

A leaked presentation reveals the document US hospitals are using to prepare for a major coronavirus outbreak. It estimates 96 million US coronavirus cases and 480,000 deaths.

[Lydia Ramsey](#)

1 hour ago



Getty Images

- Hospitals are confronting the rising threat of the novel [coronavirus](#) in the US.
- In a February webinar presentation hosted by the American Hospital Association, national healthcare experts from organizations across the US laid out what hospitals need to know as they face the virus that causes COVID-19.
- Here's a look at the presentation, which includes estimated projections of as many as 96 million cases in the US, 4.8 million hospitalizations, and 480,000 deaths associated with the novel coronavirus.
- It also includes the proper ways to identify coronavirus patients, isolate them, and keep caregivers at the hospitals informed.
- [Click here for more BI Prime stories.](#)

The spread of the coronavirus outbreak in the US could push the healthcare system to its limits.

Hospitals are bracing for what could be millions of admissions nationwide as the virus spreads.

The American Hospital Association, which represents thousands of hospitals and health systems, hosted a webinar in February with its member hospitals and health systems. Business Insider obtained a copy of the slides.

The presentation, titled "What healthcare leaders need to know: Preparing for the COVID-19," [happened on February 26](#) with representatives from the [National Ebola Training and Education Center](#).

The presentation contained an overview of the virus, projections and estimates of how much the virus might spread in the US, and proper ways to identify coronavirus patients, isolate them, and keep caregivers at the hospitals informed.

In particular, one slide presented by an expert included "best guess" estimates that there could be as many as:

- 4.8 million hospitalizations associated with the novel coronavirus.
- 96 million cases overall in the US.
- 480,000 deaths.
- Overall, the slide says hospitals should prepare for an impact to the system that's 10 times greater than a severe flu season.

Those estimates come from Dr. James Lawler, a professor at the University of Nebraska Medical Center. They "represent his interpretation of the data available. It's possible that forecast will change as more information becomes available," a spokesman for Nebraska Medicine told Business Insider in an email.

The American Hospital Association said the webinar reflected the views of the experts who spoke during it, not its own.

"The AHA regularly hosts webinars and conference calls that include a variety of voices and opinions that seek to provide relevant information to professionals at hospitals and health systems that are on the front lines of preparing for and protecting their patients and communities," a spokeswoman for the AHA told Business Insider in an emailed statement. "The slides you shared reflect the various perspectives of field experts and should not be attributed to the AHA."

Here's a look at slides presented in the webinar:

The presentation featured "national experts from several health care organizations," the AHA said on its website. Its focus: getting healthcare leaders up to speed on how to prepare for the novel coronavirus, which causes the disease known as COVID-19



What Healthcare Leaders Need to Know

Preparing for the COVID-19



AHA webinar

Source: [AHA](#)

As part of the presentation, the experts laid out facts about the virus, how hospitals can prepare, and details on what prevention tactics might be key to combating its spread.

Webinar Agenda

- Welcome & Opening Remarks
- Get the Facts about COVID-19
- Hospital Preparedness
- Identify-Isolate-Inform & Personal Protective Equipment
- Supply Chain Challenges & Strategies
- Communication Strategies
- CDC, ASPR TRACIE, NETEC Resources
- Questions and Answers with presenters



AHA webinar

In attendance were experts from Massachusetts General Hospital, the University of Nebraska Medical Center...



Jeffrey P. Gold, MD

University of Nebraska Medical Center, University of Nebraska at Omaha

- Chancellor, UNMC, UNO
- Board Chair, Nebraska Medicine
- Professor, UNMC College of Medicine, College of Public Health
- Board certified cardiac surgeon (adult and pediatric)



Paul D. Biddinger, MD, FACEP

Massachusetts General Hospital

- Director, Center for Disaster Medicine
- Chair, Emergency Preparedness
- Director, Emergency Preparedness for Partners Healthcare
- Director, Emergency Preparedness Research, Evaluation & Practice (Harvard University)
- Medical Officer, National Disaster Medical System (NDMS)



James Lawler, MD, MPH

University of Nebraska Medical Center/Nebraska Medicine

- Director, International Programs, Global Center for Health Security
- Director, Clinical and Biodefense Research, National Strategic Research Institute
- Associate Professor, UNMC Department of Internal Medicine
- In-person response to Diamond Princess cruise ship (Japan)

AHA webinar

... Emory University Hospital and HCA Healthcare.



David Brett-Major, MD, MPH

University of Nebraska Medical Center/Nebraska Medicine

- Professor, Department of Epidemiology, College of Public Health
- Health security policy and research
- Global alert & response coordination: Ebola, MERS, Avian Flu
- Guinea, Nigeria, Sierra Leone, Uganda



Sharon Vanairsdale, DNP, APRN

Emory University Hospital

- Program Director, Serious Communicable Disease Unit
- Director of Education, National Ebola Training and Education Center (NETEC)
- Patient care experience: Ebola, Lassa Fever



Michael Wargo, RN, BSN, MBA

HCA Healthcare

- Vice President and Chief of Preparedness & Emergency Operations
- Acting Chair, US Health and Public Health Sector Coordination Council
- National Critical Infrastructure Protection Program

AHA webinar

Some are affiliated with the National Ebola Training and Education Center, an organization created in the wake of the Ebola outbreak in 2015 to help hospitals and public health organizations safely manage patients with suspected and confirmed cases of Ebola and other pathogens.



Shelly Schwedhelm, RN, MSN

Nebraska Medicine

- Executive Director, Emergency Management & Biopreparedness
 - Nebraska Biocontainment Unit
 - National Quarantine Center
- Program Director, NETEC
- Board Chair, Omaha Metropolitan Healthcare Coalition



Paul Baltes, MBA

Nebraska Medicine

- Director of Communications
- Subject matter expert, NETEC

AHA webinar

The presentation started with an overview of the novel coronavirus as of the end of February.



