

# Today's Agenda

Time (MT)	Presentation	Presenter(s)
Noon – 12:05 pm	Welcome, Announcements, Introductions	Lachelle Smith, Director, ECHO Idaho
12:05 – 12:10 pm	Idaho Epidemiology Curves and Public Health Updates	Carolyn Buxton Bridges, MD FACP
12:10 – 12:40 pm	COVID-19 Epidemiology/Presentation in Kids Perinatal Recommendations Essential Outpatient Visits and Clinic Recommendations COVID-19 Related Mental and Social Health Issues in Kids	Jessica Duvall, MD Kim King, NP Jessica Maddox, MD Sara Swoboda, MD
12:40 – 12:55 pm	Q&A	Jessica Duvall, MD Kim King, NP Jessica Maddox, MD Sara Swoboda, MD Andrea Christopher, MD MPH Megan Dunay, MD MPH
12:55 – 1:00 pm	Closing, Announcements, Call to Action	Megan Dunay, MD MPH Lachelle Smith, Director, ECHO Idaho

# COVID-19: Pediatric Considerations

April 28, 2020

Jessica Duvall, MD

Kim King, NP

Jessica Maddox, MD

Sara Swoboda, MD

Carolyn Buxton Bridges, MD FACP

Andrea Christopher, MD MPH

Megan Dunay, MD MPH

# Idaho Epidemiology Curves and Public Health Updates

Carolyn Buxton Bridges, MD, FACP

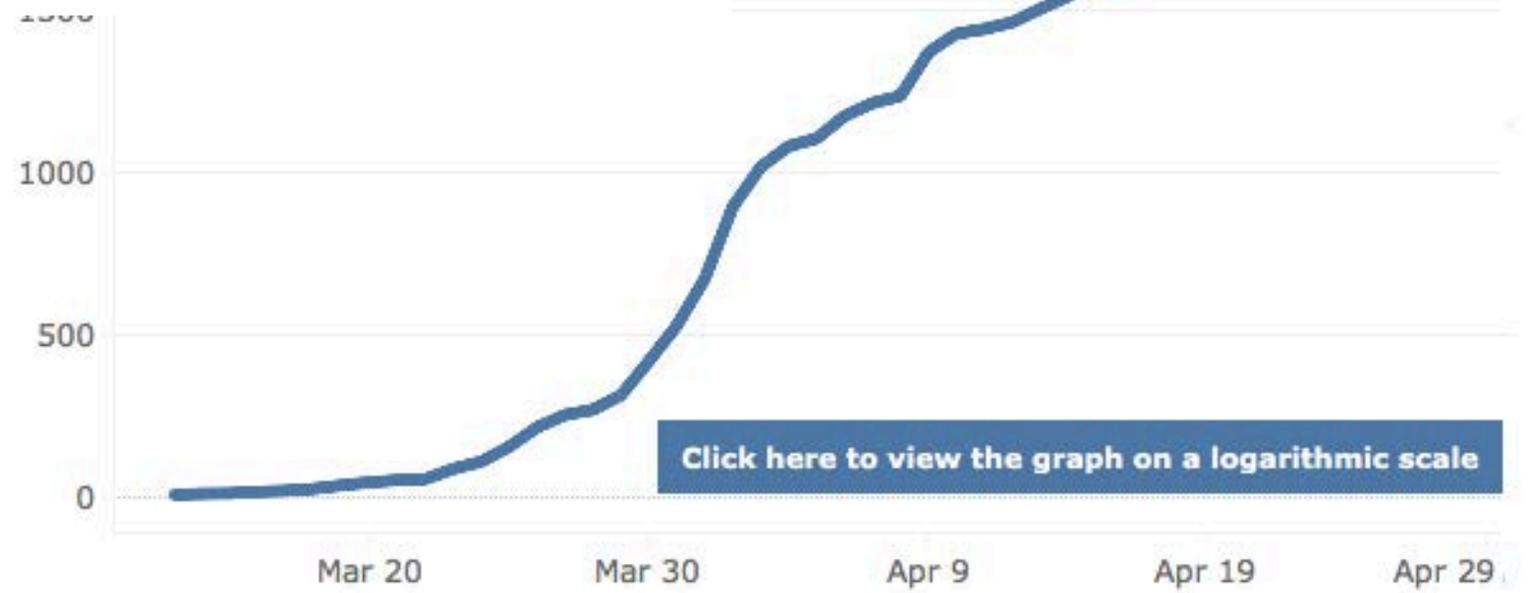
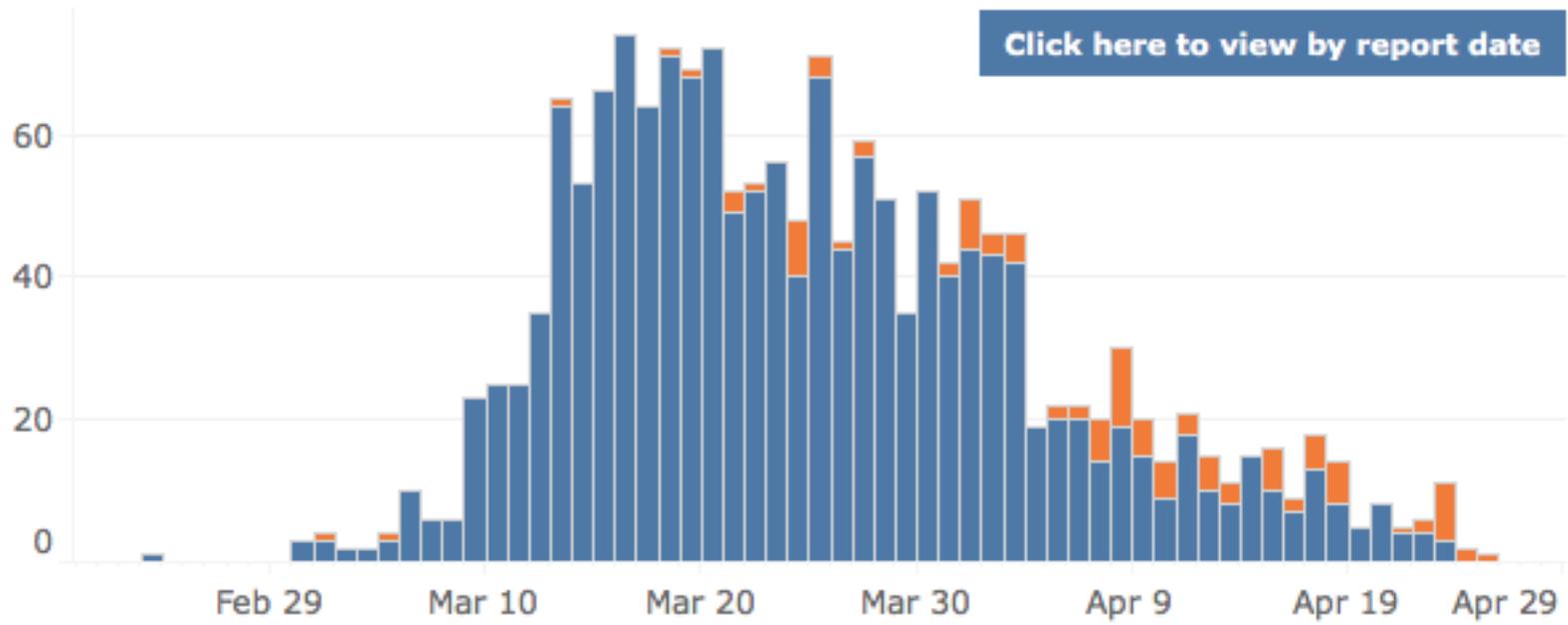
Governor's Coronavirus Working Group, Former CDC Public Health Physician and Researcher

# Case Counts and SARS-CoV-2 PCR Testing in Idaho

- Total lab-confirmed and probable cases: **1,917**
- Deaths: 58 (3.0%)
- At least 172 (9.0%) hospitalized
- At least 73 (4.2%) ICU, ~ 42% of hospitalized in ICU
- At least 239 (12.5%) HCP
- Number of people tested: 20,052

