



# Battelle CCDS Critical Care Decontamination System™<sup>1</sup>

## Helping Frontline Healthcare Workers

# Battelle CCDS™ - The Mission to Help

- **2016 FDA study:** Proves Vapor Phase Hydrogen Peroxide (VPHP) process to decontaminate N95 respirators is effective in the event of a pandemic
  - [FDA Report on Decontamination and Reuse of N95 Respirators](#)
- **January 2020:** Battelle scientists begin research on the novel coronavirus (SARS-CoV-2)
- **March 6-22:** Battelle builds the first CCDS system, tests validity, proves capacity effectiveness on thousands of N95 per cycle
  - [Critical Care Decontamination System Tech Summary](#)



Testing Run Cycles

# Zero Cost and Scaling Up Across the U.S.

- **March 29:** Awarded [FDA EUA](#) to decontaminate N95 respirators up to 20 times for each mask and deployment across the U.S.
- **April 9:** Federal Government contract awarded
  - Zero cost decon service to healthcare providers
  - Rapid scale and deployment of 60 CCDS systems to regions across the U.S.



# CCDS: Fast Facts

- The Battelle Critical Care Decontamination System™ is a self-contained, mobile decontamination system that uses vapor phase hydrogen peroxide (VPHP) to decontaminate N95 respirator masks
- The Battelle CCDS™ decontamination cycle successfully generates a micro-condensation through the dwell phase and provide > 6-log reduction as indicated by collocated chemical indicator.
- Battelle CCDS™ renders SARS-CoV-2 non-infectious on N95 respirators and enables up to 20 reuses without degrading filter performance to help address the current U.S. PPE shortage
- Battelle CCDS™ is effective against both viral and bacterial agents. Battelle tested VPHP decontamination efficacy against SARS-CoV-2 in our Bio Safety Level 3 (BSL 3) laboratories.
- Battelle is the largest, private, non-profit research and development organization in the world.

# Battelle CCDS™ Process

## HEALTH CARE PROVIDER SIGN-UP PROCESS Battelle CCDS Critical Care Decontamination System™

**BATTELLE**

### 1 Sign up with Battelle

- Visit [battelle.org/decon](http://battelle.org/decon) to fill out the enrollment form
- Battelle emails enrollee links to the enrollment contract, instructions, and the Battelle POC

[battelle.org/decon](http://battelle.org/decon)



### 2 Contact Us to Get Your Code

- Enrollee signs contract and contacts Battelle POC to receive their 3-digit codes for each facility



### 3 Properly Label Respirators

- Once the 3-digit codes are received from Battelle, enrollee collects N95 respirators
- N95 respirators must be unsoiled (free of blood, mucus, make-up, lip balm, etc.) and labeled with a permanent marker



### 4 Collect & Bag All N95 Respirators

- Enrollee collects all N95 respirators into a single plastic bag
- Once the plastic bag is filled, tie off the bag and put it into another plastic bag



### 5 Properly Package

- Clean the outside bag with disinfectant
- Shipping box must be labeled with the 3-digit code and a biohazard sticker



### 6 Ship to CCDS Site

- Enrollee contacts their chosen logistics provider to coordinate pick-up and delivery of their N95 respirators
- Enrollee can either use a logistics provider of their choice or Battelle's preferred logistics provider



### 7 Decontaminated & Returned

- Your shipments are barcoded to ensure chain of custody
- Your N95 respirators are processed and then verified to ensure they are free of decontaminant
- Your decontaminated N95 respirators are returned to your facility



# CCDS: PPE Collection

Detailed information on the N95 collection process and how to prep N95s are included in instructions when healthcare providers enroll.

- The organization creates a collection station at the point of generation (i.e. hospital floor/unit)
- Each station has a large plastic bag placed in a rigid container provided by the healthcare facility to collect compatible N95 respirators



# CCDS: PPE Labeling

## 3-Digit Site Code

- The 3-digit site code is hospital site specific and assigned by a Battelle POC
- Each N95 respirator and the outside of each shipping box are labeled with the 3-digit site code
- Healthcare Systems add 2-digits with additional identifying information (i.e. floor, department)
- Each healthcare system receives their own decontaminated N95 back



**Important for decontamination:** All N95s must be free of **blood, mucus, makeup** etc.

# CCDS: Logistics/Shipping Support

- End-to-end logistics/shipping support is available at no cost through Cardinal Health and FedEx.
- Shipping/logistics options are determined by the type of healthcare provider organization and coordinated through a Battelle point-of-contact (POC) following the completion of the CCDS service agreement.





