COVID-19 Surveillance to Enable Early Detection and Response to Outbreaks: National Healthcare Safety Network (NHSN) Mandatory Data Collection

4:00 – 5:00 PM ET

August 6, 2020

CMS CENTERS FOR MEDICARE & MEDICAID SERVICES

CDC CENTERS FOR DISEASE CONTROL AND PREVENTION

Quality Improvement Organizations
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Introduction and Welcome

Lisa Sullivan, MSN, RN
Acting Director
Division of Community and Population Health
iQuality Improvement & Innovation Group
Centers for Medicare & Medicaid Services (CMS)

Meet Your Speaker

Linda Behan, BSN, RN, CIC
Senior Director, Infection Prevention and Control
Genesis HealthCare

Where to Access Current Guidance

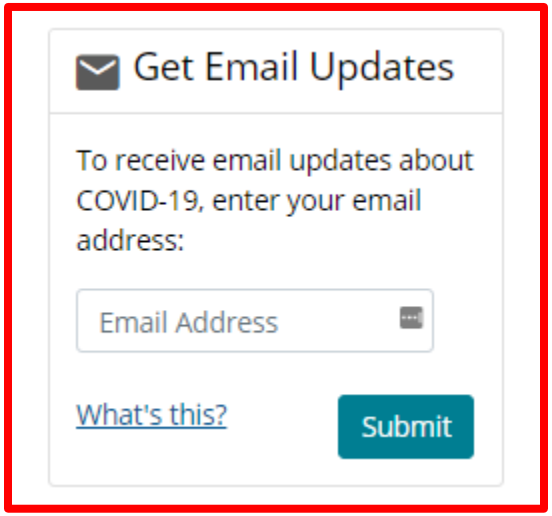
- **CMS sends new memorandums to center leadership**

- **Coronavirus (COVID-19) Stakeholder Calls**
  - **Nursing Homes Call (twice a month on Wednesday at 4:30 PM Eastern)**
  - Wednesday, August 12th at 4:30 – 5:00 PM Eastern
  - **Toll Free Attendee Dial-In:** 833-614-0820; **Access Passcode:** 7857618
  - Audio Webcast Link: https://protect2.fireeye.com/url?k=24c25ae7-789673cc-24c26bd8-0cc47a6d17cc-8b19f356735ac629&u=https://engage.vevent.com/rt/cms2/index.jsp?seid=2332

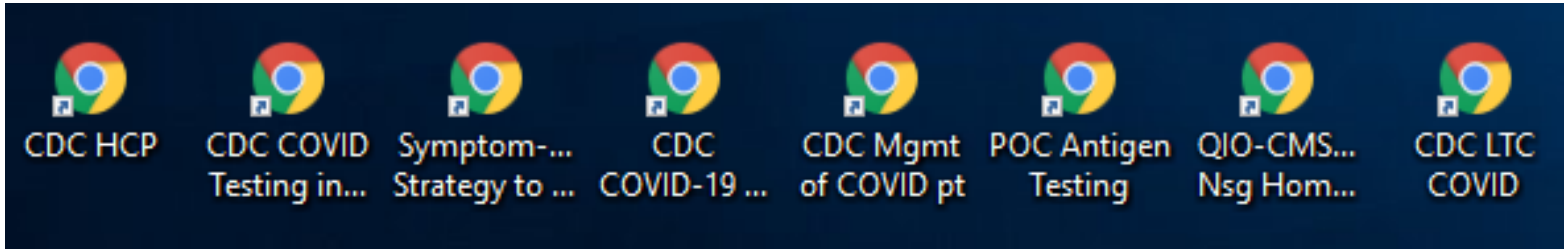
- **Coronavirus (COVID-19) Partner Toolkit**
  - https://www.cms.gov/outreach-education/partner-resources/coronavirus-covid-19-partner-toolkit

Where to Access Current Guidance

- CDC has a multitude of webpages dedicated to COVID-19 and there are some that are specifically geared to LTC facilities
  - Hint: Bookmark pages frequently visited
  - Create shortcuts on your desktop
  - Sign up for email updates on CDC page
  - Schedule in calendar



- Reporting Requirements
  - Facilities are required to report their COVID-19 data to NHSN



Surveillance

- Purpose of Surveillance
  - Identify trends in infections – facility acquired, or community acquired
  - Inform decisions on patient care and infection prevention and control measures
  - Infection transmission – includes observation staff infection prevention and control practices
  - Improve patient care

- Surveillance Processes
  - Use of standardized infection definitions-NHSN, Revised McGeer
  - Consistent process – checklist, line list, monthly reports-including root cause analysis, EHR review, rounds
  - Benchmarking – internal or external

Outcome Surveillance

COVID–19 Screen

A. Signs and Symptoms

0. If no vitals taken in last 8 hours, take new vitals and enter as new (if vitals were taken and entered after note was initiated View ALL and choose current vital)

1a. Most Recent Temperature E
Temperature: 100.8 (°F) Date: 8/1/2020 10:39
Route: Oral

1a2. Is there a New temperature 99.0°F or greater present?
0. No 1. Yes

2. Most Recent Pulse E
Pulse: 108 (bpm) Date: 8/1/2020 10:27
Pulse Type:

21a. Is there new onset of tachycardia (more than 100 beats per min) present?
0. No 1. Yes

2a. Most Recent O2 sats
O2 sats: 96.0 (%) Date: 8/1/2020 14:50
Method: Oxygen via Mask

To compare with previous O2SAT use H (history link) next to most recent O2 SATS line A_2a

2a1. Has the O2 SAT decreased by 3 points or greater since last taken?
0. No 1. Yes

3. Most Recent Respiration E
Respiration: 18 (Breaths/min) Date: 8/1/2020 15:31

4a. new onset indicators present (check all that apply)

- [ ] 2. sore throat
- [ ] 4. chest congestion
- [ ] 5. cough
- [ ] 6. or increase shortness of breath
- [ ] 9. or worsening confusion
- [ ] 11. Other symptoms
- [ ] 11b. malaise and/or muscle pain
- [ ] 11c. nausea
- [ ] 11d. vomiting
- [ ] 11e. diarrhea
- [ ] 11f. Chills and/or shaking chills
- [ ] 11g. headache
- [ ] 11h. new loss of taste or smell
- [x] 11i. fever, tachycardia or O2SAT drop as indicated above
- [ ] 12. None Present
- [ ] 13. Patient/Resident is Asymptomatic with Positive COVID Screen Test results in the Past 24 hrs

