Tri-demic Lessons and Targeted Testing: Efficient Use of Rapid Testing for Expedited Patient Care

Tuesday, April 4, 2023
1:00 PM – 2:00 PM ET

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The speakers are presenting on behalf of Abbott.
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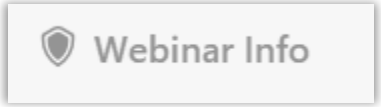

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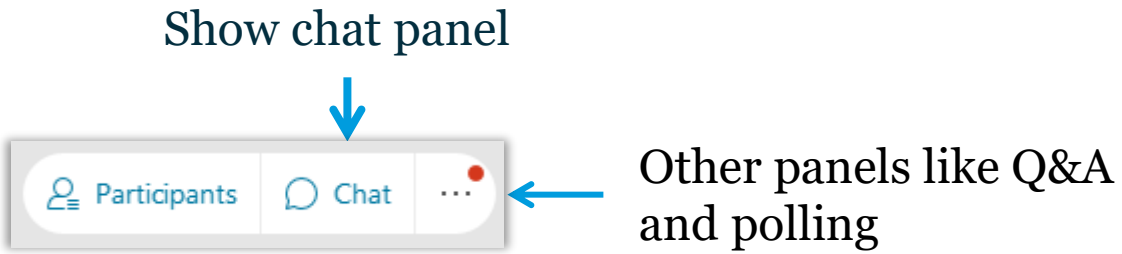
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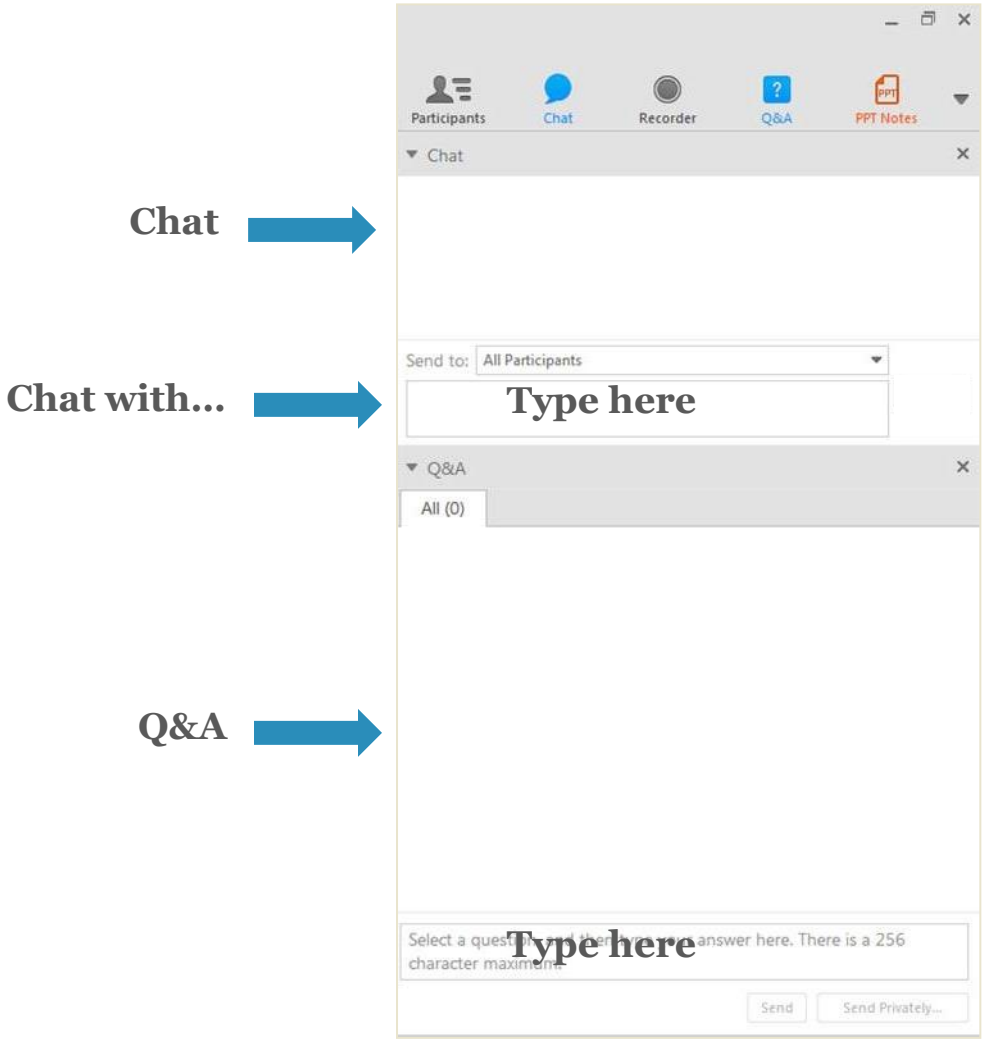
Chat and Q&A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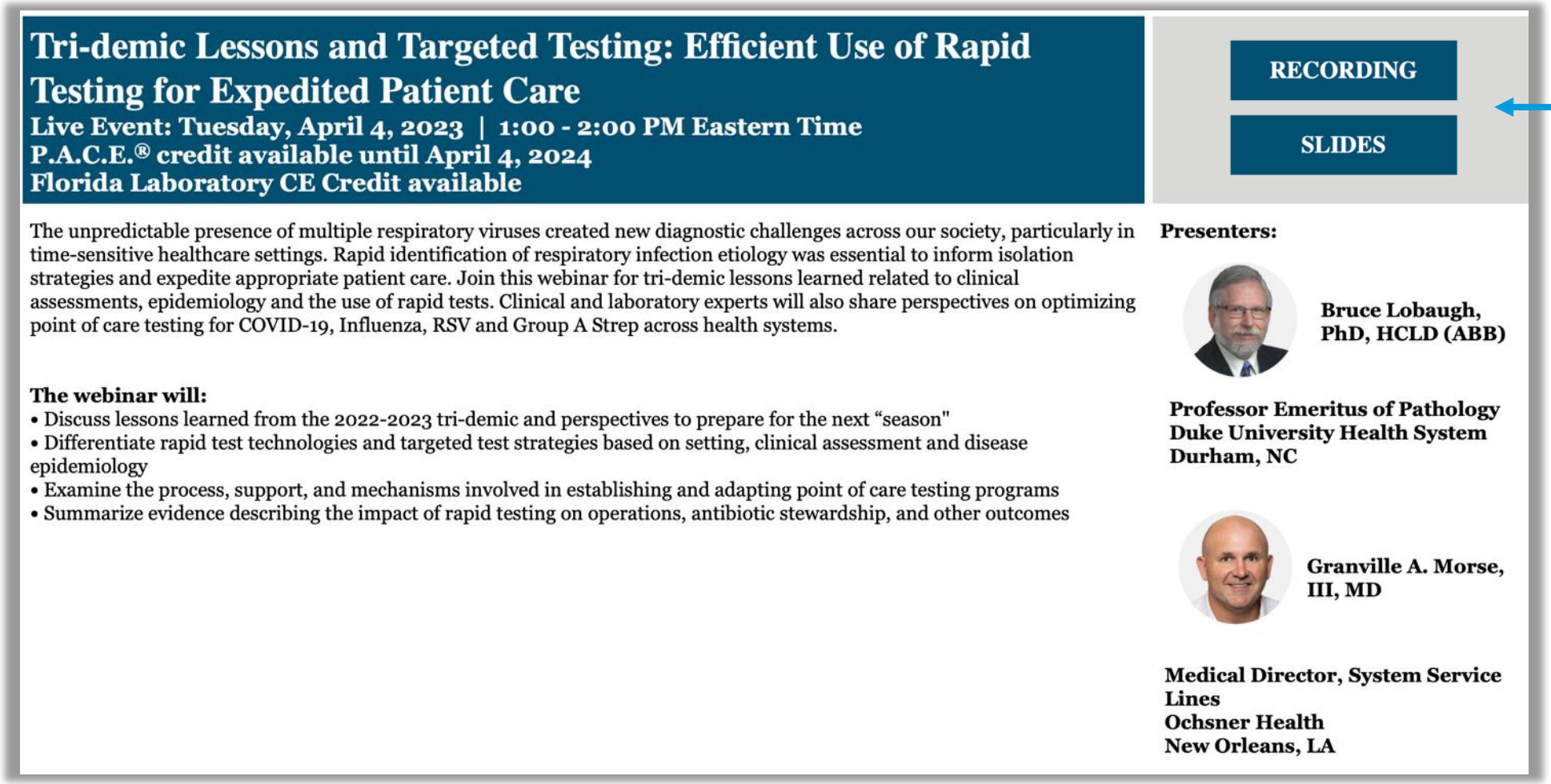

Tri-demic Lessons and Targeted Testing: Efficient Use of Rapid Testing for Expedited Patient Care

Live Event: Tuesday, April 4, 2023 | 1:00 - 2:00 PM Eastern Time
P.A.C.E.® credit available until April 4, 2024
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RECORDING

SLIDES

The unpredictable presence of multiple respiratory viruses created new diagnostic challenges across our society, particularly in time-sensitive healthcare settings. Rapid identification of respiratory infection etiology was essential to inform isolation strategies and expedite appropriate patient care. Join this webinar for tri-demic lessons learned related to clinical assessments, epidemiology and the use of rapid tests. Clinical and laboratory experts will also share perspectives on optimizing point of care testing for COVID-19, Influenza, RSV and Group A Strep across health systems.

The webinar will:

- Discuss lessons learned from the 2022-2023 tri-demic and perspectives to prepare for the next "season"
- Differentiate rapid test technologies and targeted test strategies based on setting, clinical assessment and disease epidemiology
- Examine the process, support, and mechanisms involved in establishing and adapting point of care testing programs
- Summarize evidence describing the impact of rapid testing on operations, antibiotic stewardship, and other outcomes

Presenters:

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Objectives

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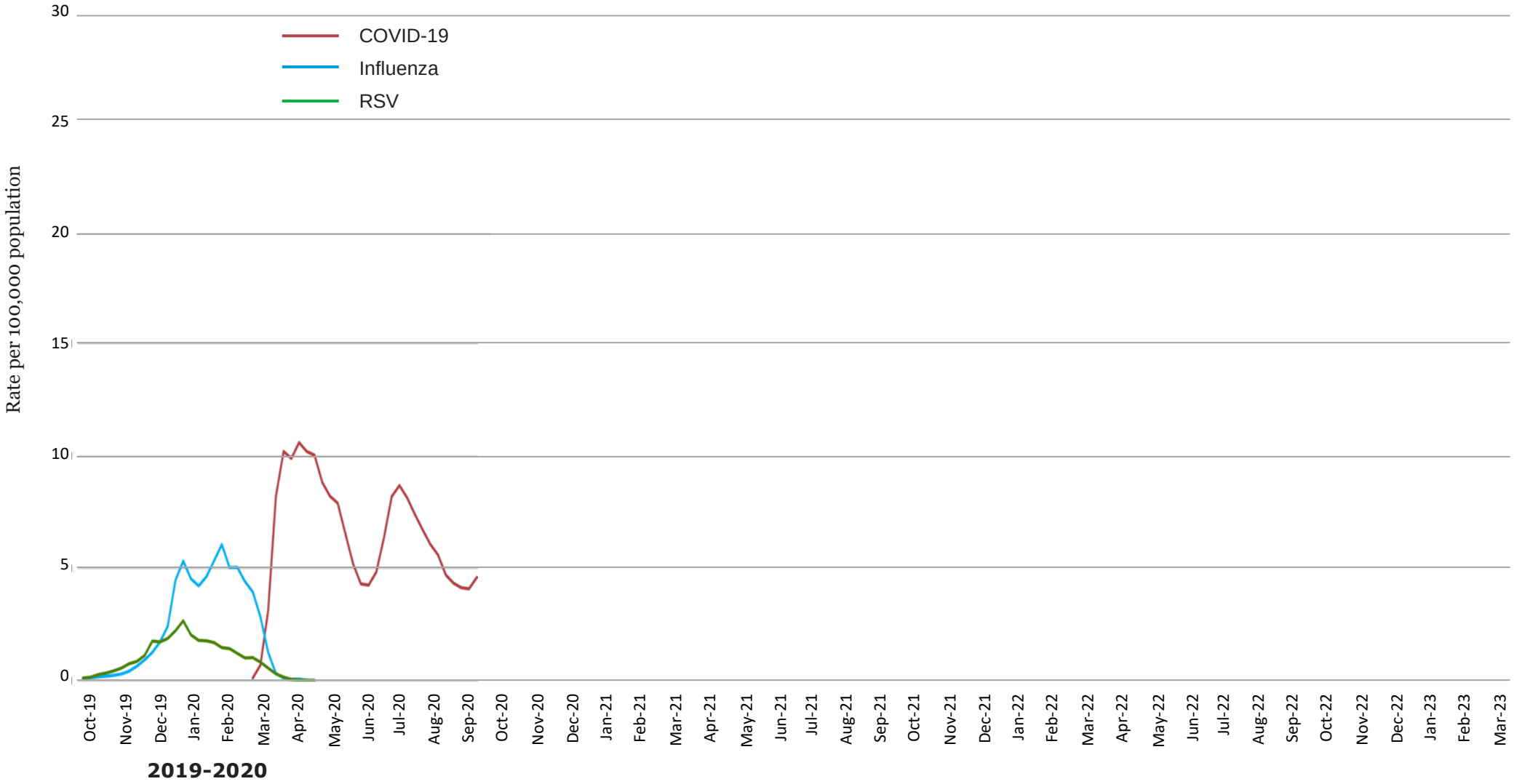
Speaker Disclosures

Honorarium from Abbott

The opinions expressed in this session are those of the speaker and not of Ochsner Health.