Overview of COVID-19

Projections and modeling

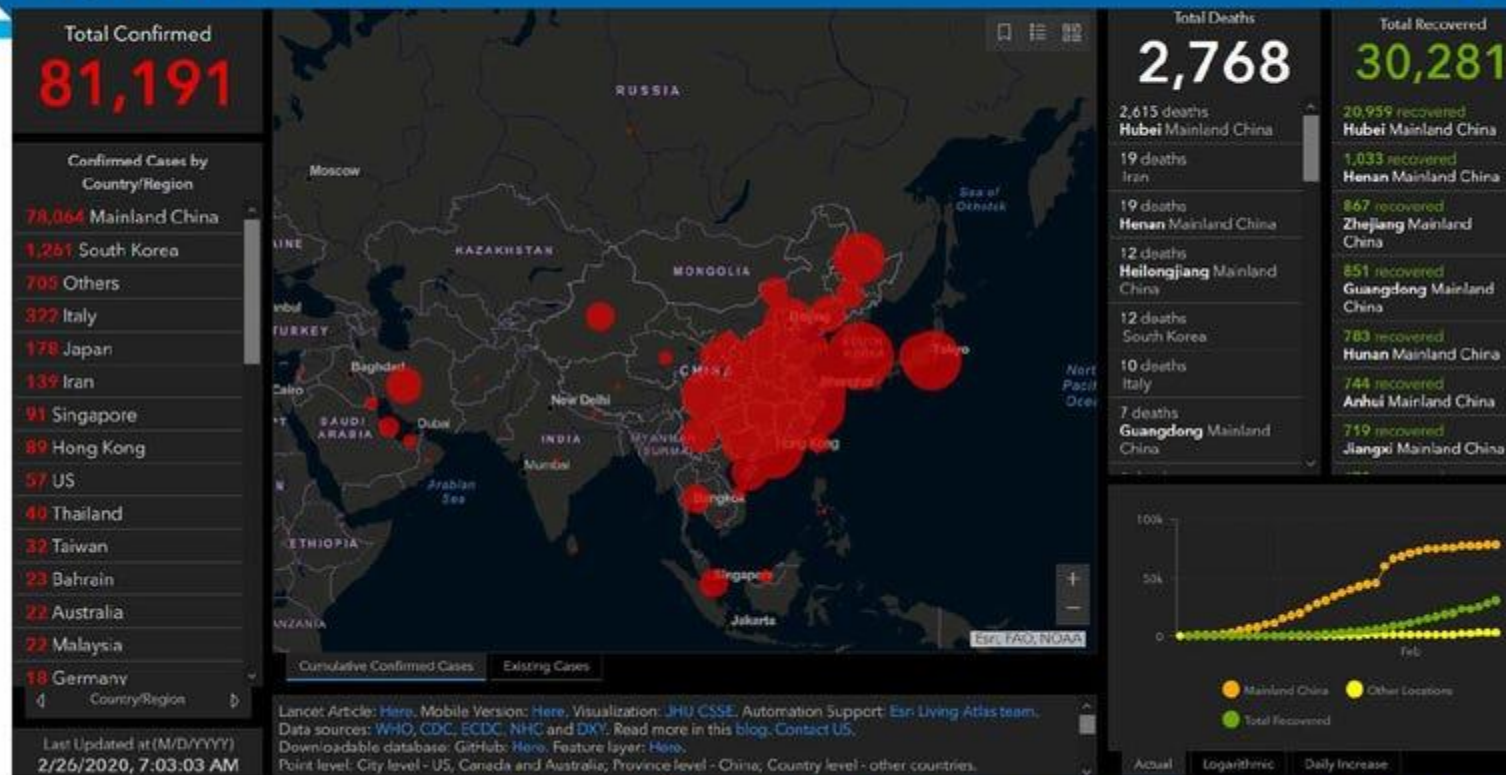
James Lawler



AHA webinar

At that point, there were 81,191 total confirmed cases around the globe. Now, more than 100,000 people have been infected.

COVID-19 Cases



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

AHA webinar

Source: [Business Insider](#)

The presentation laid out the distinction between quarantine and isolation, which are both being used to quell the spread of infection.

