OKLAHOMA STATE UNIVERSITY CENTER FOR HEALTH SCIENCES

Project ECHO™

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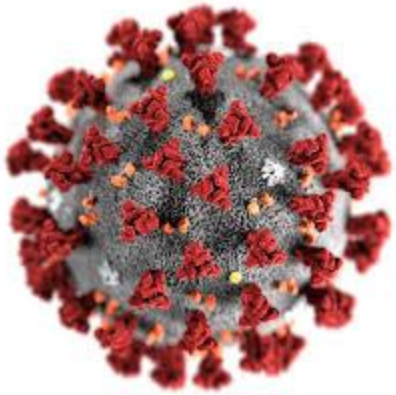

Project ECHO Use During a COVID 19 Pandemic

Joseph R Johnson, DO, FACOOG (Dist)
Associate Dean for Project ECHO
Former Endowed Chair GKFF Ob/Gyn

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Disclosures

- Joseph R. Johnson, DO, FACOOG (Dist)
- Associate Dean – OSU CHS Project ECHO
- Endowed Chair, George Kaiser Family Foundatio
- Past Chair Department Ob/Gyn

- No Financial Disclosures
- No off label recommendations
- No personal ECHO investor's

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Learning Objective

- Understand the pandemic crisis needs in Oklahoma
- Learn methods to seek rapid dissemination information
- Understand evidence-based consultation services
- Learn Project ECHO methodology

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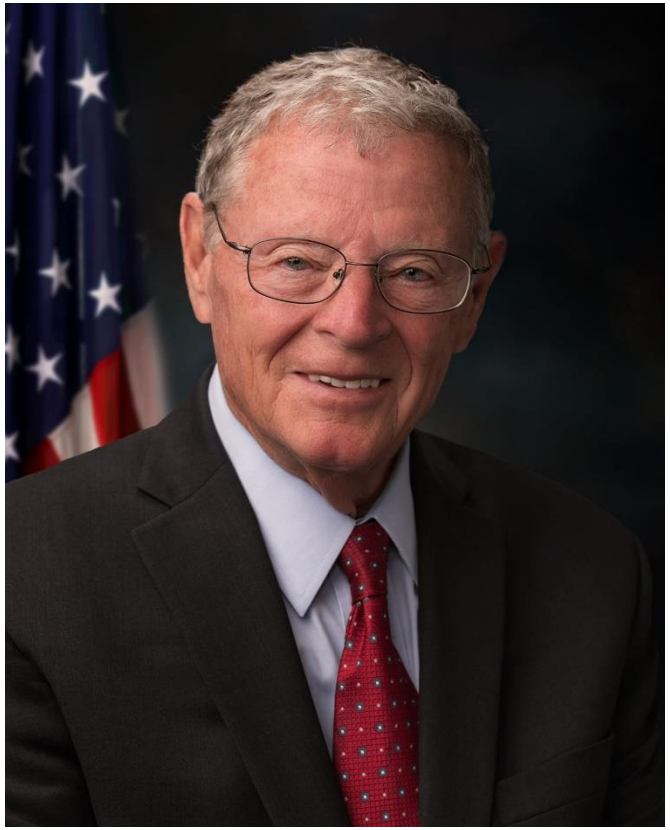

U.S. Senator Jim Inhofe

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TANDY
OKLAHOMA STATE UNIVERSITY
CENTER FOR HEALTH SCIENCES
A.R. "MARYLOUISE" TANDY BUILDING

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Race for TeleMedicine

- COVID-19 threatens to overwhelm the US healthcare system and supply chains.
- Telemedicine systems can be used to prevent overcrowding while preventing human exposures and facilitating high-quality care.
- State and federal laws and regulations have evolved in recent years, months, and days to facilitate greater reimbursement for and adoption of various telemedicine models, including those incorporating nonphysician providers.

Imagine If:

An Educational Platform could touch and save lives of Oklahoma patients in the communities where they live

OSU Project ECHO Principles

- A - Utilization of Advanced Technology
- B – Providing “Best Practices: of current knowledge
- C – Collaboration and Capacity building through Curriculum
- D – Data collection to identify effectiveness

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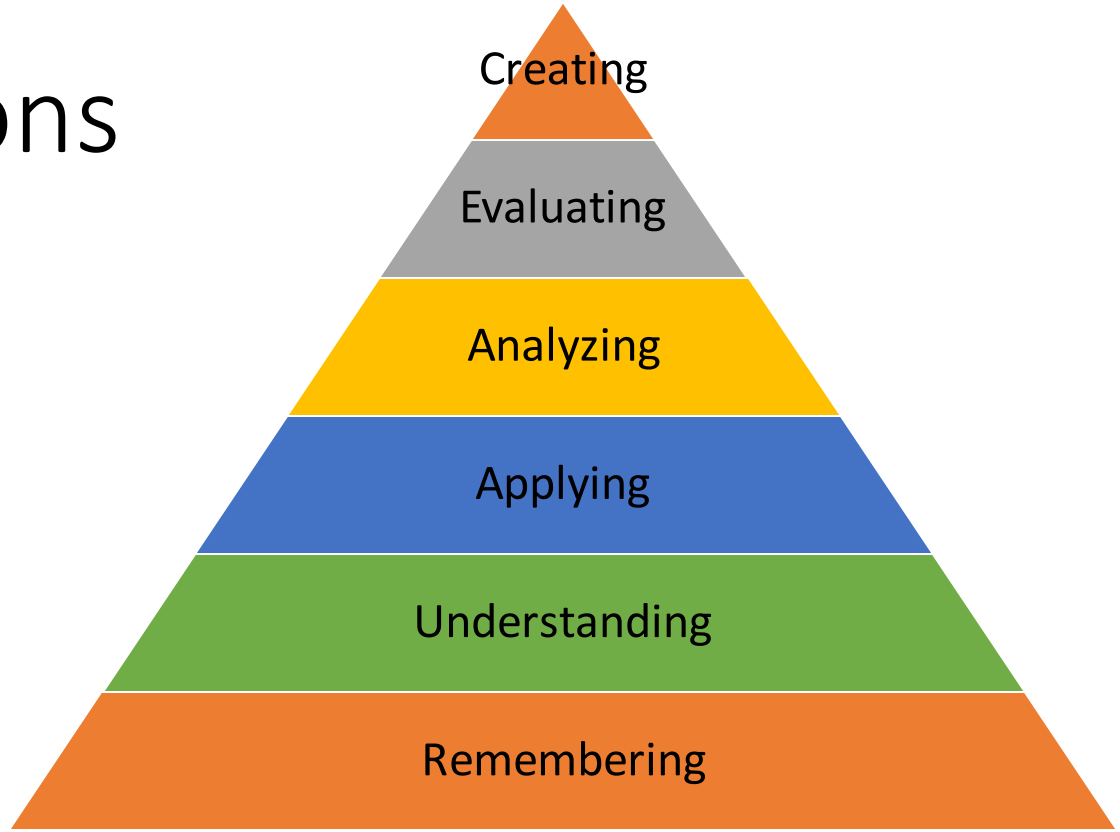
Knowledge is Key

- Team-based approach necessary for the provision of quality health care
- A strong partnership with complementary roles
- Appropriate framework
  - Specialists
  - Primary care providers
  - Mid-level providers

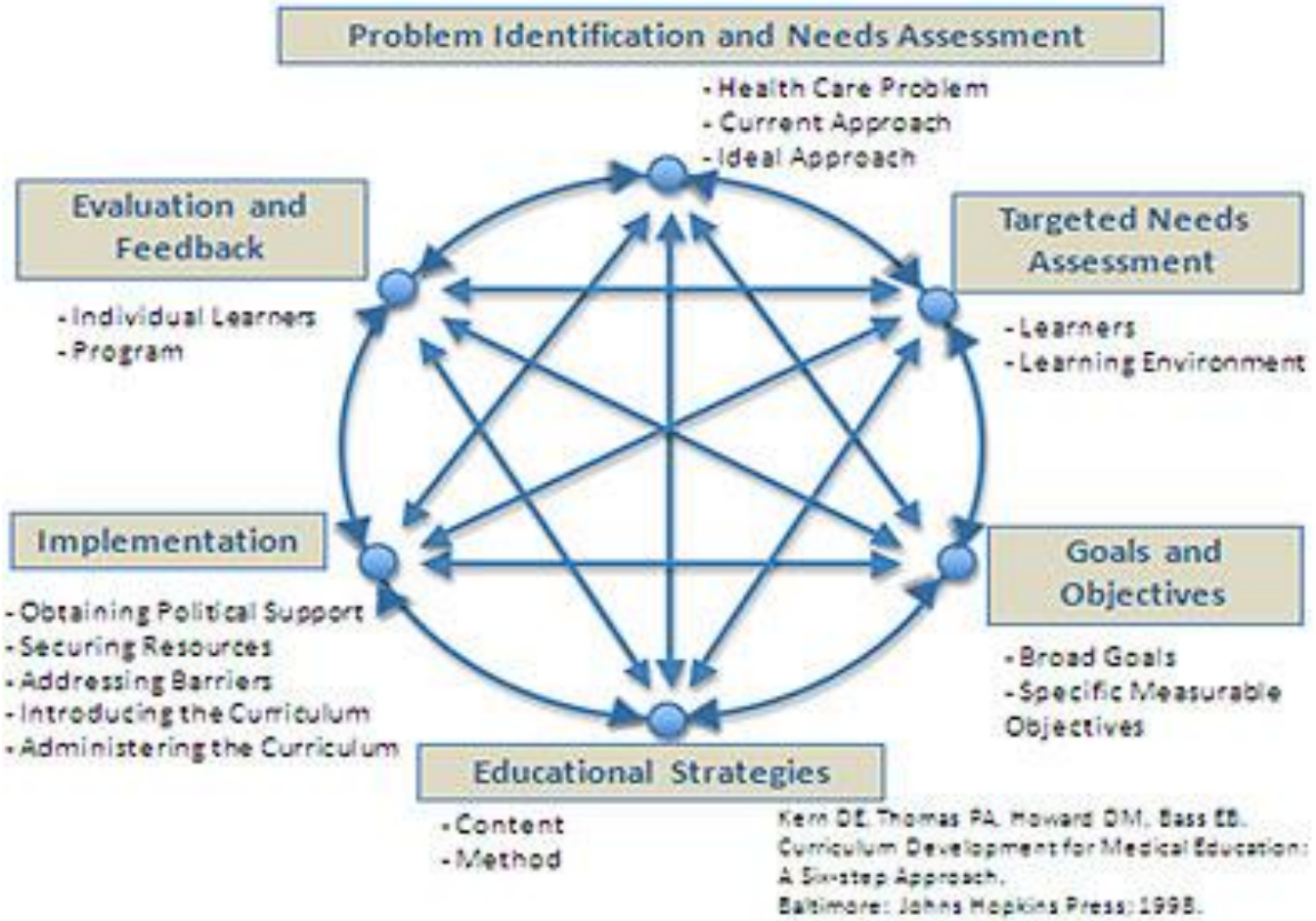
Tele-education Applications



- Bloom' Taxonomy
  - Educational psychology
  - Performs higher levels of learning
- Three Areas of Learning
  - Cognitive: mental skills (knowledge)
  - Affective: grow in feelings/emotional (attitude/self growth)
  - Psychomotor: manual or physical skill set

