

# Arlington/COVID-19

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Where we are – current picture

# COVID-19 basics

- Respiratory risk > physical contact risk
- Exposure → Outcome
  - **Without exposure, you cannot get COVID-19 – this is why staying at home = greatest social or physical distancing!**
  - Outcomes include
    - No infection – dose vs. threshold effect/response
    - Asymptomatic infection
    - Symptomatic infection with recovery +/- short, medium term, long term complications
    - Symptomatic infection without recovery
- Incubation period: 2 – 14 days after exposure
- Asymptomatic spread – 2 days before symptoms arise
- Close contact = < 6 foot for 15 minutes or more (with or without face covering)

# Exposure Risk vs Complication Risk – they are different

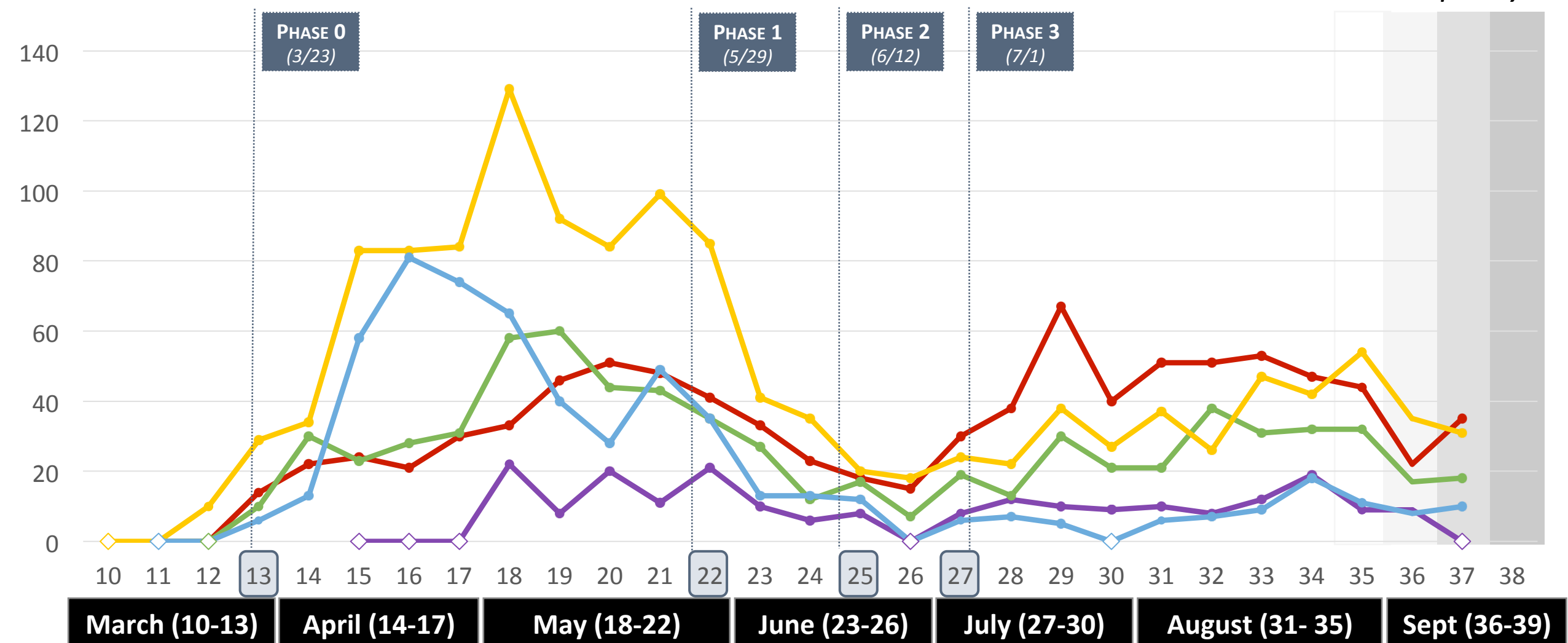
- Who is at greater exposure risk from COVID?
  - Congregate settings – those unable to manage their own activities of daily living – dependent on others for services (i.e., unable to maintain 6 foot distances for their own care)
  - Essential workers – those who cannot stay at home and must be customer facing in their duties the majority of their work day
- Who is at greater risk from complications after covid exposure?
  - Those 65 and older
  - Chronic medical conditions: Lung disease, asthma, heart disease, weakened immune system, diabetes, kidney disease, liver disease, cancer
- When you have both greater exposure risk and greater complication risk – these are at the greatest risk for COVID infection and its complications.