Quarantine vs. Isolation

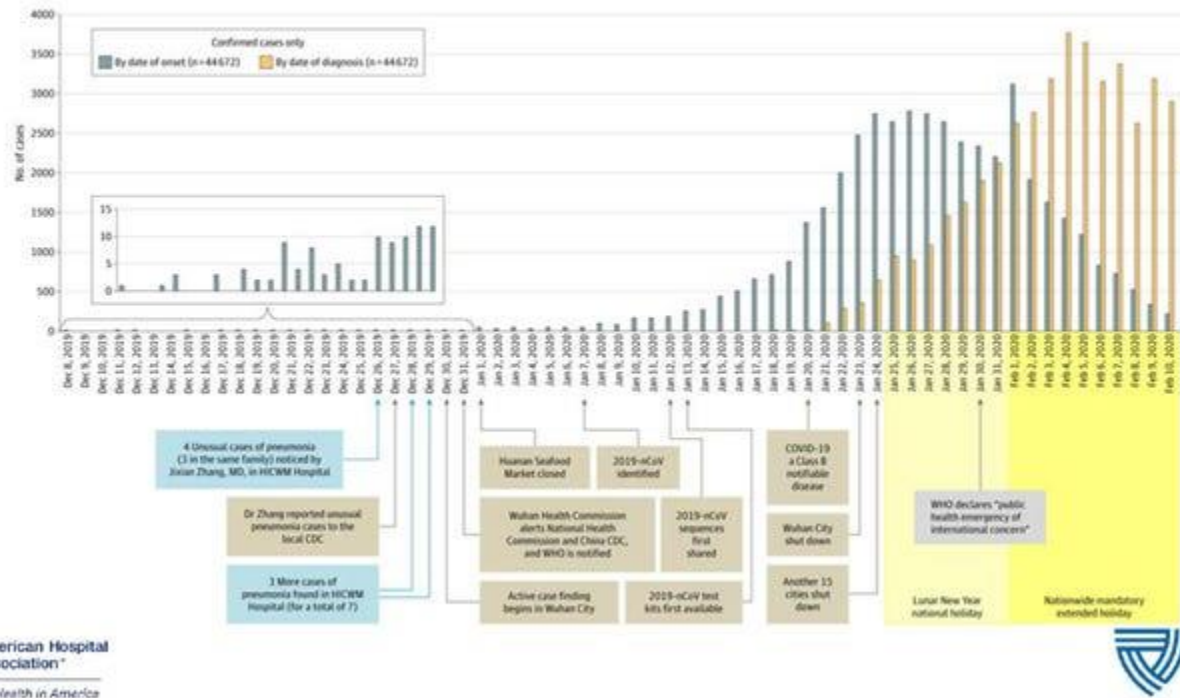
Quarantine

- To separate and restrict the movement of well persons who may have been exposed to a communicable disease
- Monitor to see if they become ill
- These people may have been exposed to a disease and do not know it, or they may have the disease but do not show symptoms.
- Quarantine can also help limit the spread of communicable disease.

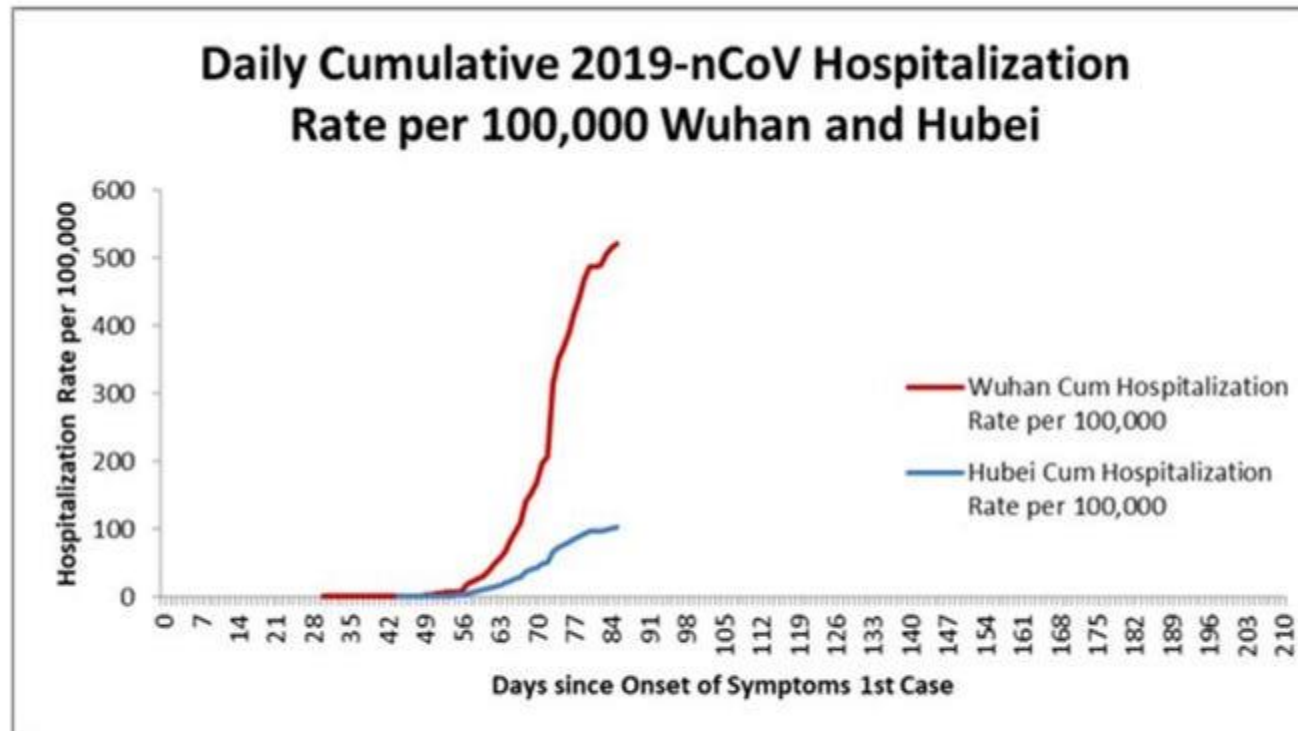
Isolation

- To separate ill persons who have a communicable disease from those who do not have that disease
- Restricts the movement of ill persons to help stop the spread of certain diseases
- Example: Isolation for patients with infectious tuberculosis

It also pointed to recent literature published on the outbreak showing the number of cases in China per day.



Cumulatively, hospitalization rates were going up, especially in Wuhan in the days since the outbreak began.



The presentation also highlighted the different factors that contribute to mortality with the novel coronavirus. The death rate among those 80 and up is significantly higher than other age brackets.

China Data

COVID-19 Mortality Stats

COVID-19 Fatality Rate by AGE:

AGE	DEATH RATE
80+ years old	14.8%
70-79 years old	8.0%
60-69 years old	3.6%
50-59 years old	1.3%
40-49 years old	0.4%
30-39 years old	0.2%
20-29 years old	0.2%
10-19 years old	0.2%
0-9 years old	no fatalities

COVID-19 Fatality Rate by COMORBIDITY:

PRE-EXISTING CONDITION	DEATH RATE
Cardiovascular disease	10.5%
Diabetes	7.3%
Chronic respiratory disease	6.3%
Hypertension	6.0%
Cancer	5.6%
no pre-existing conditions	0.9%

AHA webinar

Read more: [What to know about the coronavirus outbreak in 9 charts and maps](#)

In a part of the presentation conducted by Dr. James Lawler, a professor at the University of Nebraska Medical Center Department of Internal Medicine, he said that he's estimating that the US could have 96 million cases, of which 4.8 million could result in hospital admissions. The slide does not give a particular time frame.