Cumulative number of people tested through the Idaho Bureau of Laboratories (IBL)*	3/30: 1,567
	4/6: 2,263
	4/13: 2,828
	4/20: 3,211
	4/23: 3,329
4/27: 3,440	
Cumulative number of people tested through commercial laboratories**	3/30: 4,145
	4/6: 8,983
	4/13: 12,284
	4/20: 14,351
	4/23: 15,762
4/27: 16,612	

# COVID-19 by Onset Date and Report Date



# Emergency Department Visits for COVID-like Illness, Idaho

**Number of Emergency Department Visits for COVID-Like Illness**



<https://coronavirus.idaho.gov>



**ECHO IDAHO**

# Rebound Idaho Criteria, April 23, 2020

<https://rebound.idaho.gov/stages-of-reopening/>.

- Goals: Protect vulnerable, preserve healthcare capacity, safely open businesses
- Staged approach – timelines are estimates
- Epi/capacity criteria required to move to next stage – See website for details
  - Epidemiology data examples
    - Downward trend or <20/day on average over 14 days lab confirmed COVID-19 cases
    - Downward trend or <20/day on average over 14 days ED visits for suspected COVID-19 cases
  - Patient care and healthcare worker
    - No crisis standard of care required
    - At least 50 available (unused) ventilators, 50 ICU beds, and available 10-day supply of N95 masks, surgical masks, face shields, gowns, and gloves
    - Robust testing program for at-risk healthcare workers



# How Can We Maintain Low Rates of SARS-CoV-2 Transmission and Low Case Counts? <https://rebound.idaho.gov/stages-of-reopening/>.

- Continue social distancing and reducing number P2P contacts – limit number of persons each person/family has contact with
- Stay home if ill
- Early testing and identification of SARS-CoV-2 infected persons
  - CDC broadened list of symptoms – fever not required for testing
  - Isolate ill persons and household contacts at home
- Early notification of contacts (contact tracing)
  - Quarantine of exposed persons
  - PCR testing and notification of their contacts
- Discussions ongoing regarding overall testing strategy



# Mental Health Concerns Among Teens, Youth Risk Behavior Surveillance, 2017

Kann K, et al. MMWR 2018;67 (SS-08)

- Suicide is the second leading cause of death in people 10-34 years old
- Questions asked of high school students across U.S. about the prior 12 months
  - 14.9% electronically bullied (20.3% in Idaho)
  - 31.5% felt sad or hopeless every day for 2 weeks or more (35% Idaho)
  - 17.2% had seriously considered attempting suicide (21% in Idaho)
  - 13.6% had made a suicide plan (18% in Idaho)
  - 7.4% had attempted suicide (9.7% in Idaho)
  - 2.4% had a suicide attempt that resulted in injury, poisoning or overdose (3.2% in Idaho)



## Strategies to Prevent Suicide

### Risk Factors for suicide attempt

- Family history of suicide
- Family history of child maltreatment
- Previous suicide attempt(s)
- History of mental disorders, particularly clinical depression
- History of alcohol and substance abuse
- **Feelings of hopelessness**
- Impulsive or aggressive tendencies
- Cultural and religious beliefs (e.g., belief that suicide is noble resolution of a personal dilemma)
- Local epidemics of suicide
- **Isolation, a feeling of being cut off from other people**
- **Barriers to accessing mental health treatment**
- **Loss (relational, social, work, or financial)**
- Physical illness
- Easy access to lethal methods
- Unwillingness to seek help because of the stigma attached to mental health and substance abuse disorders or to suicidal thoughts



#### Strengthen economic supports

- Strengthen household financial security
- Housing stabilization policies



#### Strengthen access and delivery of suicide care

- Coverage of mental health conditions in health insurance policies
- Reduce provider shortages in underserved areas
- Safer suicide care through system change



#### Create protective environments

- Reduce access to lethal means among persons at risk of suicide
- Organizational policies and culture
- Community-based policies to reduce excessive alcohol use