Knowledge - Following Kern's Model of Curriculum Development

- Undergraduate
- Medical Ed
- Graduate Med Ed
- Continuing Ed



Deliberate Practice – Through ECHO Training

- Make sure proper training
- Give ample mentorship
- Remediate as needed
- Retest until Mastery

Oklahoma Disparities – Travel the State

- Despite efforts to eliminate health disparities
  - Racial
  - Ethnic
  - Geographic groups
  - Lag behind their counterparts

Broken
Bow, OK

Hollis, OK

Disparities in Oklahoma

- Minorities are less likely to receive specialty care
- Access to specialty care is mediated by various factors, such as physician referral, geographic location, and insurance type
- Residents of rural areas are less likely to have access to specialty health care providers
- Low income populations
- 46-56% Related chronic diseases worse outcomes in rural communities

Specialty Care Use in US Patients with Chronic Diseases
Jessica D Bellinger, et al; Int J Environ Res Public Health. 2010 Mar; 7(3): 975–990

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Medical Teams - Homes

- Key needs include understanding what a good composition may be for the medical home
- How much care coordination, nursing care, mental health resources and pharmacy assistance are available
- Effectiveness of varying compositions of telehealth consultations need to be evaluated with respect to cost and outcomes
- Application of Best-Evidence Based practice guidelines

J Gen Intern Med. 2010 Oct; 25(10): 998–999.
Primary Care and the US Health Care System: What Needs to Change?
David W. Bates, MD

Poverty

- Linked to a higher burden of mental illness
- Inadequate professional mental health services
- Variables such as:
  - Education
  - Food insecurity
  - Housing
  - Socioeconomic status
  - Financial stress exhibiting a strong association

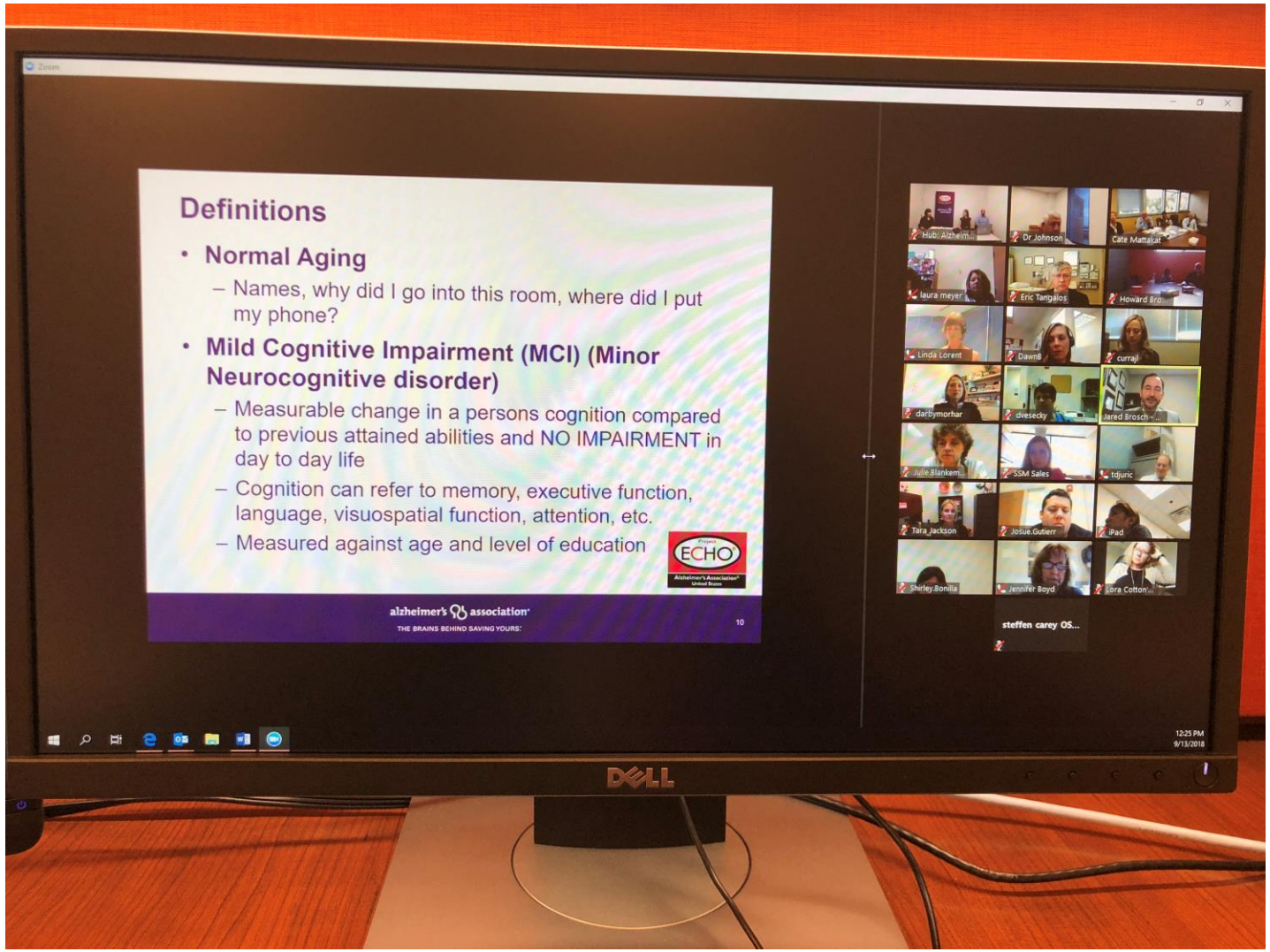
Needs for Collaboration

- Integrated care
- Collaborative care
- High prevalence rates and unmet treatment needs of patients with severe mental illnesses
- In both developed and less developed countries - inadequacies seen in conventional biomedical models of mental health care

Perm J. 2017; 21: 17-024.
Urgent Need for Improved Mental Health Care and a More Collaborative Model of Care
James Lake, MD

ECHO Model 4 Key Principles

- Using Technology
- Best Practices Model
- Case-based Learning
- Web-based Data



Selection Criteria

- Common Problems
- But Management is Complex
- Evolving Best Practice Guidelines
- High Societal Impact
- Serious Outcomes if not Addressed

Force Multiplication

- The Logarithmic Expansion in Capacity to Deliver Best Practices for Underserved Populations
- Ten Times or More Impact
- All Teach All Learn
- Conserves scarce resources

Race for TeleMedicine

- Patients are under lockdown and health workers are at risk of infection
- Surge in cases of coronavirus disease 2019 (COVID-19), physicians and health systems worldwide are racing to adopt virtualized treatment
- Ten-fold increase in the last couple of weeks

The Lancet, Published: 11 April 2020
DOI: https://doi.org/10.1016/S0140-6736(20)30818-7

COVID 19 and Education

- Coronavirus disease 2019 rapid transformation in knowledge acquisition
- Experience physicians, APN and Pa's become new learners
- Equally they become potential vectors
- Understanding best practices becomes vital
- Impact on medical education of pandemic decreases detremential effects

COVID 19 and Education

- Widespread panic and uncertainty
- What has history taught us about Education during pandemic
  - Spanish Flu – 1918 H1N1 “Spanish Flu” affected 500M killed 50M
    - Philadelphia ignored warnings 200,000 gathered, 4,500 dead in a week
    - St Louis immediate social distancing < ½ the Phil death rate
  - SARS – Severe Acute Respiratory Illness
  - COVID 19 – Coronavirus Disease 2019

COVID 19 and Education

- 48 States and every US Territory
- 124,000 Public School closures
- Adverse effects of school based meals – USDA Waivers
- US Dept ED – one-waivers on state requirements for low performance schools – 95% testing rates per state
- Approved distance learning platforms
- 4-16-2020 State funding approvals for technology services…study at home programs

Challenges

- Internet connections for hosts at remote sites
- Remote spoke site participation
- Governor's announcement – secure data list serves
- Storms – rain, lightening and hail
- Trains, planes and automobiles
- Fire Alarms

Governors Surge Plan

- Physicians, Advanced Nurse Practioners and Physician Assistants
- Hospitals in Urban, Rural and Critical Access Lines
- Emergency Medical Services and Trek
- Nursing homes, extended care and hospice
- Mental Health and Addiction Services
- Medical Examiners and Funeral Directors