Best Guess Epidemiology

- | | |
|--|-----------------------------|
| • $R_0 = 2.5$; Doubling time 7-10 days | Community epi wave 2 months |
| • Community attack rate = 30-40% | US: 96 million cases |
| • Cases requiring hospitalization = 5% | US: 4.8 million admissions |
| • Cases requiring ICU care = 1-2% | US: 1.9 million ICU |
| • Cases requiring ventilatory support = 1% | US: 1 PPV |
| • CFR = 0.5% | US: 480,000 deaths |

• PREPARE FOR DISEASE BURDEN ROUGHLY 10X SEVERE FLU SEASON



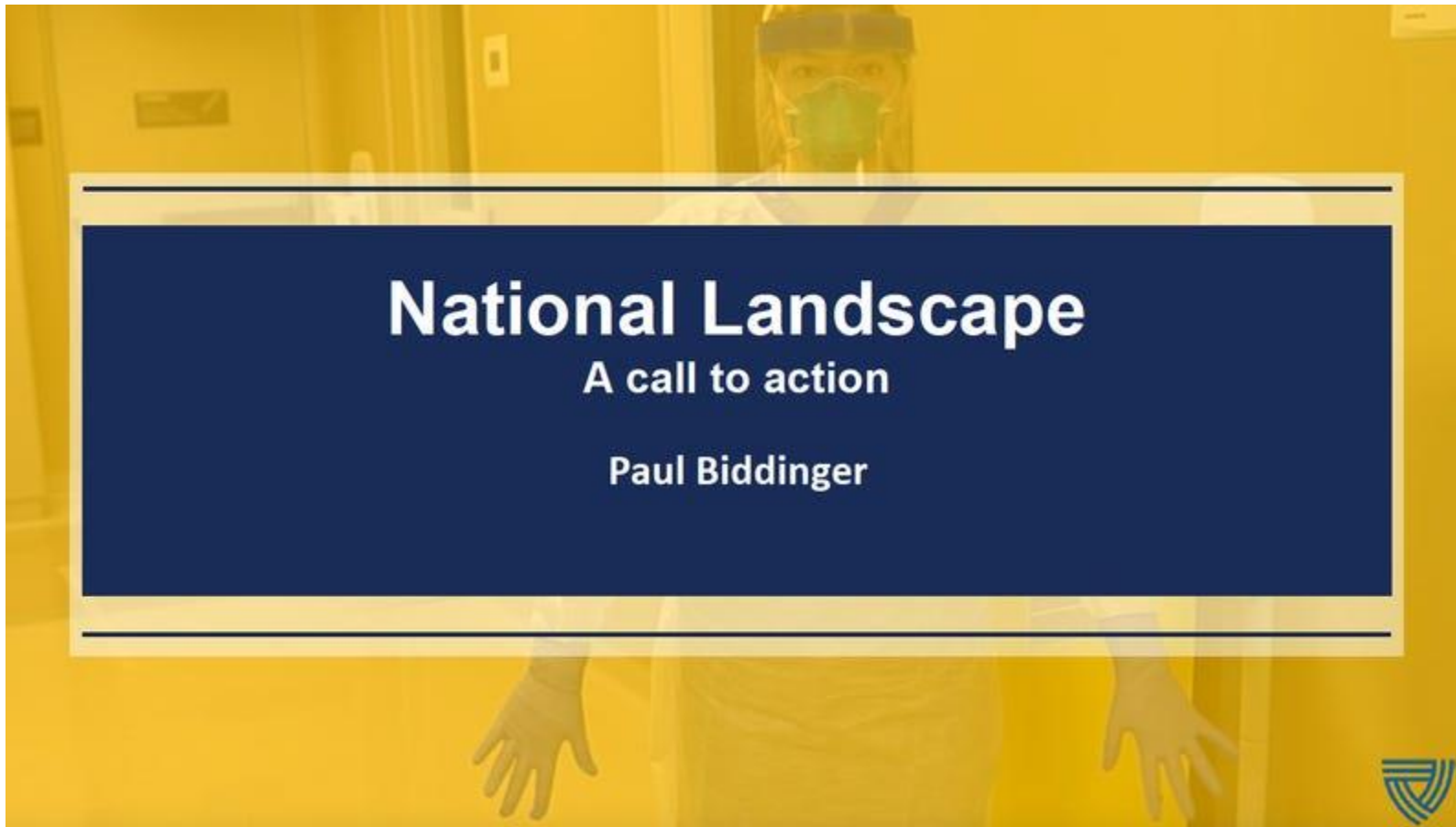
AHA webinar

"Those estimates were from Dr. Lawler's presentation and represent his interpretation of the data available. It's possible that forecast will change as more information becomes available," a spokesman for Nebraska Medicine told Business Insider in an email.

In particular, the slide points out that hospitals should prepare for an impact to the system that's 10 times a severe flu season.

Lawler isn't alone in anticipating widespread infections. Marc Lipsitch an epidemiology professor at Harvard University [told The Atlantic he predicts anywhere from 40-70% of people globally will be infected](#) with the novel coronavirus within the next year.

Other experts also presented.



AHA webinar

The presentation also explored how hospitals can be ready, as HCA's chief of preparedness and emergency operations Mike Wargo presented.



Hospital & Health System Readiness

Mike Wargo



AHA webinar

That includes having the team in place to handle an emergency, from clinical teams to teams monitoring the situation, to those making sure there aren't issues getting supplies.

Emergency Operations Structure

Modules

- Responsible Leadership
- Readiness
- Response
- Recovery



Core Priorities

- Life Safety
- Infrastructure
- Operations
- Mission

The bulk of the presentation focused on laying out best ways to "identify, isolate" and "inform."