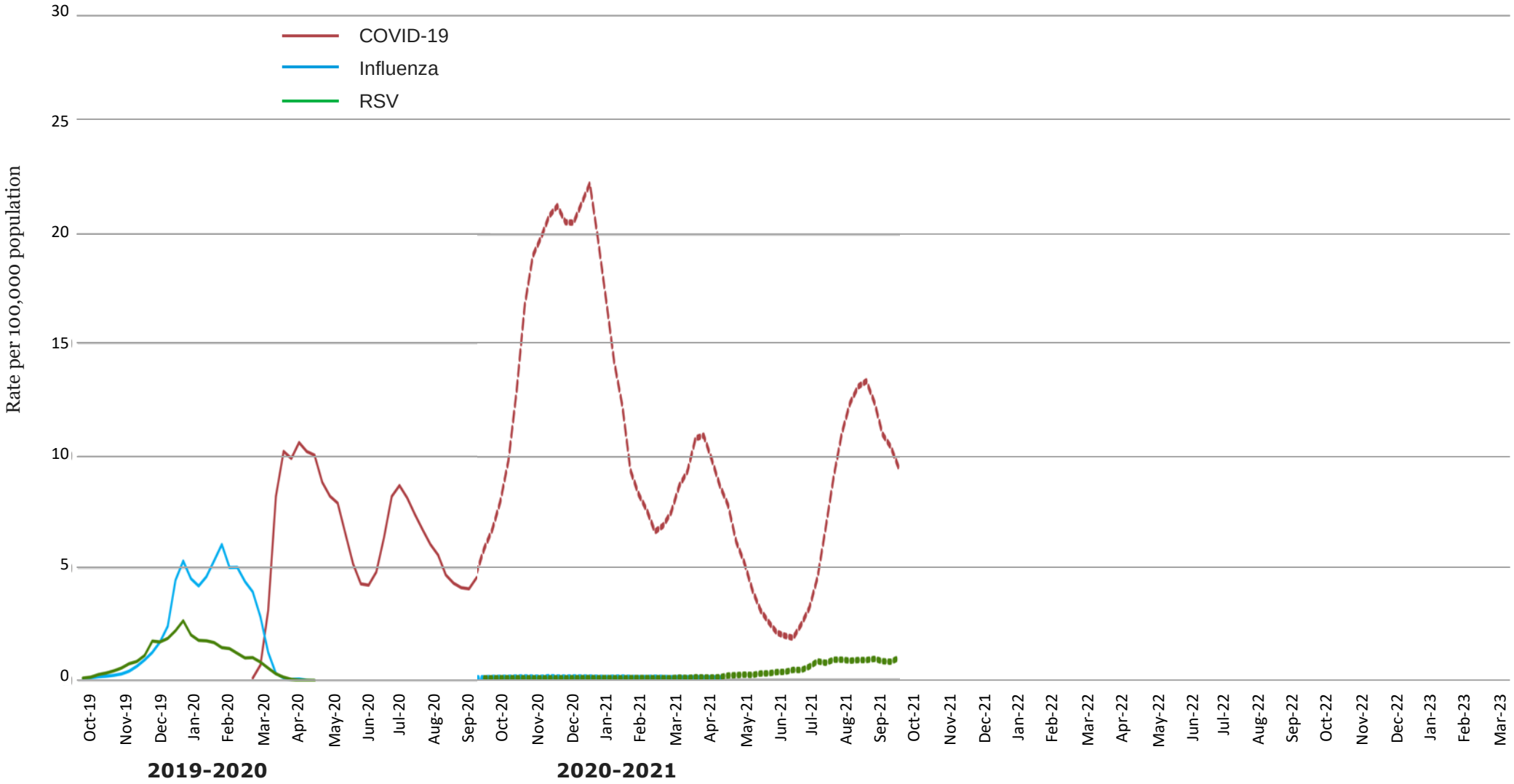
The Build-Up to the Tri-Demic

Recent Trends in Respiratory Virus Activity



CDC. Public Health Surveillance and Data. RESP NET. https://www.cdc.gov/surveillance/resp-net/dashboard.html, updated March 1, 2023.

Recent Trends in Respiratory Virus Activity



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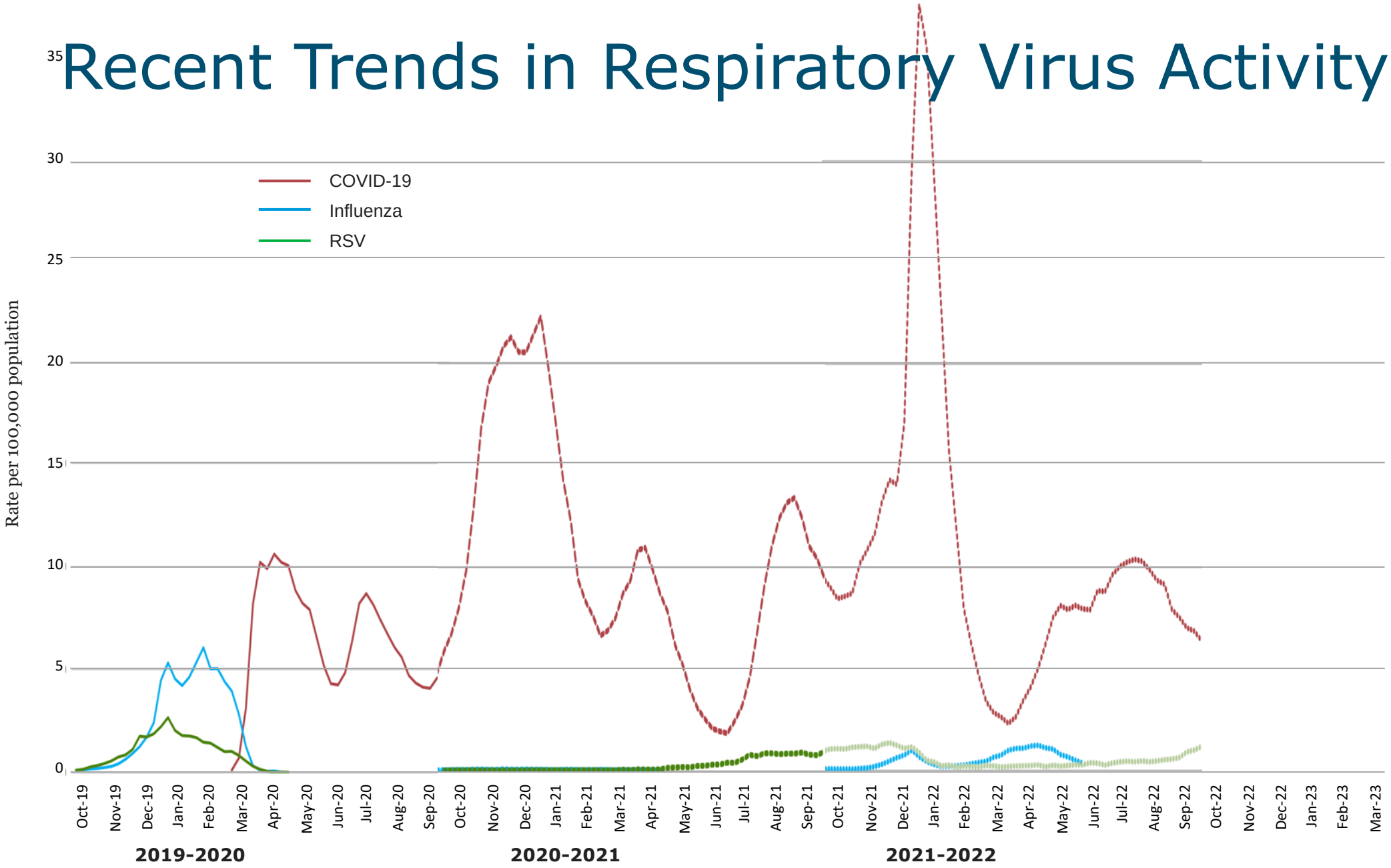

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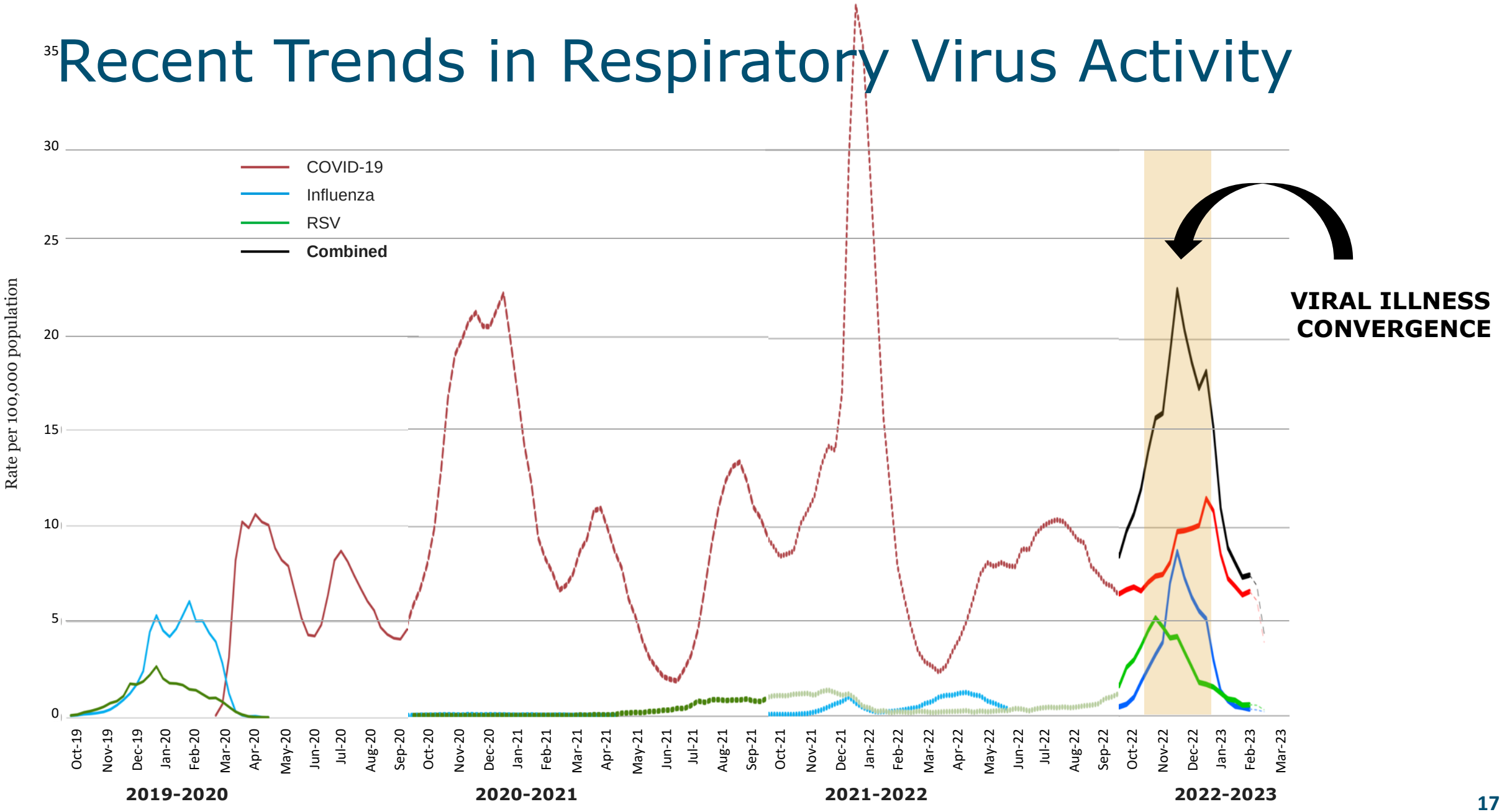


CDC. Public Health Surveillance and Data. RESP NET. https://www.cdc.gov/surveillance/resp-net/dashboard.html, updated March 1, 2023.

