



Arkansas Department of Health

COVID-19 State of the State

Arkansas Annual Rural Health Virtual Conference
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Jennifer A. Dillaha, MD
State Epidemiologist
Medical Director, Immunizations and Outbreak Response

An Illness of Unknown Cause Emerges in China

- Dec. 1, 2019 First reported patient became ill in Wuhan, China
- Dec. 31, 2019 China reported cluster of respiratory illnesses
- Jan. 1, 2020 Chinese authorities closed down the Huanan Seafood Market
- Jan. 7, 2020 Pathogen identified as a novel coronavirus
- Jan. 10, 2020 China published the genome on the internet
- Jan. 13, 2020 First case reported outside China in Thailand
- Jan. 20, 2020 Human to human transmission confirmed
- Jan. 20, 2020 First case reported in United States (Washington state)
- Jan. 30, 2020 WHO declares a public health emergency of international concern



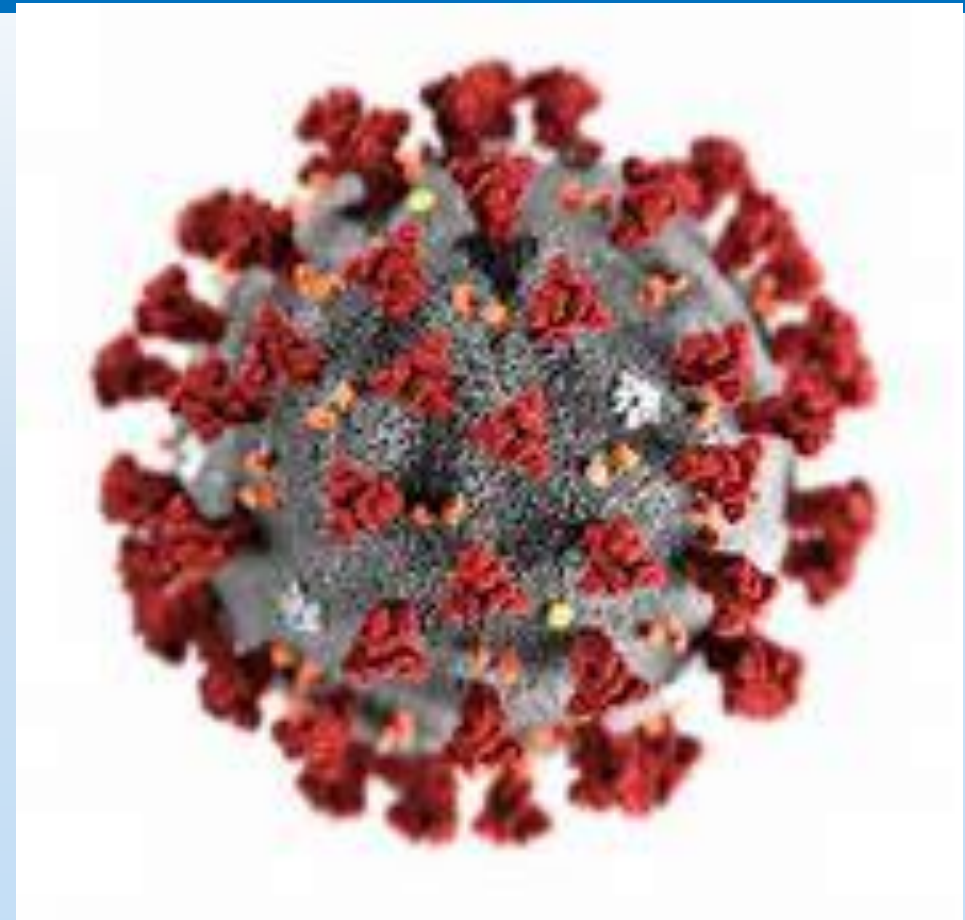
Novel Coronavirus Named

International Committee on Taxonomy of Viruses named the new virus:

- SARS-CoV-2

World Health Organization (WHO) named the disease caused by the new virus:

- Coronavirus disease 2019 (COVID-19)