Identify, Isolate, Inform and Personal Protective Equipment

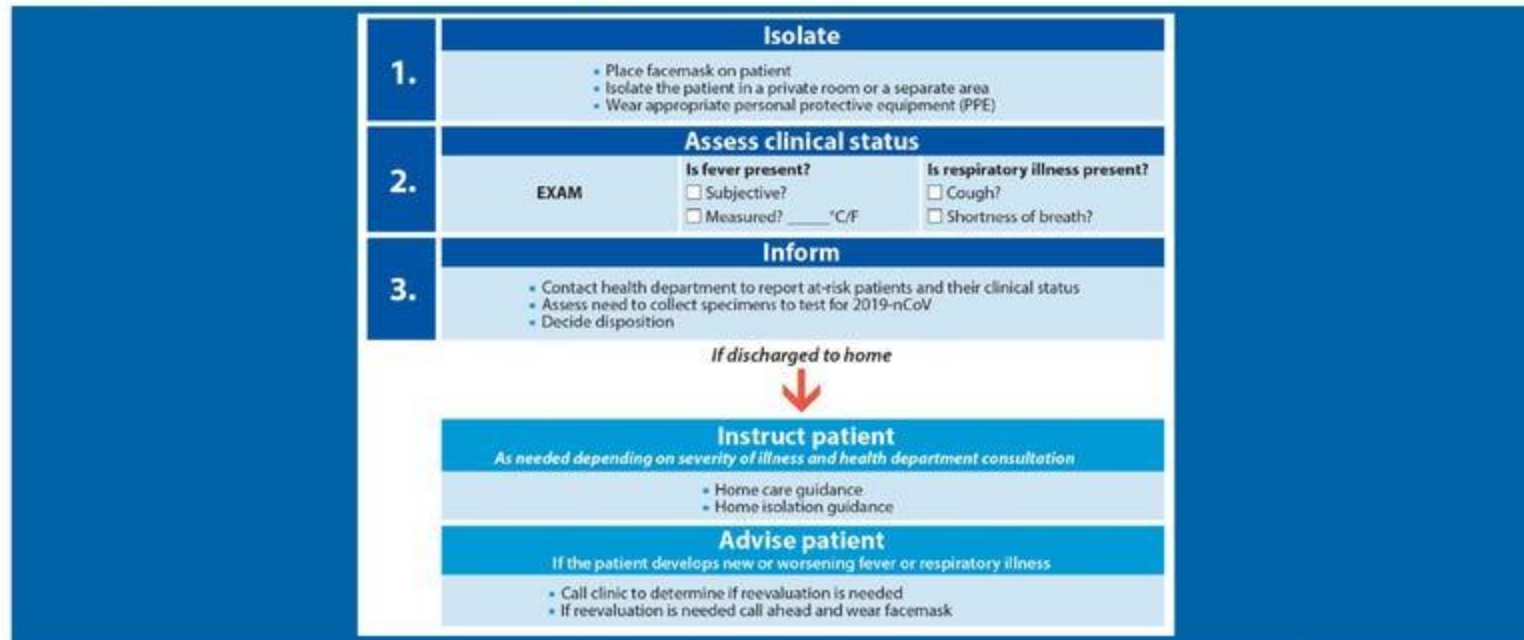
Shelly Schwedhelm and Sharon Vanairsdale



