
Clinician Outreach and Communication Activity (COCA) Webinar

Friday, April 17, 2020
Continuing Education

Continuing Education is not offered for this COCA Call.
To Ask a Question

▪ Using the Webinar System
  – Click the Q&A button.
  – Type your question in the Q&A box.
  – Submit your question.

▪ If we are unable to get to your question during the call, you may also email your question to coca@cdc.gov.

▪ For media questions, please contact CDC Media Relations at 404-639-3286, or send an email to media@cdc.gov.
We want to hear from you!
What best practices do you have to share?

- Using the Webinar System
  - Click the Q&A button.
  - Type your question in the Q&A box.
  - Submit your best practice.
- Or submit to coca@cdc.gov.
- Facebook Live viewers, please leave your comment on Facebook or email coca@cdc.gov.
- Thank you!
For More Clinical Care Information on COVID-19

- **Call** COVID-19 Clinical Call Center at 770-488-7100 (24 hours/day).
- **Refer** patients to state and local health departments for COVID-19 testing and test results.
  - Clinicians should NOT refer patients to CDC to find out where or how to get tested for COVID-19, OR to get COVID-19 test results.
- **Visit** CDC’s Coronavirus (COVID-19) website: [https://www.cdc.gov/coronavirus](https://www.cdc.gov/coronavirus)
- **Visit** emergency.cdc.gov/coca over the next several days to learn about future COCA Calls.
Today’s Presenters

- **Aaron Harris, MD, MPH** (no slides)
  Team Lead, Healthcare Systems Coordination Team
  COVID-19 Response
  Centers for Disease Control and Prevention

- **Nancy Foster** (no slides)
  Vice President, Quality & Patient Safety Policy
  American Hospital Association

- **David Reich, MD**
  President, Chief Operating Officer
  The Mount Sinai Hospital, NY

- **Amy Compton-Phillips, MD**
  Executive Vice President, Chief Clinical Officer
  Providence St. Joseph Health, WA
COVID-19 Response: Challenges and Successes

David L. Reich, MD
President and COO, The Mount Sinai Hospital
The views expressed in this presentation are those of the author and do not necessarily represent the opinion of the Centers for Disease Control and Prevention.
About The Mount Sinai Health System

- 8 hospitals located throughout NYC and Long Island
- > 4.1 million annual patient visits
- > 410 ambulatory practices
- > 42,000 employees
- Affiliated with the Icahn School of Medicine at Mount Sinai
### COVID-19 Response: Major Challenges

<table>
<thead>
<tr>
<th>Personal Protective Equipment</th>
<th>Workforce Management</th>
<th>Physical Plant and Increase Capacity</th>
<th>Testing and Therapeutics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply chain</td>
<td>Communication</td>
<td>Expansion of Critical Care capacity</td>
<td>In-house testing</td>
</tr>
<tr>
<td>Staff training</td>
<td>Employee engagement</td>
<td>Increase number of negative pressure rooms</td>
<td>Ventilator acquisition and management</td>
</tr>
<tr>
<td>Contingency planning</td>
<td>Leadership redeployment</td>
<td>Non-traditional patient care spaces</td>
<td>Convalescent plasma program</td>
</tr>
<tr>
<td>Extended use and limited reuse of PPE</td>
<td>Increasing the workforce</td>
<td>Telemedicine</td>
<td>Clinical Trials</td>
</tr>
<tr>
<td></td>
<td>Team-based care model</td>
<td></td>
<td>Anticoagulation Protocol</td>
</tr>
</tbody>
</table>
MSHS Hospitalizations COVID-19

MSHS Hospitalized COVID-19 Patients Census by ED vs. IP

Unit Type  ED  IP

Beds Occupied

0  500  1000  1500  2000

03-10  03-11  03-12  03-13  03-14  03-15  03-16  03-17  03-18  03-19  03-20  03-21  03-22  03-23  03-24  03-25  03-26  03-27  03-28  03-29  03-30  03-31  04-01  04-02  04-03  04-04  04-05  04-06  04-07  04-08  04-09  04-10  04-11  04-12  04-13  04-14  04-15  04-16
Dec. 31, 2019
Outbreak identified in Wuhan, China