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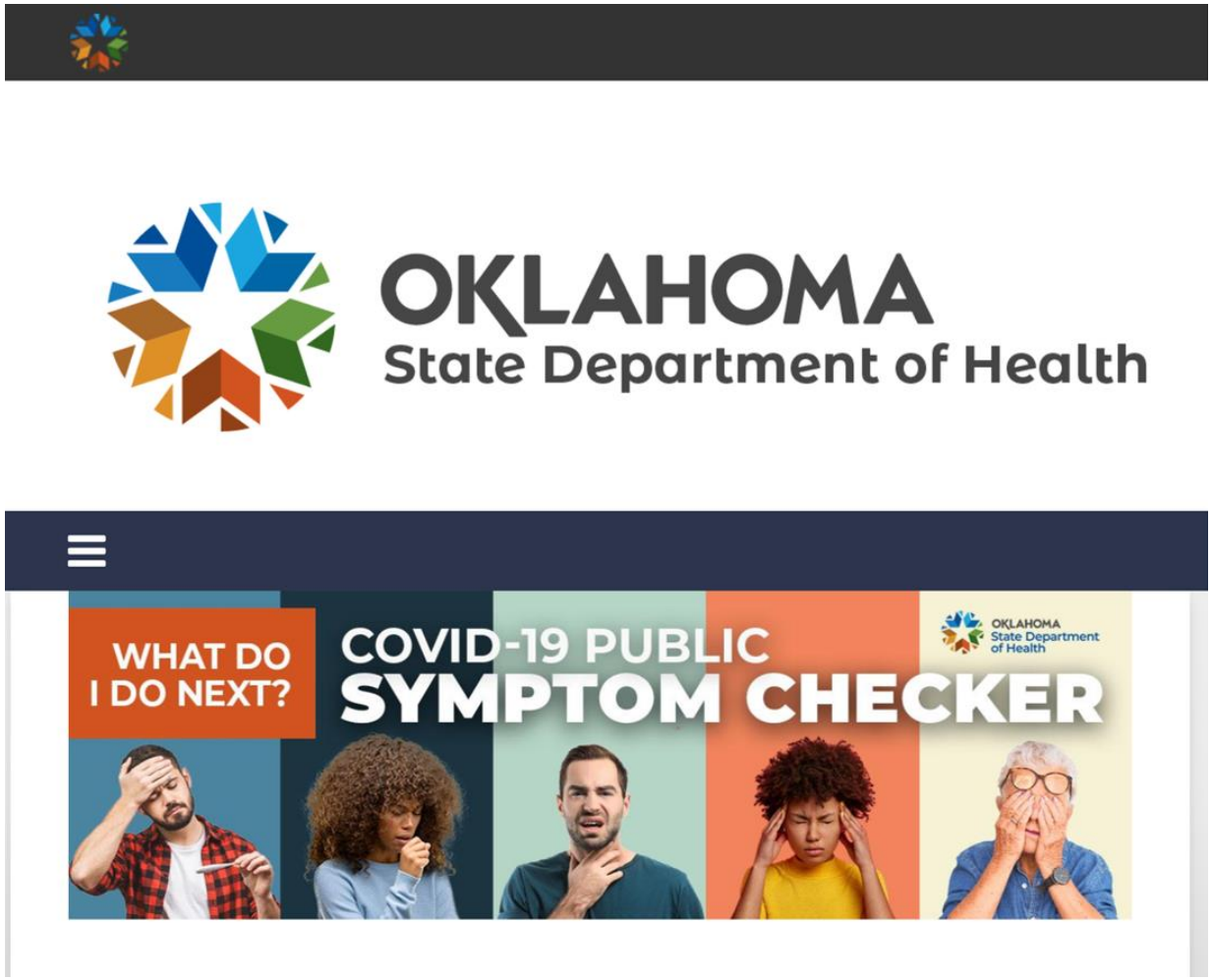
Physician Education – Project ECHO

- Look at the current “State of the State”
- Incorporate real-time numbers and projections from the Surge Committee
- Speakers providing information to the local levels
- Current Evidence Based Guidelines and Research
- Resources
- Case-Based learning
- Questions and Answers

Disease Profile

- Illness Spectrum:
- Asymptomatic (loss of smell/taste)
- Symptomatic
- Mild respiratory viral illness (>80%)
- Non-life-threatening pneumonia
- Severe pneumonia/ ARDS/Cardiomyopathy
  - Severe cases appear bimodal
  - mild illness converting to abrupt hypoxia
- Incubation: 1-14 days (avg 5-6)
- Duration:
  - 2 weeks (mild)
  - 3-6 weeks (severe)
- Immunology: unknown



OSHD Symptom Checker

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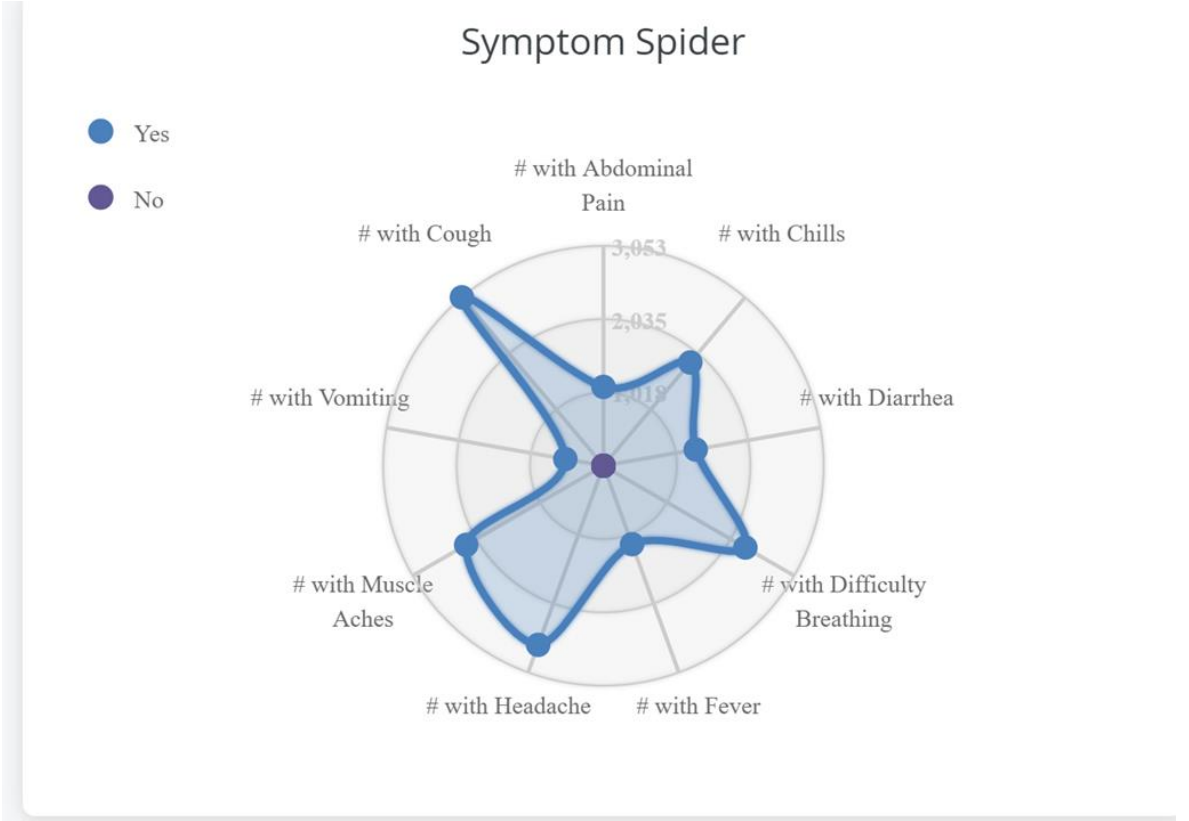
OSHD Symptom Dashboards



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A SEATTLE INTENSIVIST'S GUIDE TO COVID-19

by Nick Mark, MD

onepagericu.com
@nickmmark

Link to the most current version →

Nomenclature

Virus: SARS-CoV-2, 2019 Novel Coronavirus
Infection: Coronavirus Disease 2019 a.k.a. COVID-19
NOT "Wuhan Virus" NOT "China Virus"

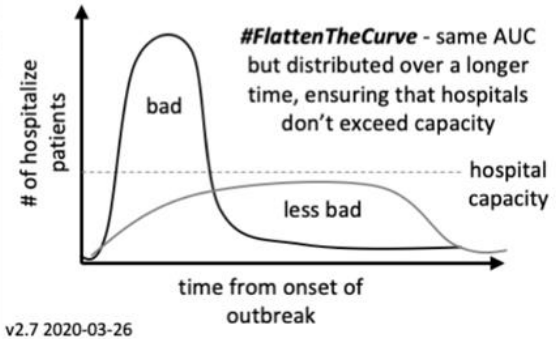
Biology

- 30 kbp, +ssRNA, enveloped coronavirus
- Likely zoonotic infection; source/reservoir unclear (Bats? / Pangolins? → people)
- Spread primarily ***person to person***;
  - Can be spread by asymptomatic carriers
- Viral particles enter into lungs via ***droplet nuclei***
  - CDC/WHO recommend AIRBORNE isolation
- Viral S spike binds to ACE2 on type two pneumocytes
- Effect of ACE/ARB is unclear; not recommended to change medications at this time.
- Other routes of infection (contact, enteric) possible but unclear if these are significant means of spread

Epidemiology

- Attack rate = 30-40% (China)
- R_0 = 2-4
- Case fatality rate (CFR) = 2.3% (China) 1.4% (US)
- Incubation time = 3-14 days (up to 15 days)
- Viral shedding – median 20 days (max 37 days)
- Breakdown of disease severity
  - **80%** Non-severe (mild pneumonia; home)
  - **15%** Severe (hypoxia, hospital wards)
  - **5%** Critical (respiratory failure; ICU)

Disease clusters: SNFs, conferences, cruise ships, etc.
Strategies: handwashing, social distancing, quarantine



#FlattenTheCurve - same AUC but distributed over a longer time, ensuring that hospitals don't exceed capacity

v2.7 2020-03-26

Diagnosis/Presentation

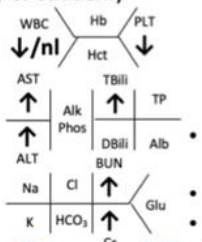
Symptoms reflecting recent US experience

- 50-80% **cough**
- 45% **febrile** on presentation (85% febrile during illness)
- 20-40% **dyspnea**
- 15% URI symptoms (rhinorrhea, odynophagia, etc)
- 10% GI symptoms
- Other**: Myalgia, fatigue, anorexia** (unclear if anosmia is a sx)
- Respiratory failure can occur progressively or suddenly

Labs

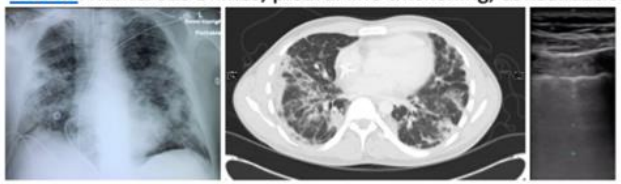
- CBC: Leukopenia & **lymphopenia** (80%+)
- BMP: ↑BUN/Cr
- LFTs: ↑AST/ALT/Tbili
- ↑ D-dimer, ↑ CRP, ↑ LDH
- ↑ IL-6, ↑ Ferritin
- ↓ Procalcitonin

*PCT may be high w/ superinfxn *



Imaging – (NOT diagnostic, 17% have negative CT on presentation)

