

COVID-19 in 2021: Moving Forward Safely

Wednesday, February 3, 2021 2:00-3:30 PM EST

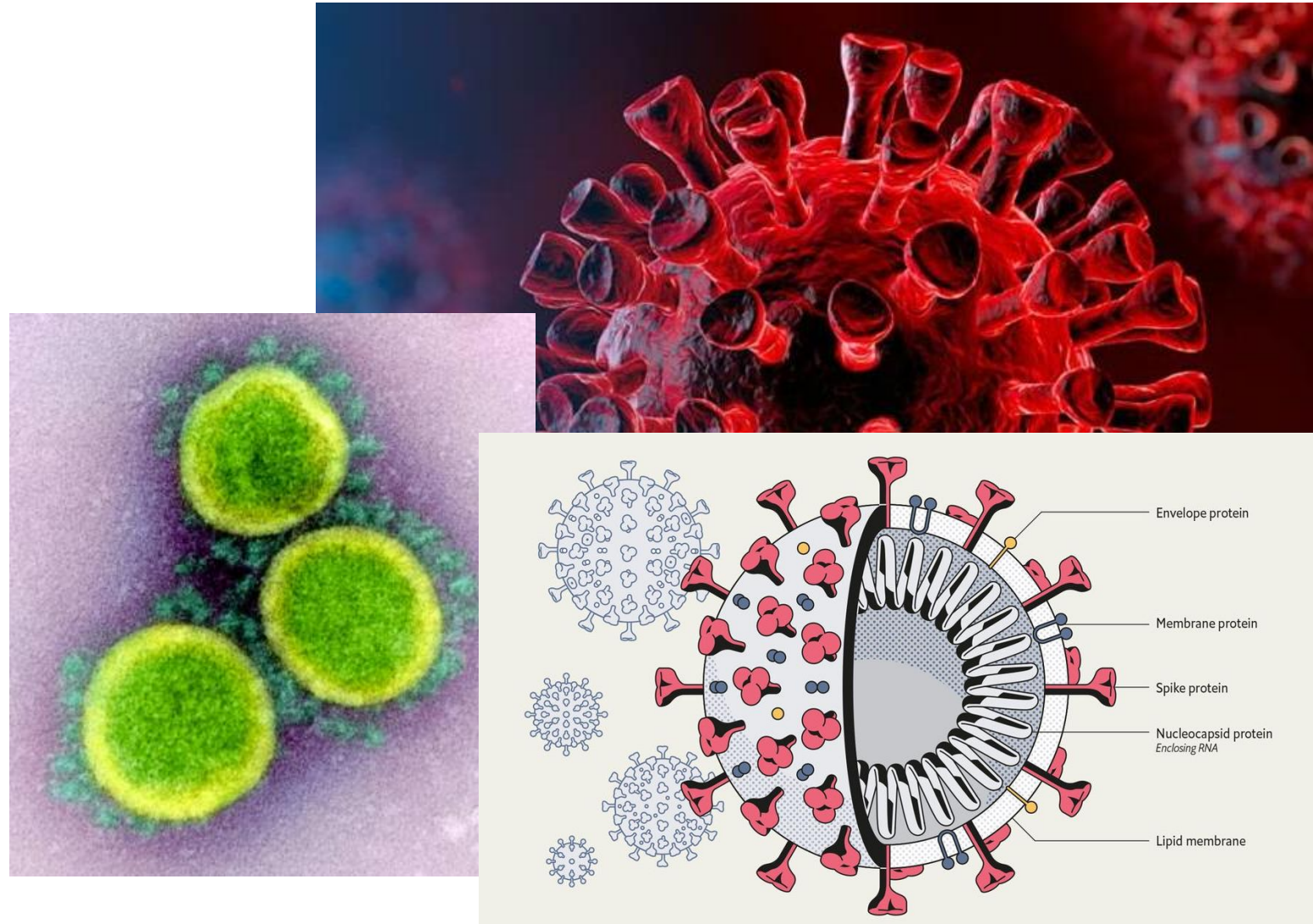
Ben Locwin

Summary

- Background on SARS-CoV-2
- What we said last time
- How knowledge has evolved
- Vaccines and the end of the pandemic
- Q&A