Jan. 7, 2020
MSHS EOC Established

Jan. 17, 2020
MSHS Screening Tool Updated

Jan. 19, 2020
First internal drill for COVID-19

Jan. 21, 2020
First Case in US Identified

Jan. 29, 2020
First Case Identified in NYC

Feb. 7, 2020
First COVID-19 Town Hall

Feb. 27, 2020
Daily Executive Briefing Published

Mar. 2, 2020
Case Identified in Westchester, NY

Mar. 5, 2020
1st ICU converted to COVID ICU

Mar. 7, 2020
First COVID-19 Admission

Mar. 16, 2020
NYC schools close

Mar. 17, 2020
In-house testing live, visitor restrictions, and contingency plan for PPE

Mar. 22, 2020
NY Pause

Mar. 24, 2020
First antibody test

Mar. 25, 2020
Established double-bed ICU occupancy

Mar. 28, 2020
>1000 patients in MSHS First administration of plasma

Mar. 29, 2020
>1000 patients in MSHS

Mar. 30, 2020
Established double-bed ICU occupancy

Apr. 1, 2020
Opening of Field Tent

Apr. 4, 2020
>2400 COVID-19 discharges

Apr. 8, 2020
Opened first COVID-19 palliative care unit

Mar. 28, 2020
>1000 patients in MSHS
Personal Protective Equipment
Shift to Droplet Precautions

- NYC DOHMH updated their guidance to support droplet and contact precautions
- Surgical Mask + Eye Protection
  - N95-respirators reserved for aerosol-generating procedures

NYC DOHMH Alert # 6 - COVID-19 Updates for New York City published 15Mar20
Contingency Standards for PPE

- Limited reuse and extended use of N95-respirators
- Several units are “extended use PPE” units
  - Extended use of isolation gowns
    - The patient is not on contact precautions for another pathogen
    - The gown is not ripped, torn or soiled
    - Gloves are removed and hand hygiene is performed

NYC DOHMH Alert # 8 - COVID-19 Updates for New York City published 20Mar20. published 20Mar20
Workforce Management
Communication

- Daily briefings with senior level leadership
- Twice daily huddles with local leadership
- Crisis communication broadcast messages
- Twice daily calls with bargaining units
- Weekly virtual town halls
- “Elbow bump” rounds

Charlene Henry, RN
Ensuring Stable Workforce

- Redeployment of staff and leadership
- Team-based care model
- Volunteers and external staff
- Crisis pay negotiations
- Employee engagement
  - Food donations
  - Sleeping arrangements
  - Respite stations
- Wellness initiatives
  - Crisis hotlines
Physical Plant and Increased Capacity
Transitioned 10 adult units to COVID-19 ICUs
- 94 licensed beds to 240 adult ICU beds
- Doubled occupancy in ICUs by placing two patients in a single occupancy room

Converted 260 patient rooms to negative pressure using HEPA exhaust fans

Incorporated remote patient monitoring and point of care monitoring

Expanded inpatient telehealth and consultation
Non-traditional Care Spaces

Aerial view of Central Park

Mount Sinai Morningside
Testing and Therapeutics
Rapid Expansion of Testing Capacity

- Coordinated with public health laboratories for testing of both inpatients and symptomatic healthcare workers February 29
- Initially partnered with a commercial laboratory to offer testing in our Emergency Departments and Ambulatory settings on March 10
- Established limited in-house testing on March 14 and expanded to high-volume testing for MSHS on March 17
COVID-19 Antibody Testing

- Adapted a research laboratory-based serum antibody assay to the CLIA-certified clinical microbiology laboratory
- Began screening high-risk healthcare workers and MSHS COVID-19 PCR positive patients on March 24, 2020
- Offered plasma donation to individuals with antibody titers > 1:320
- Adjusted timing to better define optimal eligibility for donation
  - Over 21 days since symptom onset and full resolution of symptoms for over 14 days
  - Prioritized known positive COVID-19 recovered patients interested in plasma donation in partnership with New York Blood Center

To consider:
- Hydroxychloroquine +/- Azithromycin
- Anticoagulation

Clinical trial options:
- Remdesivir
- Convalescent Plasma

To consider:
- Hydroxychloroquine +/- Azithromycin
- Tocilizumab
- Anticoagulation