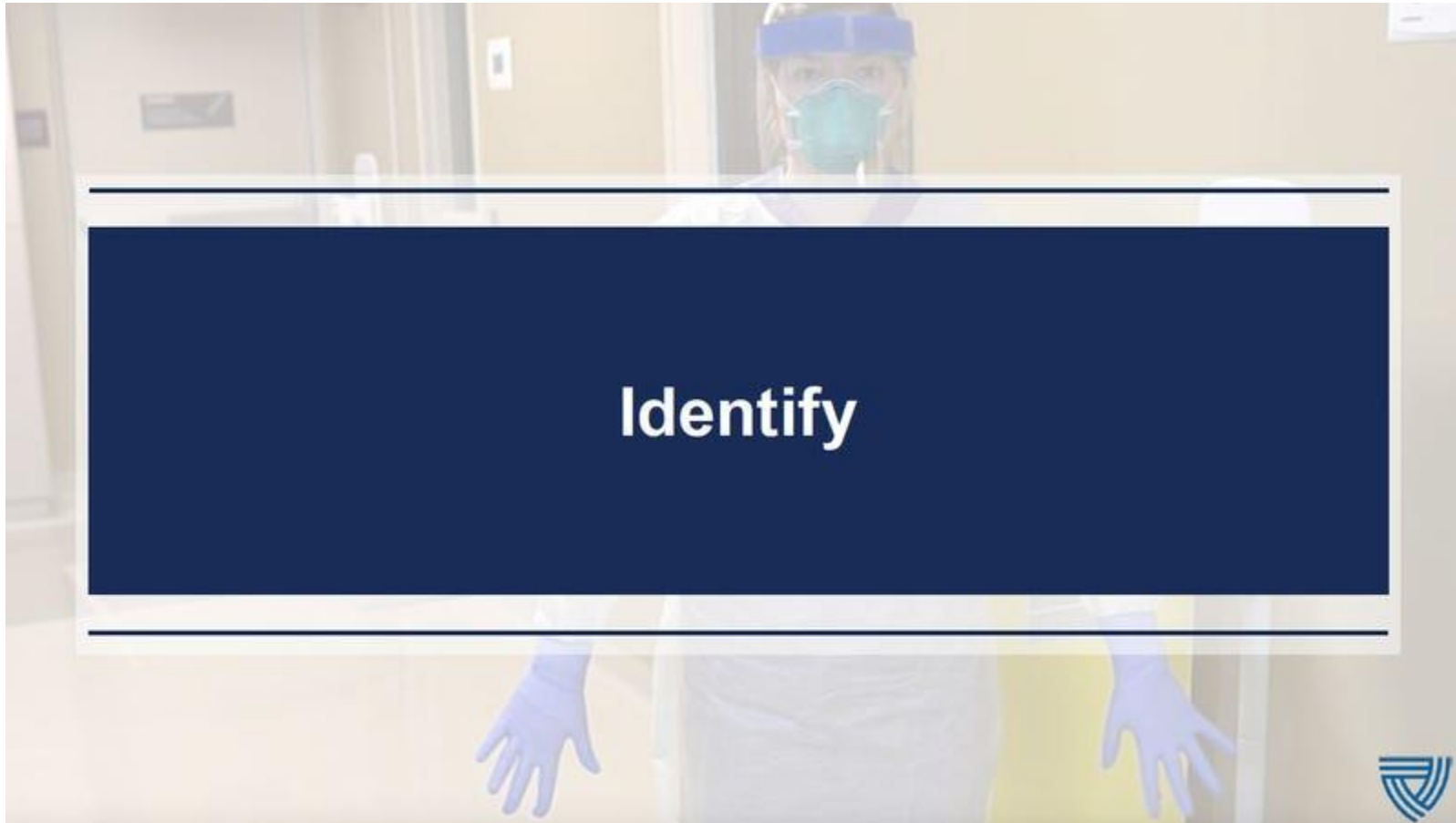
AHA webinar

Here's a look at the clinical criteria used to evaluate potential coronavirus patients.

Preparedness: Identify, Isolate, and Inform



As more patients around the US start presenting with symptoms, having a safe way to identify them will be key.



AHA webinar

The presenters highlighted the different ways patients might come to the hospital, through the emergency department, by ambulance, and possibly in a number of different conditions.

Patient Arrival

Know the points of entry at your facility

Potential Points of Entry



- Emergency department
- Clinics
- Ambulatory care centers

Walk-ins



- Arrive by themselves
- Brought in by another person(s)

By Ambulance



- Preidentified as a PUI
- Identified en route as a PUI
- May not be identified as a PUI until arrival

Patient Condition



- Non-Emergent
- Emergent
- Critical
- Expired

The presenters pointed to putting up signage that could help patients identify themselves as someone who could potentially have the novel coronavirus and might need a face mask.

Identify - Self Screening

Screening: Signage

➤ Signage enables patients to self-identify

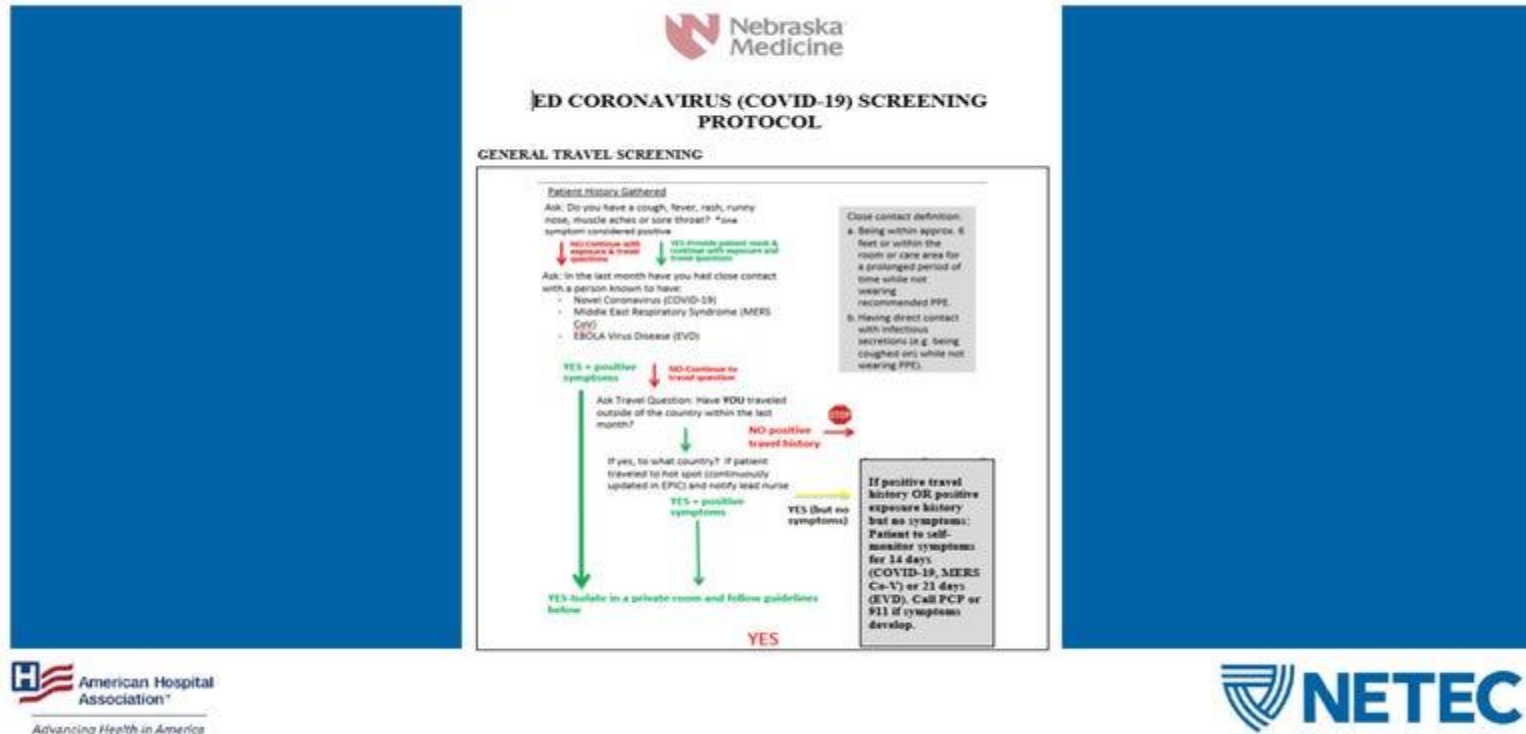
➤ Signage needs to be:

- Positioned prominently so as to be easily seen
- Easily understood, with simple to follow directions
- Written in languages representative of the community
- Created with pictograms that are easy to follow



Here's an example of a screening protocol from Nebraska Medicine based on guidelines around travel as an indicator for the disease.