Legend for Age Groups:

- Less than 18 Yrs (Purple)
- 18-29 Yrs (Red)
- 30-39 Yrs (Green)
- 40-64 Yrs (Yellow)
- 65+ Yrs (Blue)

*Illness may not have been reported yet.*

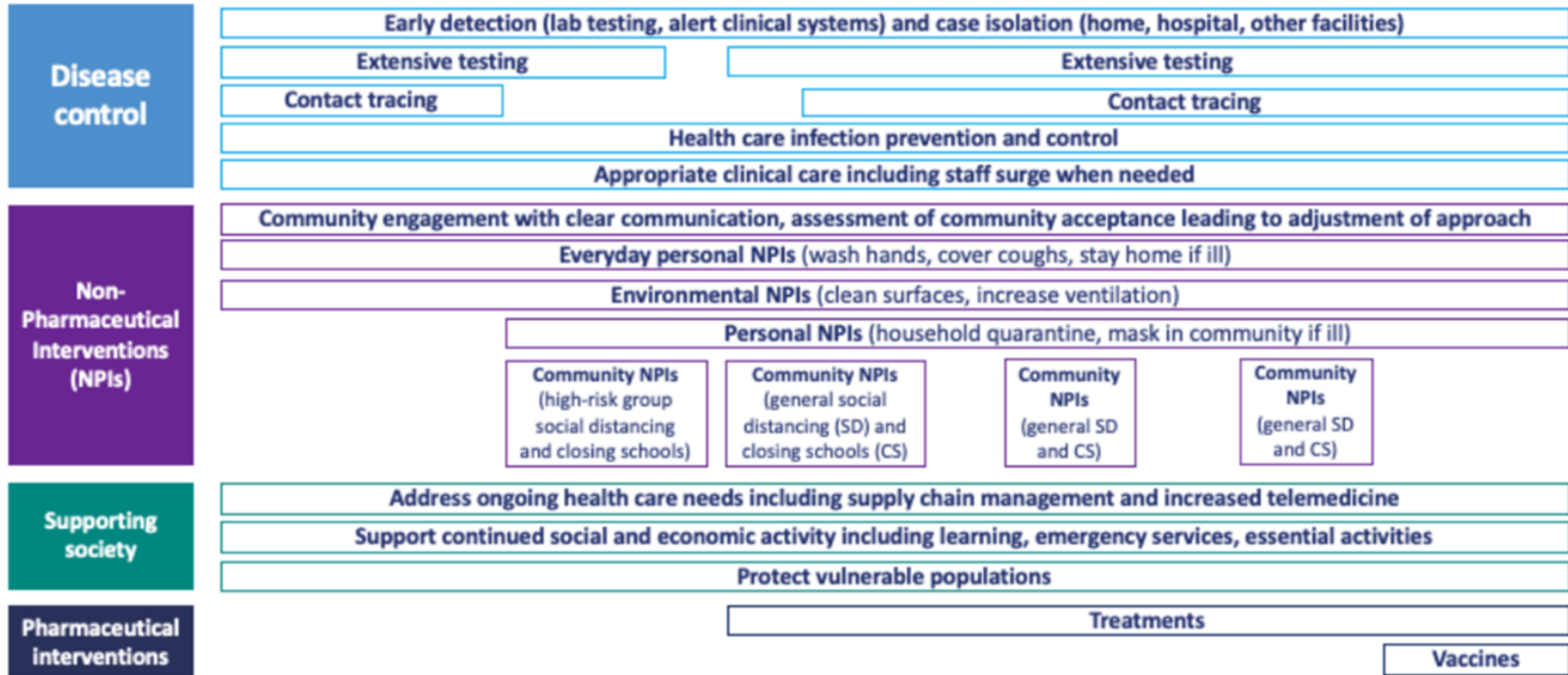


◇ Per VDH confidentiality policy, counts of 1-4 cases are suppressed and noted with the diamond symbol on the chart.