Clinical Take-aways on Respiratory Virus Activity 2022-2023

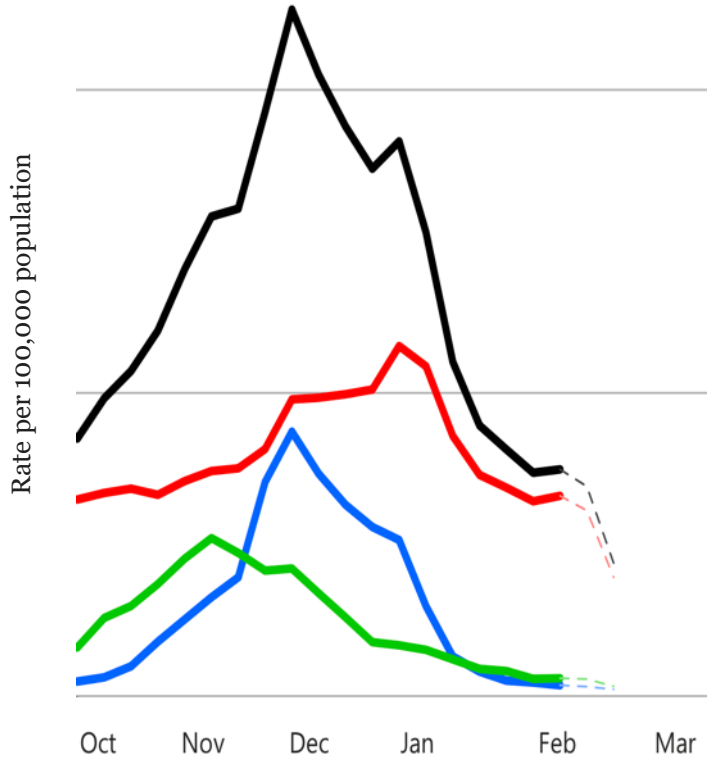
- **COVID-19 -** Morbidity/mortality decreased
- **Flu** - resurgence (early rise/peak, but morbidity/mortality as expected)
- RSV - more pathological in elderly

Usually there is dominant pathogen, this was unusual

Multiple pathogens, peaks fortunately did not overlap

May not repeat, uncertain – ***we'll know when we know***

Overlapping viruses increased diagnostic complexity and added strain on healthcare systems… perhaps not as crazy in wake of COVID chaos



CDC. Public Health Surveillance and Data. RESP NET. https://www.cdc.gov/surveillance/resp-net/dashboard.html, updated March 1, 2023.

(If applicable to your institution)

POLL QUESTION #1

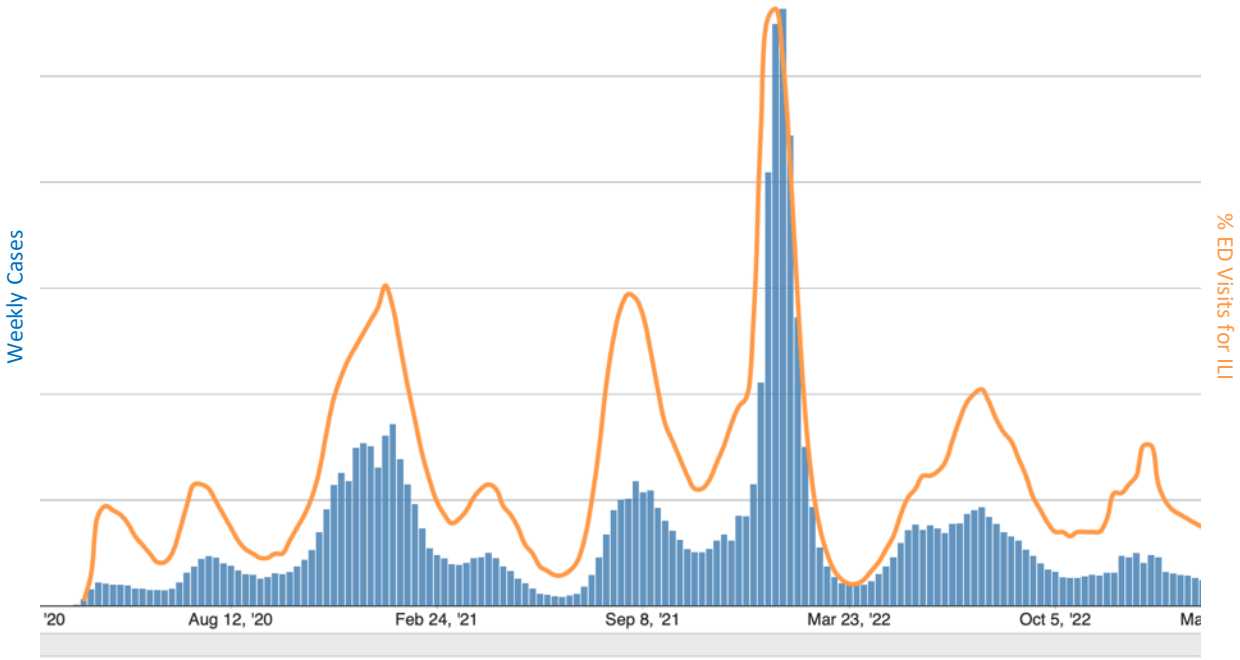
The most used strategy for respiratory infection testing in our institution is:

a) Clinician determined: Tests ordered based on clinical assessment/suspicion, community epidemiology
b) Standing orders: Tests ordered based on defined presentations
c) Single respiratory test panel for all patients presenting with a suspected respiratory infection
d) Don't know

Clinical Perspectives:
Tri-demic Impact and Lessons Learned

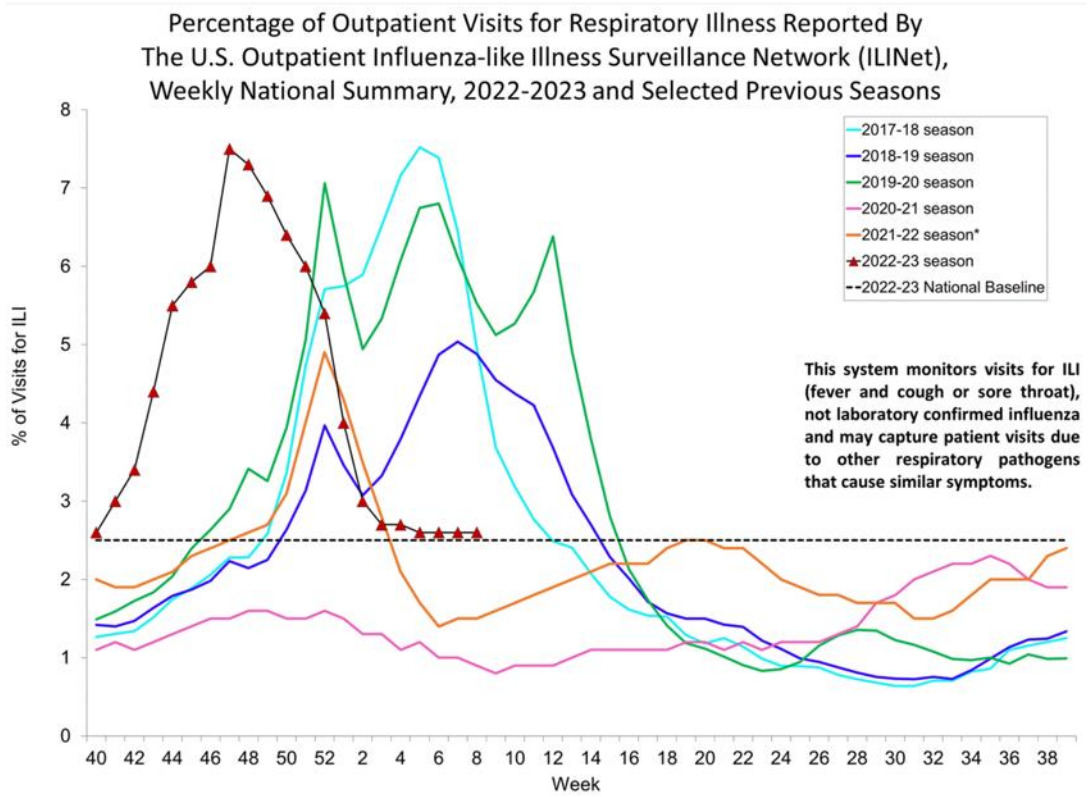
Respiratory Illness Significantly Impacted Healthcare System

COVID-19 Weekly Trends
Cases and % ED Visits Diagnosed with COVID-19
(Reported to the CDC)



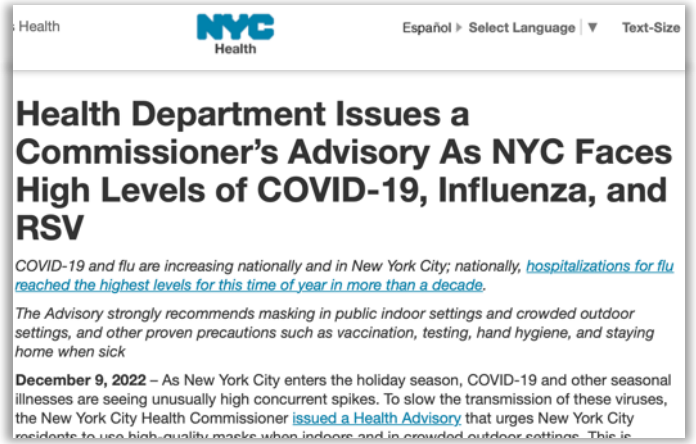
CDC. Trends in Number of COVID-19 Cases and % ED Visit in the US Reported to CDC, by State/Territory. https://covid.cdc.gov/covid-data-tracker/#trends_dailycases_7dayeddiagnosed_00, Data through Mar 8, 2023.

ED, Urgent Care, Primary Care

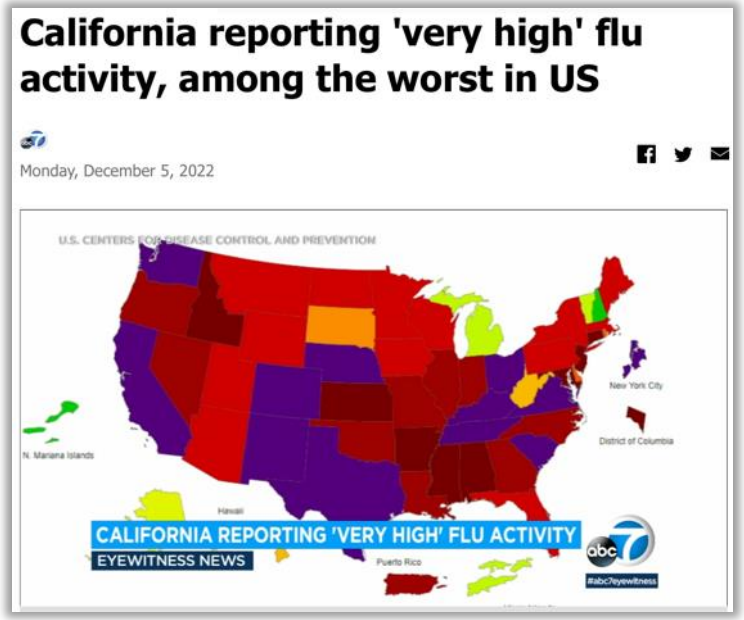


CDC FluView. Weekly U.S. Influenza Surveillance Report. https://www.cdc.gov/flu/weekly/index.htm, Mar 3, 2023.