- CXR: hazy **bilateral**, **peripheral** opacities,
- CT: peripheral **ground glass opacities** (GGO), reticular markings, , progressive to dense consolidations *rarely may be unilateral*
- POCUS: numerous B-lines, pleural line thickening, consolidations



Isolation

- Phone call is the best isolation (e.g. move to telemed)
- Place patient in mask, single room, limit/restrict visitors
- Move ventilator controls and IV pumps OUTSIDE the room if possible (conserve PPE, reduce exposure, save time)

Precautions

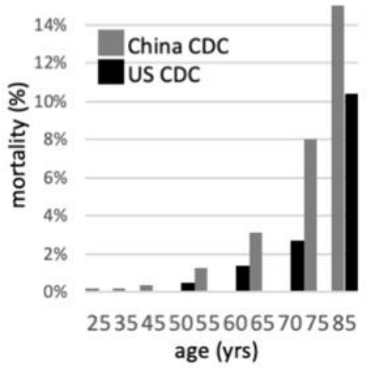
- In correct sequence: **STANDARD** + **CONTACT** (double glove) + either **AIRBORNE** (for aerosolizing procedures: intubation, extubation, NIPPV, suctioning, etc) or **DROPLET** (for everything else; ***ideally*** airborne); improvised cloth masks likely ineffective
- N95 masks must be fit tested; wear eye protection
- PPE should be donned/doffed with **trained observer**
- Hand hygiene: 20+ seconds w/ soap/water (likely more effective than alcohol containing hand gel)

Treatment

- Isolate & send PCR test early
- GOC discussion / triage
- **Fluid sparing** resuscitation ± empiric antibiotics
- Intubate early under controlled conditions: **RSI**, no bagging, **VL**, have suction & capnography connected to avoid circuit breaks.
- Avoid NIPPV (aerosolizes virus) consider **helmet** (if available)
- Avoid nebulizers (MDI instead); avoid bronchoscopy
- Mechanical ventilation for ARDS
  - **LPV** per ARDSnet protocol
  - **PEEP**/**Paralytics**/**Proning**/inhaled **Prostacyclins/NO2**, etc
  - ? High PEEP ladder may be better
  - ? ECMO in select cases (unclear who)
- Weaning: consider no PEEP SBT, turn ventilator to standby then pull tube with covering over patient to minimize viral spread
- Consider using POCUS to ***screen for cardiomyopathy***
- Investigational therapies: consider clinical trial, see CDC for details:
  - Remdesivir - not approved; RCT
  - Hydroxychloroquine (HCQ), Chloroquine (CQ) – available; HCQ has greater activity in vitro than CQ. ***Minimal*** data for HCQ+Azithro (reduced viral load in small non RCT study)
  - Tocilizumab – available; investigational for pt in **shock**
  - Lopinavir/ritonavir – available; recent negative RCT
  - Convalescent serum – available by emergency IND
  - Corticosteroids – **controversial** (SCCM yes, WHO/CDC no)
  - Oseltamivir - **not** recommended (no evidence of efficacy)

Prognosis

- **Age** (see figure) and **comorbidities** (**DM** 7.3%, **COPD** 6.3%, **HTN** 6%, **CVD** 10.5%, **cancer** 5.6%) are significant predictors of poor clinical outcome; admission **SOFA** score also predicts mortality.
- High mortality (50-80%) in intubated pt w/ comorbidities
- Lab findings predict mortality (↑ d-dimer, ferritin, troponin, cardiac myoglobin)
- Expect prolonged MV
- Complications: 2° infection (VAP) (31% in Chinese cohort), **Cardiomyopathy** (33% in US cohort)



One Pager updated March 26

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Treatment

- Isolation: home, ward, ICU
- Mainstay is SUPPORTIVE
  - Fluid resuscitation (carefully)
  - Symptom management: dyspnea, cough, nausea, agitation
- Don’t be afraid of opioids and anxiolytics (CAPC)
  - Favor MDI with spacer (nebs aerosolize)
  - AVOID: NSAIDS, Corticosteroids (both are still questionable)
- Oxygen
- Intubation if severe dyspnea, allowance for “happy hypoxia”
  - Surviving Sepsis Guidelines: COVID-19 published
- Trials underway (hydroxychloroquine, anti-virals, vaccines, plasma)
  - FDA approves emergency use for chloroquine and hydroychloroquine

COVID-19 in numbers

	Positive	Deaths	Population
World	2,582,529	178,481	7,700,000,000
US	825,306	45,373	330,000,000
OK	2,807	164	4,000,000

[Johns Hopkins Map]

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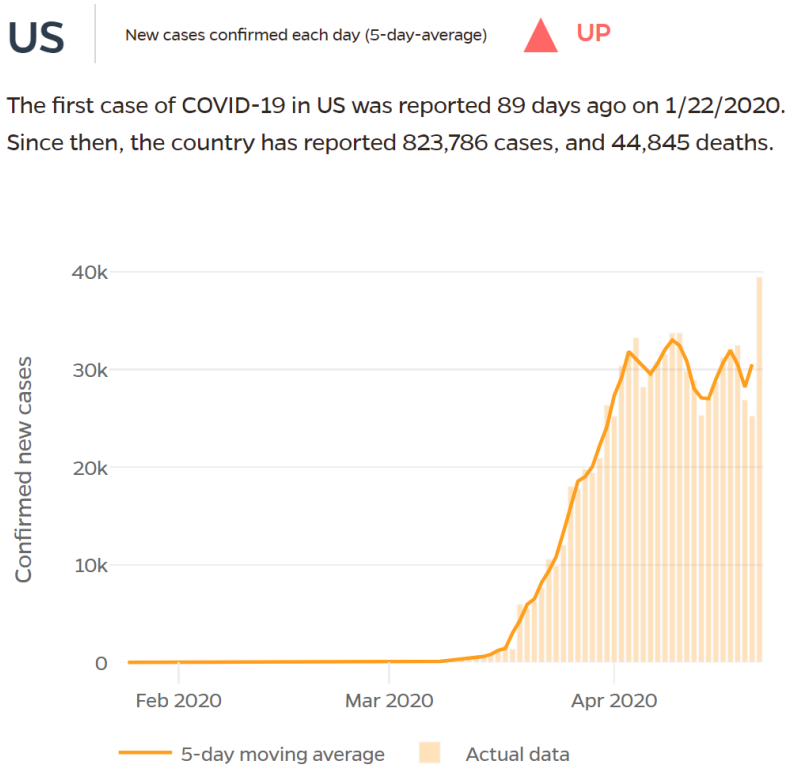
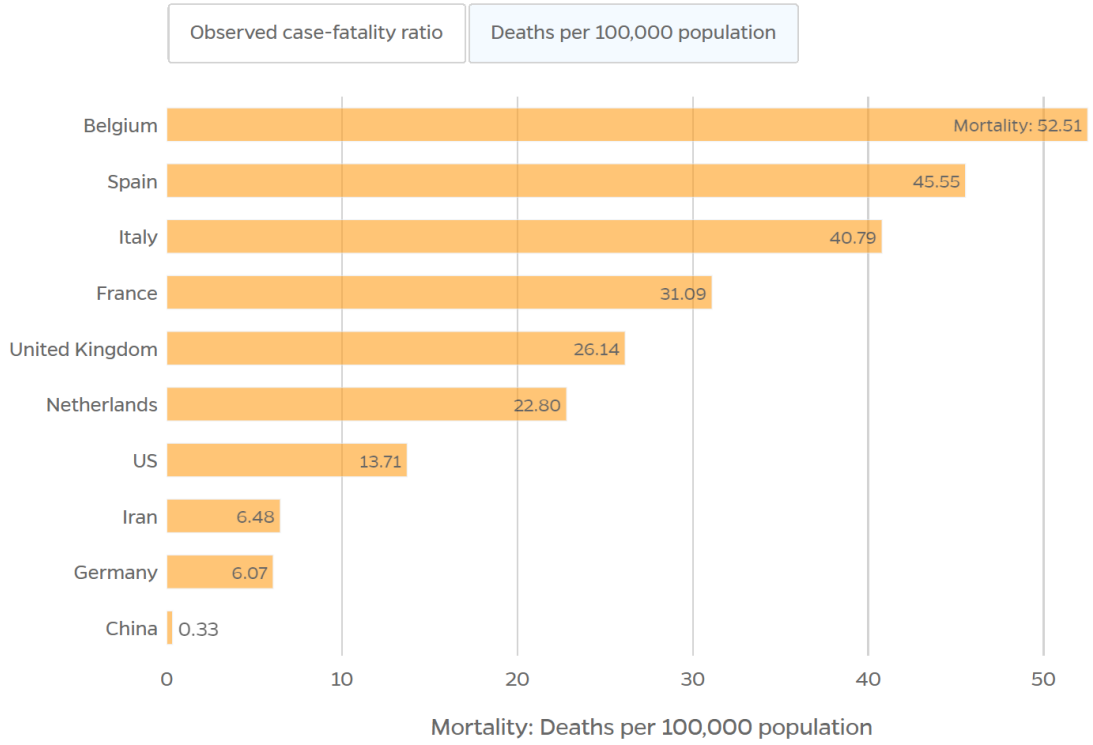