**<https://data-dashboard.arlingtonva.us/covid#home>**

# What we can do: Adaptive Response Framework

# Adaptive Response



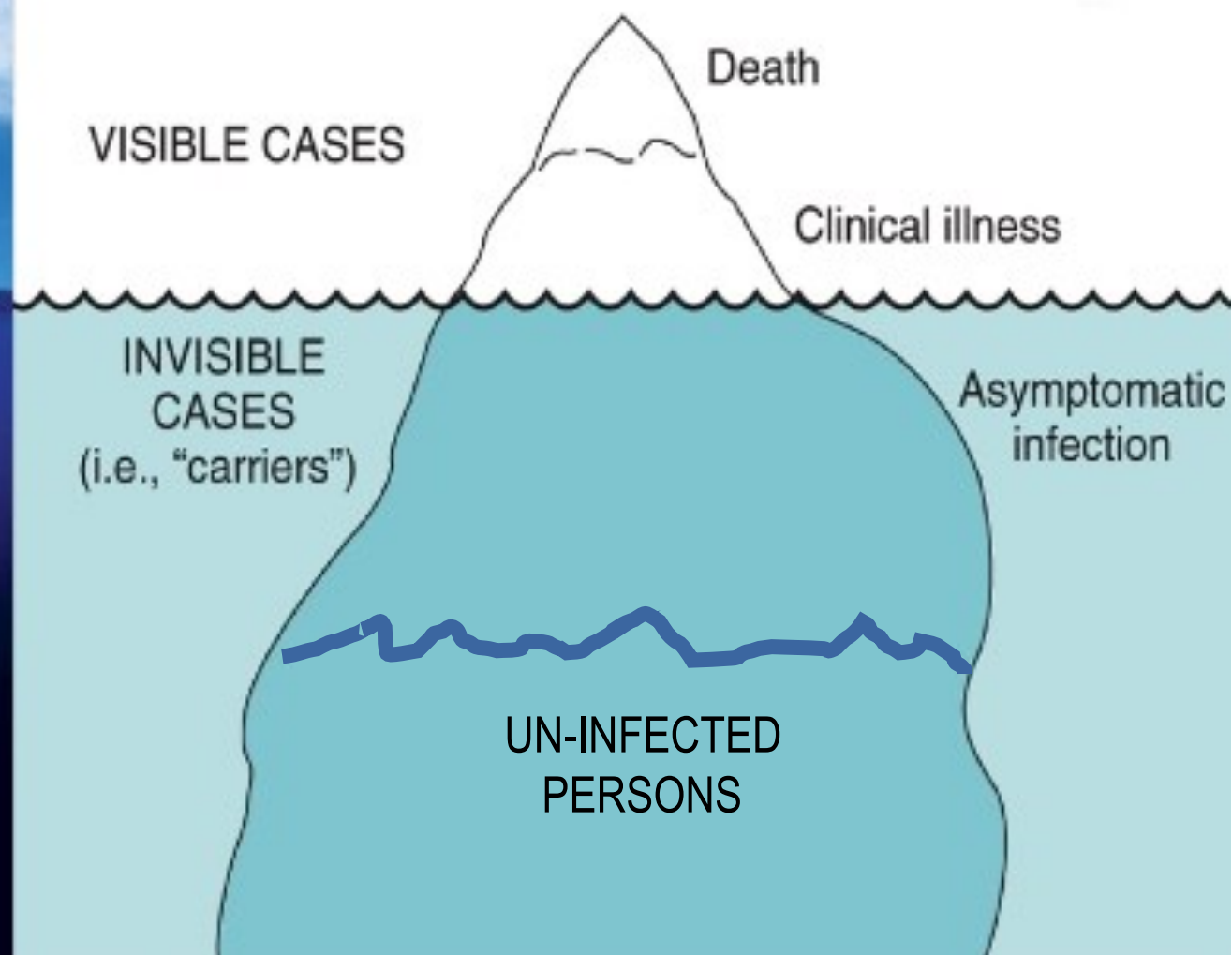


# Disease Control

- Case investigation and contact tracing → transition to county taking over with PH oversight of data quality (ACCST)
- Extensive testing (all under EUA0)
  - Quincy Street (Quest), Arlington Mill (AFC/ACPHD)
  - Private sector
  - Health Equity project – saliva based PCR test
- Infection control and prevention
  - Transition to more permanent staffing for LTCF observation units – potential collaboration with ACFD; possible shift to county?
  - Ongoing guidance for work and congregate living settings re: COVID related germ spread prevention and control
- Appropriate clinical care including staff surge when needed
  - Medical Reserve Corps (MRC)