#### Promote connectedness

- Peer norm programs
- Community engagement activities



#### Teach coping and problem-solving skills

- Social-emotional learning programs
- Parenting skill and family relationship programs



#### Identify and support people at risk

- Gatekeeper training
- Crisis intervention
- Treatment for people at risk of suicide
- Treatment to prevent re-attempts



#### Lessen harms and prevent future risk

- Postvention
- Safe reporting and messaging about suicide

# Youth Activities Included in Rebound Idaho

## Step 1

- Youth activities yet to be fully defined, but will include day camps, sports, scouts, music and other activities
- BUT must continue to
  - Reduce contacts – e.g. don't carpool, limit spectators
  - Socially distance where possible
  - Stay at home if ill, etc.
  - Reduce risk for adult leaders and families
- Further guidance is pending

# COVID-19 Epidemiology/Presentation in Kids

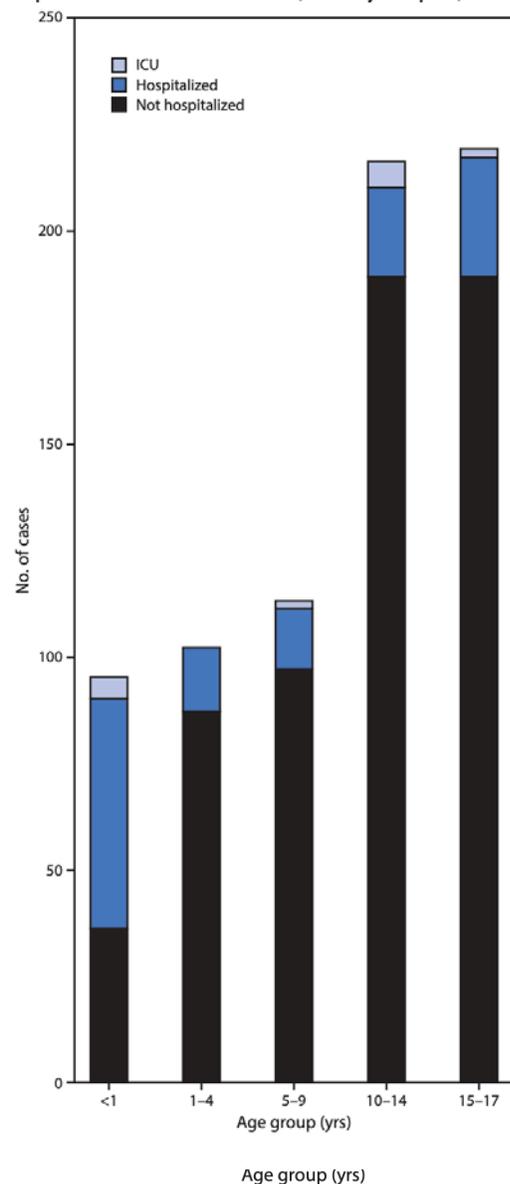
**Jessica Duvall, MD**, Pediatric Hospitalist, St. Alphonsus

**Kim King, NP**, Pediatric Outpatient, St. Luke's

**Jessica Maddox, MD**, Pediatric Hospitalist, St. Alphonsus

**Sara Swoboda, MD**, Pediatric Outpatient, St. Luke's

FIGURE 2. COVID-19 cases among children\* aged <18 years, among those with known hospitalization status (N = 745),† by age group and hospitalization status — United States, February 12–April 2, 2020



Abbreviation: ICU = intensive care unit.  
 \* Includes infants, children, and adolescents.  
 † Number of children missing hospitalization status by age group: <1 year (303 of 398; 76%); 1-4 years (189 of 291; 65%); 5-9 years (275 of 388; 71%); 10-14 years (466 of 682; 68%); 15-17 years (594 of 813; 73%).