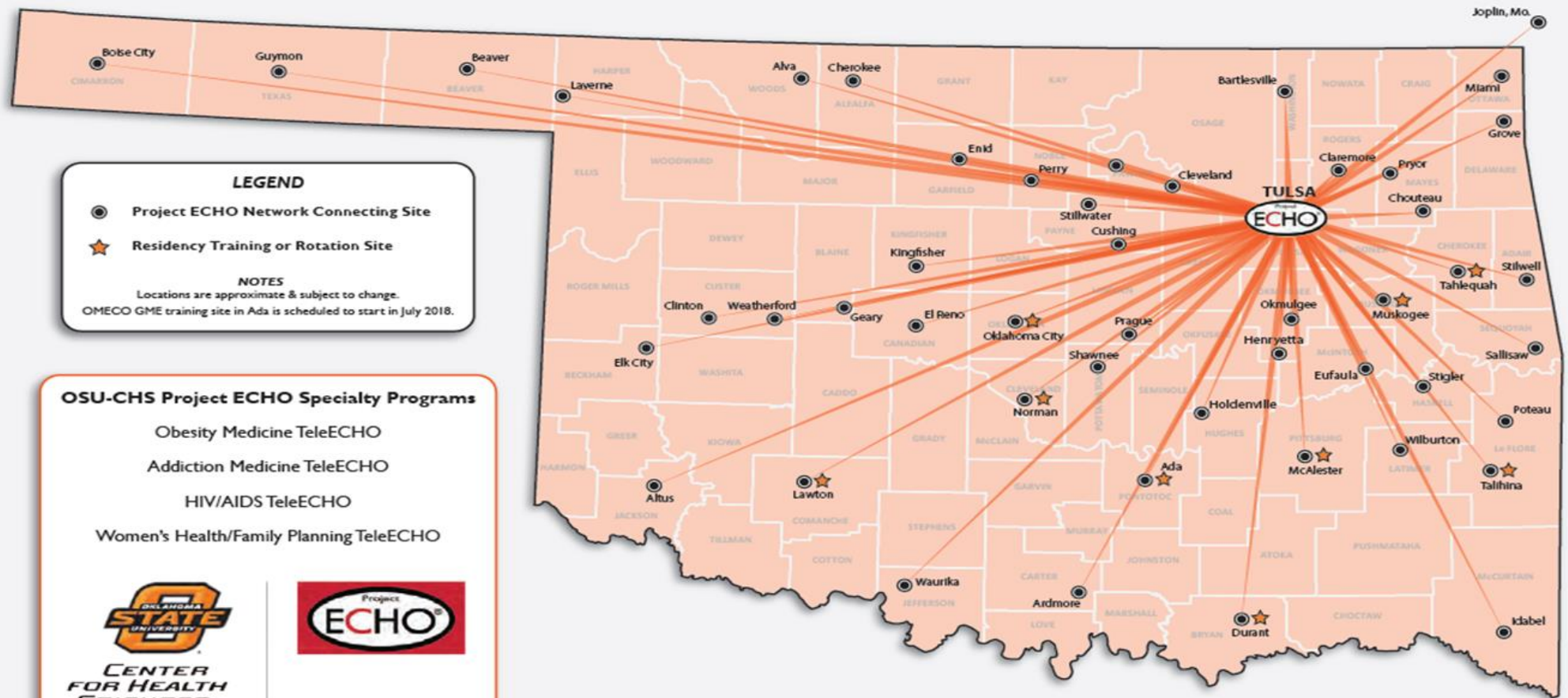


Worldwide mortality

Trends: JHU

- US appears to have peaked
- US deaths/100,000 is 13.7; deaths/cases is 5.4%
- OK deaths/100,000 is 4.1; deaths/cases is 5.8%

OSU-CHS Project ECHO
Hub-and-Spoke Knowledge-sharing Network



LEGEND

- Project ECHO Network Connecting Site
- Residency Training or Rotation Site

NOTES

Locations are approximate & subject to change.
OMECO GME training site in Ada is scheduled to start in July 2018.

OSU-CHS Project ECHO Specialty Programs

Obesity Medicine TeleECHO

Addiction Medicine TeleECHO

HIV/AIDS TeleECHO

Women's Health/Family Planning TeleECHO

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WANT TO LEARN MORE?
echo.okstate.edu

Map Produced by
OSU Center for Rural Health
OSU Center for Health Sciences
Tulsa, Oklahoma
February 3, 2017
https://ruralhealth.okstate.edu

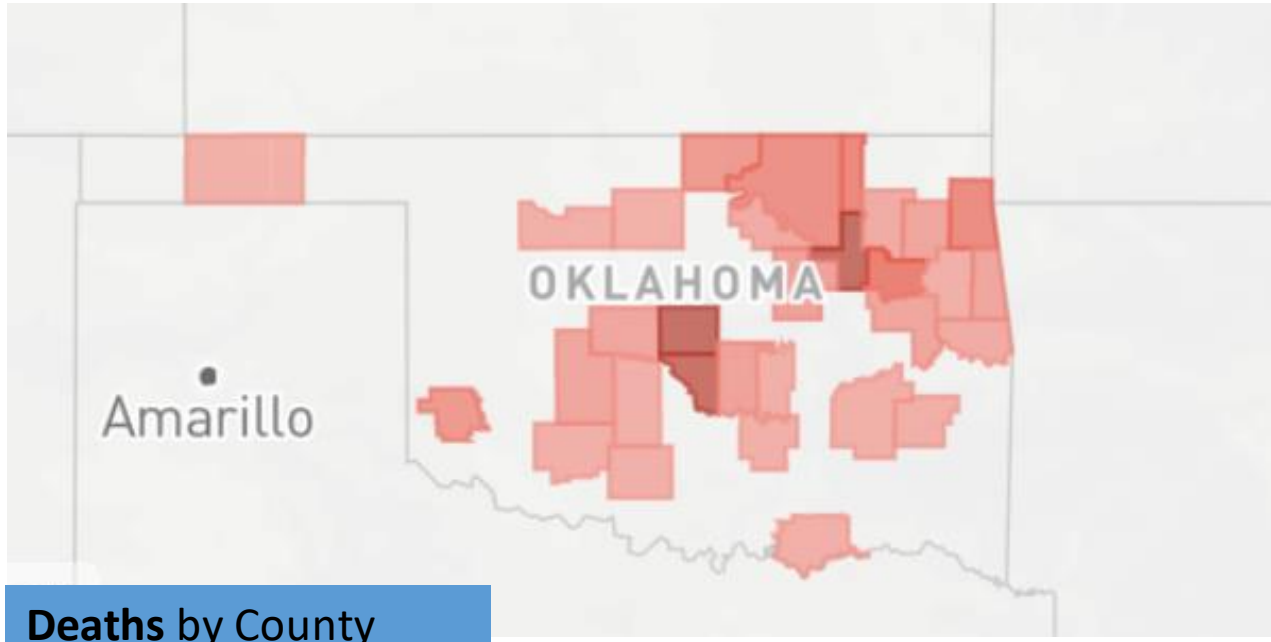
Oklahoma's Community Spread

[OSDH]

COVID-19 Total Cases 4/21	
Total Positive	2,807
Recovered	1,702
Hospitalized	588
Deaths	164

COVID-19 Deaths by County (Top 3) 4/21	
Cleveland	23
Oklahoma	24
Tulsa	25

Cases by County
69 of 77



Deaths by County

OK COVID-19 PATIENT PROFILES

Profiles	
Ave age at death	73.6 yrs.
Ave age hospital	65.0 yrs.
% co-morbidity	66.5%
# HCP	489

Demographic	Cases	Deaths
American Indian	7.3%	7.9%
Asian	2.0%	0.6%
Black	5.3%	6.7%
Hispanic or Latinx	7.7%	2.4%
White	71.4%	78.1%
Other/Mtpl Races	3.3%	3.1%
Female	56.2%	47.0%
Male	43.6%	53.0%

County	Cases	Deaths
Caddo	39	2
Cleveland	121	14
Comanche	2	0
Craig	1	0
Creek	2	0
Custer	2	0
Delaware	68	9
Dewey	2	0
Grady	2	0
Greer	42	5
Jackson	2	0
Kay	1	0
Kingfisher	1	0
Kiowa	1	0
Major	1	1
Mayes	1	0
McClain	3	0
Muskogee	3	0
Oklahoma	65	5
Osage	32	6
Ottawa	8	0
Pittsburg	3	1
Pottawatomie	1	0
Rogers	2	1
Tulsa	49	6
Wagoner	51	6
Washington	59	5
Total	564	61

Data contained in this report are preliminary and may be subject to change.

NH Deaths 61

Executive Order Reports Data as of 4/21/2020

Oklahoma Moral Injury

- Suicide is currently the second leading cause of death in 15 to 29 year olds
- Between 10 and 20 million depressed individuals attempt suicide every year and approximately 1 million complete suicide
- In 2016 the World Health Organization declared depression to be the leading cause of disability worldwide

Surge Plans

- 1. Hospital Based Response
  - a. Screening all employees via temperature check upon entry
  - b. Single entry into hospital
  - c. Staggered roll out for reducing visitor
  - d. This has gone to no visitors, unless by exception
- 2. Daily COVID hospital taskforce meeting to discuss:
  - a. PUI vrs. Confirmed
  - b. Healthcare workforce assessments – treatment options
  - c. Need for expansion of COVID units
  - d. PPE assessments

Surge Plans

- 6. Development of DNR guidance statements
- 7. Development of protocol for resuscitation to minimize staff exposure
- 8. Development of an airway team to maximize first pass success rate
  - a. Maximal interaction with ED to ensure continuity of patients
- 9. Designated COVID physicians to maximize our healthcare workforce

Surge Plans

- 10. Movement to all tele-consultation as necessary
- 11. Discontinued elective surgeries and halting all surgical/diagnostic/imaging that are considered non-essential.
  12. Triage tent for ED (strategizes entry into the ED in a safe manner)
- 13. Clinic Based Response
  - a.Move significantly towards virtual visits.
  - b. Designated Testing Sites
- 14. Diagnostic Lab
- 15. Healthcare Workforce Testing

Surge Plans

- 16. COVID Response Hotline
  - a. We have also established a COVID-19 Community Call Center (918-599-5300) to answer questions that the public may have about what to do if they feel sick or need to see a doctor. Call center hours are 8 a.m.-5 p.m., Monday-Friday, with the ability to expand.
- 17. Employee Health
  - a. We have expanded OSU-CHS Counseling Services to include virtual visits for all CHS students, residents, and employees. To access the one-on-one confidential support line call 918-561-1822, Monday-Friday, 9 a.m.-5 p.m. Or you may schedule an appointment online at: https://chscounselingservices.as.me.
- 18. Leadership Insights
  - a. Empathy
  - b. Transparency
  - c. Proactive

Hospital Association

Telehealth in OK during COVID 19

Sandra Harrison, J.D., M.P.A. VP Legal and Regulatory,
Oklahoma Hospital Association
Chairman, Telehealth Alliance of Oklahoma

April 1, 2020 for Project ECHO

Federal or National Policy

Practice Guidelines

- American Medical Association Practice Guidelines[i]
- American Osteopathic Association Practice Guidelines[ii]
- American Nurses Association[iii]
- American Academy of Pediatrics[iv]

Federal Communications Commission

- Chairman Pai Announces Plan for $200 Million COVID-19 Telehealth Program[v]

Reimbursement – Medicare

- The federal CARES Act permits FQHCs and RHCs to serve as distant sites to provide telehealth services to patients in their homes and other eligible locations during this emergency period. The legislation will reimburse FQHCs and RHCs at a rate that is similar to payment for comparable telehealth services under the physician fee schedule.[vi]