B. Action

1. The following are new onset indicators of suspected COVID-19 (if none listed below,no indicators were identified)

g. tachycardia

t. Temperature is 99.0°F or greater

Line Listing

RESIDENT LISTING

RESIDENT LISTING				Symptom(s) Present													Testing												
Name	Room# or Wing	Date of Onset	Duration (days)	Fever-Highest Temp	New or Increased Cough (Y/N)	Sore Throat (Y/N)	Shortness of Breath (Y/N)	Sneezes (Y/N)	Runny Nose (Y/N)	Chills (Y/N)	New onset or worsening confusion (Y/N)	Nausea (Y/N)	Vomitting (Y/N)	Diarrhea (Y/N)	Nasal Congestation (Y/N)	New Onset Malaise (Y/N)	oplet & Contact Precautions Initiatied Y/N	CBC	Chest X-Ray Results (+ or -)	Flu Swab (+ or -)	Viral Panel (+ or -)	COVID-19 (Not Tested, Pending, Positive, Negative)	Influenza Vaccination ThisSeason (Y/N)	Moved from a different location after symptoms developed	Hospitalization (Y/N)	Death (Date)	Last Date & Time of Fever	72 hours with no acute s/sx (fever, chills)	Notes: (For moves,
	2W	03/30/20	9	100.9	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	+	-	-	Not Tested	N	No	N			Y	
	2E	04/01/20	9	98.2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	-	N	Not Tested	Y	No	N			Y	
	2W	04/03/20	5	103.2	N	N	N	N	N	N	Y	N	N	N	N	Y	Y	Y	+	-	-	Negative	Y	No	N			Y	Asymp. res. moved t
	2W	04/03/20	3	98.6	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	-	Not Tested	Y	Yes	N			Y	
	2W	04/04/20	6	100.1	N	N	N	N	N	N	N	N	Y	N	N	N	N	Y	N	N	N	Not Tested	Y	No	N			Y	

Resident Line Listing | Instructions | Definitions | Respiratory Tiers | Staff Line Listing | Notes | Explore

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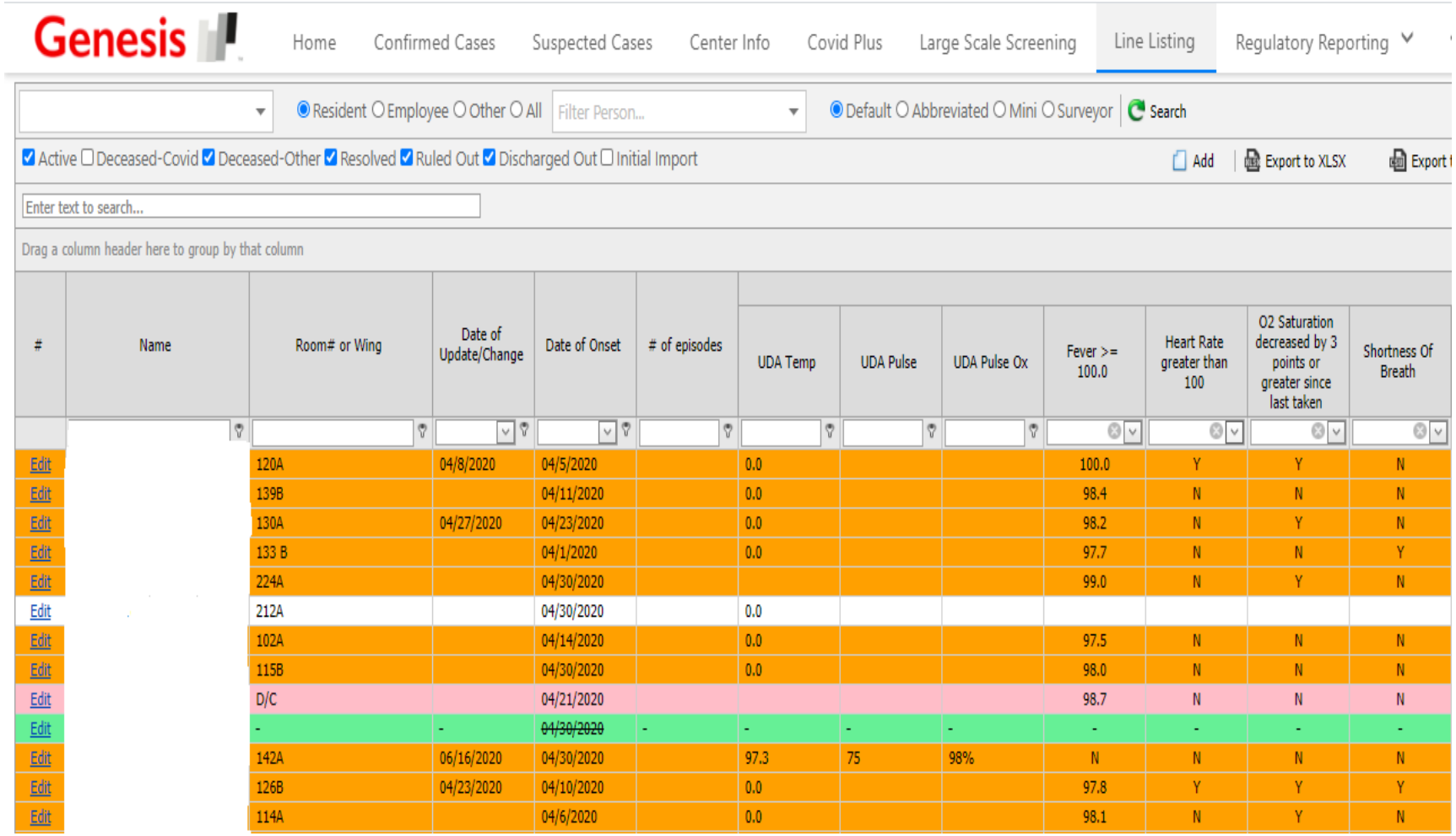
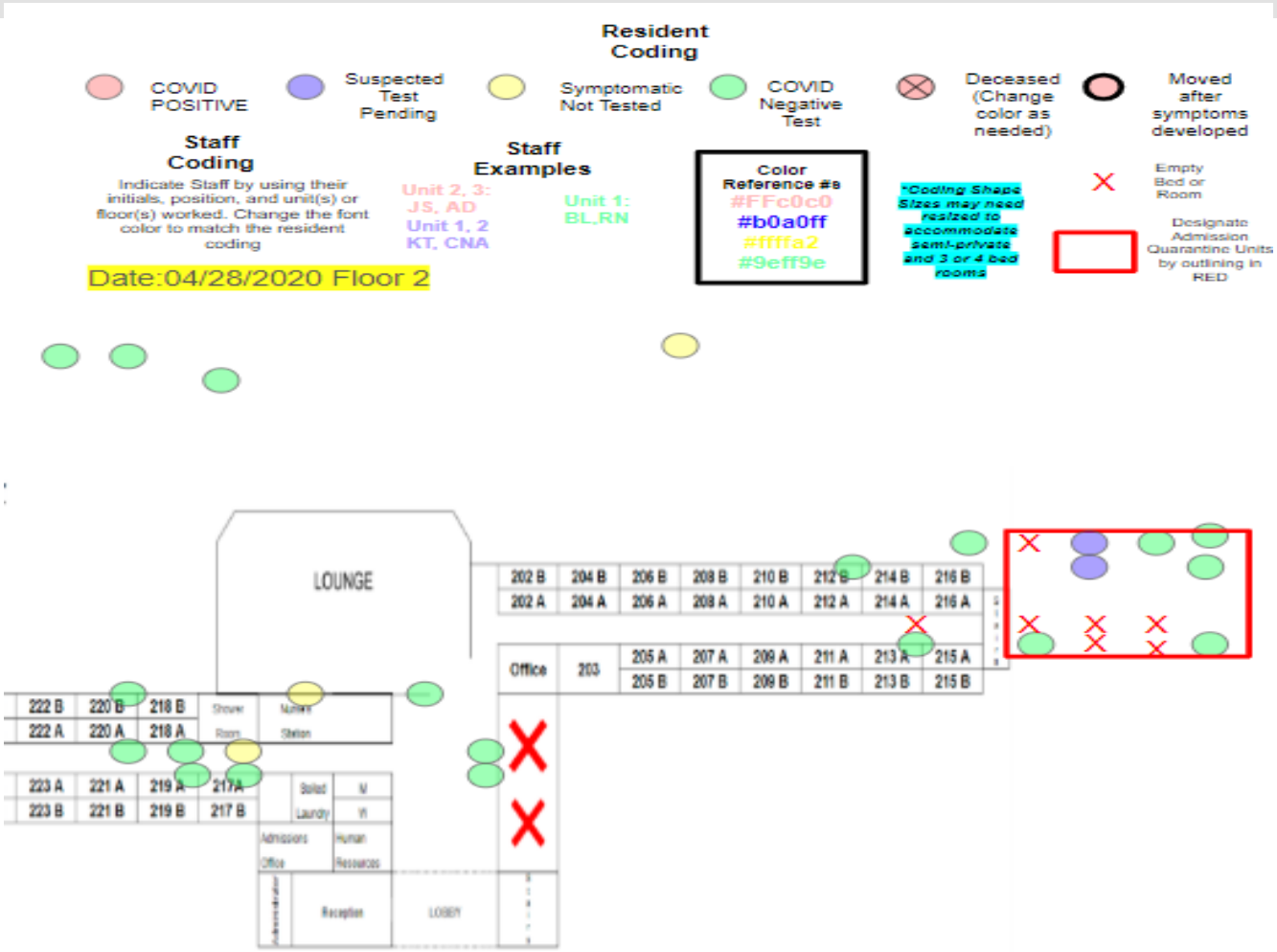
Line List