Coronavirus Classification

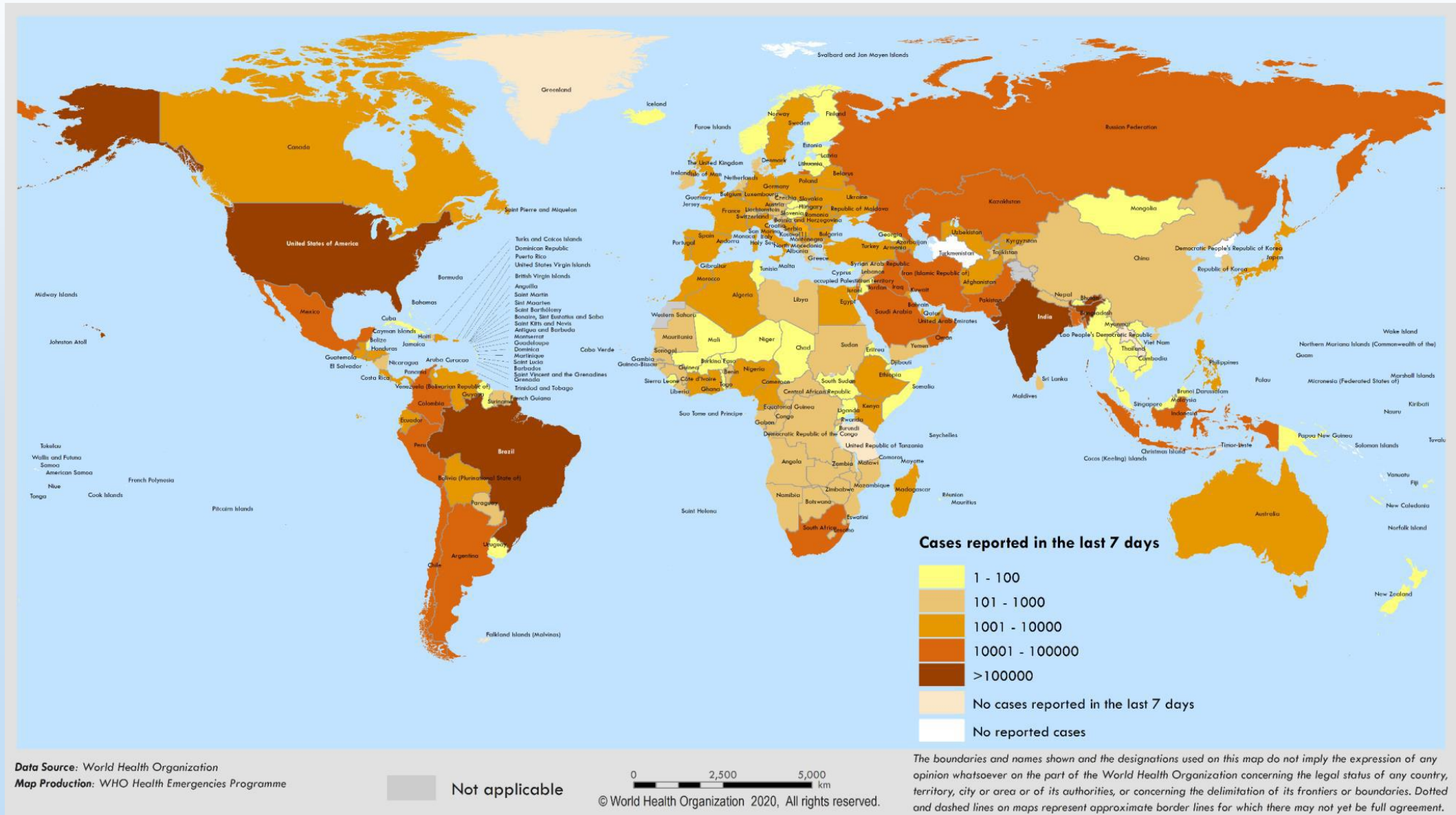
Coronaviruses are a large family of viruses that infect humans and animals.

- 4 human coronaviruses are frequent cause of the common cold
 - 229E
 - NL63
 - OC43
 - HKU1
- 3 new coronaviruses that cause SARS, MERS and COVID-19.



Number of Confirmed COVID-19 Cases in Last 7 Days

11 July to 17 July 2020



Current Tally – July 21, 2020 at 12:37 p.m.

- Total confirmed cases of COVID-19: 14,774,887
- Total deaths: 611,599
- Number of countries with cases: 188

<https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>



Current Situation in the United States - July 21, 2020

- Total cases of COVID-19: 3,819,139
- Cases per 100,000 people: 1,165.2
- Total deaths: 140,630

<https://www.cdc.gov/covid-data-tracker/index.html#cases>



Current Situation in Arkansas - July 21, 2020

- Total COVID-19 Cases: 34,655
- Total Active Cases: 6,998
- Recoveries: 27,283
- Deaths: 374
- Currently Hospitalized: 488

<https://experience.arcgis.com/experience/c2ef4a4fcbe5458fbf2e48a21e4fece9>
(accessed 7/21/20)



Public Health Pandemic Preparedness

- ADH Health Preparedness & Emergency Response Branch
- Development and coordination of the Arkansas Pandemic Influenza Plan
- 7 Regional Health Care Coalitions receive federal funds to
 - Purchase needed equipment
 - Develop pandemic response capabilities
 - Optimize membership and geographic coverage
- Hospitals, Emergency Medical Services, Emergency Management Organizations
- Hospital Preparedness Program Manager
 - Steve Whisnant at 501-280-4166 or Phillip.Whisnant@Arkansas.gov