CMS is expanding access to telehealth in the following ways for the duration of the COVID-19 pandemic:[vii]

Provide Resources

OSUCHS PROJECT ECHO COVID-19 OKLAHOMA UPDATE ECHO
COVID-19 RESOURCE LIST
March 23, 2020

Center to Advance Palliative Care (CAPC) **COVID-19 Resources**

1. COVID-19 Palliative Care toolkit: https://www.capc.org/toolkits/covid-19-response-resources/?fbclid=IwAR3yJM7wgHnbIram3kckfJCRuFFxjW9fDNrdKyy8JkkpDHVHWQH-Vi6Sdhk

Personal Protective Equipment (PPE) **COVID-19 Resources:**

1. Harbor Freight Tools donating PPE supply to hospitals: https://www.wral.com/coronavirus/harbor-freight-tools-donating-their-entire-supply-of-needed-ppe-to-hospitals/19024685/
2. Harbor Freight Tools- PPE Request Form: https://www.harborfreight.com/ppe-request.html?cid=go_social
3. Occupational Safety and Health Administration (**OSHA**)- PPE Respiratory Protection: https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_id=12716&p_table=standards
4. **CDC-** Strategies for optimizing facemask supply: https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/face-masks.html

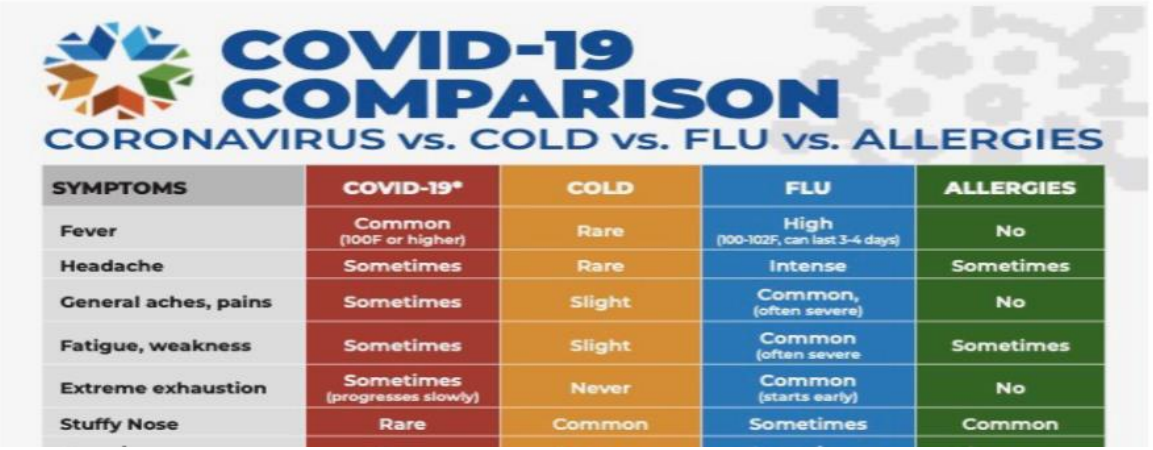
COVID-19 Helplines

1. Oklahoma 211: https://211oklahoma.org
2. Mental Health Resources: https://coronavirus.health.ok.gov/sites/g/files/gmc786/f/mentalhealthresources-01.png

COVID-19 DATA

1. Our World In Data- statistics and research: https://ourworldindata.org/coronavirus

MISCELLANEOUS:



SYMPTOMS	COVID-19*	COLD	FLU	ALLERGIES
Fever	Common (100F or higher)	Rare	High (100-102F, can last 3-4 days)	No
Headache	Sometimes	Rare	Intense	Sometimes
General aches, pains	Sometimes	Slight	Common, (often severe)	No
Fatigue, weakness	Sometimes	Slight	Common (often severe	Sometimes
Extreme exhaustion	Sometimes (progresses slowly)	Never	Common (starts early)	No
Stuffy Nose	Rare	Common	Sometimes	Common

OHCA Announcements

OKLAHOMA
Health Care Authority

Serving Oklahomans
through SoonerCare

SUBJECT/ISSUE	ACTIONS
ACCESS TO CARE	Expand use of telehealth for all SoonerCare reimbursable services effective March 16, 2020.
	Allow the use of telephonic services in instances when the SoonerCare member does not have access to telehealth equipment and the service can safely and effectively be provided over the telephone effective March 16, 2020.
	Suspend DME supplier requirement to obtain a signed delivery ticket for equipment, supplies or appliances delivered to a SoonerCare member between now and April 30, 2020. • If the pandemic continues beyond this date, OHCA will re-evaluate and emit new guidance.

Governor Announcements

March 27, 2020

House Passes the Coronavirus Aid, Relief, and Economic Security (CARES) Act

Legislation includes provisions important to hospitals and health systems

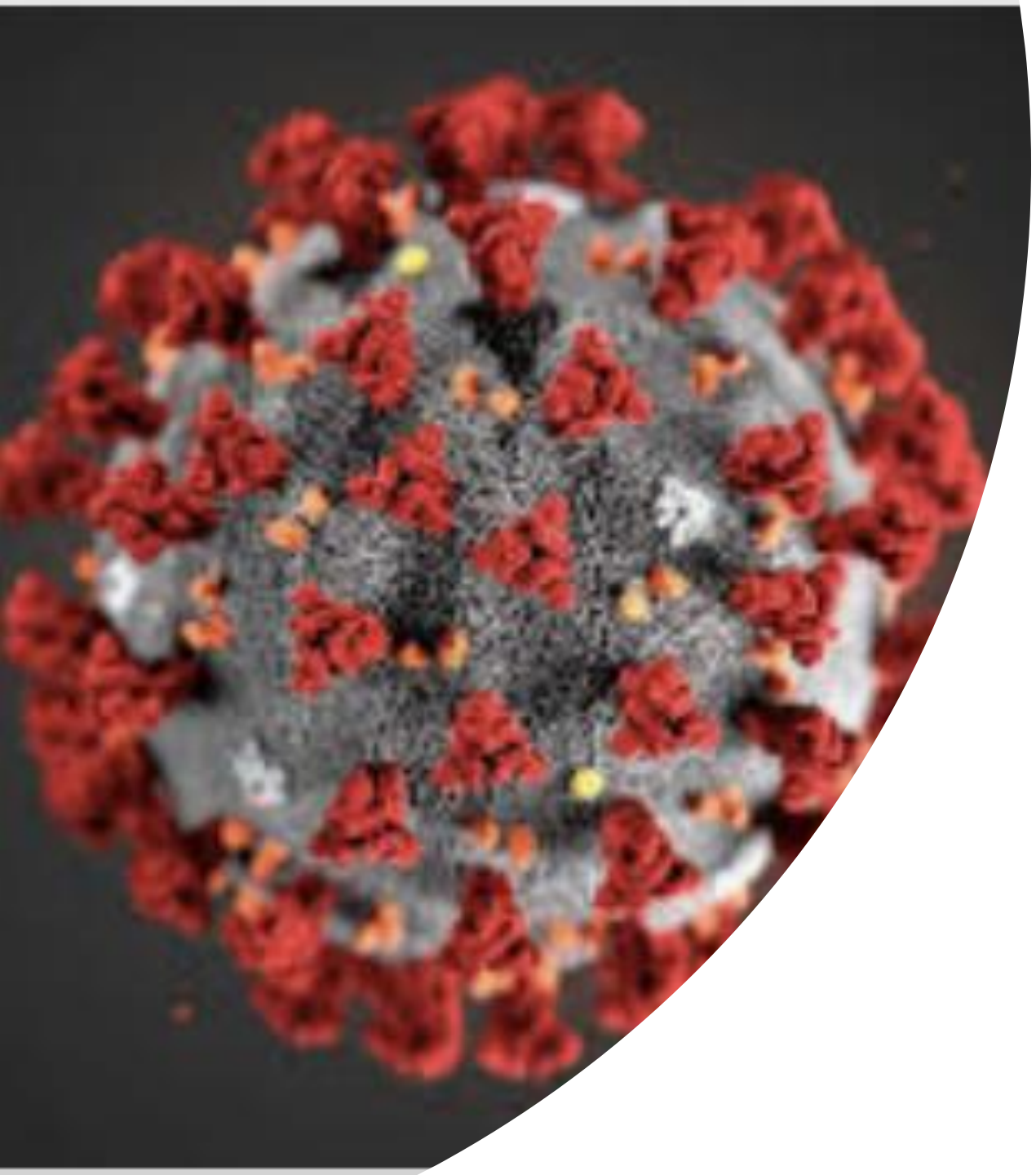
The House today by voice vote passed the Coronavirus Aid, Relief, and Economic Security (CARES) Act (H.R. 748). The legislation is the third large-scale congressional effort in response to the novel coronavirus (COVID-19) outbreak. The Senate passed the bill 96-0. President Trump is expected to sign it.