# EPIDEMIOLOGY IN KIDS

-April 26: ~1.9% (12,791) CoVID Cases are <18 y/o

## MMWR 4/10/20: COVID IN US CHILDREN, 2/2-4/2

- 1.7% (2572) of cases were <18 y/o
- ~23% of kids had at least 1 underlying condition\*:
  - Chronic Lung Disease (incl asthma), CV Disease, Immunosuppression

### HOSPITALIZATION

- 5.7-20% of kids with CoVID were hospitalized
- 0.58%–2.0% admitted to an ICU
- Rates much lower than adults

### RISK FACTORS FOR HOSPITALIZATION

- Age <1 year old
  - 15-62% were <1 y/o
  - 4.1-14% were 1-17 y/o
- Medical Complexity (limited data)

## IDAHO

- 57 cases are <18 (out of 1897) – as of 4/26/20
- No known deaths

\*Of the 345 positive cases that reported this

# COVID PRESENTATION IN CHILDREN

-Only 11% of the pediatric cases had data on signs and symptoms

-**Fever and cough**, are the most common symptoms experienced by kids, but not as commonly as adults

-Kids also commonly experience **myalgias, sore throat and headaches**

-**Likely lots of kids are asymptomatic**: 53 (68%) of the 78 cases reported not to have fever, cough, or SOB had no symptoms reported, but could not be classified as asymptomatic due to incomplete info



**TABLE. Signs and symptoms among 291 pediatric (age <18 years) and 10,944 adult (age 18–64 years) patients\* with laboratory-confirmed COVID-19 — United States, February 12–April 2, 2020**

Sign/Symptom	No. (%) with sign/symptom	
	Pediatric	Adult
Fever, cough, or shortness of breath <sup>†</sup>	213 (73)	10,167 (93)
Fever <sup>§</sup>	163 (56)	7,794 (71)
Cough	158 (54)	8,775 (80)
Shortness of breath	39 (13)	4,674 (43)
Myalgia	66 (23)	6,713 (61)
Runny nose <sup>¶</sup>	21 (7.2)	757 (6.9)
Sore throat	71 (24)	3,795 (35)
Headache	81 (28)	6,335 (58)
Nausea/Vomiting	31 (11)	1,746 (16)
Abdominal pain <sup>¶</sup>	17 (5.8)	1,329 (12)
Diarrhea	37 (13)	3,353 (31)

\* Cases were included in the denominator if they had a known symptom status for fever, cough, shortness of breath, nausea/vomiting, and diarrhea. Total number of patients by age group: <18 years (N = 2,572), 18–64 years (N = 113,985).

<sup>†</sup> Includes all cases with one or more of these symptoms.

<sup>§</sup> Patients were included if they had information for either measured or subjective fever variables and were considered to have a fever if “yes” was indicated for either variable.

<sup>¶</sup> Runny nose and abdominal pain were less frequently completed than other symptoms; therefore, percentages with these symptoms are likely underestimates.

# INFANTS BORN TO COVID-19 MOMS

- **What we Know:**
  - Low rates of peripartum transmission
  - Inconclusive data about in utero transmission
  - Neonates CAN acquire SARS-CoV-2 after birth
- **Deliveries:**
  - Airborne PPE if mom is COVID Positive or PUI
- **Postnatal Care:**
  - Droplet PPE unless doing aerosolizing procedures, then Airborne
  - Separate infants from COVID moms as able
    - If not, keep 6 ft away/use isolette; masks & gown/PPE
  - Bathe as soon as possible after birth
- **Testing:**
  - 24 hrs & 48 hrs
- **Discharge:**
  - Mask/6 ft until afebrile x 72 hrs & 7 days since 1st symptom
  - Close follow-up of infant

# BREASTFEEDING & COVID-19 MOMS

- **AAP Guidelines**

- Studies to date have not detected virus in breastmilk (Lancet. 2020 Mar 7: 395)
- Covid-19+ moms encouraged to express breast milk after appropriate breast and hand hygiene
- Not infected caregivers may feed breastmilk to infants
- Covid-19+ moms requesting to directly breastfeed should comply with strict preventive precautions including mask and meticulous breast and hand hygiene