# CCDS Site Set-up Overview

# CCDS: Site Location and Set-Up

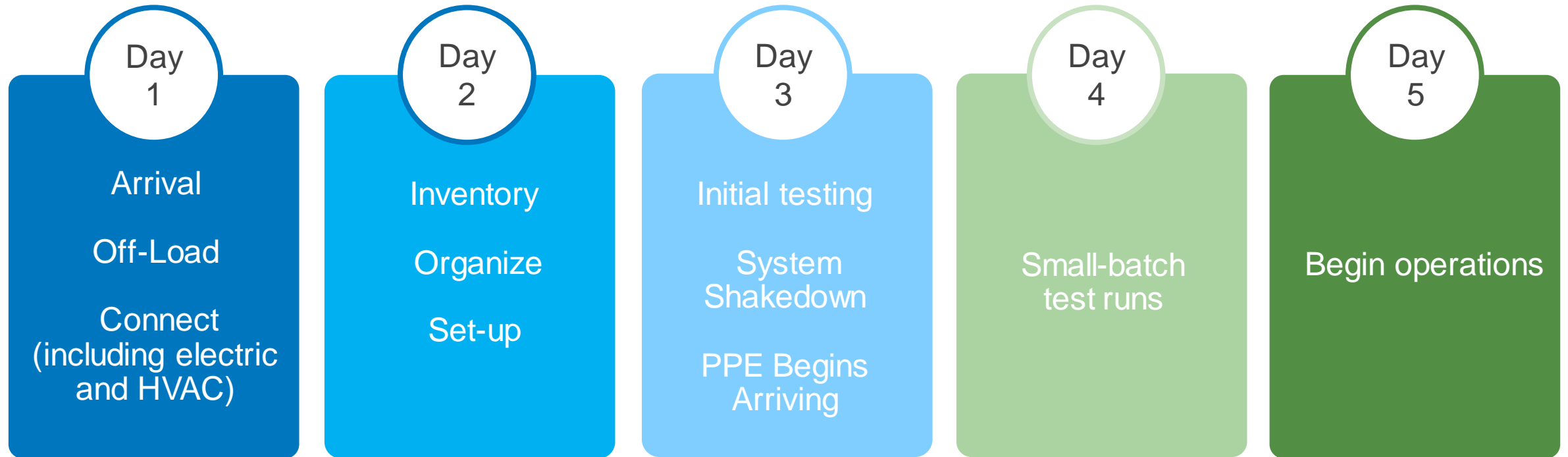
Site locations are determined by DHS and FEMA.

1. CCDS site set-up is coordinated between the Battelle operations team and the point-of-contact (POC) at the state
2. A Battelle site lead is assigned to the location by Battelle
3. Site requirements and logistics for the CCDS system is coordinated between Battelle operations team and state organization POC
4. Logistics include CCDS system shipping, site arrival, site set-up, required testing runs and the official launch of PPE decontamination process

**Important tip:** Healthcare providers who enroll in the CCDS system can begin collecting their PPE before a site is set-up. Learn more at: [www.battelle.org/N95](http://www.battelle.org/N95)

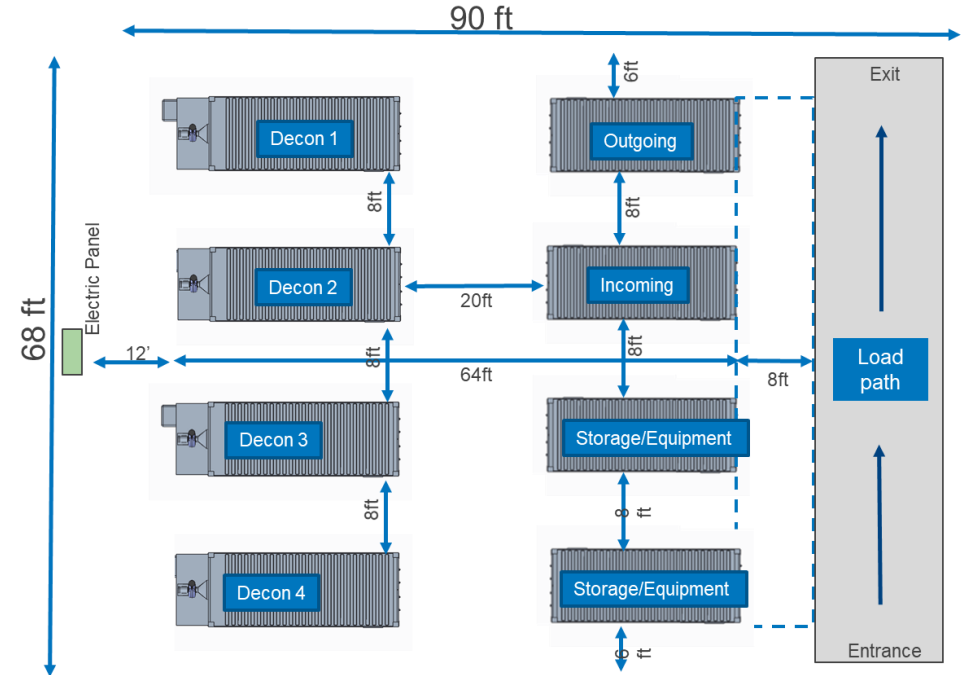
# CCDS: Site Set-up Timeline

## The First 5 Days



# CCDS: Site Overview

- **20'x 8' x 8' Conex Containers (8 Total)**
  - 4 Decon Shelters, Incoming, Outgoing, 2 Storage
- **Decon Shelter**
- **Incoming/Outgoing Container** – Support workflow for N95 receipt and return
- **Storage Containers** – Support ancillary supplies and consumables