ED and Ambulatory Protocols



AHA webinar

Isolating patients who have a confirmed infection will be key for health systems as well.



AHA webinar

The presenters recommended putting patients in masks who present with respiratory illness symptoms and following good hand hygiene for both healthcare providers and the patients.

Isolate

Place any patient with respiratory illness in procedural mask

- Identify patients with symptoms of respiratory illness as soon as possible and place in mask
- If patient has traveled to areas of interest or has been in contact with a confirmed case or another PUI
 - Isolate patient as safely possible without causing alarm or disruption to clinical areas
 - Maintain adherence to hand hygiene (both HCWs and patient)

CDC Health Alert Network: Update and Interim Guidance on Outbreak of 2019 Novel Coronavirus (2019-nCoV)

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/index.html>

The presenters pointed to guidelines from the Centers for Disease Control and Prevention for infection control.

Isolate

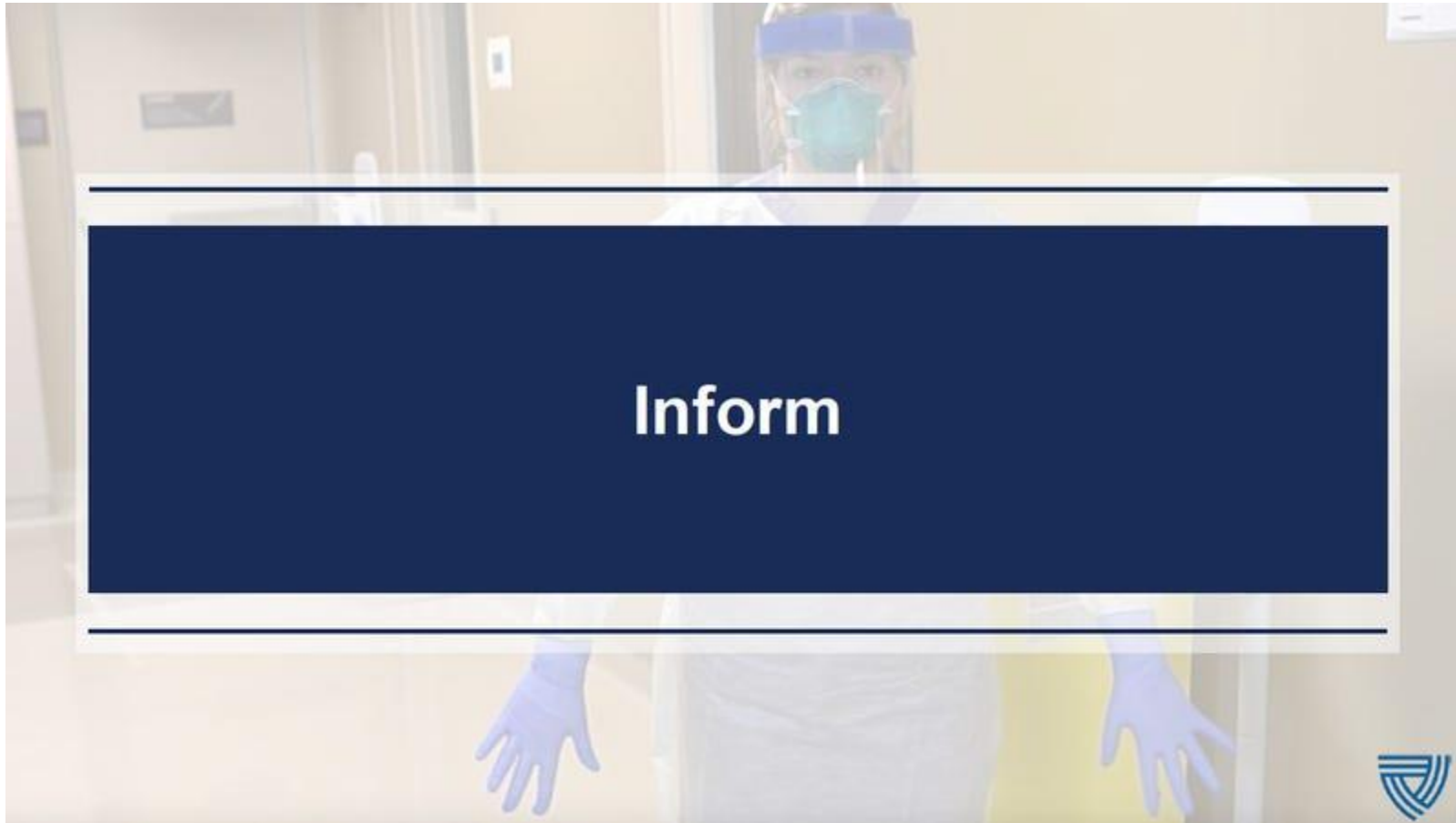
Infection Control and Prevention for 2019-nCoV

Current CDC recommendations

- Standard precautions
- Airborne precautions if available
 - If AIIR not available, place in private room with door closed and keep patient in mask if tolerated
- Contact Precautions
- Eye protection for healthcare workers directly interacting or in room with patient

<https://www.cdc.gov/coronavirus/2019-nCoV/hcp/infection-control.html>

Finally, the experts presented on what hospitals should do to keep their communities informed: both within the hospitals and outside.



AHA webinar

That includes making sure teams are entirely linked up in case cases arise.