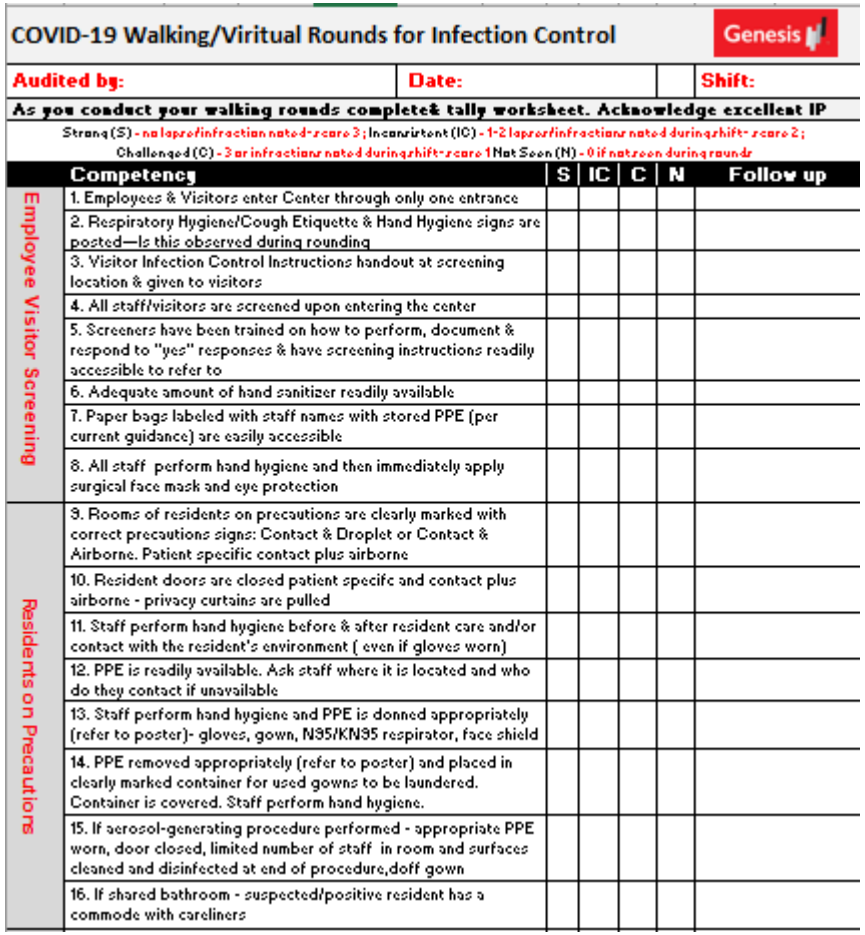


#	Name	Room# or Wing	Date of Update/Change	Date of Onset	# of episodes	UDA Temp	UDA Pulse	UDA Pulse Ox	Fever >= 100.0	Heart Rate greater than 100	O2 Saturation decreased by 3 points or greater since last taken	Shortness Of Breath
Edit		120A	04/8/2020	04/5/2020		0.0			100.0	Y	Y	N
Edit		139B		04/11/2020		0.0			98.4	N	N	N
Edit		130A	04/27/2020	04/23/2020		0.0			98.2	N	Y	N
Edit		133 B		04/1/2020		0.0			97.7	N	N	Y
Edit		224A		04/30/2020					99.0	N	Y	N
Edit		212A		04/30/2020		0.0						
Edit		102A		04/14/2020		0.0			97.5	N	N	N
Edit		115B		04/30/2020		0.0			98.0	N	N	N
Edit		D/C		04/21/2020					98.7	N	N	N
Edit		-	-	~~04/30/2020~~	-	-	-	-	-	-	-	-
Edit		142A	06/16/2020	04/30/2020		97.3	75	98%	N	N	N	N
Edit		126B	04/23/2020	04/10/2020		0.0			97.8	Y	Y	Y
Edit		114A		04/6/2020		0.0			98.1	N	Y	N