Clinics, Urgent Care and EDs Under Strain: Extended Wait times and Care Delays



Dec 9, 2022
https://www.nyc.gov/site/doh/about/press/pr2022/health-department-issues-commissioners-advisory.page



Dec 5, 2022
https://abc7.com/flu-california-influenza-rsv/12528311/

Dec 7, 2022
https://www.wthr.com/article/news/health/indiana-urgent-care-clinics-report-long-wait-times-amid-flu-surge/531-8b03316d-0e05-4e52-90e7-641605e54ba0

Oct 31, 2022
https://www.theatlantic.com/health/archive/2022/10/rise-of-rsv-flu-covid-infections-kids/671947/

Dec 5, 2022
https://www.vcstar.com/story/news/local/2022/12/05/ventura-county-emergency-room-flu-covid-19-viruses-vaccine/69678162007/

Patients Presenting with Respiratory Symptoms

- Clinical drivers, patient needs

Suspicion	Concern	Care Pathway / Considerations	Treatment Caveats
Influenza	Respiratory distress, pneumonia	With risk factors and ≤ 48 hours, may treat with antiviral (xofluza, oseltamivir); no antibiotic; patient desire to know	Based on risk and duration
COVID-19	Respiratory distress, pneumonia	With risk factors and ≤ 48+? hours, may treat with antiviral (Paxlovid); no antibiotic; patient desire to know. Previously cohorting, now only during outbreaks.	Based on risk and duration
RSV	Respiratory distress	Mostly supportive care; avoid antibiotic; isolate/cohort; address patient desire to know	
GAS	Invasive GAS	Prescribe antibiotic	Concern for overprescribing

- Overlapping symptoms
  - Need for **rapid, accurate and cost effective/efficient** care protocols/ strategies to **expedite an accurate diagnosis!**

POLL #1 RESULTS

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Rapid Differential Diagnosis

- Multiple factors to consider in determining patient workup
  - Suspicion, what is on differential and the most likely etiology?
  - Population, who is the patient and risk of adverse consequences?
  - Risk Factors, what may contribute to the risk?
  - Prevalence of Disease, what is (co)circulating?
- Testing may be appropriate, but not always…. When to test or consider testing?

COVID-19 and/or Influenza:
If the patient is being admitted

COVID-19: ***"for infection prevention/control"***

Influenza: ***"…if results will change clinical management or for infection control decisions*** *(e.g. long-term care facility resident returning to a facility, or a person of any age returning to a congregate setting)"*

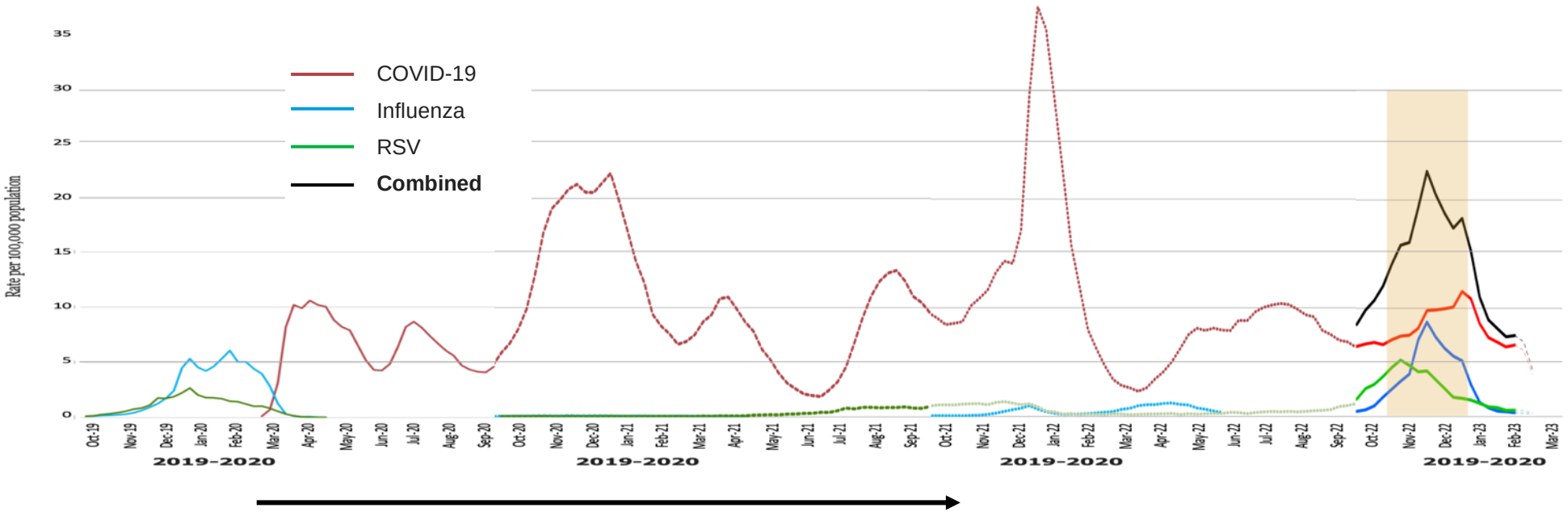
CDC. Testing Guidance for Clinicians When SARS-CoV-2 and Influenza Viruses are Co-circulating. https://www.cdc.gov/flu/professionals/diagnosis/testing-guidance-for-clinicians.htm, updated Feb 9, 2022.

Influenza: ***"… when timely results will be available to influence clinical management or infection control measures."***

AAP Committee on Infectious Diseases. Recommendations for Prevention and Control of Influenza in Children, 2016–2017. Pediatrics. 2016;138(4):e20162527

Cannot rely on clinical eval alone.
Cannot rely on prevalence alone.
Cannot rely on test alone.

Testing Strategies Needs and Methods Evolved



Pandemic

- Initial focus on COVID-19, unpredictable waves
- Occasional emergence of RSV
- **Rapid individual tests; respiratory panel less relevant**

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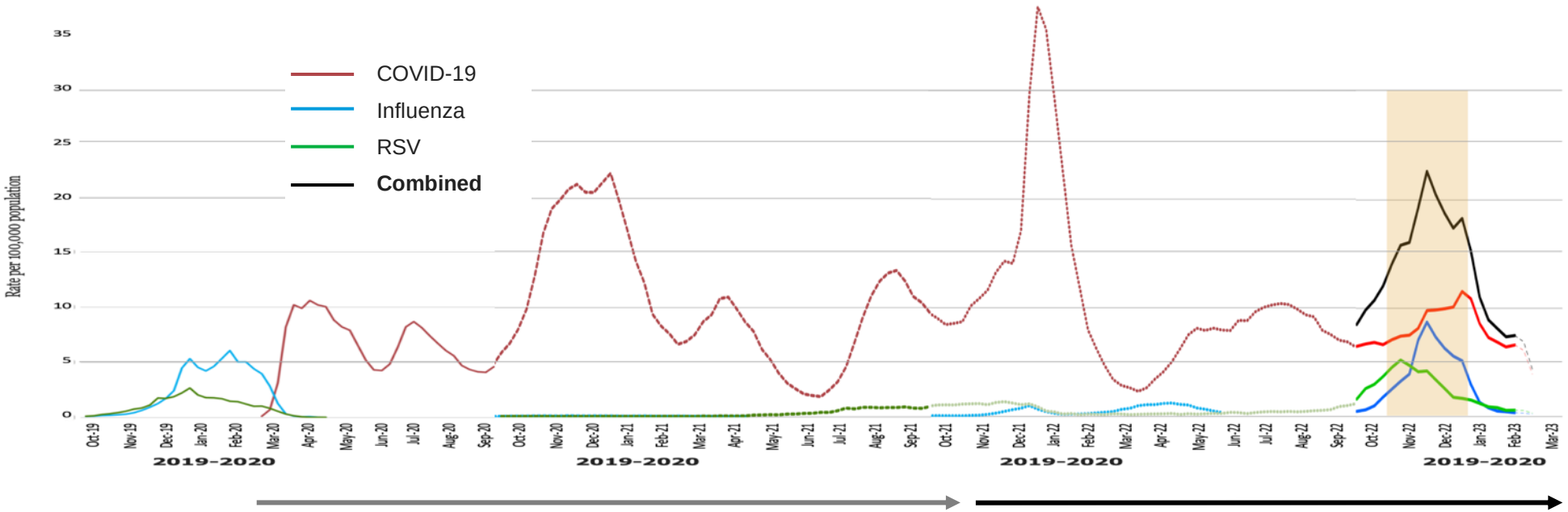

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Big rise in Influenza and RSV resurgence

- Differential diagnosis more challenging
- **Rapid combo/panel tests can run multiple pathogens together… but,**
  - **What about cost?**
  - **What about clinical utility?**
  - **Which tests will change clinical care?**

CDC. Public Health Surveillance and Data. RESP NET. https://www.cdc.gov/surveillance/resp-net/dashboard.html, updated March 1, 2023.

Practical Considerations for Testing

- Test deployment depends on the setting:
  - ER – rapid, accurate, efficient; isolation, dx/treatment, admissions
  - Office/Clinic – rapid, accurate, efficient, cost effective; isolation, dx/tx

- Prefer having rapid testing readily available, dependent upon
  - Setting
  - Surges/patient volumes
  - Staff availability

Clinical Scenarios to Consider When Testing

POPULATION	CONCERNS	TESTING	QUESTIONS
Pediatric patients	**FLU and RSV,** not so worried about COVID (lower risk for complications)	Quad Panel: **COVID/FLU A&B/RSV**	**Was COVID-19 Test Necessary?**

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Adult patients	**COVID and Flu** **(< 65 years)**	Panel: **COVID/FLU A&B** COVID-19 - **NEG** Flu A – **NEG** Flu B – **NEG** **RSV?** Reflex to respiratory panel (22 pathogens) (*some + for RSV*)	**Were 2 Panels Necessary?**

Clinical Scenarios to Consider When Testing

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Two Scenarios - Key Takeaways

Potential for over testing

Testing is not one-size-fits-all

Risk/Value-based Care

- Over-testing “frowned upon”
  - Adds unnecessary cost; panel test costs can be significant
  - Contrary to practicing medicine/clinical judgement
  - Test performance optimized based on prevalence
    - Positives may not be the cause of clinical presentation; may delay accurate diagnosis and add more testing and time for dx workup
- Test selection may be influenced by:
  - Patient surges
  - Test utility
    - Is this an admit decision? Prefer **rapid NAAT**
    - Does patient/close contacts have risk factors? May prefer **rapid NAAT**
    - Determining ability to work or travel? Country-specific, many OK with **rapid antigen**
  - Need for Value-based Care
    - Increase reliance on clinical picture; testing driven by clinical assessment and circulating viruses
    - Diagnostic and resource stewardship
      - Targeted/Selective testing to reduce cost and over testing
      - No testing should also be considered if unlikely to affect isolation or patient management

(If applicable to your institution)

POLL QUESTION #2

In our institution, total time from swab collection to clinician review takes:

a) < 30 mins
b) 30 - 60 mins
c) 1 - 2 hours
d) 3 - 8 hours
e) ≥ 8 hours/Next day

If Testing, Speed is Important to Impact Care

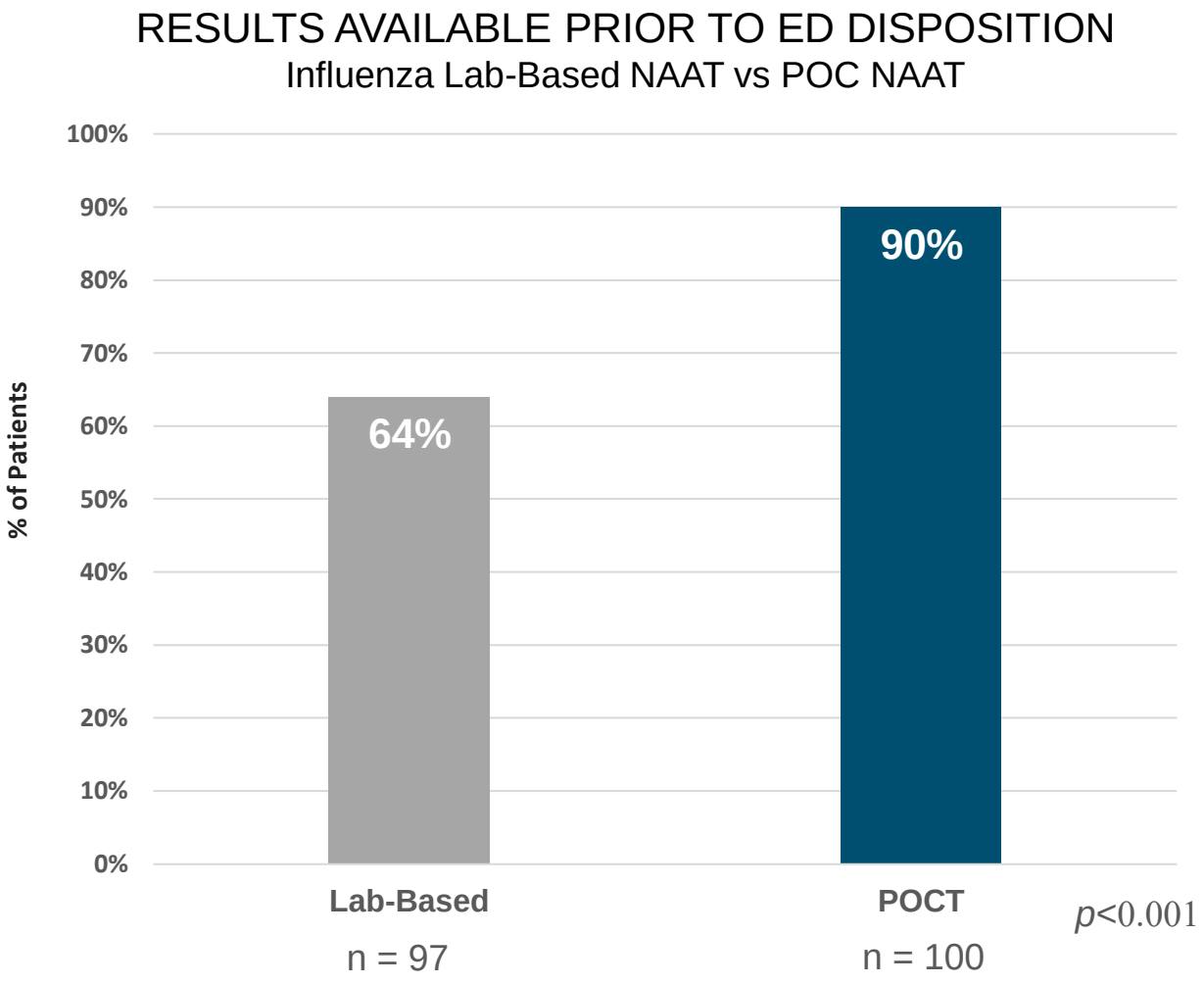
- Ideally within the timeframe of the patient visit
  - Especially for cohorting admissions