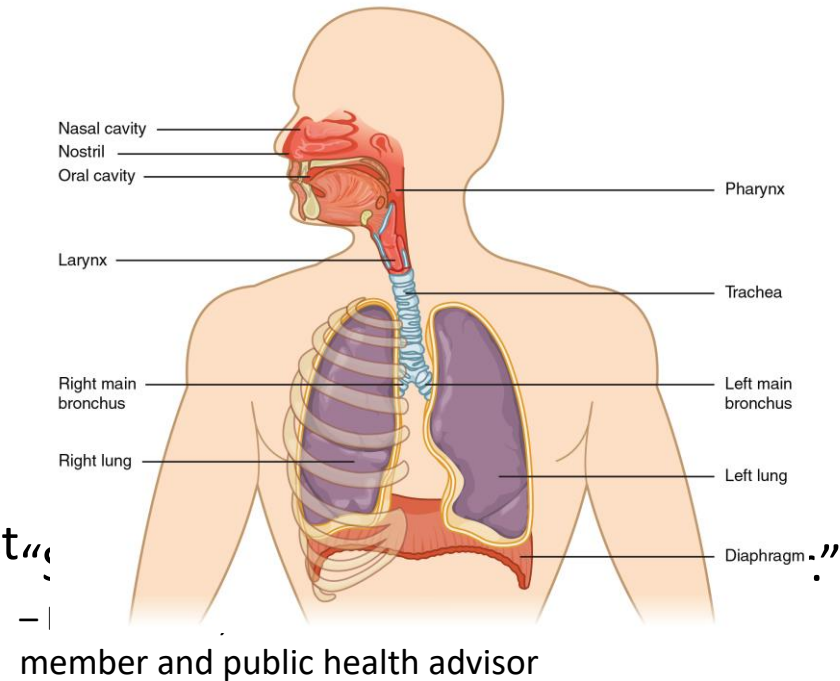
Know Our Enemy: SARS-CoV-2

- Coronavirus
 - *Betacoronavirus*
- Enveloped virus
- Spike (S) proteins
- *Corona* – “Crown”



How Does SARS-CoV-2 Cause COVID-19?

- Upper respiratory tract insertion
- Surface cleaning is symbolic theater
- Coronaviruses are very fragile – lipid bilayer. Surfactant, alcohols
- Upper respiratory tract infection
- There's a receptor called "neuropilin-1" that's in great supply in the nasal lamina
- Incidentally, this is why we swab your nasopharynx for a COVID-19 test – it's to lift a sample of mucosa with mRNA from the SARS-CoV-2 virus
- Also what's called ACE2 which is angiotensin converting enzyme 2 receptors help the coronavirus bind to the surface of cells
- Then an enzyme known as "type 2 transmembrane serine protease" (TMPRSS2) allows entry into cells



Does this variant have a name?

At present, the variant is referred to as “SARS-CoV-2 VOC 202012/01” (i.e., the first variant of concern from 2020, December), or “B.1.1.7.” The press often uses the terms “variant,” “strain,” “lineage,” and “mutant” interchangeably. For the time being in the context of this variant, the first three of these terms are generally being used interchangeably by the scientific community as well.

Why has this variant been in the news recently?

Since November 2020, a variant strain of SARS-CoV-2 has become prevalent in the southeast of England, reportedly accounting for 60% of recent infections in London. This variant has a mutation in the receptor binding domain (RBD) of the spike protein at position 501, where amino acid asparagine (N) has been replaced with tyrosine (Y). The shorthand for this mutation is N501Y, sometimes noted as S:N501Y to specify that it is in the spike protein. This variant carries many other mutations, including a double deletion (positions 69 and 70).

The Big 4

- It continues to be true that the most important preventive means in this pandemic are (and in this order):
 - Distancing (6 feet isn't best)
 - Ventilation (think ACH)
 - Masks (proper practice)
 - Cleaning
-
- The incoming head of CDC (Dr. Rochelle Walensky) will continue to encourage broad mask use in public in 2021, BTW



Vaccines

- What do we know?
- There are several major categories of new vaccine candidates
 - mRNA (Pfizer/BioNTech, Moderna)
 - AD26 (adenovirus, AZ/Oxford, Janssen (J&J))
 - Recombinant protein (NovaVax)
- Pfizer/BioNTech granted EUA by FDA last Friday, Moderna expected to garner EUA today (18Dec20)
- Supremely effective: 95% and 94.1% effective, strong safety profile
- Rollout will take a long time



