University of Maine System COVID-19 Testing Strategies

- Dannel Malloy, Chancellor, The University of Maine System

- Joan Ferrini-Mundy, PhD, President of University of Maine and University of Maine at Machias

- Melissa Maginnis, PhD, Associate Professor, Virologist, University of Maine
University of Maine System

• UMS compromises Maine’s public universities and only law school
  ○ Appx 30,000 students across 7 campuses, numerous outreach centers, and online
  ○ UMaine = flagship research land/sea/space grant
• Maine - largest state in New England, lowest COVID prevalence in the nation currently
• Just under half (45%) of students have in-person courses this fall
University of Maine System

• Led Pandemic Collaboration and Safe Return Planning across Maine’s $4.5 Billion Higher Education Sector

• Partnered with Maine Emergency Management to Help Lead State’s COVID-19 Response

• A Commitment to Science, Student Success, and Community Safety
UMS Scientific Advisory Board

- Joan Ferrini-Mundy, PhD, President UMaine & UMM, Chair
- Rob Wheeler, PhD, Immunology, UMaine
- Sara Huston, PhD, Epidemiology, USM
- Kristy Townsend, PhD, Adjunct Faculty, Biomedical Sciences, UMaine
- Bill Halteman, PhD, Statistical Consultant, UMaine
- Melissa Maginnis, PhD, Virology, UMaine, Lead
- Caitlin Howell, PhD, Biomedical Engineering, UMaine
UMS COVID-19 Testing Strategy

Phase 1
Baseline testing of Cohorts 1-3

Phase 2
Baseline retesting of Cohorts 1-3

Phase 3
• Surveillance Testing: Individual random testing 10% q 10 days + statistical analysis, WWT

• Phase 1 and 2 Results: prevalence rate = 0.09% (14:14,869 tests)

• Phase 3 Results: prevalence rate = ~0.11% (2:3,755 tests)
Public Health Measures in Response to COVID-19 Cases

**Test**
- Rapid, high-throughput diagnostic testing

**Trace**
- Contact tracing of COVID-19+ (contacts within <6ft for >15 min are quarantined)

**Isolate**
- Isolation of COVID-19+ patients until healthy to return
Important Measures for UMS Monitoring COVID-19

- Background COVID-19 disease rate in the state of Maine
  - Campus location specific
- Prevalence rate on particular campuses
- Wastewater testing
- Campus isolation and quarantine capacity
- Local hospital capacity
Complementary Strategy: UMS Wastewater Testing

Wastewater surveillance on campuses: UMaine, USM, and UMFK

Partnership for collection and Dr. Rob Wheeler’s lab testing:
• Sampling wastewater 1x/week
• Measure viral RNA levels via IDEXX qPCR test (student involvement)
• Coordination with facilities and campus EOCs

Robert Wheeler, PhD
Caitlin Howell, PhD
Jean MacRae, PhD
Ryan Ward
Jeremy Sales
Jake Ward
Complementary Strategy: Public Health Campaign

USM Healthy Huskies

Chancellor Malloy’s “Keep it Up” Tour

https://www.maine.edu/together/
Complementary Strategy:
Partnership with State and Local Officials

- Epidemiological Investigations
- Statewide Media Briefings
- Dashboards and Transparency
Questions and Discussion

Contact and Resources:

UMS Together for Maine:
https://www.maine.edu/together/

UMS COVID-19 Scientific Advisory Board:
https://umaine.edu/president/science-advisory-board/