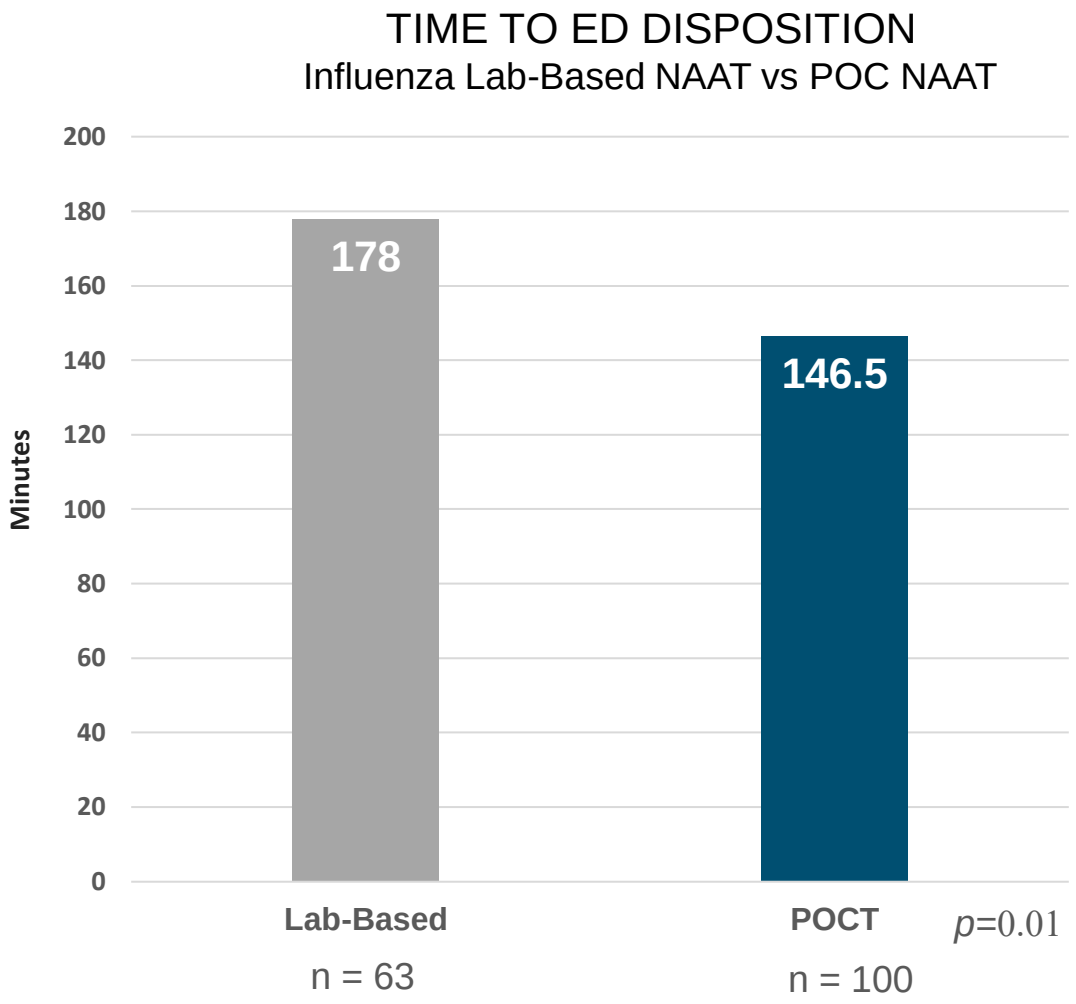
- For lower acuity patients, can also adjust workflow to swab and then release. Send results/Rx through portal.
  - More simplified follow-up than pre-pandemic

Are Rapid Tests Fast Enough…?

- If running a rapid / point of care test, ensure results are available for clinician to make clinical decisions
- **Results help guide isolation and treatment – value for patients and operations – helps offset higher POC test costs**
  - Decrease time in the clinic
  - Streamline follow-up
  - Reduce confirmatory testing
  - Increase patient satisfaction
- If not received in time for clinical decisions:
  - Empiric decisions (no access to objective lab results)
  - Higher cost (higher cost of rapid tests)

Rapid Testing in the ED Helps Increase Rate of Results Provided Before the Patient Leaves

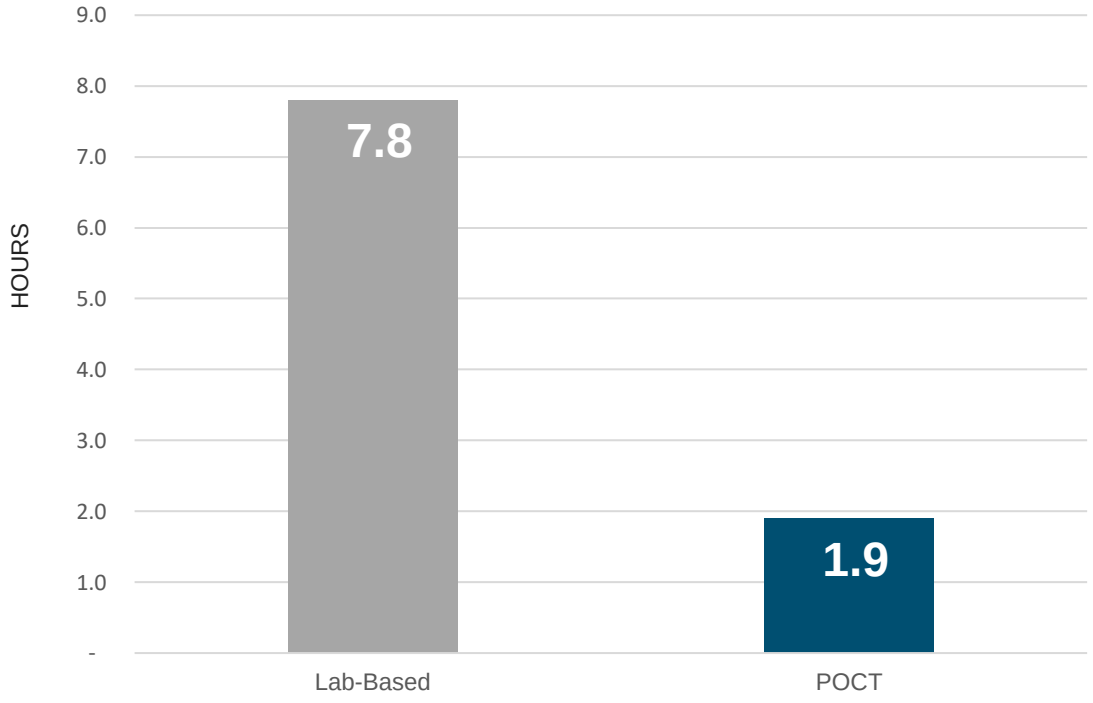




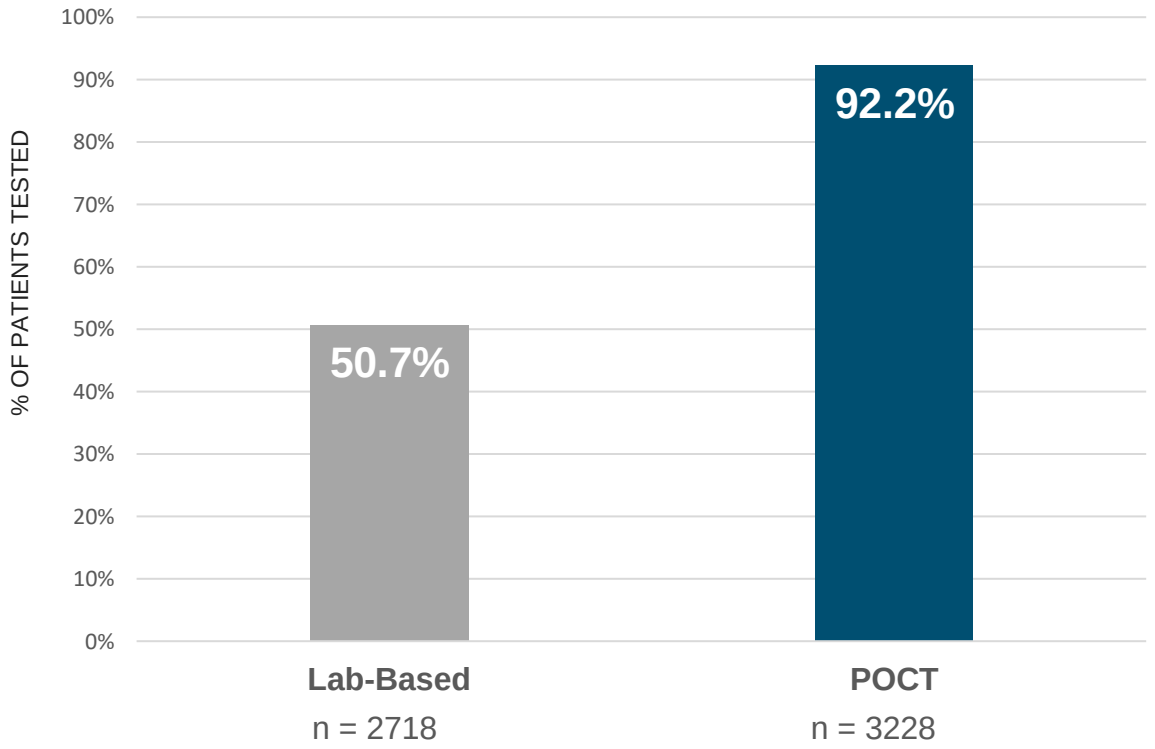
Schechter-Perkins EM, et al. Am J Emerg Med. 2019 May;37(5):873-878.

Rapid Testing in the ED Helps Increase Rate of Results Provided Before the Patient Leaves

COVID-19 TIME TO RESULT (HOURS)
Order to EHR Viewable Result



COVID-19 NAAT RESULT AVAILABILITY
Prior to Patient Departure from the ED



Hinson, et al. J of Hosp Infection. Rapid COVID-19 testing in the ED. 2021.