# Testing in Arlington

Week Starting Date	Positive PCR Tests	Negative/Inconclusive Tests	% Positive PCR Tests
May 25	297	2815	10.25%
June 1	197	2262	8.20%
June 8	143	2387	5.84%
June 15	79	3141	2.60%
June 22	73	2579	2.87%
June 29	126	2495	5.10%
July 6	147	3005	4.69%
July 13	148	3502	4.11%
July 20	140	3908	3.44%
July 27	144	3807	3.67%
August 3	136	3479	3.70%
August 10	183	3487	5.03%
August 17	143	3403	4.11%
August 24	155	3093	4.64%
August 31	107	3178	3.28%
September 7	93	2734	3.84%
September 14	14	257	5.17%



# Non-Pharmaceutical Interventions (NPIs)

- Continue with everyday personal NPIs (standard)
  - wash hands
  - cover coughs
  - stay home if ill
  - stay home when well
- Continue with Environmental NPIs
  - clean and disinfect surfaces
  - maintain ventilation systems properly
  - increase air exchanges
- Personal NPIs (new)
  - Household quarantine
  - Masking when outside, masking inside as needed
- Community NPIs
  - Physical distancing -  $\geq 6$  feet or  $\geq 10$  feet (when exercising)
  - Opening/Closing criteria – Phase 0  $\rightarrow$  Phase 1  $\rightarrow$  Phase 2  $\rightarrow$  Phase 3  $\rightarrow$  Phase 4  $\rightarrow$  ?/reversing (up to the Governor)
    - Enforcement Governor's executive orders – primarily focused on distancing and masking in certain settings
- Community engagement/communication: Risk = Hazard + Outcome

# Supporting Society

- Supply chain management and increased telemedicine
  - Internet access for APS families
  - Testing supplies
  - PPE
- Support continued social and economic activity including learning, emergency services, essential activities – examples include
  - School Health Bureau working with APS on safe return, following public health principles
  - Essential services – like DES, Police, Fire, Public Health, CPS, APS, BHD, EID services
  - Protect vulnerable populations - examples
    - Food programs, gift cards; food coordinator position recently authorized
    - Health equity project – early efforts at Arlington Mill; now more mobile services using a saliva based project
- Protect vulnerable populations – exposure/complications
  - Health equity/VDEM-AC, LTCF
  - See next slide

# Pharmaceutical Interventions

- Treatments
  - No outpatient treatments – supportive care
  - Better inpatient treatments to deal with complications of COVID (see next slide)
- Vaccines In development –
  - TBD, earliest for the US based on the region 3 HHS meeting that COG told us about, between January and April 2021.
  - 2 doses most likely – cannot mix and match different vaccines
  - Initial supplies will not be sufficient – will need to prioritize
    - Health care system & other critical infrastructure (e.g., hospital and EMS)
    - Those most at risk for complications and exposure (e.g., residents of skilled nursing facilities)
  - See vaccine development slides