Clinical trial options:
- Remdesivir
- Convalescent Plasma
- Mesenchymal stem cells

To consider:
- Hydroxychloroquine +/- Azithromycin
- Tocilizumab (only noninvasive ventilation)
- Anticoagulation
- Corticosteroids

Clinical trial options:
- Remdesivir
- Convalescent Plasma
- Mesenchymal stem cells

To consider:
- Use of vasopressors
- ECMO
- Renal replacement therapy

Clinical trial options:
- Remdesivir
- Convalescent Plasma
- Mesenchymal stem cells
Convalescent Plasma Program

Mount Sinai COVID-19 Plasma Donation

If you had COVID-19 and have recovered you can help save a life. Your blood may contain antibodies that fight the virus and can help critically ill people. Mount Sinai is looking to screen you as a volunteer.

http://www.mountsinai.org/covidplasmadonation
### MSHS Convalescent Plasma Program

<table>
<thead>
<tr>
<th>Plasma Donation</th>
<th>Patient Selection</th>
<th>Consent &amp; Enrollment</th>
<th>Transfusion</th>
<th>Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>• NY Blood Center</td>
<td>• Infectious disease physicians screening</td>
<td>• Mount Sinai Hospital</td>
<td>• Inpatient</td>
<td>• Continued clinical monitoring</td>
</tr>
<tr>
<td>• Recovered patients with COVID+ test</td>
<td>• Inclusion Criteria: - &gt;18 years old - Lab-confirmed - Hospitalized for severe or life-threatening illness</td>
<td>• eIND and EAP protocols with the FDA</td>
<td>• Coordination of research team and primary clinical team</td>
<td>• EHR reports of oxygen requirements, lab values, clinical status</td>
</tr>
<tr>
<td>• Symptom-free for 14 days</td>
<td></td>
<td>• Blood type matching</td>
<td>• Streamlined order set and transfusion process</td>
<td>• Medical student chart review</td>
</tr>
<tr>
<td>• High levels of COVID-19 antibodies</td>
<td></td>
<td>• Phone consent with patients</td>
<td>• Nursing education</td>
<td>• Artificial intelligence automation and modeling</td>
</tr>
</tbody>
</table>

**Patient Selection**
- Infectious disease physicians screening
- Inclusion Criteria:
  - >18 years old
  - Lab-confirmed
  - Hospitalized for severe or life-threatening illness

**Consent & Enrollment**
- Mount Sinai Hospital
- eIND and EAP protocols with the FDA
- Blood type matching
- Phone consent with patients
- Expansion to other MSHS sites with EAP

**Transfusion**
- Inpatient
- Coordination of research team and primary clinical team
- Streamlined order set and transfusion process
- Nursing education

**Monitoring**
- Continued clinical monitoring
- EHR reports of oxygen requirements, lab values, clinical status
- Medical student chart review
- Artificial intelligence automation and modeling
Convalescent Plasma Program

- Started March 24, 2020 under FDA eIND (3/24 – 4/11/20)
- Transitioned to Mayo Clinic EAP (4/10 – )

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Patients transfused eIND</th>
<th>Patients transfused EAP</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>3/24 – 3/30/20</td>
<td>3</td>
<td>N/A</td>
<td>3</td>
</tr>
<tr>
<td>Week 2</td>
<td>3/31 – 4/6/20</td>
<td>16</td>
<td>N/A</td>
<td>16</td>
</tr>
<tr>
<td>Week 3</td>
<td>4/7 – 4/13/20</td>
<td>20</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>39</td>
<td>20</td>
<td>59</td>
</tr>
</tbody>
</table>

Increasing Ventilator Capacity and Innovation

- Incorporated use of non-traditional ventilators to maximize capacity
  - Anesthesia Machines
  - Transport Ventilators
  - Specialty Ventilators

- Centralized assembly, testing, and distribution of devices for the health system
  - Utilized medical students and simulation laboratory

- Leveraged simulation lab to facilitate several ventilator innovations
  - Upgrade of home ventilators to critical care capable ventilators
  - Ventilator splitting protocol including 3D printed valve
MSHS Respiratory Device Usage

Number of devices in use

Ventilators  Anesthesia  Transport/Specialty  BiPAP  HFNC
Inclusion: All admitted patients with COVID-19

Exclusion: High risk of bleeding as judged by treating physician

Obtain: Baseline CBC, PT/PTT, D-dimer and daily CBC, D-dimer

Anticoagulant: Rivaroxaban may be used in place of Apixaban if CrCl >50.