Heat Map


Resident Coding
COVID POSITIVE
Suspected Test Pending
Symptomatic Not Tested
COVID Negative Test
Deceased (Change color as needed)
Moved after symptoms developed
Staff Coding
Indicate Staff by using their initials, position, and unit(s) or floor(s) worked. Change the font color to match the resident coding
Staff Examples
Unit 2, 3: JS, AD
Unit 1, 2 KT, CNA
Unit 1: BL,RN
Color Reference #s
#FFc0c0
#b0a0ff
#ffffa2
#9eff9e
*Coding Shape Sizes may need resized to accommodate semi-private and 3 or 4 bed rooms
Empty Bed or Room
Designate Admission Quarantine Units by outlining in RED
Date:04/28/2020 Floor 2
LOUNGE
202 B 204 B 206 B 208 B 210 B 212 B 214 B 216 B
202 A 204 A 206 A 208 A 210 A 212 A 214 A 216 A
Office 203
205 A 207 A 209 A 211 A 213 A 215 A
205 B 207 B 209 B 211 B 213 B 215 B
222 B 220 B 218 B
222 A 220 A 218 A
223 A 221 A 219 A 217A
223 B 221 B 219 B 217 B
Reception

Process Surveillance



COVID-19 Walking/Virtual Rounds for Infection Control — Genesis

Audited by:	Date:		Shift:

As you conduct your walking rounds complete& tally worksheet. Acknowledge excellent IP

Strong (S) - no lapses/infraction noted - score 3; Inconsistent (IC) - 1-2 lapses/infractions noted during shift - score 2; Challenged (C) - 3 or infractions noted during shift - score 1 Not Seen (N) - 0 if not seen during round

	Competency	S	IC	C	N	Follow up
Employee Visitor Screening	1. Employees & Visitors enter Center through only one entrance					
	2. Respiratory Hygiene/Cough Etiquette & Hand Hygiene signs are posted—Is this observed during rounding					
	3. Visitor Infection Control Instructions handout at screening location & given to visitors					
	4. All staff/visitors are screened upon entering the center					
	5. Screeners have been trained on how to perform, document & respond to "yes" responses & have screening instructions readily accessible to refer to					
	6. Adequate amount of hand sanitizer readily available					
	7. Paper bags labeled with staff names with stored PPE (per current guidance) are easily accessible					
	8. All staff perform hand hygiene and then immediately apply surgical face mask and eye protection					
Residents on Precautions	9. Rooms of residents on precautions are clearly marked with correct precautions signs: Contact & Droplet or Contact & Airborne. Patient specific contact plus airborne					
	10. Resident doors are closed patient specific and contact plus airborne - privacy curtains are pulled					
	11. Staff perform hand hygiene before & after resident care and/or contact with the resident's environment (even if gloves worn)					
	12. PPE is readily available. Ask staff where it is located and who do they contact if unavailable					
	13. Staff perform hand hygiene and PPE is donned appropriately (refer to poster)- gloves, gown, N95/KN95 respirator, face shield					
	14. PPE removed appropriately (refer to poster) and placed in clearly marked container for used gowns to be laundered. Container is covered. Staff perform hand hygiene.					
	15. If aerosol-generating procedure performed - appropriate PPE worn, door closed, limited number of staff in room and surfaces cleaned and disinfected at end of procedure,doff gown					
	16. If shared bathroom - suspected/positive resident has a commode with careliners					

- Have a tool that measures compliance with staff practices
  - Identifies focus areas
  - Monitors improvement
- Have a trained “IP Designee” on each shift with the responsibility to observe staff and provide just in time training
- Conduct virtual infection control walking rounds

SUMMARY

- Accessing CMS and CDC resources quickly
- Review of the purpose of surveillance
- Importance of Outcome and Process Surveillance in Preventing and Managing COVID outbreaks

Meet Your Speaker

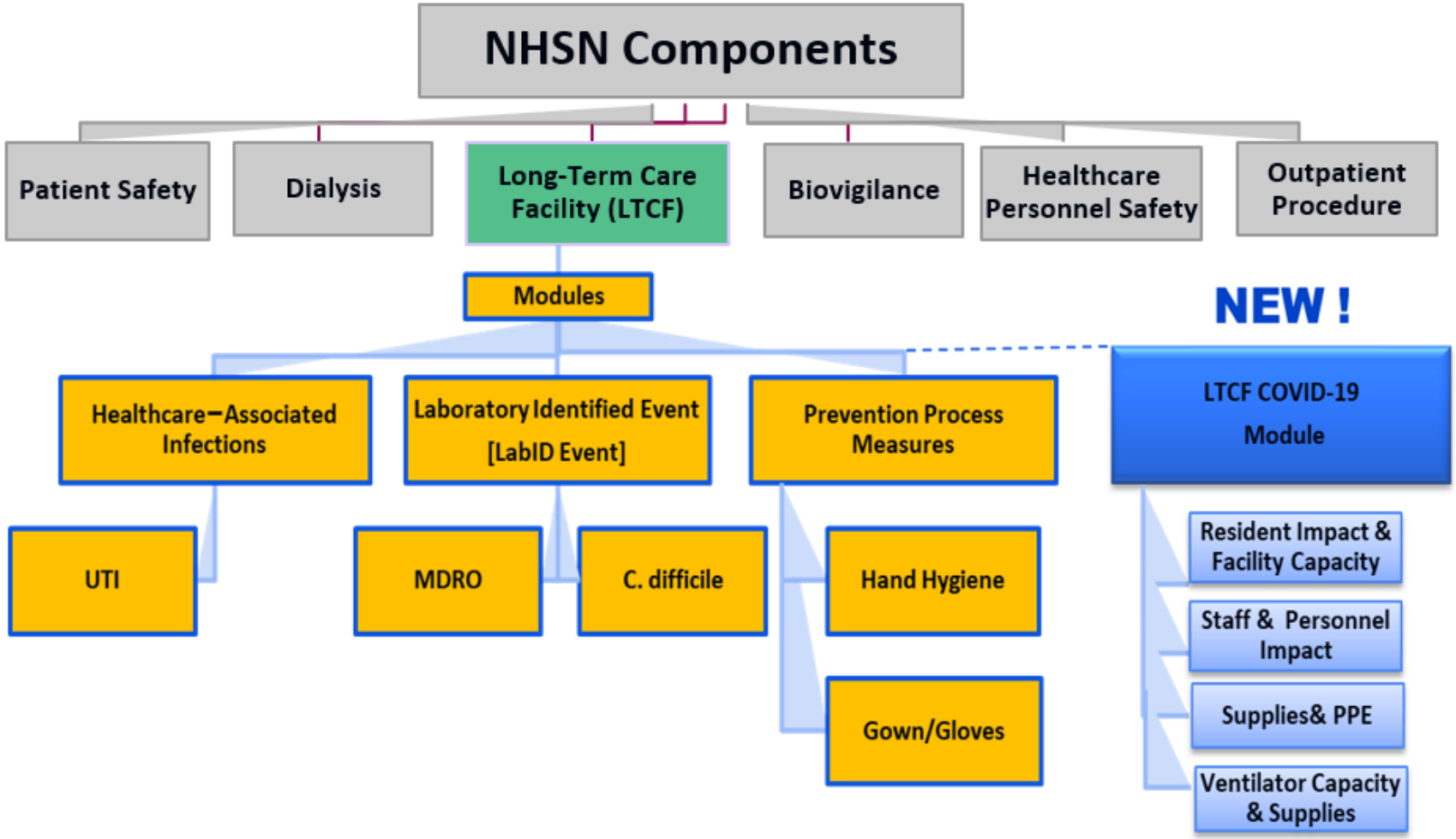
Angela Anttila, PhD, MSN, NPC, CIC
Nurse Epidemiologist
Division of Healthcare Quality Promotion
National Center for Emerging and Zoonotic Infectious Diseases
Centers for Disease Control and Prevention