# IDSA Treatment Rec. updated 9/4 – Hospital patients

- No hydroxychloroquine or chloroquine. (Strong recommendation, Moderate certainty of evidence)
- **No** hydroxychloroquine or chloroquine plus azithromycin. (Strong recommendation, Low certainty of evidence)
- Combination of lopinavir/ritonavir **only** in the context of a clinical trial. (Knowledge gap)
- For severe\* COVID-19, **suggests** glucocorticoids rather than no glucocorticoids. (Conditional recommendation, moderate certainty of evidence)
  - \*Severe illness is defined as patients with  $\text{SpO}_2 \leq 94\%$  on room air, and those who require supplemental oxygen, mechanical ventilation (MV), or extracorporeal mechanical oxygenation (ECMO).
- For those without hypoxemia requiring oxygen, **suggests** against the use of glucocorticoids. (Conditional recommendation, low certainty of evidence)
- Recommends tocilizumab **only** in the context of a clinical trial. (Knowledge gap)
- Recommends COVID-19 convalescent plasma **only** in the context of a clinical trial. (Knowledge gap)
- For severe\* COVID-19, **suggests** remdesivir over no antiviral treatment. (Conditional recommendation, moderate certainty of evidence)
  - **Remark:** For consideration in contingency or crisis capacity settings (i.e. limited remdesivir supply): Demonstrate the most benefit in those with severe COVID-19 on supplemental oxygen only vs. MV or ECMO.
- For severe COVID-19 on oxygen but not on mechanical ventilation or ECMO, **suggests** treatment with five days of remdesivir rather than 10 days of remdesivir. (Conditional recommendation, low certainty of evidence). In patients on mechanical ventilation or ECMO, the duration of treatment is 10 days.
- For severe COVID-19, **suggests** against famotidine use for the sole purpose of treating COVID-19 outside of the context of a clinical trial. (Conditional recommendation, very low certainty of evidence)

# Vaccine Development – usual processes



# The Journey of Your Child's Vaccine

Before a new vaccine is ever given to people, extensive lab testing is done that can take several years. Once testing in people begins, it can take several more years before clinical studies are complete and the vaccine is licensed.

## How a new vaccine is developed, approved and manufactured

The Food and Drug Administration (FDA) sets rules for the three phases of clinical trials to ensure the safety of the volunteers. Researchers test vaccines with adults first.

### PHASE 1

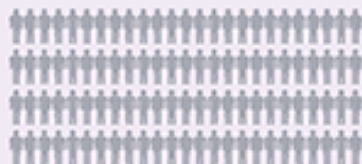


**20-100  
healthy volunteers**



- Is this vaccine safe?
- Does this vaccine seem to work?
- Are there any serious side effects?
- How is the size of the dose related to side effects?

### PHASE 2



**several hundred  
volunteers**

- What are the most common short-term side effects?
- How are the volunteers' immune systems responding to the vaccine?

### PHASE 3



**hundreds or thousands  
of volunteers**

- How do people who get the vaccine and people who do not get the vaccine compare?
- Is the vaccine safe?
- Is the vaccine effective?
- What are the most common side effects?

**FDA licenses the vaccine only if:**

- It's safe and effective
- Benefits outweigh risks

Vaccines are made in batches called lots.



Manufacturers must test all lots to make sure they are safe, pure and potent. The lots can only be released once FDA reviews their safety and quality.

The FDA inspects manufacturing facilities regularly to ensure quality and safety.



FOR MORE INFORMATION, VISIT [HTTPS://WWW.FDA.GOV/CBER](https://www.fda.gov/cber)

If the FDA licenses a vaccine, experts may consider adding it to the recommended immunization schedule.

## How a vaccine is added to the U.S. Recommended Immunization Schedule



The Advisory Committee on Immunization Practices (ACIP) is a group of medical and public health experts. Members of the American Academy of Pediatrics (AAP) and American Academy of Family Physicians (AAFP) are among some of the groups that also bring related immunization expertise to the committee. This group carefully reviews all available data about the vaccine from clinical trials and other studies to develop recommendations for vaccine use. The ACIP continues to monitor vaccine safety and effectiveness data even after the vaccine's routine use and may change or update recommendations based on that data.

### When making recommendations, ACIP considers:



- How safe is the vaccine when given at specific ages?
- How well does the vaccine work at specific ages?
- How serious is the disease this vaccine prevents?
- How many children would get the disease the vaccine prevents if we didn't have the vaccine?

ACIP recommendations are not official until the CDC Director reviews and approves them and they are published. These recommendations then become part of the United States official childhood immunization schedule.

**New vaccine to protect your child against a disease is added to the schedule.**



**FOR MORE INFORMATION, VISIT [HTTPS://WWW.CDC.GOV/VACCINES](https://www.cdc.gov/vaccines)**

# How a vaccine's safety continues to be monitored



## FDA and CDC closely monitor vaccine safety after the public begins using the vaccine.

The purpose of monitoring is to watch for adverse events (possible side effects). Monitoring a vaccine after it is licensed helps ensure that possible risks associated with the vaccine are identified.