# PRIMARY CARE FOR PEDIATRIC PATIENTS

- **AAP Guidelines for well child care:**
  - Use telehealth when appropriate.
  - Prioritize in-person visits for newborns, children under 2, vaccines.
  - Do NOT delay vaccines or newborn screening.
  - Do not delay subspecialty referrals.
- **Clinic Risk Mitigation:**
  - Screen all visits before families arrive.
  - Schedule newborn and well care in the mornings, sick in the afternoon.
  - Separate entrance for sick patients.
  - Encourage one caretaker at visit, no siblings.
  - Limit waiting room exposure.
- **Telehealth in pediatrics:**
  - Adolescent confidentiality.
- **High-risk pediatric populations during social distancing:**
  - Children with developmental and behavioral needs.
  - Foster children and children at risk of maltreatment.
  - Children with medical complexities.

# MENTAL HEALTH IN KIDS

- Anxiety
- Depression
- Resources and coping strategies
- At risk populations -Child Abuse

# Cases/Questions From the Field

**Jessica Duvall, MD**, Pediatric Hospitalist, St. Alphonsus

**Kim King, NP**, Pediatric Outpatient, St. Luke's

**Jessica Maddox, MD**, Pediatric Hospitalist, St. Alphonsus

**Sara Swoboda, MD**, Pediatric Outpatient, St. Luke's

**Andrea Christopher, MD MPH**, Internist, Boise VA; Associate Program Director for UW Boise  
Internal Medicine Residency

**Megan Dunay, MD MPH**, Geriatrician, Boise VA and Medical Director for Geriatrics and  
Extended Care for VA Pacific Northwest Region

# CASE ONE: URGENT CARE

- 9 y/o, No Significant Past Medical History
- c/o SOB, Cough, Abdominal Pain
  - SOB at rest and while running, chest pain
  - “Difficult to breathe, Heavy on chest, Lungs are full”
  - “Concerned for COVID”
- No fever, no N/V/D, No Sore throat, No Myalgias
- T98.6 F, HR 118, BP 112/75, 100% RA
- Next Steps? Questions?

# CASE ONE: OUTCOME

- Exam was normal
- Mask placed on patient for COVID precautions → Patient reports he can breathe again, feels better
- Repeat vitals (after mask): HR 93, 98.6, 100% RA
- Ultimate Diagnosis: Anxiety

# CASE TWO: FAMILY MATERNITY CENTER

- G3P2→3 presents in labor at 38 weeks
- Normal pregnancy, normal prenatal studies
- Mom healthy, no symptoms concerning for COVID (no recent fever, cough, GI symptoms, sore throat, etc)
- Uncomplicated Vaginal Delivery
- Mom spikes fever after delivery, develops mild respiratory distress
- Questions? What do you do for baby?

# CASE TWO: OUTCOME

- Concern for maternal COVID – Maternal test pending
- Infant treated as PUI – sent to NICU into isolation room
  - Bathed ASAP
  - COVID Test sent at 12 HOL → NEG
  - Vital signs closely monitored
  - Fed EBM by FOB and RNs, everyone wearing mask, gown, gloves
- Repeat test sent at 48 HOL, prior to discharge
- Maternal test returns negative

# References

- Coronavirus Disease 2019 in Children — United States, February 12–April 2, 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:422–426. DOI: <http://dx.doi.org/10.15585/mmwr.mm6914e4external icon>
- Puopolo, KM, Kimberlin DW. Initial Guidance & Management of Infants Born to Mothers with COVID-19. *AAP Academy of Pediatrics Committee on Fetus & Newborn, Section on Neonatal and Perinatal Medicine, and Committee on Infectious Diseases*. 2020, Apr 2. <https://downloads.aap.org/AAP/PDF/COVID%2019%20Initial%20Newborn%20Guidance.pdf>
- Chen H, Guo J, Wang C, et al. Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records. *Lancet*. 2020;395(10226):809–815

More to come...

**Friday, May 1 at 1 pm MT – Behavioral Health in the Time of COVID-19**

After this week, sessions will now be held once per week on Tuesdays at noon MT