Collecting and Submitting Data to National Healthcare Safety Network (NHSN)

National Healthcare Safety Network (NHSN)

- Secure, internet-based surveillance system managed by the Centers for Disease Control and Prevention (CDC)
- Open to a variety of healthcare facilities in the United States
- Tool for the collection, analyses, and summarization of data on healthcare associated infections (HAIs), adverse healthcare events, antimicrobial use and resistance, adherence to prevention practices, exposures, and outcomes
- Collaborations with local and state public health agencies, and professional groups

NHSN Components

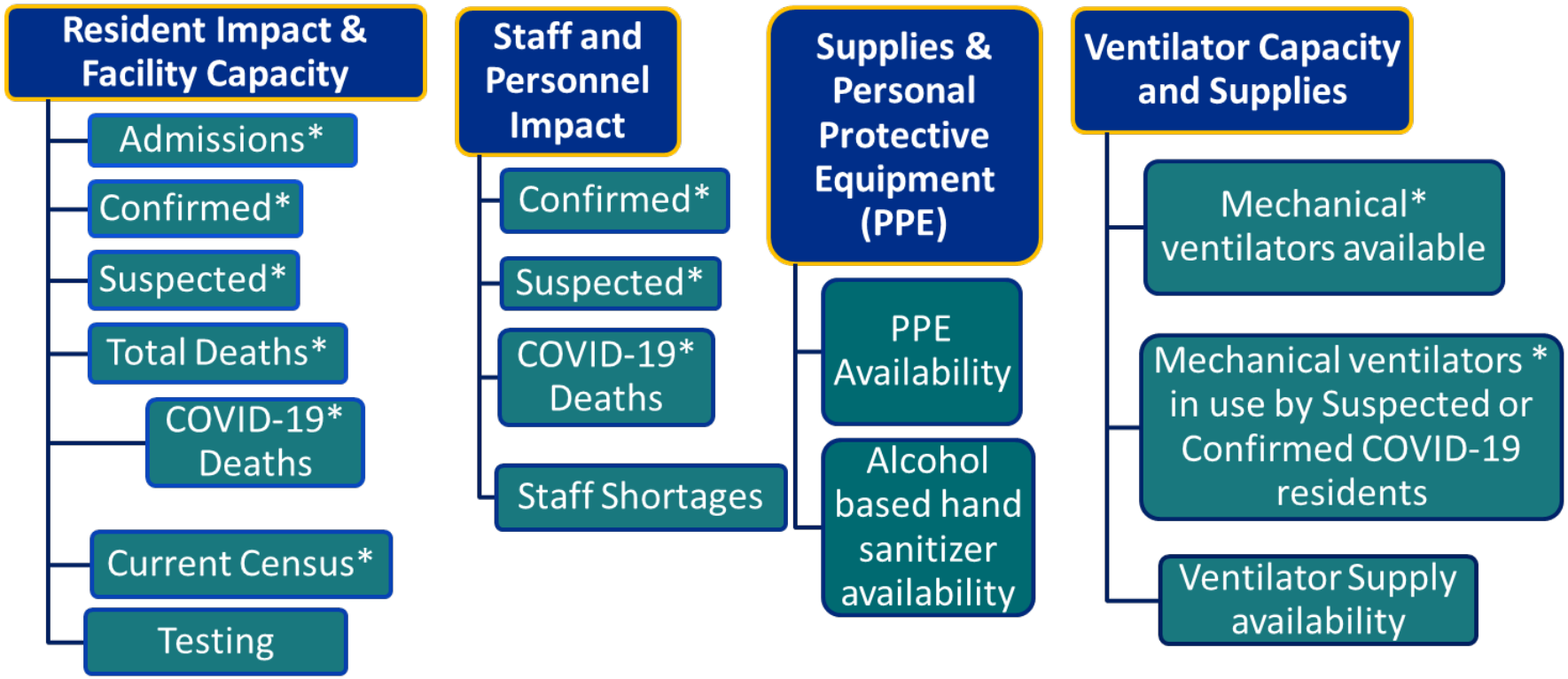


LTCF COVID-19 Module: Data Collection

Data Elements Consists of:

- New (incident) counts for reporting period
- Check-box selections
- Yes or No responses

COVID-19 Module: Data Collection Elements



* Counts (report NEW counts since the last date counts were collected for reporting in the Module)

Tips for collecting COVID-19 data for submission to NHSN

Consistency is a Must!

- Define reporting frequency
  - Must enter data at least once per week (7 calendar days)
  - Data must be entered even if the count is 0
    - Blank = missing/incomplete
- Define surveillance week (7 calendar days)
- Use counts from the facility line list
- Validate submitted data each week
  - NHSN transmits entered data to CMS every Monday morning

Example: Collecting COVID-19 count data to be reported to NHSN's **Resident Impact and Facility Capacity Pathway**