POLL #2 RESULTS

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Yes, Need Fast, But Also **Accurate and Efficient**

Advantages of highly accurate, rapid NAATs

- Clinical
  - Increase confidence in test result – authoritative/commanding decision, definitive dx/treatment
    - As fast as antigen, but not a coin toss
  - Efficient. Eliminates confirmatory testing, shortens workup, nothing else needed
- Patient
  - Patient expects higher level of accuracy (can do antigen at home)
  - Increased patient satisfaction - definitive conversation on dx/treatment path
  - Improve likelihood of appropriate isolation and treatment
- Staff
  - Eliminated culture send outs
  - Reduced repeat testing (higher confidence)
  - Provided new work assignment opportunities – clinic swab stations, test areas

Summary

- Respiratory infectious diseases have significant impact on healthcare resources, staff and patients
- Patient workup relies on multiple factors, and is not one-size-fits-all; suspicion, population, risk factors, circulating viruses
- Department collaboration between clinicians, laboratory services, and administration needed to advance and support POC testing program
- Results are ideally available in time for patient care
- When received in time for patient care, POCT helps improve antibiotic stewardship, infection rates and other patient outcomes

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Speaker Disclosures

- No conflicts of interest
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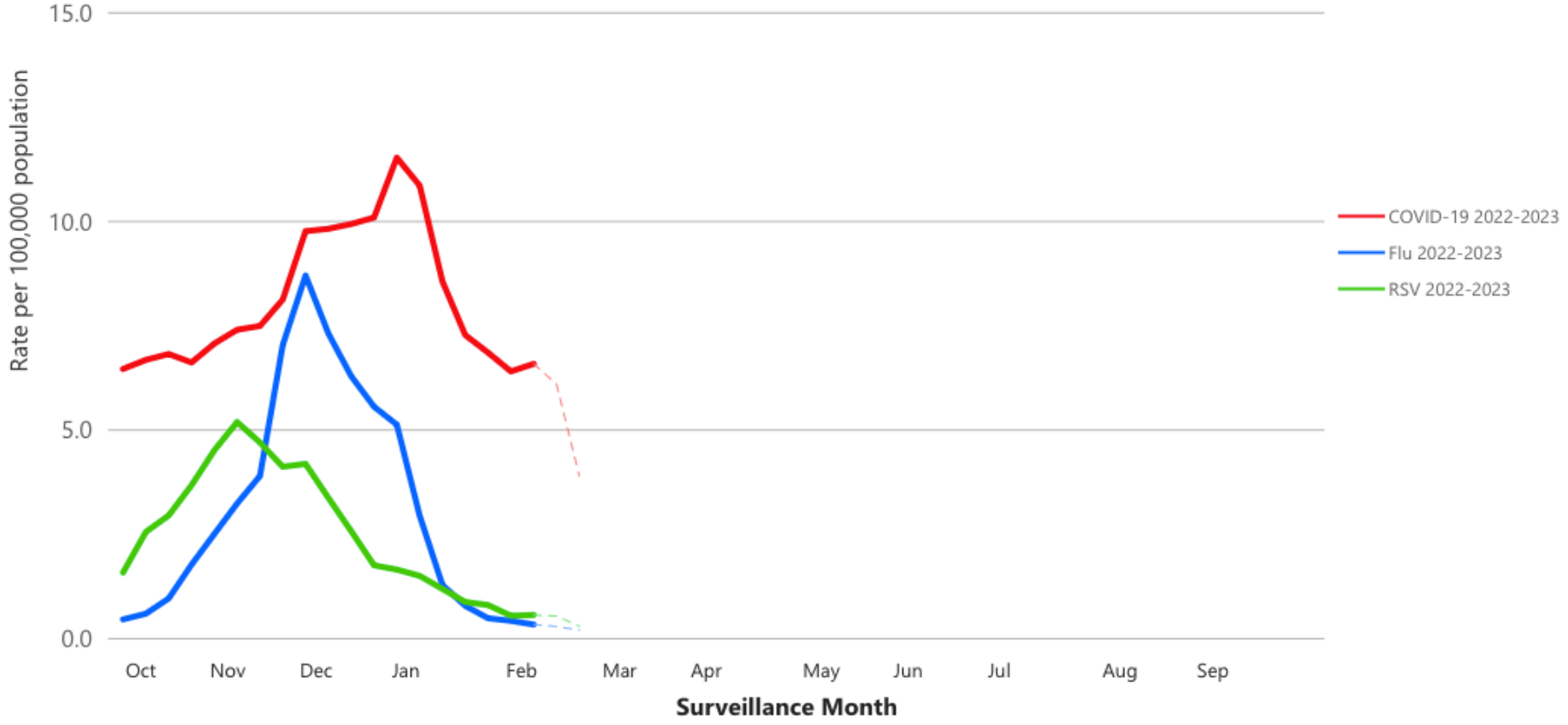
Lab Perspective: Tri-demic

Respiratory Illness Tri-demic Pathogens

- Influenza A/B
  - Predominately seasonal
  - Antiviral treatments available
  - Treatments most effective when delivered early (w/i 48 hrs of symptom onset)
- Respiratory Syncytial Virus (RSV)
  - Predominately seasonal
  - Non-specific treatments focus on symptoms
- SARS-CoV-2 (COVID-19)
  - Less seasonal (affected by emergence of variants and human behaviors)
  - Antiviral treatments available
  - Treatments most effective when delivered early (w/i 48 hrs of symptom onset)

2022/2023 Respiratory Illness Tri-demic



COVID-19	94	100	93	97	87
Flu A/B	29	100	88	81	56
RSV	36	100	52	37	24

% of Peak Rapid Testing Volume

RESP-NET
Respiratory Virus Hospitalization Surveillance Network

Duke, UNC hospitals prepare to add more pediatric beds if needed as respiratory illnesses bring in flood of children

by: Lillian Donahue
Posted: Nov 16, 2022 / 04:19 PM EST

CBS17.COM
LOCAL NEWS THAT MATTERS

COVID outbreak cancels more than 20 bus routes for Chapel Hill-Carrboro City Schools

Over half the transportation staff for Chapel Hill-Carrboro City Schools will be out of work for the next several days, leaving at least 17 buses not running for part of this upcoming week.

Posted 6:59 p.m. Feb 19 — Updated 11:09 a.m. Feb 20

WRAL NEWS

Tri-demic Impacts to the Laboratory

- **Molecular Microbiology (Central) Laboratory**
  - 350% increase in Basic Respiratory PCR Panel test volume from September to tri-demic peaks; additional workload borne by existing analyzers and lab staff
  - Central lab offers panel testing for Flu A/B and RSV; COVID-19 ordered separately
  - Greater need for specimen collection kits; potential supply chain challenges for swabs, transport media; testing kits
- **POCT Program**
  - 580 (Flu /B) - 878 (RSV) % increases in seasonal rapid molecular test volumes; workload distributed among multiple sites/operators
  - POC sites perform individual (targeted) testing for individual pathogens (Flu A/B; RSV; COVID-19; also Strep A which is less seasonal; rapid molecular increasingly utilized since confirmation testing of negative results no longer required)
  - Several additional test devices and locations added to meet seasonal demand; potential supply chain challenges for testing kits
  - POCT accounted for 37% of Flu/RSV testing at their peak incidences; consistently higher percentage (47-53%) of COVID-19 testing
- Laboratory personnel worked together with Employee Occupational Health and Wellness Director, Student Health Director and Infectious Disease clinician to convey information about co-circulating viruses to caregiver community.

Laboratory Perspective: Testing Strategies and Technology

Tri-demic Respiratory Illnesses – Why to Test

- For more severe cases of COVID-19 and Flu A/B and/or infections in vulnerable populations (elderly, immunocompromised, young children) antiviral drugs can lessen symptoms and shorten duration ***if prescribed and administered early (within 48 hours of onset of symptoms***
- Reduce disease transmission in congested/communal settings by identifying and isolating infected individuals
  - Hospital-acquired infections
  - Rehab and extended care facilities
  - Clinical laboratories!
- Certain travel destinations and flights still require proof of a recent negative COVID-19 test

Diagnosing Tri-demic Respiratory Illnesses – How to Test

Traditional Laboratory Methods

- Culture-Based Testing
  - Viral tissue cell culture
    - High Complexity; Yields live virus
    - Longest TAT (Days)
  - Rapid cell culture
    - High complexity; Yields live virus
    - Longer TAT ($\geq$1 Day)
- Antigen-Based Testing
  - Immunofluorescence direct (DFA) or indirect (IFA) fluorescent antibody staining
    - High complexity
    - Shorter TAT (Hours)
- Molecular-Based Testing
  - Reverse Transcription Polymerase Chain Reaction
    - Influenza viral RNA or nucleic acid detection
    - Shorter TAT (Hours)

Diagnosing Tri-demic Respiratory Illnesses – How to Test

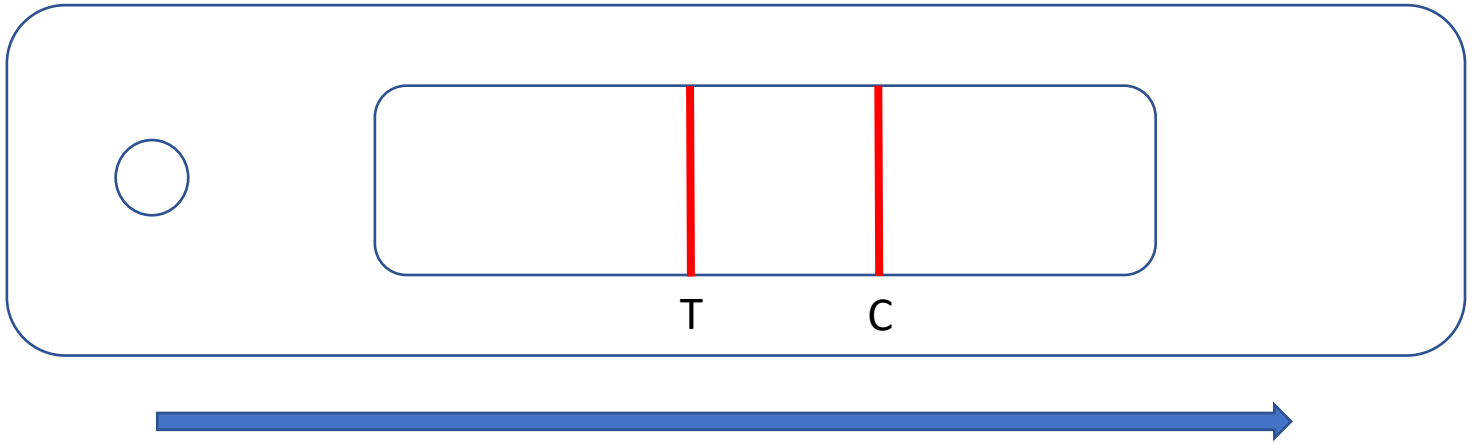
Rapid Test Methods

- Immunoassay-based (Rapid Antigen Diagnostic Tests [RADT's])
  - Lateral flow technology
    - Immunoassay confirms the presence or absence of a target analyte (pathogens, biomarkers)
    - Disposable, single-use unit dose design
    - Typically contains a control line to confirm the test is working and one or more target or test lines
    - Can be qualitative and read visually or semi-quantitative when combined with a reader device

Diagnosing Tri-demic Respiratory Illnesses – How to Test

Rapid Test Methods

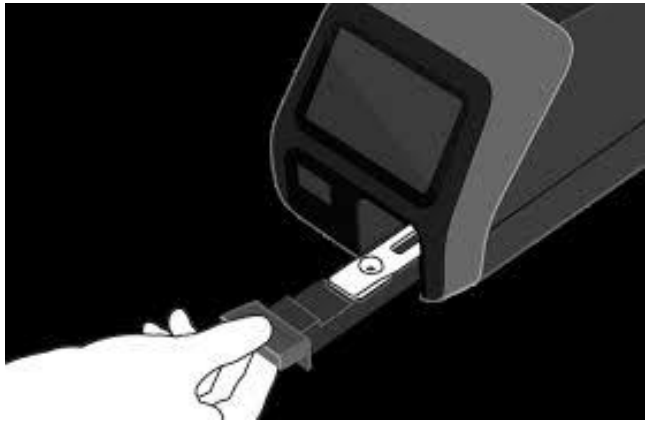
- Immunoassay-based (Rapid Antigen Diagnostic Tests [RADT's])
  - Lateral flow technology



Diagnosing Tri-demic Respiratory Illnesses – How to Test

Rapid Test Methods

- Immunoassay-based (Rapid Antigen Diagnostic Tests [RADT's])
  - Lateral flow technology
    - Examples: Abbott BinaxNOW, BD Veritor, Quidel Sofia



The BinaxNOW™ COVID-19 Ag Card has not been FDA cleared or approved. It has been authorized by the FDA under an emergency use authorization. It has been authorized only for the detection of proteins from SARS-CoV-2, not for any other viruses or pathogens, and is only authorized for the duration of the declaration that circumstances exist justifying the authorization of emergency use of in vitro diagnostics for detection and/or diagnosis of COVID-19 under Section 564(b)(1) of the Federal Food, Drug and Cosmetic Act, 21 U.S.C. § 360bbb-3(b)(1), unless the declaration is terminated or authorization is revoked sooner.