Consider treatment-dose AC (Apixaban 5mg PO BID)† for 2 weeks post-discharge for patients on therapeutic anticoagulation while hospitalized

High-risk for bleeding, consider:
- Platelet count <50,000
- INR >1.5
- Current or recent bleeding

# High Risk: No precise metrics exist. Consider exam (eg, O₂ sat<90%, RR >24), ↑O₂ requirement (eg, ≥4L NC), labs (eg, ↑d-dimers, C-reactive protein)

^ Efficacy and dose not established; prophylactic or treatment dose acceptable

† If 2 of 3 reduce apixaban to 2.5 mg BID: ≥80 years, wt ≤60 kg, creatinine >1.5.

* If CrCl <50: 1 mg/kg daily or 0.5mg/kg BID, anti-Xa level after 3rd dose
Plateau Week?

As of today, April 14, 2,400 #COVID19 patients have been discharged from the Mount Sinai Health System. #MountSinaiStrong

Total COVID-19 Patients Have Returned Home as of April 14
TO THE HEALTH CARE WORKERS FIGHTING FOR OUR LIVES,
THANK YOU.

mountsinai.org/waystohelp
Thank you

david.reich@mountsinai.org
Faster, Better Together: Health System Lessons Learned in Tackling COVID-19

Amy Compton-Phillips, MD
Executive Vice President and Chief Clinical Officer
The views expressed in this presentation are those of the author and do not necessarily represent the opinion of the Centers for Disease Control and Prevention.
About Providence

- **51** HOSPITALS
- **1,085** CLINICS
- **119k** CAREGIVERS
- **38k** NURSES
- **1.2m** HOME HEALTH VISITS
- **HIGH SCHOOL NURSING SCHOOLS & UNIVERSITY**
- **5m** UNIQUE PATIENTS SERVED
- **16** SUPPORTIVE HOUSING FACILITIES
- **25k** PHYSICIANS
- **2.1m** COVERED LIVES
Providence COVID Response Journey

CRISIS PLANNING
- Learning from others
- Communications

EMERGENCY COMMAND CENTER:
- Established communications rhythms

PATIENT #1
- January 20, 2020 – Providence Everett

PANDEMIC PLAYBOOK
- Protocols for People, Places, Products for Triage Levels 1-3

FUTURE OF CLINICAL CARE DELIVERY
- Keeping patients safe in the age of COVID
- Local and regional partnerships

MOBILIZE COMMUNITY RESOURCES
- Resource Staffing Tool
- Local and regional partnerships

TECH-ENABLED SEAMLESS EXPERIENCE
- Ideal patient journey
Planning is the *antidote* to Panic
Clinical Components: T-T-T Framework

- Create simplicity out of complexity
- Leverage 21st century technology
- Clarify ways to manage patient and caregiver safety
- Anticipate how to meet community needs
**Clinical Disaster Planning Framework**

### Triage Level 1
**Normal operations/Anticipating pandemic**

<table>
<thead>
<tr>
<th>People (MD/DO, APC, RN, Caregiver surge staffing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase A</td>
</tr>
<tr>
<td>Phase B</td>
</tr>
<tr>
<td>Phase B</td>
</tr>
<tr>
<td>Phase B</td>
</tr>
<tr>
<td>Phase B</td>
</tr>
<tr>
<td>Phase B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Places (Hospitals, Beds, OR, Med/Surg, ASCs, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase A</td>
</tr>
<tr>
<td>Phase B</td>
</tr>
<tr>
<td>Phase B</td>
</tr>
<tr>
<td>Phase B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Products (PPE, Ventilators, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase A</td>
</tr>
<tr>
<td>Phase B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Triggers to Next Level (When capacity exceeds the threshold on any of the following components, we must proceed to the subsequent triage level)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Internal Capacity at or Above:</td>
</tr>
<tr>
<td>- 95% utilization of critical care personnel (intensivists, critical care RNs)</td>
</tr>
<tr>
<td>- 95% Med/Surg beds and/or ICU capacity</td>
</tr>
</tbody>
</table>