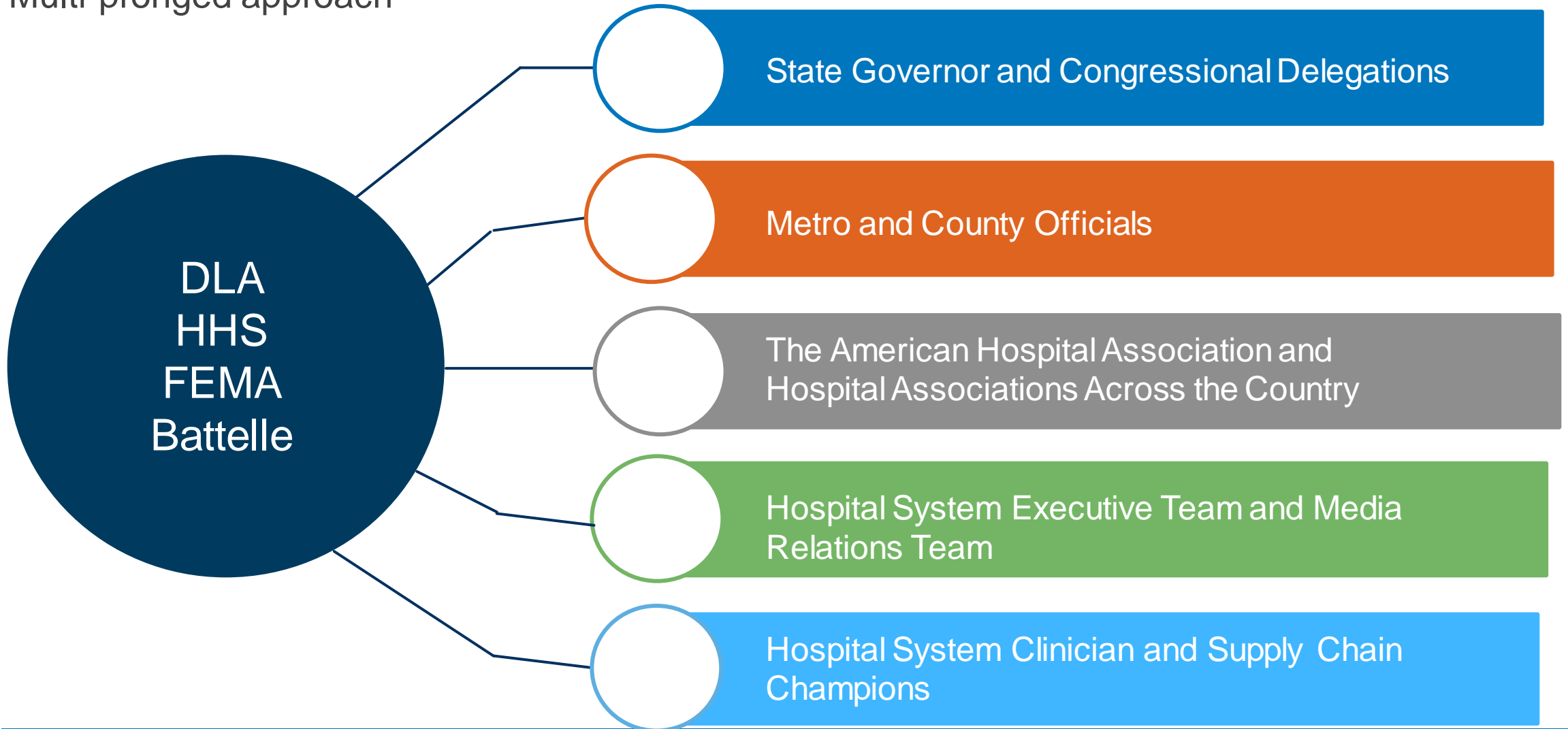


# CCDS Communications Activation

## Engagement and Reach to Drive Usage

# CCDS: Communication Activation

Multi-pronged approach





***BATTELLE***

**It can be done**

[www.battelle.org/N95](http://www.battelle.org/N95) | [www.battelle.org/decon](http://www.battelle.org/decon)