Diagnosing Tri-demic Respiratory Illnesses – How to Test

Rapid Test Methods

- Immunoassay-based (Rapid Antigen Diagnostic Tests [RADT's])
  - Lateral flow technology
    - Benefits
      - CLIA-waived
      - Rapid
      - Relatively low cost
      - Can perform multiple tests simultaneously and virtually anywhere (including home)
    - Disadvantages
      - Less sensitive (50-80%) than rapid molecular tests (False negatives)
      - More reliant on operator technique (Manual steps)
      - Lower reimbursement than molecular tests

Diagnosing Tri-demic Respiratory Illnesses – How to Test

Rapid Test Methods

- Molecular-based
  - Nucleic Acid Amplification Technology (NAAT)
    - Works by amplifying pathogen genetic material if any is present in a patient's specimen
    - Enables very small amounts of virus RNA or nucleic acids to be detected
    - NAAT's can use many methods to amplify genetic material and detect the virus including:
      - Reverse transcription polymerase chain reaction (RT-PCR)
      - Isothermal Amplification
        - Nicking endonuclease amplification reaction (NEAR)
        - Transcription-mediated amplification (TMA)
        - Loop-mediated isothermal amplification (LAMP)

Diagnosing Tri-demic Respiratory Illnesses – How to Test

Rapid Test Methods

- Molecular-based
  - Nucleic Acid Amplification Technology (NAAT)
  - Examples:

Abbott
ID NOW

NEAR
Nicking enzyme amplification reaction

Cepheid
Xpert Xpress

PCR
Polymerase chain reaction

Roche
cobas LIAT

PCR
Polymerase chain reaction

Lucira Health
Lucira

LAMP
Loop-mediated isothermal amplification

Diagnosing Tri-demic Respiratory Illnesses – How to Test

Rapid Test Methods

- Molecular-based
  - Nucleic Acid Amplification Technology (NAAT)
    - Benefits
      - CLIA-Waived
      - Rapid
      - Superior sensitivity (90-95%)
      - Some allow test cartridge to be reused after initial invalid test
    - Disadvantages
      - Relatively higher cost (but balanced by higher reimbursement)

Diagnosing Tri-demic Respiratory Illnesses – How to Test

- Use rapid molecular assays (nucleic acid amplification tests [NAAT]) over immunoassay-based rapid antigen diagnostic tests (RADT's) in outpatients to improve detection
- Use reverse transcription polymerase chain reaction (RT-PCR) or other molecular tests over other tests in hospitalized patients to improve detection

IDSA
Infectious Diseases Society of America

(If applicable to your institution)

POLL QUESTION #3

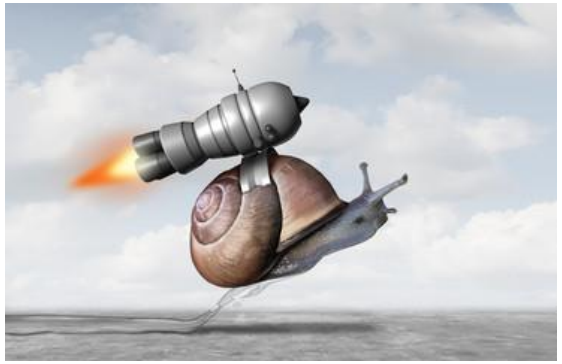
The following benefits currently (or would) most influence our use of rapid respiratory testing:
(select up to 3)

a) Improving timely/accurate isolation
b) Reducing healthcare associated infections
c) Improving appropriate antimicrobial use (antibiotics and antivirals)
d) Reducing duration of patient visit, emergency or hospital length of stay
e) Expediting treatment/symptom relief/return to work or school
f) Streamlining patient follow-up
g) Increasing patient satisfaction
h) Increasing clinician satisfaction
i) Other*

* If you select “Other”, please enter your response in the Chat.

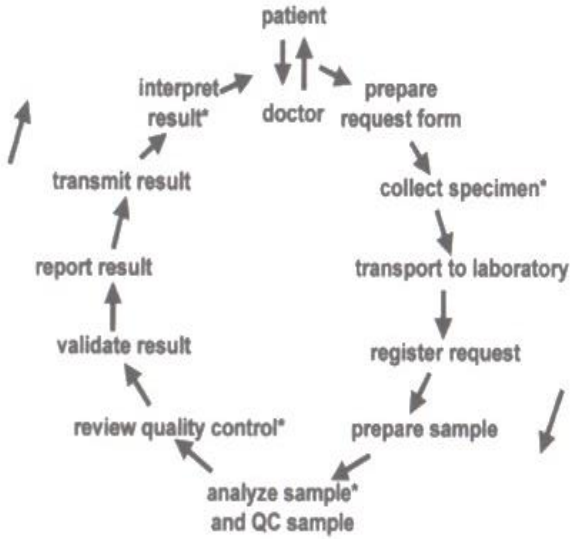
POCT and Best Practices: Program Initiation

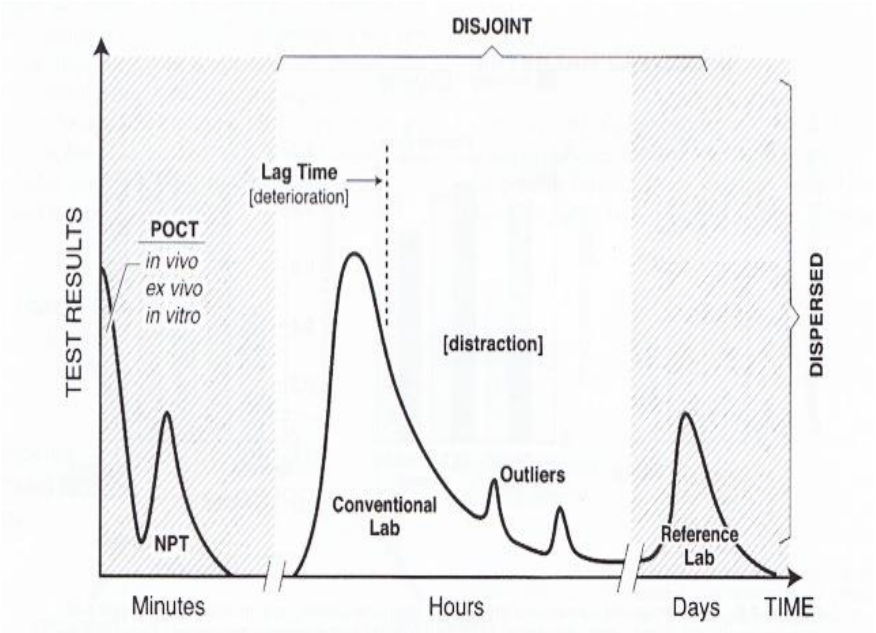
Why We Love POCT



S – L – O – W – with more steps

Speed that streamlines process



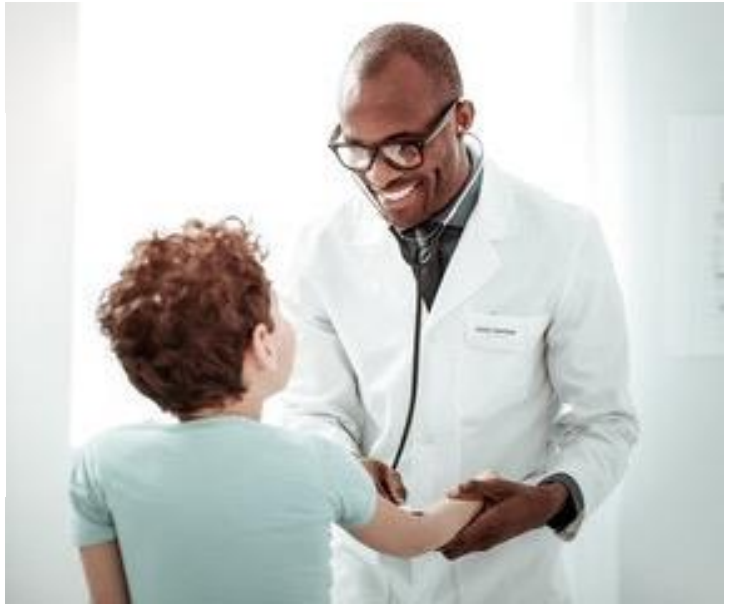


Why We Love POCT

Lab data unavailable during encounter

Actionable results in real time during visit

PARTNERS IN SATISFACTION



Some Unique POCT Niches Across Duke Health

(If applicable to your institution)

POLL #3 RESULTS

The following benefits currently (or would) most influence our use of rapid respiratory testing:
(select up to 3)

a) Improving timely/accurate isolation
b) Reducing healthcare associated infections
c) Improving appropriate antimicrobial use (antibiotics and antivirals)
d) Reducing duration of patient visit, emergency or hospital length of stay
e) Expediting treatment/symptom relief/return to work or school
f) Streamlining patient follow-up
g) Increasing patient satisfaction
h) Increasing clinician satisfaction
i) Other*

* If you select “Other”, please enter your response in the Chat.

Point-of-Care Best Practices: Program Initiation

1. Establish process and acceptable criteria for POCT

DUHS POCT Committee Charter

The Mission of the DUHS Point-of-Care Testing Committee is to provide caregivers throughout the Duke University Health System with state-of-the-art, high quality point-of-care laboratory testing that safely accelerates establishment of a working diagnosis, an adjustment in treatment or patient disposition in a cost-effective manner.

The DUHS Point-of-Care Testing Committee is under the direction of DUHS Clinical Laboratories and is composed of a group of clinical laboratorians, physicians, nurses and other Health System personnel who are directly involved with and/or have a keen interest in the utilization of point-of-care testing as a means to improve patient care. The Committee meets on a regular basis (at least quarterly) to consider requests for both new point-of-care procedures/systems and expansion of previously approved point-ofcare testing to additional performing locations.

New requests are evaluated on the merits of the proposed point-of-care procedure's ability to improve care by:
- facilitating clinical intervention;
- providing unique information; or
- reducing the cost of care.

What should be done vs what can be done?

- Quarterly meetings to review new and expanded POCT requests
- Rapid testing that "safely accelerates a working diagnosis, treatment/adjustment, or patient disposition in cost-effective manner
  - Facilitates clinical intervention
  - Provides unique information; or
  - Reduces cost of care

Point-of-Care Best Practices: Program Initiation

2. Empower an Institutional Point-of-Care Testing Advisory Committee

- Ensure All Major Stakeholders Have Appropriate Input Into Decisions
- Direction of Laboratory, with lab, physicians, nurses and other health system personnel
  - Those directly involved in the use of POCT to improve patient care

- Director, DUHS POCT Program, Chairperson
- DUHS Chief Medical Officer
- Health System Administrator
- Nursing Administrator
- ED Services Administrator
- Ambulatory Services Administrator
- Patient Safety Representative
- Risk Management Representative
- Laboratory Information Systems Representative
- Procurement Representative
- POCT Coordinators, ex officio
- Other SME clinicians and laboratorians, as needed

Point-of-Care Best Practices: Program Initiation

3. Partner with Caregivers to Share the Costs/Benefits of POCT

- **Caregivers**
  - **Perform QC, PT and Patient Testing; perform daily maintenance**
  - **Order supplies as needed from distributor which are delivered directly**
  - **Enter any manual POC test results (e.g. urine pregnancy) for upload into POC connectivity solution**
  - **Enjoy direct access to actionable test results and generally improved unit-specific patient satisfaction scores**
- **Laboratory Staff**
  - **Performs device, QC and test lot validations prior to release to the distributor**
  - **Provides standardized SOP's**
  - **Delivers and oversees PT process**
  - **Conducts regular performing site visits**
  - **Represents the program during the accreditation/reaccreditation process**

Point-of-Care Best Practices: Program Initiation

4. Optimize Utilization

- **POC Staff:**
  Provide proper instrument/reagent validation, procedures, operator training, proficiency testing, troubleshooting/repair and regulatory oversight

- **Performing Sites:**
  Agree to follow SOPs, remain current with training; since consumables hit the operating budgets of the individual locations, sites are incentivized to be more conscientious stewards of their own resources.