What We Know About Your Work

- 8 million metric tons of plastic waste enter the ocean every year; this equates to **one garbage truck full** of plastic being dumped **per minute** into the ocean.
- This is precisely why models predict that plastic waste will outweigh fish in the sea by 2050 (microplastics).
- Incineration – No better. Vaporized plastic effluent.
- We're dealing with a pandemic of recyclable materials: plastics, metals, paper, rubber, etc.
- While we can vaccinate against SARS-CoV-2 now, we haven't yet found a way to vaccinate the public against recyclable waste and the idea of 'throwaway.'
- For this reason, this is the hard work, that occurs on longer timescales (decades)



Politics & Policy of COVID-19

Top 3 Issues for Policymakers:

- COVID: Health (care & vaccines)
- COVID: Budgets (paying for COVID)
- COVID: Safety & Infrastructure

Industry Concerns:

- Employee, Customer, Workplace Safety
- Liability Protections
- Operational Costs

Politics of COVID-19:

- Federal vs. State Standards
- Executive vs. Legislative Powers

Fact: 15 states introduced more than 30 bills within first 2 weeks of session this year on COVID



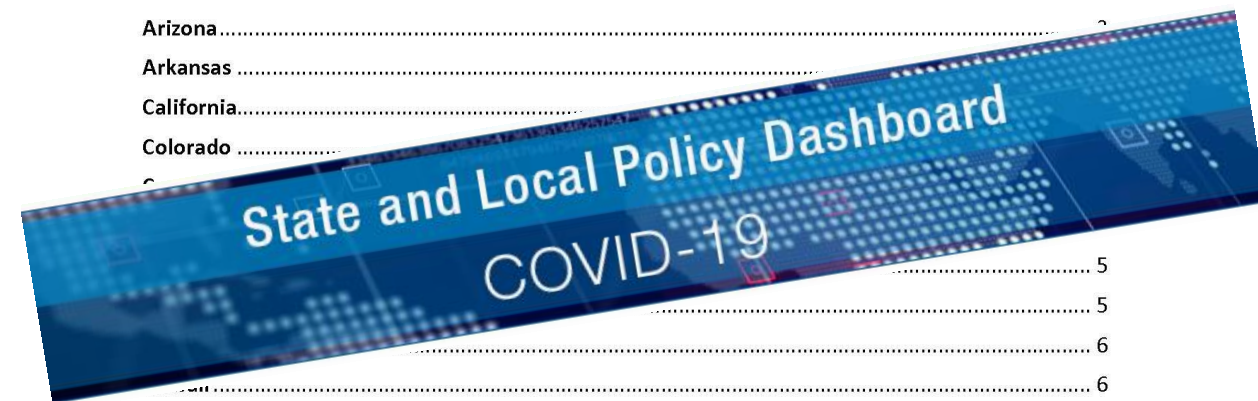
ISRI is the voice of the recycling industry, promoting safe, economically sustainable and environmentally responsible recycling through networking, advocacy and education.



ISRI Compilation of COVID-19 State Resources

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Specific Assistance/Resources from Federal and State Governments

COVID-19

COVID-19: Federal Resources

Families First Coronavirus Response Act

Available information on common issues employers and employees face when responding to COVID-19, and its effects on wages and hours worked under the Fair Labor Standards Act (FLSA), job-protected leave under the Family and Medical Leave Act (FMLA), and paid sick leave and expanded family and medical leave under the Families First Coronavirus Response Act (FFCRA).

Paycheck Protection Program

The Paycheck Protection Program ("PPP") authorizes up to \$349 billion in forgivable loans to small businesses to pay their employees during the COVID-19 crisis. All loan terms are the same for everyone. Loan amounts will be forgiven as long as the loan proceeds are used to cover payroll costs, and most mortgage interest, rent, and utility costs over the 8 week period after the loan is made; and employee and compensation levels are maintained.

[FAQs \(updated\)](#) | [Overview & How to Apply](#) | [Application](#) | [Lender Information Sheet](#) | [PPP Loan Forgiveness](#)

The PPP Loan Program Ends: On August 8 at midnight, the Small Business Administration's Paycheck Protection Program loan will no longer accept loan applications through the Capital Access Financial System.

Coronavirus Aid, Relief, and Economic Security (CARES) Act [M](#)

On Friday, March 27, President Trump signed into law the Coronavirus Aid, Relief, and Economic Security (CARES) economic rescue package. This third stimulus package, worth \$2 trillion, introduces a host of provisions for healthcare, small businesses, and larger businesses (above 500 employees) including but not limited to certain travel-related businesses, such as hotels and airlines.