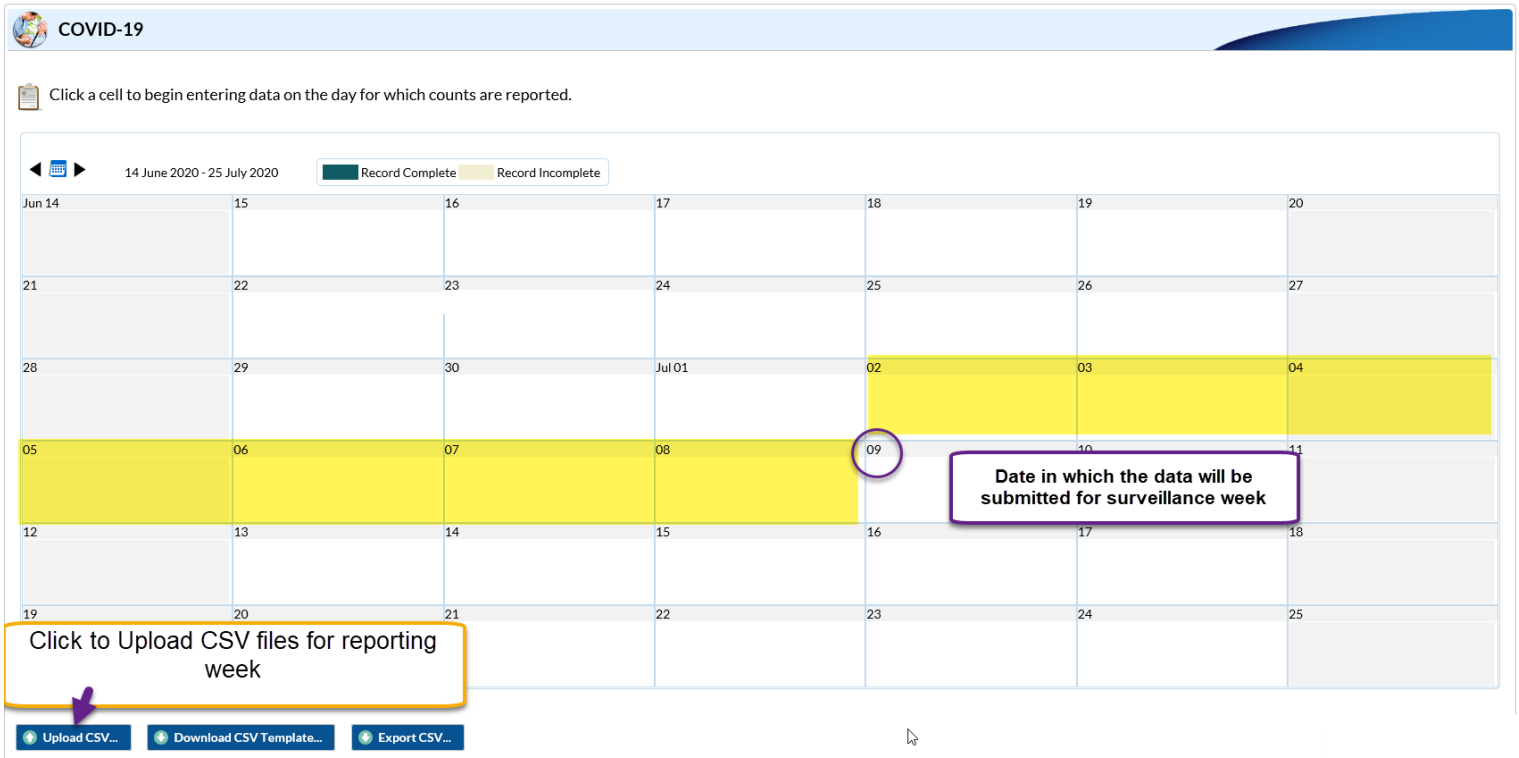
- Facility surveillance week is Thursday through Wednesday
- Reporting period for this example will be 7/2 – 7/8
- Record only NEW counts for each data element

Week (Thurs-Weds) 7/2 – 7/8	NEW ADMITS	NEW CONFIRMED	NEW SUSPECTED	NEW TOTAL DEATHS	NEW COVID-19 DEATHS	COMMENTS
Thursday 7/2	1	0	0	0	0	1 SNF resident with diagnosis of COVID-19 admitted and required transmission-based isolation. No confirmed, suspected, or deaths this day
Friday 7/3	0	3	4	0	0	Received +COVID-19 test results for 3 residents; 4 residents were put on isolation for fever and respiratory symptoms
Saturday 7/4	0	0	2	0	0	2 additional residents put on isolation for COVID-19 related symptoms;
Sunday 7/5	0	2	1	3	2	Received + COVID-19 test results for 2 resident; 1 resident developed fever, cough-put on isolation; 3 residents died today- 1 heart attack and 2 COVID-19 related complications
Monday 7/6	0	1	5	1	1	3 new admissions, but none had COVID-19 diagnosis or symptoms; received 1 COVID-19 + result; 5 new residents put on isolation for symptoms; one new death today- from COVID-19. No other deaths today
Tuesday 7/7	0	3	0	0	0	Received 3 positive COVID-19 test results
Wednesday 7/8	1	1	0	3	1	1 new admit from hospital with + diagnosis and ongoing symptoms of COVDI-19-put on isolation; 1 new positive test result; 3 new deaths, only 1 related to covid-19
TOTAL FOR WEEK	**2**	**10**	**12**	**7**	**4**	For weekly only reporting, these new counts entered in NHSN COVID-19 Module on Thursday 7/9

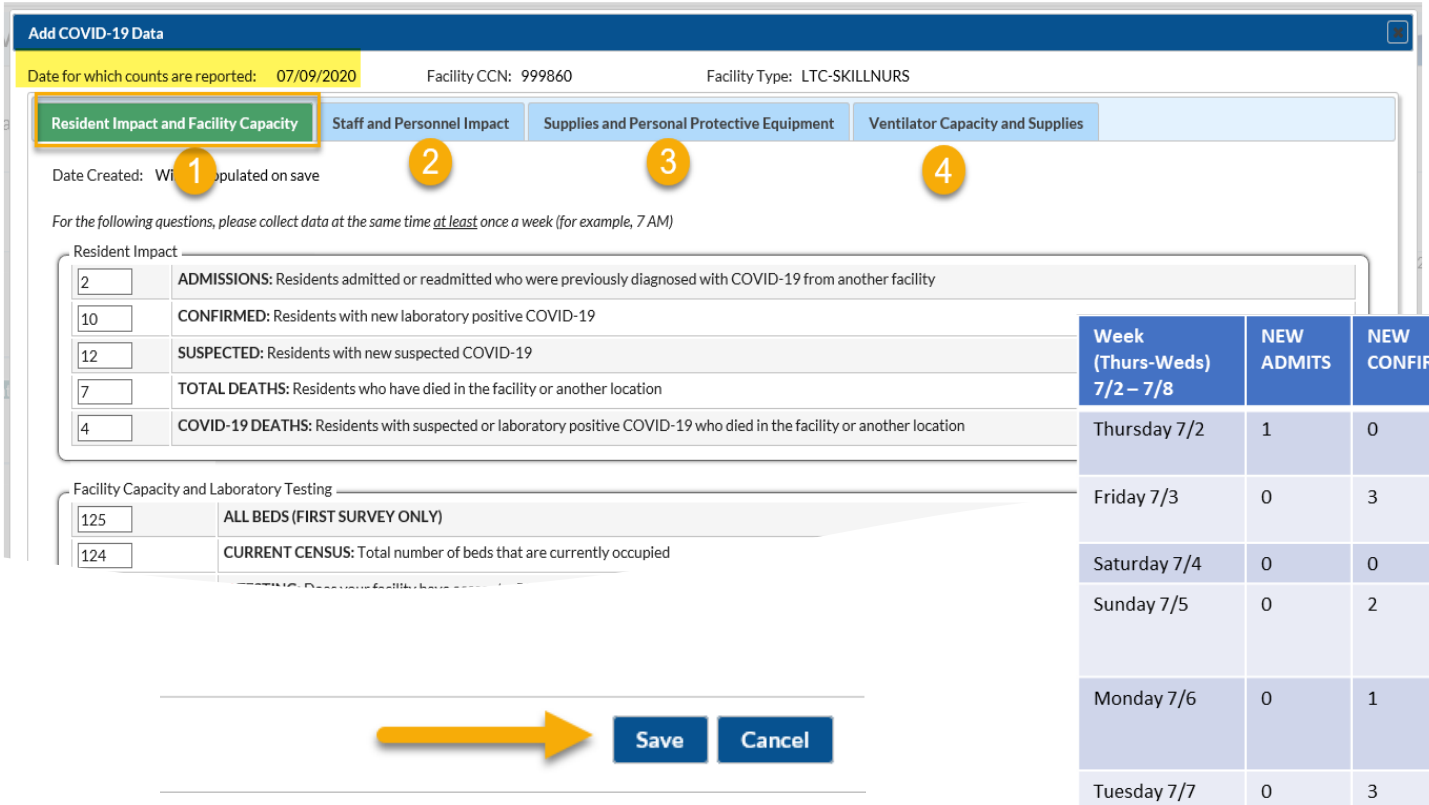
Report COVID-19 Data to NHSN:
Step 1: Log-in and Select COVID-19 Module