The legislation provides financial relief and resources to individuals, families and businesses particularly hard hit by the COVID-19 public health emergency. It also includes a number of important health care provisions. An emergency fund for hospitals and health systems, a Medicaid Disproportionate Share Hospital (DSH) cut delay, temporary

Key Takeaways

Among other health care-related provisions, the package:

- Increases funding to the Public Health and Social Services Emergency Fund by almost $127 billion to, among other things, reimburse hospitals for COVID-19 expenses;
- Creates a Medicare add-on payment of 20% for both rural and urban inpatient hospital COVID-19 patients;
- Removes the Medicare sequester from May through December 2020;
- Expands the existing option for hospitals to receive “accelerated” Medicare payments, including by ensuring critical access hospitals can access this option;



COVID Specialty Teams

- Information Provided by Key Specialists in their Fields
- Infectious Disease
- Palliative Care
- Virology and Lab Testing
- FQHC Community Impact
- Tribal Nation Impact

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Instructional Topics

- Dr Kayse Shrum – “Why Oklahoma State University is Launching State COVID 19 Response ECHO
- Dr. Jennifer Clark – Palliative Care Internist - An Overview of Today’s Numbers – It Changes Daily”
- Dr. Pia – Infectious Disease Internist – “Changing Recommendations as We Know Them”
- Dr Tara Jackson - Review of Current State of the State Resources

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Instructional Topics

- Patty Davis, President Oklahoma Hospital Association -“Available Resources to Assist Providers and Critical Access Hospitals During COVID 19 Pandemic”
- Sandra Harrison, OHA VP of Legal and Regulatory Affairs – “Available Waivers to Assist Providers During COVID 19 Pandeminc”
- Dr. Som – COVID 19 Task Force Recommendations for PPE Usage in Hospitals
- Chris Mendoza – CEO Alliance Health Ponca City – “A Rural Hospital’s Preparation and Response to COVID 19”

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Instructional Topics

- Traylor Rains – Deputy State Medical Officer, OHCA – “OCHA Reimbursement Flexibilities in Response to COVID 19”
- Jim Beyer, SPHR, SHRM- SCP – Administrative Director, Human Resources & Learning – Norman Health Systems – “COVID 19 Human Resources Issues
- Andy Fosmire – Vice President of Rural Health, Oklahoma Hospital Association – “Federal Laws Related to COVID 19 Response”
- Dr Douglas Drevets – OU Chair of Infectious Disease – “COVID 19 the ID Perspectives”

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Instructional Topics

- Sandra Harrison, Vice-President/Legal and Regulatory Affairs, Oklahoma Hospital Association – “Telehealth Changes in the COVID 19 Response
- Dr. Brian Goetsch – “COVID 19 Psychological Impact for the Home Bound Recommendations” and Q&A – 20 minutes
- Dr. Jennifer Clark – Palliative Care Internist -“BeSafeNotSacred” Video
- CEO Edred Benton, CNO Nicki Siler, Cleveland Area Hospital – “COVID 19 Personal Protection Guideline for Nursing Recommendations”

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Instructional Topics

- Col/Dr Lance Frye – “COVID 19 Task Force Update from the Capitol”
- Rhett Stover – “CMS COVID 19 -Task Force Recommendations for Hospitals and Telemedicine”
- Dr Anil Kaul MD, PhD, DDS – “COVID 19 - Understandings Testing Methods and Processes”
- Dr. Jeffrey M Goodloe, MD, NRP, FACEP, FAEMS, LSSBB, Chief Medical Officer – Medical Control Board, Emergency Medical Services Systems for Metro Oklahoma City/Tulsa “COVID 19 – Role of EMS as First Line Impact Providers”

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Instructional Topics

- Dr. Curtis Knowles, MD Asst. Chief Medical Officer – "COVID 19 – Impact on our Pediatric Population"
- Dr. Mera "COVID 19 – Role of Healthcare in Controlling the Spread"
- Jessica Dietrich – Director of Government Relations - Hunger Free Oklahoma –"The Shelfs are Bare…Feeding the Disadvantaged during a COVID 19 Crisis"
- Dr. Billy Beets MD, DABFM – Chief Medical Officer - "Provider Impact and the Role of the Creek Nation in Response to COVID 19"

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Instructional Topics

- Dr. Gitanjali Pia – Infectious Disease – “Medical COVID 19 Surge Treatment Investigations and Recommendations”
- Dr. Robert Salinas – Geriatric Medicine Palliative Care Specialist – “Understanding our Limitations – How to Decide”
- Carter C. Check, M.Div., BCC -VA – “Moral Trauma during a COVID 19 World”
- Dr. Jorge Mera – Infectious Disease – “Contact Tracing in a COVID 19 Era”

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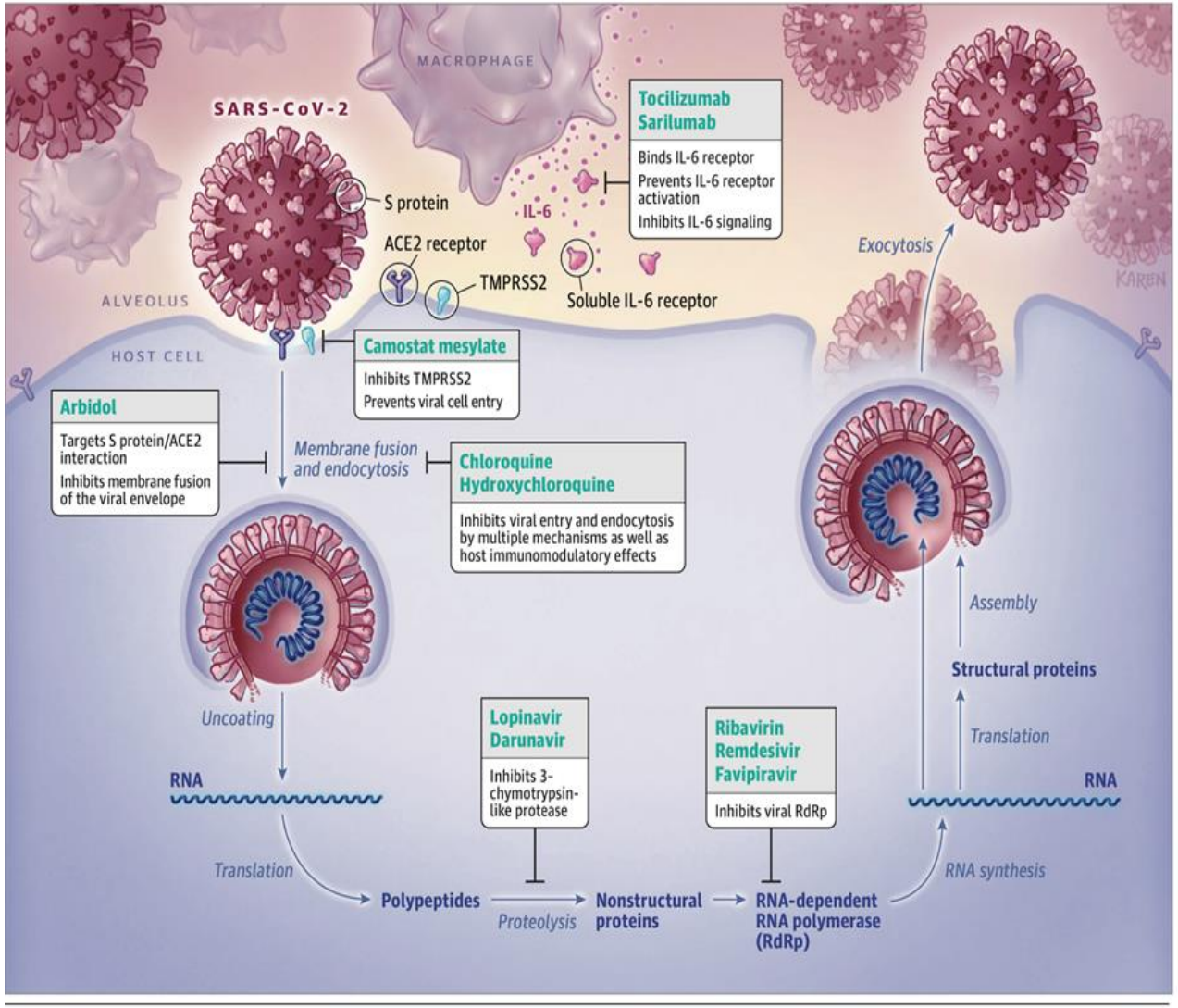
INVESTIGATIONAL THERAPEUTICS

Figure. Simplified Representation of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Viral Lifecycle and Potential Drug Targets



- No FDA-approved drugs
- Ideally in the context of randomized controlled trials
- Several clinical trials underway testing multiple drugs

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CORTICOSTEROIDS

- Patients who receive corticosteroids
  - higher severity of illness
  - more likely to require invasive interventions
  - more likely to be receiving intensive care
- Significant heterogeneity with regard to timing of corticosteroid initiation
- Patients who receive steroids at increased risk for poor outcomes
- Corticosteroids should be avoided unless indicated for other reasons

NSAIDS

- Concerns regarding clinical worsening of COVID-19 in patients taking Ibuprofen
- Hypothesized that NSAIDs may worsen COVID-19
- No evidence to support its use in mitigating inflammatory response associated with COVID-19
- No data suggesting association between COVID-19 clinical outcomes and NSAID use

ANTIBIOTICS

- Empiric antibiotics not recommended for COVID-19
- Decisions to administer antibiotics to COVID-19 patients should be based on
  - likelihood of bacterial infection
  - illness severity
  - antimicrobial stewardship issues

ANTICYTOKINE OR IMMUNOMODULATORY AGENTS

- Immune response plays important role in complications
- “Cytokine storm” characterized by marked elevation in inflammatory markers
- Use of IL-6 receptor antagonists can be considered, preferably in clinical trials
- Can increase risk of secondary infections
- Active clinical trials are evaluating immunomodulatory drugs (such as IL-6 receptor antagonists)

RAAS INHIBITORS

- RAAS inhibitors
  - Angiotensin-Converting–Enzyme (ACE) inhibitors
  - Angiotensin-Receptor Blockers (ARBs)
- SARS-CoV-2 enters cells by binding to ACE2 as a receptor
- Treatment with RAAS inhibitors should not be changed

RAAS INHIBITORS

- No data to suggest a link between ACE inhibitors or ARBs with worse COVID-19 outcomes
- The American Heart Association (AHA), the Heart Failure Society of America (HFSA), and the American College of Cardiology (ACC) released a statement ***recommending continuation of these drugs for patients already receiving them for heart failure, hypertension, or ischemic heart disease***