ADH Immunizations and Outbreak Control Branch

- Outbreak Response Section
- Receive notification of COVID-19 test results
- Interview cases and provide instructions for isolation and self-monitoring with daily reporting to ADH
- Prepared to implement mandatory isolation, if needed
- Call center
 - 1-800-803-7847: Monday-Friday, 8:00 a.m. -4:30 p.m.
 - 1-800-554-5738: after hours and weekends
 - Email: ADH.Coronavirus@Arkansas.gov



Case Investigation & Contact Tracing

- ADH Nursing Staff
- General Dynamic Information Technology
- AFMC



Testing

- PCR
 - ADH Public Health Laboratory
 - UAMS
 - Commercial Labs
- Antigen
 - Clinics
 - Pharmacies
 - Nursing Homes
- Antibody Testing
 - Not helpful for clinical decision making
 - Useful for surveillance studies

Goals of Public Health Interventions

- Slow the spread of the virus that causes COVID-19
- Allow time to better understand the characteristics of the disease
 - Transmission
 - Incubation period
 - Clinical course
- Allow time to develop evidence-based clinical interventions
 - Testing
 - Treatment
 - Vaccination



Community Mitigation Non-pharmaceutical Interventions (NPIs)

- Schools
 - Preemptive, coordinated closures and dismissals
 - Prevent virus transmission in schools and surrounding communities by reducing close contact among:
 - Children in child care centers and preschools
 - School-aged children and teens in K-12 schools
 - Young adults in institutions of higher education
- Workplaces
- Mass Gatherings

Qualls N, Levitt A, Kanade N, et al. Community Mitigation Guidelines to Prevent Pandemic Influenza—United State, 2017. MMWR Recomm Rep 2017;66(No. RR-1)