### Triage Level 2
**Internal Stretch Capacity/Anticipating Additional Surge Demand**

| Phase A | Mobilize Surge staff**  |
| Phase A | Initiate team-based care staffing model  |
| Phase A | Mobilize Tele ICU / home monitoring -  |
| Phase A | Redeploy Ambulatory & ASC staff to IP*  |
| Phase A | Mobilize Palliative Care, Spiritual Care  |

| Phase B | Initiate disaster credentials plan**  |
| Phase B | Triage process activation: care team considerations  |
| Phase B | Ethics support (contingency)  |

### Triage Level 3
**Community/Government Support & Region-Wide Capabilities**

| Phase A | Usual care  |
| Phase A | Begin cohorting strategies  |
| Phase A | Command center planning  |
| Phase A | IT planning for alternative. Sites  |

| Phase B | Mobilize Surge staff*  |
| Phase B | Initiate team-based care staffing model  |
| Phase B | Mobilize Tele ICU / home monitoring -  |
| Phase B | Redeploy Ambulatory & ASC staff to IP*  |
| Phase B | Mobilize Palliative Care, Spiritual Care  |

| Phase B | Initiate disaster credentials plan**  |
| Phase B | Triage process activation: care team considerations  |
| Phase B | Ethics support (contingency)  |

| Phase A | Stop all elective non-emergent procedures  |
| Phase A | Implement Patient cohorting plans  |
| Phase A | Mobilize alternate sites for care e.g. PACU, OR, ASC OR, Med/Surg  |

| Phase B | Coordinate with community, regional, state and federal govt. partners to support public health crisis  |
| Phase B | Ethics support (crisis)  |
| Phase B | Consider transfers to other community IP facilities or outside if capacity available  |
| Phase B | Define need for alternate site needs: ICU, medical, convalescent care, etc.  |
| Phase B | Coordinate with community, regional, state and federal government partners to support public health crisis  |

| Phase A | Procure supplies, equipment, PPE for alternate care locations  |
| Phase A | Forced conservation governance  |
| Phase A | Implement Ventilator support algorithm  |
| Phase A | Immediate adoption of revised PPE substitution and minimum standards  |

| Phase B | Initiate Clinical Ethics Surge plan  |
| Phase B | Substitution alternative for critical shortages  |
| Phase B | Triage process activation: care team considerations  |
| Phase B | Ethics support (crisis)  |

| Phase B | N/A  |

**This content is covered in Triage Level 1, ‘Planning for Surge Staff’**

**Not included in this version of the playbook or included in alternate Triage level (content remains the same).**

---

**Usual Operations** | **Conventional** | **Contingency** | **Crisis** | **Catastrophic**
Clinical Care in a COVID-19 World

COVID Planning

Pandemic Planning

Manage COVID Crisis

- What are the capacity triggers to bring non-COVID patient back?
  - PPE
  - ICU Beds
  - Patient Flow and

- Testing Protocols
- Staff and Patient Health from COVID-19
- Continue treatment for COVID-19 cases
- Reverse cohorting

Post Crisis

- How do we avoid Caregiver and Staff burn-out while scaling non-COVID patients?
- How do we address and prioritize non-COVID Patients?
  - Triage
  - Test
  - Treat
- Continuing the use of Telehealth for patient care
- Routine Preventative and Interventional treatment options

Clinical Care Recovery Process

Day-1
Day-100ish
Turn data into information into insight into action
Providence Clinical Analytics: CoVERED Tool

CoVERED
CoronaVirus Epidemic Registry and Emergency Data platform
Current Census
Last Update: Epic 4/12/20 3:26 PM; Meditech 4/12/20 3:30 PM

This dashboard does NOT include ED patients

- Practical information accessible across our organization for decision making.
% of patients living in a ZIP who present with fever + cough + shortness of breath and are flu-negative
Future of Clinical Care