Step 2: From calendar view page, either Upload CSV file **or** click on date in calendar to manually enter data

- **Example of weekly reporting in NHSN COVID-19 Module**
  - Facility surveillance week is Thursday-Wednesday
  - Reporting period: 7/2 – 7/8

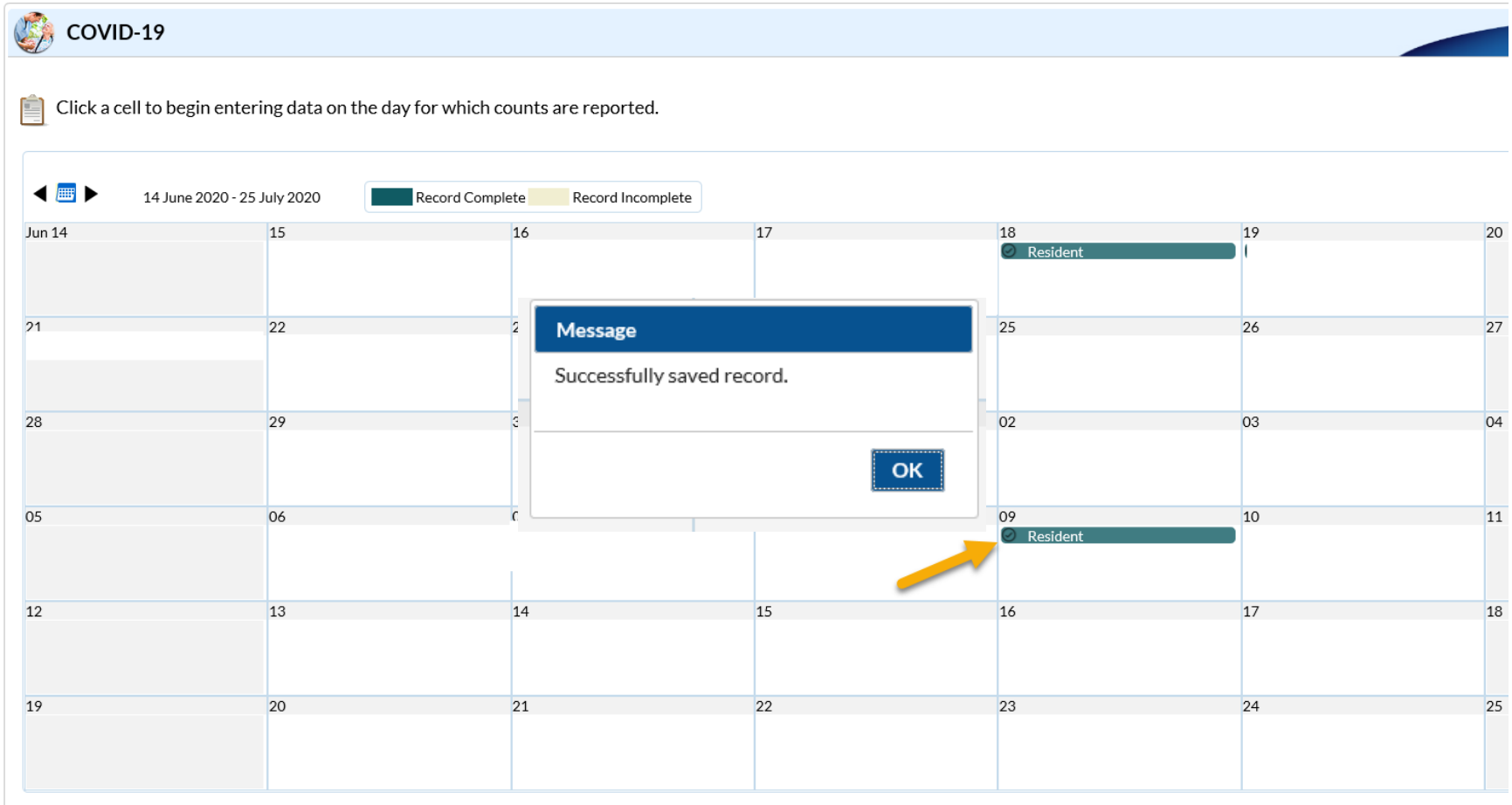


Example of entering weekly counts in **Resident Impact and Facility Capacity Pathway**



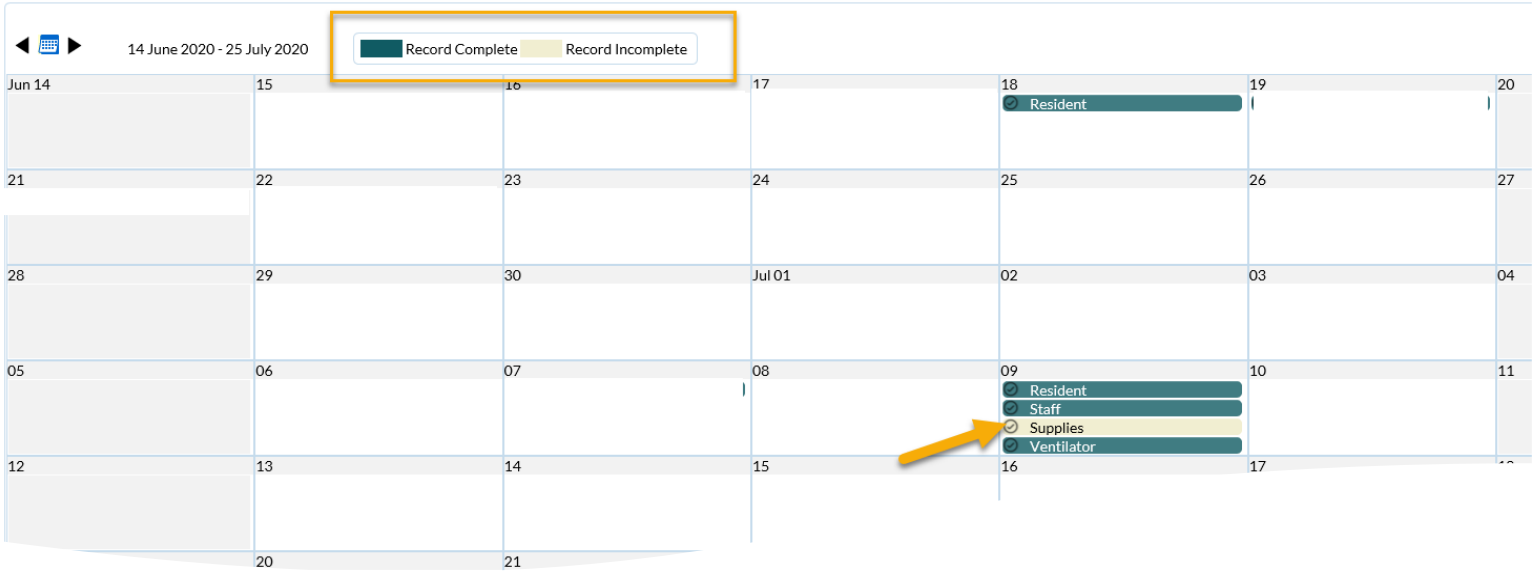
Week (Thurs-Weds) 7/2 – 7/8	NEW ADMITS	NEW CONFIRMED	NEW SUSPECTED	NEW TOTAL DEATHS	NEW COVID-19 DEATHS
Thursday 7/2	1	0	0	0	0
Friday 7/3	0	3	4	0	0
Saturday 7/4	0	0	2	0	0
Sunday 7/5	0	2	1	3	2
Monday 7/6	0	1	5	1	1
Tuesday 7/7	0	3	0	0	0
Wednesday 7/8	1	1	0	3	1
TOTAL FOR WEEK	**2**	**10**	**12**	**7**	**4**