AN ARRAY OF VACCINES

Virus

Inactivated

Weakened

Viral vector

Replicating

Non-replicating

Nucleic acid

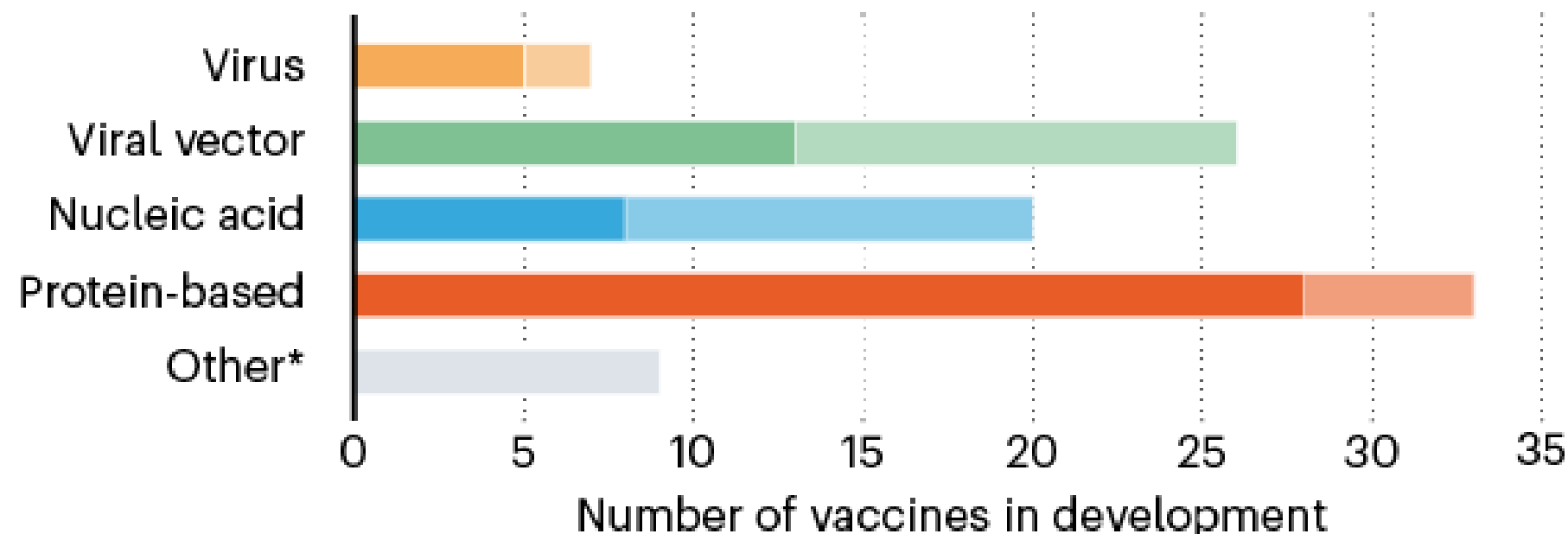
DNA

RNA

Protein-based

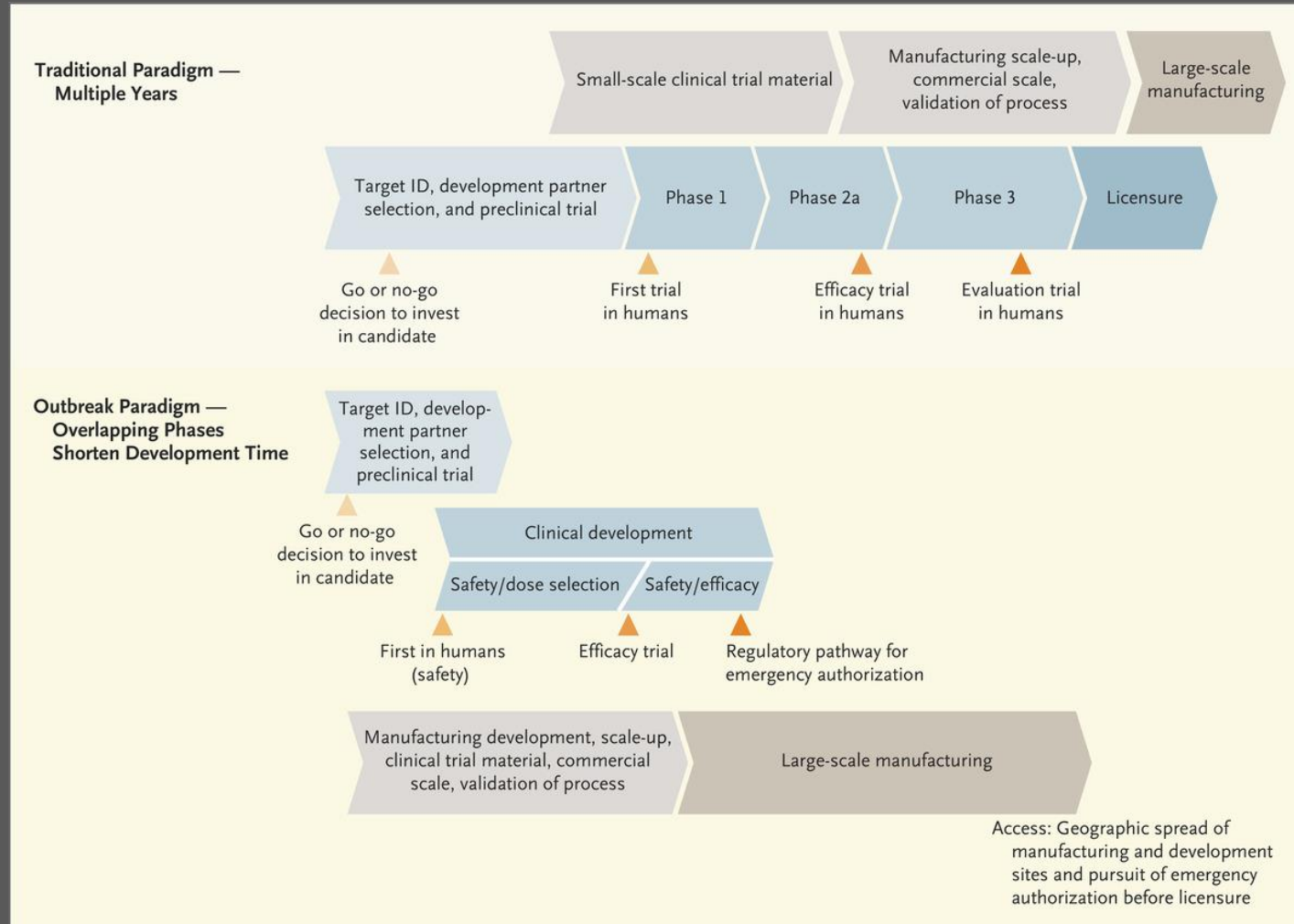
Protein subunit

Virus-like particles



* Other efforts include testing whether existing vaccines against poliovirus or tuberculosis could help to fight SARS-CoV-2 by eliciting a general immune response (rather than specific adaptive immunity), or whether certain immune cells could be genetically modified to target the virus.

Difference between Traditional Vaccine Development and Development Using a Pandemic Paradigm



Jennifer A. Dillaha, MD

State Epidemiologist

Medical Director for Immunizations and Outbreak Response

Arkansas Department of Health
4815 W. Markham Street, Slot 48
Little Rock, AR 72205

Office: 501-661-2864

Cell: 501-554-2220

Email: Jennifer.Dillaha@Arkansas.gov