As an effect of the COVID-19 pandemic, many patients deferred care. In the upcoming months, we expect the return of these patients, as well as anticipate new patient groups, to need care:

**Care & Planning for all in age of COVID-19**

**Deferred Care**
- **Acute**
  - During COVID-19 outbreak, hospitals experienced a reduction in standard acute care patients.
  - Hospitals must develop and implement plans to address patients’ concerns of infection to encourage patients to return.
- **Chronic**
  - Chronic conditions of patients may worsen during infection waves, which may result in increased need of care once waves subside.
  - Potential for increase in elective surgeries due to mandatory deferrals during infection waves.

**Community Needs**
- Anticipated increase of new patients resulting from the unintended consequences of the pandemic, like:
  - Increased behavior-induced consequences, such as drug problems and alcoholism; and
  - Deterioration of mental health, such as increased levels of depression, anxiety, etc.
Biggest Learnings

- **Hope for the best, but plan for worst:** Expect more epidemics
- **Learn from the past:** But transition to what could be
- **Advocate together:** Act on collective intelligence for the benefit of all
- **Change the future of medicine:** Reimagine the role 21st century tech tools
- **The environment is chaotic:** Rely on science, not fear
- **Establish a consistent voice:** Listen to all, then align, communicate and repeat.

Providence is sharing its process and tools—please reach out at COVIDresponse@providence.org to be connected to our services division.
To Ask a Question

- **Using the Webinar System**
  - Click on the Q&A button in the Zoom webinar system.
  - Type your question in the Q&A box.
  - Submit your question.
  - You may also email your question to coca@cdc.gov.

- **For media questions, please contact CDC Media Relations at 404-639-3286 or email media@cdc.gov.**

- **For more Clinical Care information on COVID-19**
  - **Call** COVID-19 Clinical Call Center at 770-488-7100 (24 hours/day).
  - **Refer** patients to state and local health departments for COVID-19 COVID19 testing and test results.
    - Clinicians should NOT refer patients to CDC to find out where or how to get tested for COVID-19 OR to get COVID-19 test results.
Today’s COCA Call Will Be Available On-Demand

**When:** A few hours after the live call

**What:** Video recording

**Where:** On the COCA Call webpage at

On COCA’s Facebook Page [immediately](https://www.facebook.com/CDCClinicianOutreachAndCommunicationActivity/) after the live call at
[https://www.facebook.com/CDCClinicianOutreachAndCommunicationActivity/](https://www.facebook.com/CDCClinicianOutreachAndCommunicationActivity/)
COCA Products & Services

**COCA Call**
CDC Clinician Outreach and Communication Activity

COCA Call Announcements contain all information subscribers need to participate in COCA Calls. COCA Calls are held as needed.

**COCA Learn**
CDC Clinician Outreach and Communication Activity

Monthly newsletter that provides information on CDC training opportunities, conference and training resources, the COCA Partner Spotlight, and the Clinician Corner.

**Clinical Action**
CDC Clinician Outreach and Communication Activity

As-needed messages that provide specific, immediate action clinicians should take. Contains comprehensive CDC guidance so clinicians can easily follow recommended actions.
COCA Products & Services

COCA Digest
CDC Clinician Outreach and Communication Activity

Monthly newsletter providing updates on emergency preparedness and response topics, emerging public health threat literature, resources for health professionals, and additional information important during public health emergencies and disasters.

Informs clinicians of new CDC resources and guidance related to emergency preparedness and response. This email is sent as soon as possible after CDC publishes new content.

COCA Now
CDC Clinician Outreach and Communication Activity

CDC's primary method of sharing information about urgent public health incidents with public information officers; federal, state, territorial, and local public health practitioners; clinicians; and public health laboratories.
Join COCA’s Mailing List

- Receive information about:
  - Upcoming COCA Calls
  - Health Alert Network (HAN) messages
  - CDC emergency response activations
  - Emerging public health threats
  - Emergency preparedness and response conferences and training opportunities

emergency.cdc.gov/coca
Join Us on Facebook
Thank you for joining us today!

emergency.cdc.gov/coca