Small Business Administration Guidance and Loan Resources

Small Business Administration Guidance and Loan Resources the [SBA's website](#). Businesses can view [loan debt relief](#) options and obtain more information on [capital access resources](#):

Of particular note are the following:

- [Economic Injury Disaster Relief](#) of up to \$10k of economic relief for temporary difficulties
- [SBA Express Bridge Loans](#) for immediate access to \$25k for those with an existing relationship with an SBA Express Lender
- [SBA Debt Relief](#) during the pandemic

State and Local Policy Dashboard

COVID-19

COVID-19: State Business Resources

COVID-19: State Civil Liability Protections and Workers' Compensation [M](#)

States have begun enacting protections against civil liability for businesses operating during the COVID-19 pandemic, but are also acting to make COVID-19 an occupational disease covered by workers' compensation. This document provides an overview of new state laws and executive orders as well as a comparison of the various state provisions.

COVID-19: State Resources [M](#)

This document compiles links for each state to COVID-19 information hubs, news and orders, business restrictions and guidance, and resources from state economic, environmental, labor, tax, and health agencies. As situations change quickly across the state, these sites provide the best sources of up-to-date information on the requirements and resources for your operations and employees.

COVID-19: State and Local Policy Resources

COVID-19 State and Local Policy Dashboard

This dashboard brings together, in one place, state and local government action on COVID-19 response. The resource includes emergency declarations, executive orders, and other sources of official information in all 50 states, as well as many local jurisdictions by population.

Statewide Vaccination Plans

Vaccine approval and administration are the next steps in the fight against COVID-19. As with nearly everything about this pandemic, guidance and action plans vary by jurisdiction, and are constantly evolving. To that end, this chart provides links to state agency websites, vaccine allocation plans, and other guidance related to the rollout of

Virtual vs. In-Person State Legislative Sessions

As a result of COVID-19, some 2021 state legislative sessions will be held virtually instead of in-person. Multi-State has created this spreadsheet which indicates the manner in which state legislatures will be meeting for the 2021 sessions — in-person, virtually, or a hybrid model. Many states have not yet made a determination. ISRI is monitoring official actions and press coverage and will update this resource as new information becomes available.

<https://www.ISRI.org/covid-19/covid-19-economic-resources/>

State COVID-19 Resources

- Covers 50 States + District of Columbia
 - Direct links to State COVID Hubs
 - Governors Executive Orders
 - Enacted Business Liability Limitations & Workers Compensation Laws
 - State Business Assistance Resources
- COVID-19 Policy Dashboard
 - Daily-updated 50 State Spreadsheet
 - Largest / targeted local municipality data
 - Links provided to state/local websites
- State Vaccination Plans
 - State by State Vaccine category descriptions and roll-out plans
 - Links to updated state allocation plans
 - Federal Phase descriptions & links also included
- State 2021 Legislative Session Plans
 - Outlines for virtual & in-person rules set up by states for meeting with legislators



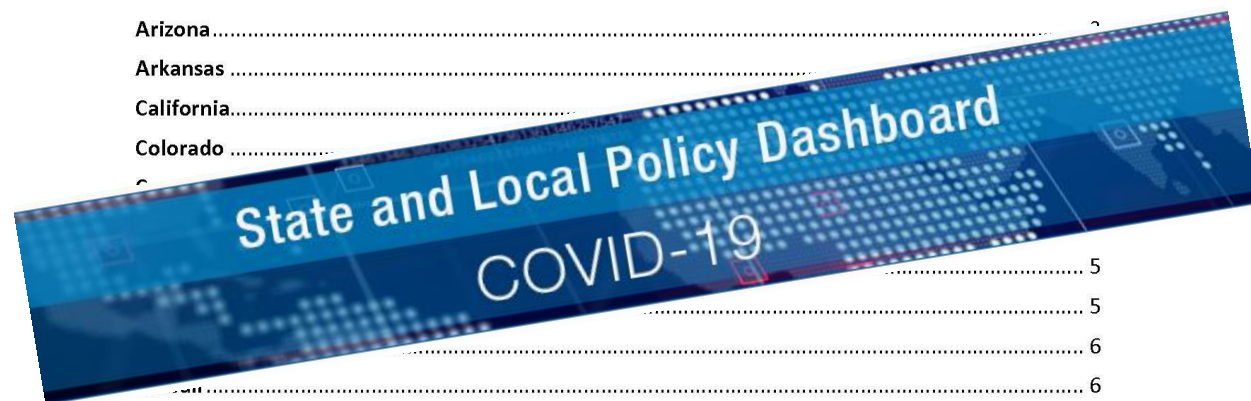
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