POCT Best Practices: Method Selection

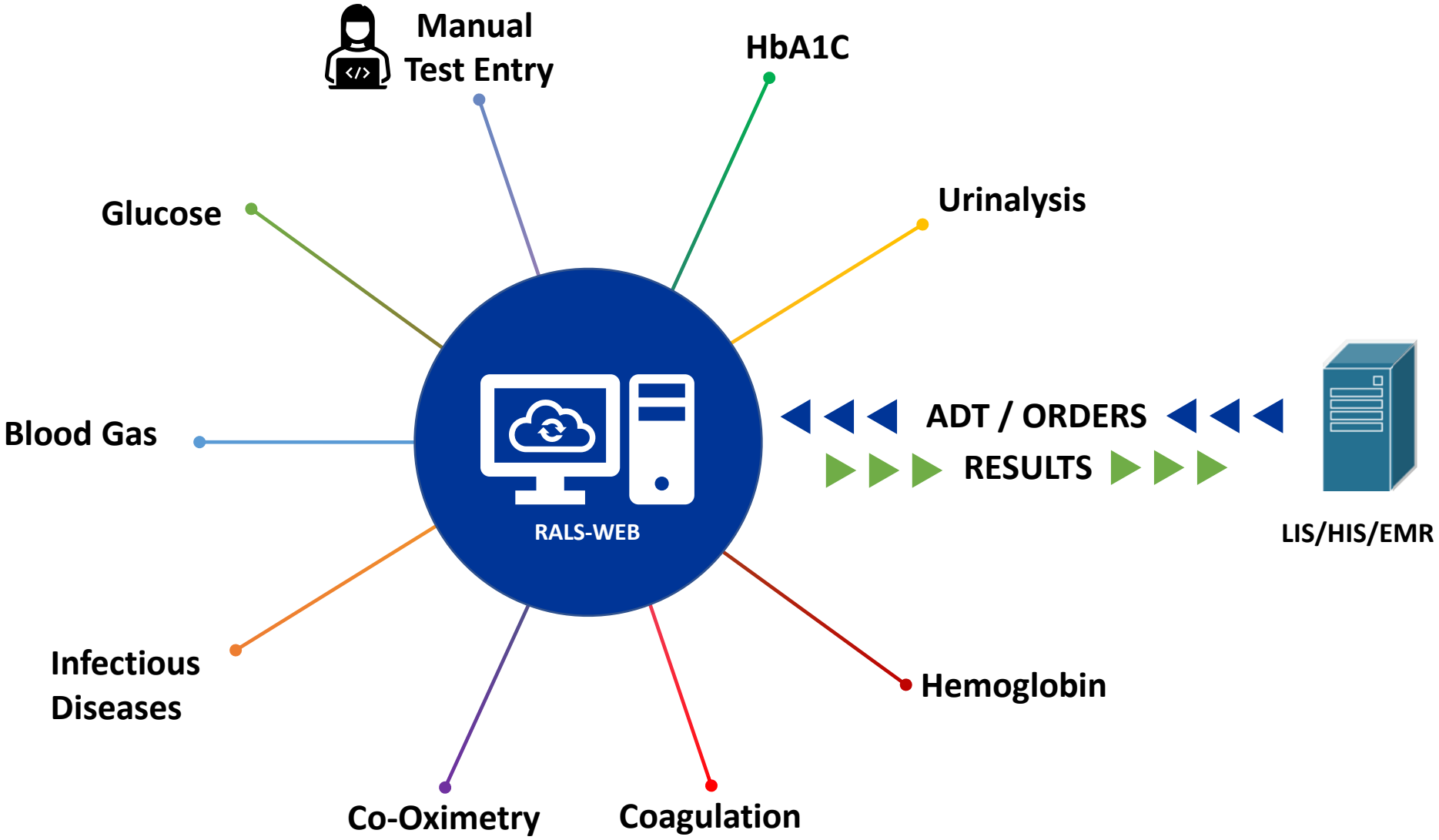
Point-of-Care Best Practices: Method Selection

1. Where possible, embrace automated over manual testing devices

AUTOMATED DEVICES

- **Optimize accuracy**
  - Control testing environment and timing
  - Eliminate subjectivity in interpretation
- **Ensure quality**
  - Operator/QC/reagent lockout
  - Reagent lot integrity checks (when available and deployed)
- **Transmit data directly (when interfaced)**
  - Real-time access by the entire care team
  - Avoid potential transcription and/or patient ID errors

DUH POCT Program Achieves Full POCT Connectivity



DukeHealth

Point-of-Care Best Practices: Method Selection

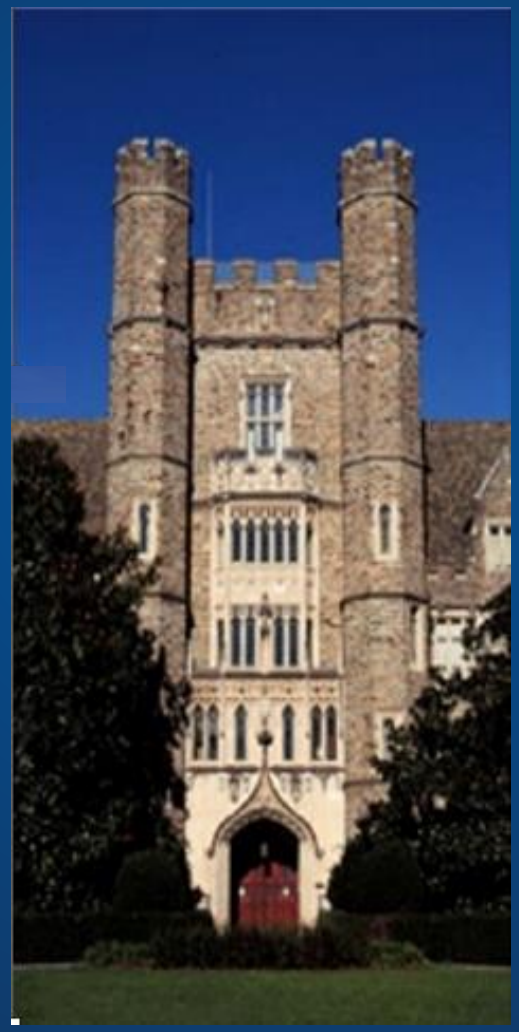
2. Rapid Molecular-Based Diagnostic Tests for Tri-demic Respiratory Illnesses

- Superior sensitivity (90-95%) vs immunoassay antigen-based RADT's (50-80%)
- While performance of rapid molecular tests is similar among platforms, there are feature differences to consider:
  - Time to result (can vary from ~6->30 minutes)
  - Incidence of invalid tests (can vary from 0.5->5%)
  - Storage conditions for reagents (room temperature vs refrigerated)
  - Availability of combination test options (e.g. Flu A/B w/COVID-19) and appropriateness (relative to epidemiology, cost/resource stewardship, etc.) of their use

Summary

- Availability of rapid and accurate molecular tests for tri-demic respiratory diseases improves quality of care, guides appropriate use of antiviral and antibiotic therapies, and assists infection control efforts in at-risk individuals
- The nature of ”rapid testing” can vary according to the patient type (inpatient/outpatient, symptomatic/asymptomatic), location (hospital unit, hospital clinic, off-site clinic, resident care facility, home) and context (screening, diagnosis, monitoring) of care
- Conforming to best practices will facilitate successful deployment of rapid, accurate, safe and cost-effective point-of-care testing

Thanks for Your Attention!



Questions

Available CE Credit

- P.A.C.E.®
- Florida laboratory CE
- Certificate of Attendance

To Receive Certificate of Attendance

After today's webinar:

- A certificate of attendance available for all attendees
- Evaluation form will appear automatically
- Must complete Eval to receive Certificate link via email
- **For groups: Those logged in will receive Email from messenger@webex.com with link to evaluation. Forward email to colleagues who attended with you!!!**
- Double-check email address

Joined Using a Mobile Device?

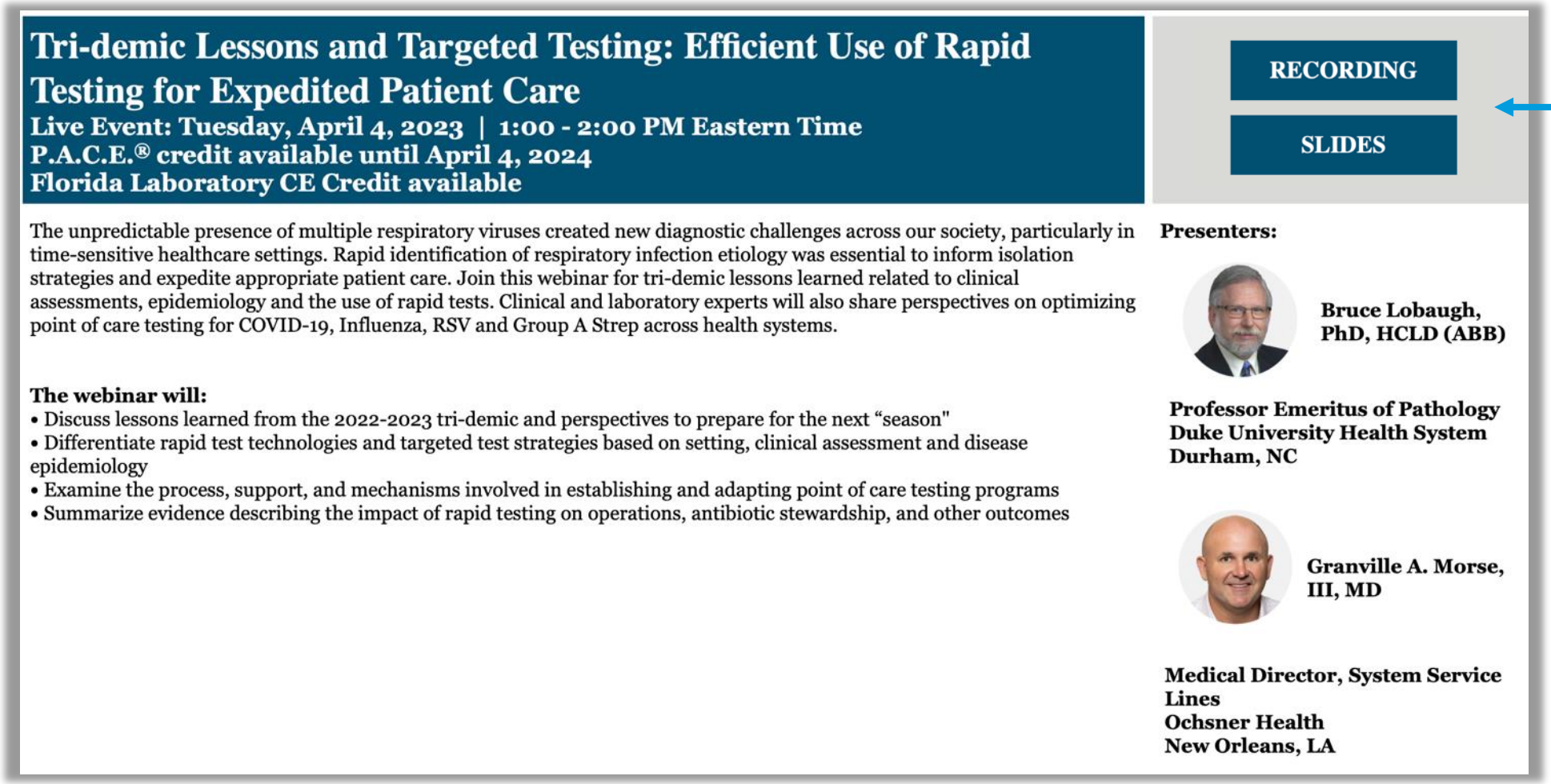
Evaluation won't appear automatically, but…

Watch for email with link to evaluation!

Recording

Within a few days following today's event, visit

https://www.whitehatcom.com/abbott



Tri-demic Lessons and Targeted Testing: Efficient Use of Rapid Testing for Expedited Patient Care

Live Event: Tuesday, April 4, 2023 | 1:00 - 2:00 PM Eastern Time
P.A.C.E.® credit available until April 4, 2024
Florida Laboratory CE Credit available

RECORDING

SLIDES

The unpredictable presence of multiple respiratory viruses created new diagnostic challenges across our society, particularly in time-sensitive healthcare settings. Rapid identification of respiratory infection etiology was essential to inform isolation strategies and expedite appropriate patient care. Join this webinar for tri-demic lessons learned related to clinical assessments, epidemiology and the use of rapid tests. Clinical and laboratory experts will also share perspectives on optimizing point of care testing for COVID-19, Influenza, RSV and Group A Strep across health systems.

The webinar will:

- Discuss lessons learned from the 2022-2023 tri-demic and perspectives to prepare for the next "season"
- Differentiate rapid test technologies and targeted test strategies based on setting, clinical assessment and disease epidemiology
- Examine the process, support, and mechanisms involved in establishing and adapting point of care testing programs
- Summarize evidence describing the impact of rapid testing on operations, antibiotic stewardship, and other outcomes

Presenters:

Bruce Lobaugh, PhD, HCLD (ABB)

Professor Emeritus of Pathology
Duke University Health System
Durham, NC

Granville A. Morse, III, MD

Medical Director, System Service Lines
Ochsner Health
New Orleans, LA

Tri-demic Lessons and Targeted Testing: Efficient Use of Rapid Testing for Expedited Patient Care

NOTE: If you have just viewed the archived recording of this webinar, you can access the evaluation using the link in the email you received after submitting the recording request form. Alternatively, you can access the evaluation for **12 months** after the live event at:

https://www.whitehatcom.com/Abbott_Evals/Tridemic_040423/Lessons_040423_eval.html

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