Inform

Internal Communication


- Do you have all these people/departments on this list?
- Who else is on your internal phone tree that isn't listed here?
- Who makes these phone calls at your facility? Who will be the lead so contacts know who to call back?
- Will any of these contacts change if it is a night, weekend or holiday?
- ** Will your internal incident command structure be activated? ** (Great thing to exercise!)

Important Contacts

- Charge RN
- ED MD
- Infectious Disease
- Infection Prevention/Epidemiology
- ED leadership
- Staffing
- Safety
- Security
- Environmental Services
- Supply chain
- Emergency Management
- Laboratory
- Public Relations Team
- Administration



American Hospital Association
Advancing Health in America




NETEC


AHA webinar

That includes contacting people outside the organization, including local and state public health organizations.

Inform

External Communication	
<ul style="list-style-type: none">Who else should you contact externally that is not listed here?Who makes those phone calls?Just like the internal phone tree, you need names and positions, multiple numbers and a plan if procedures differ depending on the time or dayCommunication is great to exercise. Try inviting contacts to your facility's exercises!	Important Contacts <ul style="list-style-type: none">Public Health (Local/State)EMS/TransportSpecialty services not available at your facility<ul style="list-style-type: none">PediatricsLabor & DeliveryOther resources specific to your institution, region or CONOPS planCDC

 American Hospital Association
Advancing Health in America

 **NETEC**

AHA webinar

The presentation also laid out what protective equipment is needed for COVID-19.

A healthcare worker is shown from the chest up, wearing a white isolation gown, a blue face shield, a green N95 respirator mask, and blue gloves. They are standing in a clinical setting with a door and wall outlets visible in the background. A large, dark blue rectangular box with a white border is superimposed over the center of the image, containing the title text.

Personal Protective Equipment

AHA webinar

That includes a face shield, N95 respirator mask, isolation gown and a pair of gloves.

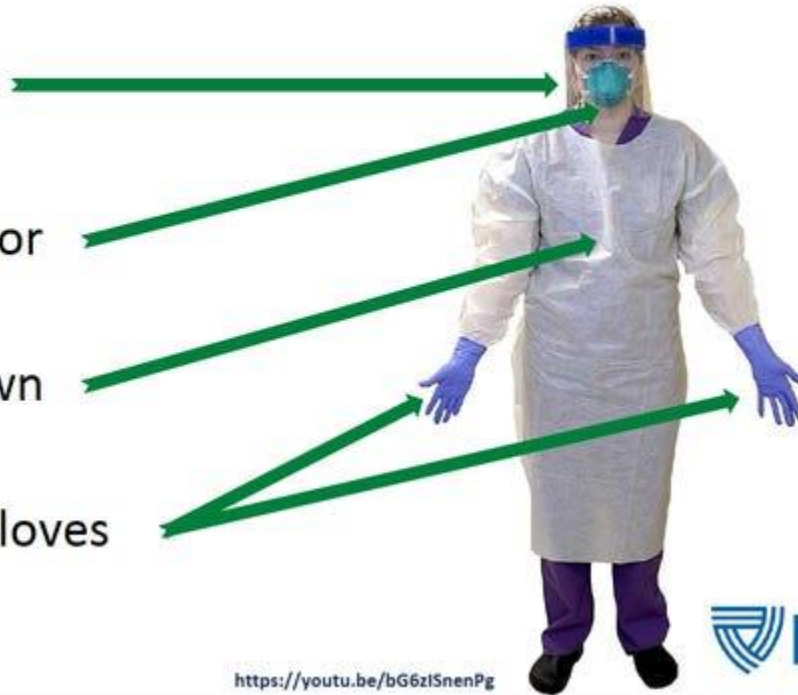
PPE for Novel Coronavirus

1. Face Shield

2. N95 Respirator

3. Isolation Gown

4. One pair of gloves



This part of the presentation deals with the importance of communicating about the outbreak within hospitals.



Communications Approach

Paul Baltes



AHA webinar

Hospitals need to prepare to communicate with their workers and with the media.

COVID-19 Response: Communications

- It is very difficult to plan for and react to a situation simultaneously
- Have a plan, write it in pencil
- External & Internal
 - There is no such thing as internal communications
 - Internal needs:
 - “Is it safe for me to do my job?”
 - How to answer questions
 - External needs:
 - Inform the public
 - “Feed the beast” – the 24hr news cycle requires fuel



AHA webinar

This slide has some best practices developed in Nebraska.

COVID-19 Response: Communications

Nebraska Best Practices

- Single point of contact for communications
- Plan for “what if” scenarios
- Know your audiences
- Tactics:
 - News media
 - Access to experts
 - Visuals
 - Social Media
 - Different tone – “wild west”
 - Internal
 - Established methods
 - Quick reference – FAQ, scripting



AHA webinar

The presentation also included a discussion of supply chain issues for hospitals.



Supply Chain Demands

David Brett-Major



AHA webinar

It ends with resources for health systems.



Resources

AHA webinar

The webinar also provided links through which AHA's members could continue reading for more information.

Resources for COVID-19

Additional Resources

▶ NETEC COVID-19 Information

- <https://repository.netecweb.org/exhibits/show/ncov/ncov>

▶ CDC

- <https://www.cdc.gov/novelcoronavirus>

▶ WHO

- <https://www.who.int/westernpacific/emergencies/novel-coronavirus>



Featured Digital Health Articles:

- [Telehealth Industry: Benefits, Services & Examples](#)
- [Value-Based Care Model: Pay-for-Performance Healthcare](#)
- [Senior Care & Assisted Living Market Trends](#)
- [Smart Medical Devices: Wearable Tech in Healthcare](#)
- [AI in Healthcare](#)
- [Remote Patient Monitoring Industry: Devices & Market Trends](#)

More: [Features](#) [Health](#) [American Hospital Association](#) [wuhan coronavirus](#)