### Vaccine Adverse Event Reporting System (VAERS)

VAERS collects and analyzes reports of adverse events that happen after vaccination. Anyone can submit a report, including parents, patients and healthcare professionals.

### Vaccine Safety Datalink (VSD) and Post-Licensure Rapid Immunization Safety Monitoring (PRISM)

Two networks of healthcare organizations across the U.S.



- VSD can analyze healthcare information from over 24 million people.

- PRISM can analyze healthcare information from over 190 million people.



Scientists use these systems to actively monitor vaccine safety.

### Clinical Immunization Safety Assessment Project (CISA)

CISA is a collaboration between CDC and 7 medical research centers.

- Vaccine safety experts assist U.S. healthcare providers with complex vaccine safety questions about their patients.

- CISA conducts clinical research studies to better understand vaccine safety and identify prevention strategies for adverse events following immunization.

Vaccine recommendations may change if safety monitoring reveals new information on vaccine risks (like if scientists detect a new serious side effect).

FOR MORE INFORMATION, VISIT [HTTPS://WWW.CDC.GOV/VACCINESAFETY](https://www.cdc.gov/vaccinesafety)

The United States currently has the safest vaccine supply in its history. These vaccines keep children, families and communities protected from serious diseases.



U.S. Department of  
Health and Human Services  
Center for Disease  
Control and Prevention

What Arlington Public Schools is doing ...



# Arlington Public Schools – VDH Metrics (source APS)

- Case incidence rate (cases/100k)
- PCR test % positivity (%)
- % COVID cases among Healthcare workers (%)
- Rate of ED visits for COVID-like illness (cases/100k)
- Rate of ICU hospitalization (Cases/100k)
- % Hospital beds occupied (all reasons) (%)
- Surge Capacity of Hospital (% of total)
- Access to sufficient PPE for hospitals

