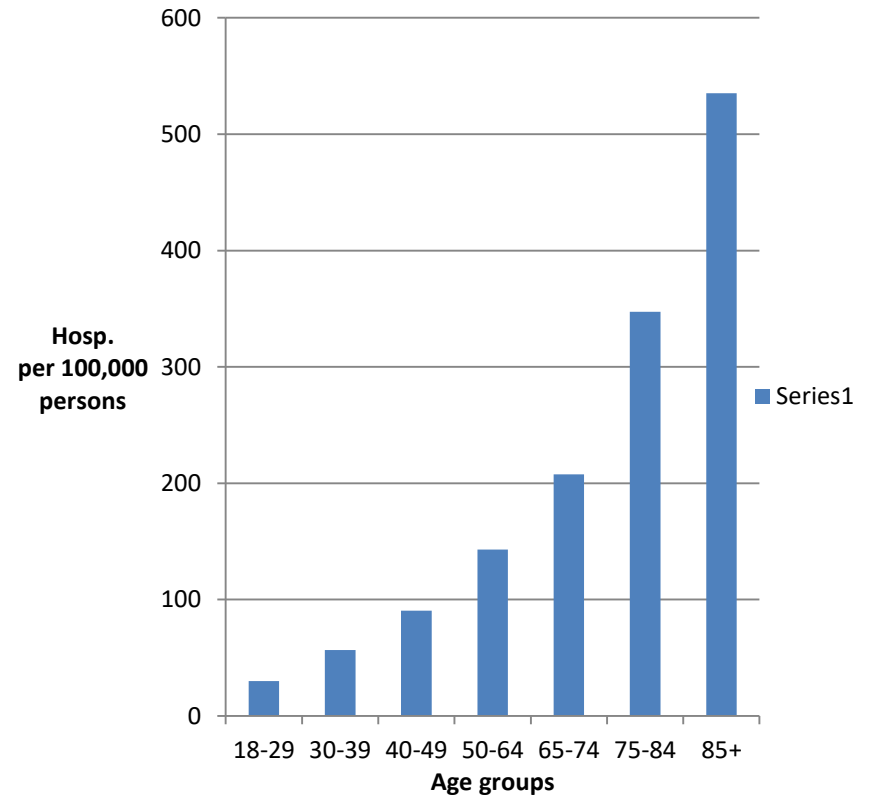


# Comparing cases versus hospitalization rates

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**COVID-19 Hospitalization rates per  
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# Putting it all together...

- 2/3rds of NATS membership is between 40-69
- This age group still has a high % of cases, and also has a growing risk for hospitalization for COVID-19. Many of our students come from the 18-44 age group which has the highest number of cases.
- The 40-69 year age range is also one in which other health complications are on the rise (high blood pressure, diabetes, heart disease, kidney problems, obesity), increasing the risk for complications requiring hospitalization, ICU, etc.
- Members who are from higher risk ethnic/racial groups need to be especially sensitive to having other health conditions
- Members from AL, AR, AZ, CA, FL, NC, SC, TX, UT should monitor conditions in their states closely, as these states are currently experiencing rapid case growth (up 100% or more May 22 to June 22)
- Get a screening app for your phone (for example, see <https://www.apple.com/covid19>), use the app questions every day to evaluate your situation, and check your temperature each morning before getting up. Consult your doctor immediately if you suspect you have COVID-19. Share this app with your students and colleagues.

# Using this information to assess your risk

- Estimate the likelihood of your contracting COVID-19 (your age, where you live, activities you participate in, number of persons you interact with, compliance with CDC guidance on behavior, etc.) - “Probability of Harm”
- Estimate the likelihood that you might have complications ***if*** you contracted COVID-19 (age, pre-existing medical conditions, gender, ethnicity, access to medical care, etc.) – “Magnitude of Harm”
- Probability + Magnitude = Risk Level
- <https://www.covid19survivalcalculator.com/en/calculator>
- Share this calculator with your students, colleagues, family members