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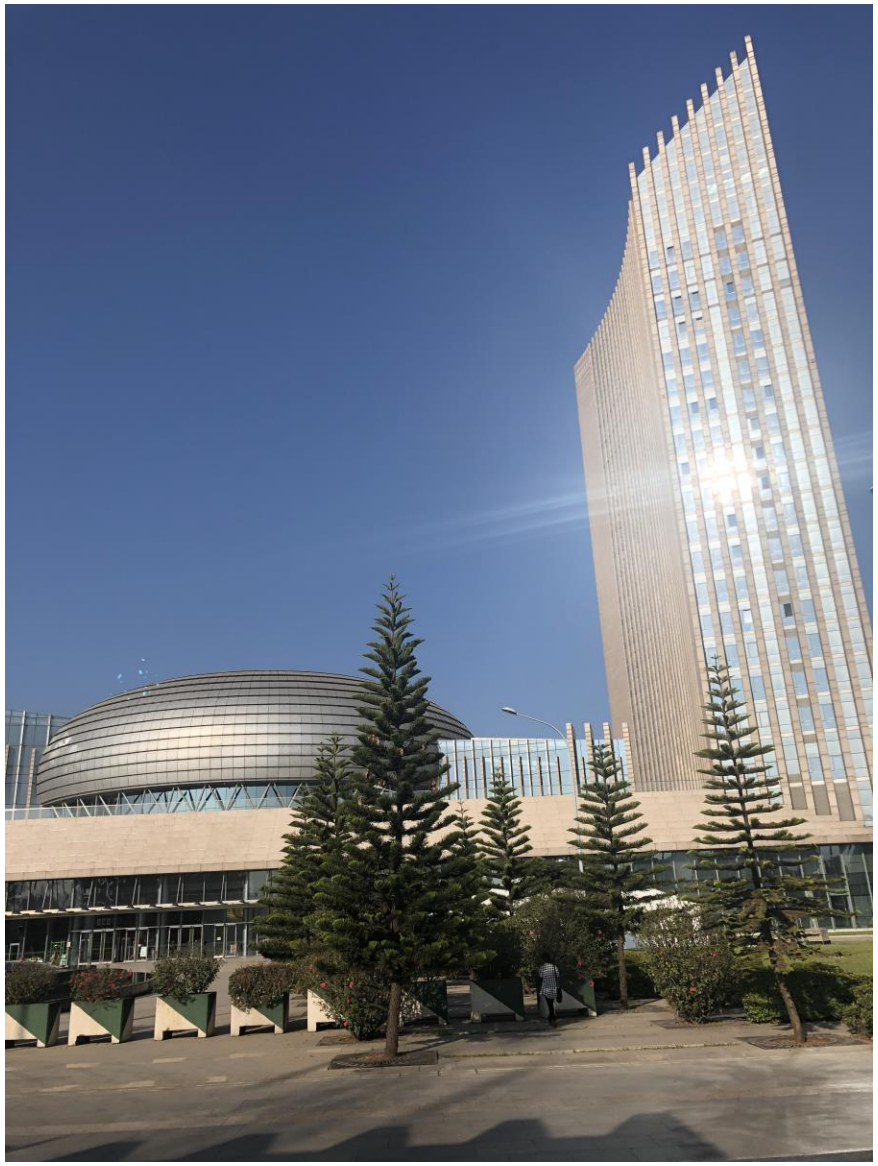
Preparation for Expansion to Meet a Global Healthcare Need

Global One Health Partnership

- Working with Underserved
- Realize that all teach and learn



GLOBAL ONE

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About OSU-CHS Project ECHO
Psychiatry TeleECHO
Obesity Medicine TeleECHO
Addiction Medicine TeleECHO
HIV/Viral Disorders TeleECHO
ECHO Schedule
Contact Information
Register for Clinic

OSU-CHS Project ECHO

Project ECHO (Extension for Community Healthcare Outcomes) is a movement to demonopolize knowledge and amplify the capacity to provide best practice care for underserved people all over the world. Project ECHO started as a way to meet local healthcare needs. Launched in 2003 by the University of New Mexico, Project ECHO operates more than 90 hubs worldwide covering more than 45 diseases and conditions.

Project ECHO: A Revolution in Medical Education and Care Delivery

Project ECHO is a collaborative model of medical education and care management that empowers clinicians everywhere to provide better care to more people, right where they live. It dramatically increases access to specialty treatment in rural and underserved areas by providing front-line clinicians with the knowledge and support they need to manage patients with complex conditions.

The heart of the ECHO model™ is its hub-and-spoke knowledge-sharing networks, led by expert teams who use multi-point videoconferencing to conduct virtual clinics with community providers. In this way, primary care doctors, nurses, and other clinicians learn to provide excellent specialty care to patients in their own communities.

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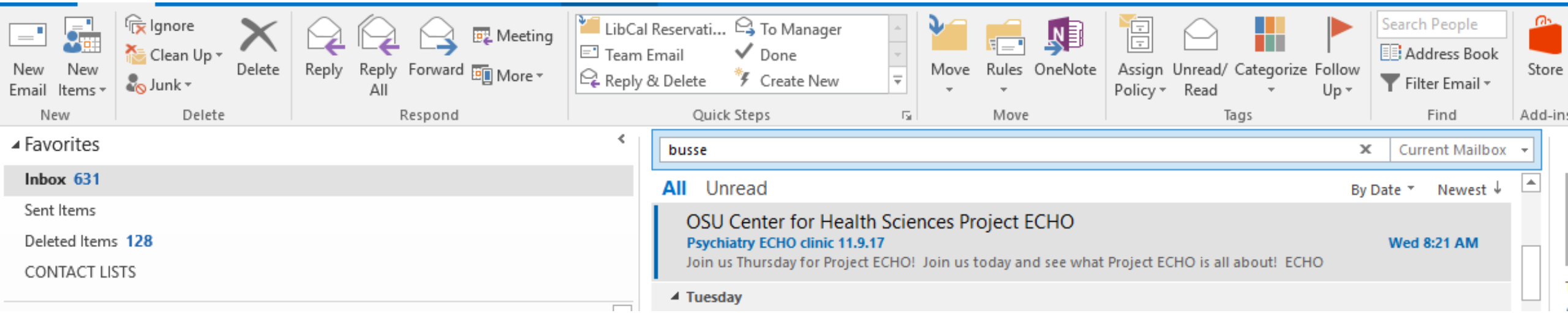

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Project Echo Registration

www.healthsciences.okstate.edu/echo/register.php

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Share this

Register for a Clinic

By completing the registration form below, you will be notified each week about OSU-CHS TeleECHO clinics in your specified area of interest.

OSU-CHS PROJECT ECHO TELEECHO CLINIC REGISTRATION FORM

Welcome to OSU-CHS Project ECHO! Please complete the form below to register to participate in the clinics. After you complete this form you will be contacted by email with instructions for attending the next TeleECHO clinic. Register at least two days before the clinic you plan to attend. You need to register to get continuing education credits for your participation in clinic. You only need to register one time. By registering, you will be contacted with information about how to participate in upcoming clinics in your interest area(s) each week.

Name *

First | Last | Suffix

Email *

Health Center / Organization

Address

City | State | Zip Code

Phone *

AOA Number

Required if seeking CME credit from the American Osteopathic Association.

Credentials

D.O., Ph.D., RNA, etc.

Which TeleECHO clinic(s) are you interested in participating in?

- ☐ Psychiatry
- ☐ Obesity Medicine
- ☐ HIV/AIDS/Viral Disorders
- ☐ Addiction Medicine

Comments or questions

Submit

Powered by Cognito Forms.

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Join an ECHO by:

- Computer: PC, iPhone, iPad, Android, etc:
  1. Click on link
  2. Zoom will automatically download

- Join by Phone

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Join us today and see what Project ECHO is all about!

ECHO Psychiatry

Noon - 1:30 Central Standard Time
Thursday, November 16th, 2017

Video Connection Information

Join from PC, Mac, iOS or Android: https://echo.zoom.us/j/2329743556

Joining by phone ONLY:
+1 646 558 8656 or +1 669 900 6833 (US Toll)
Participant ID: Shown after joining the meeting
Meeting ID: 232 974 3556
Press *6 to mute your line when not speaking

To join via video from Video Conferencing System:
Dial: 162.255.37.11 (US East) or 162.255.36.11 (US West)
Meeting ID: 232 974 3556

Instructions for Zoom

How to be part of OSU-CHS Project ECHO ®?

1. Visit https://health.okstate.edu/echo to **complete the area of interest form**

   Upon receipt of your interest form an ECHO® line coordinator will contact you

2. Once an interest is shown in an ECHO ® topic , your name will be placed in the iECHO data base. You will receive an invite with the ZOOM link for **instructions on how to gain access to the session.**

3. Follow the ZOOM link to **join a teleECHO ™ Clinic** via Zoom platform

4. **Attend weekly teleECHO ™ Clinics**

5. **Develop Case Presentation** and send to ECHO ® Coordinator

6. To **receive 2, 1A CME Hours**: Complete Pre/Post Test, Attestation form and Outcome Measures for each teleECHO ™ Clinic to receive 1A CME

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For Additional Information

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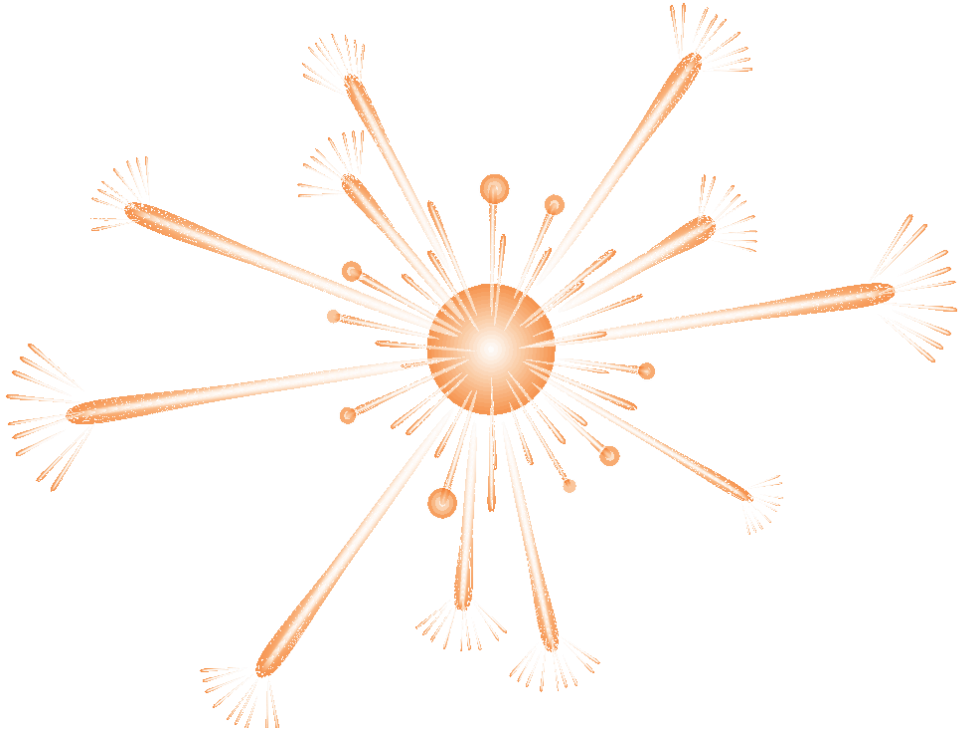
Visit our website: **www.health.okstate.edu/echo**



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Questions

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