# APS –Operational Capacity & Preference (source APS)

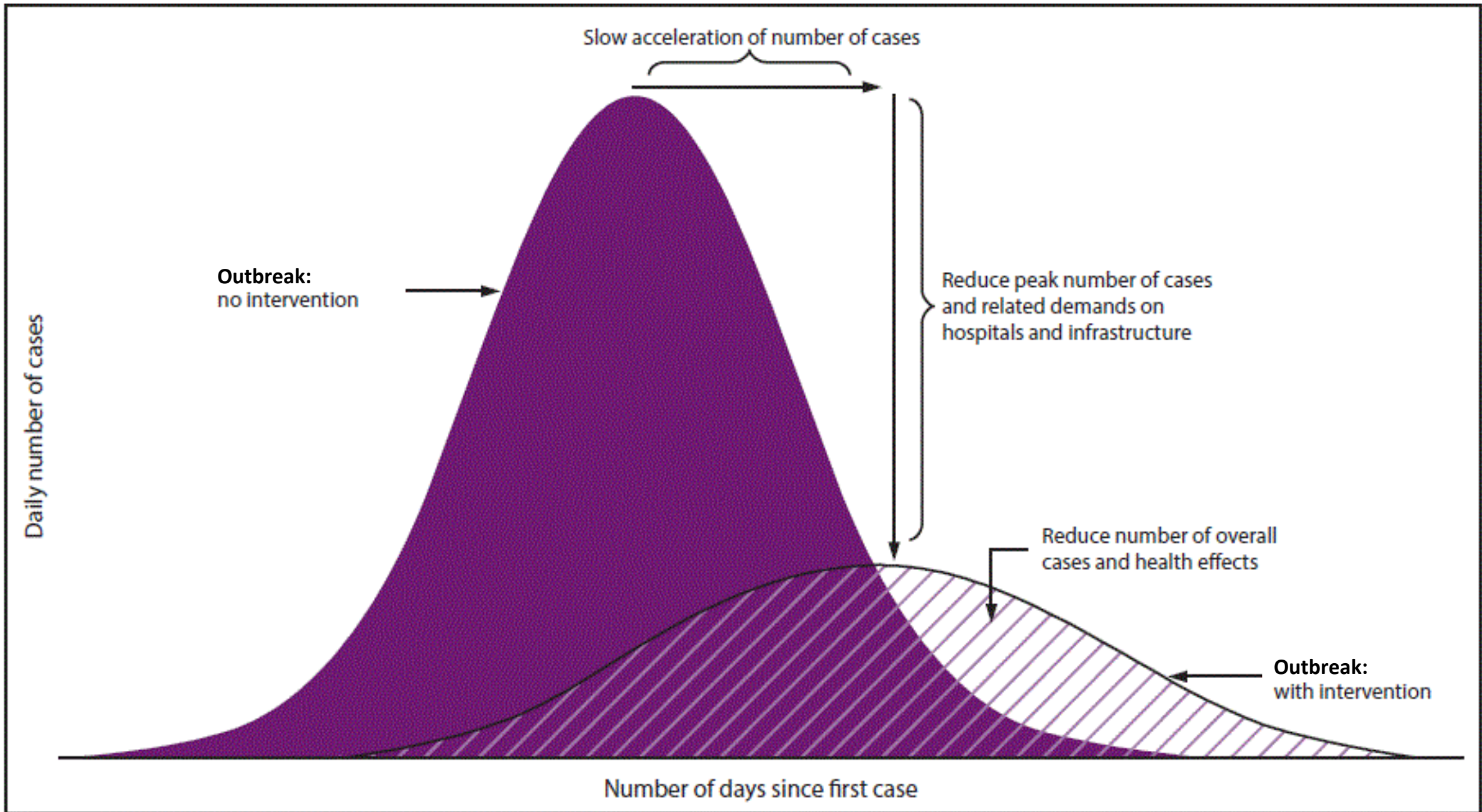
- Sufficient staffing levels to
  - Provide instruction in person
  - Clean and disinfect facilities
  - Provide transportation for students
  - Provide food services to students
  - 10-week supply of cleaning and disinfecting supplies on hand
- Personal Protective Equipment
  - 90-day supply of equipment and PPE for faculty, staff, and students
  - 90-day supply of equipment and PPE for isolation and quarantine rooms
- Health Measures
  - Ability to implement temperature screening, face covering mandates, cleaning and disinfecting routine
  - Ability to ensure appropriate social distancing in all instructional spaces, hallways, conference rooms, etc.
  - Ability to implement response protocols and contact tracing for students and employees
  - Increased access for students to COVID testing

# ACPHD Continuity of Operations (COOP)

- COVID-19 is the top priority
- PH: Onsite/in person services
  - Maternity Clinics – M/T 20 clients/day
  - STI services – symptomatic patients only, 1 – 3 per week
  - TB clinic: active disease only, no new latent TB patients
  - Vaccinations – school entry vaccinations
  - Health Appraisal Clinic – school entry physicals for children without primary care access
  - Environmental Health – restaurant inspections – complaint based at present; pre-opening inspections
- PH: telework services continue
- PH: COVID related – shifting certain activities to the county so we can focus staff actions on the control and prevention activities we are typically required to do (e.g., ACST, community testing, ? LTCF observations – shift to county with PH input)
- DHS looking at identifying services which may need to be resumed that have come to attention since services mostly went remote/telework, based on the equity lens – see next.
- Equity lens: who benefit?, who is burdened?, who is missing? how do we know? (D2027 questions)
- Intangibles
  - Communicable diseases, Vaccine preventable diseases (e.g., measles)? Norovirus, flu seasons? Other?
  - School Reopening

Questions?





# Exposure vs. Complications - Redux

- Less risk of exposure
  - Those who stay at home exclusively
  - Vaccinated (TBD)
- Average risk of exposure
  - Do not live in congregate care settings
  - Are not considered essential workers
  - Able to maintain 6 foot distances to perform ADLs
- Increased risk of exposure
  - Congregate care settings
  - Essential workers
  - Those who cannot maintain 6 foot distances to perform ADLs

- Less risk of complications
  - Healthy immune systems – theoretical
  - Vaccinated (TBD)
- Average risk of complications
  - Those without chronic medical conditions
  - Those in lower age groups – dose vs. threshold
- Increased risk of complications
  - Those with chronic medical conditions
  - Increasing age – dose vs. threshold
  - Those with chronic medical conditions and increasing age