Complete data entry for **Resident Impact and Facility Capacity Pathway**



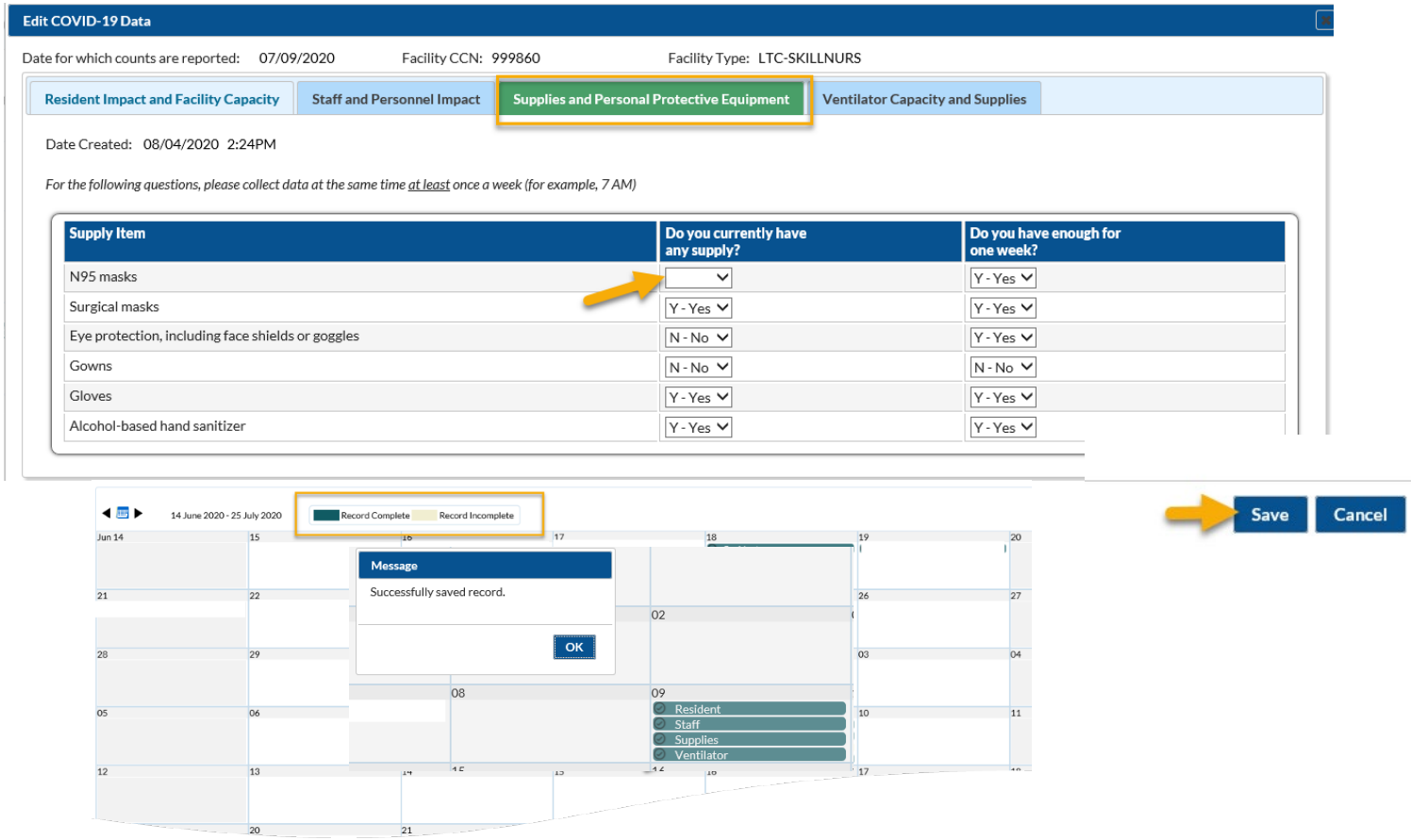
Data Validation

- Verify complete and accurate data entry each week and correct incorrect or missing data.
  - One incomplete pathway for data reported in **Supplies and Personal Protective Equipment** pathway on July 9.
  - Click on incomplete record to edit



Data Validation, continued

- Correct missing data and click SAVE



How Reported Data Are Used

- Platform for sharing required data to the Centers for Medicare and Medicaid Services (CMS)
- Strengthen COVID-19 surveillance locally and nationally by
  - monitor trends in COVID-19 infection rates, including outbreak detection;
  - Identifying facilities experiencing shortages in staff and supplies; and
  - assist local, state, and federal health authorities to direct resources
- Characterize the national impact of COVID-19 among residents and staff in nursing homes
- Informs ongoing activities to support providers

SUMMARY

- Visit the NHSN LTCF COVID-19 Module Web-page for access to resources https://www.cdc.gov/nhsn/ltc/covid19/index.html
- Questions about NHSN and reporting should be sent to NHSN@cdc.gov
- To expedite questions sent to NHSN, include “LTCF” and topic in the Subject line of e-mail.
  - Example: LTCF- add new user
  - Example: LTCF – COVID-19 Module question
  - Example: LTCF- data

Resources

Use Available Resources

- Local and state health departments
- Quality Improvement Organizations and Networks
- Collaborate and share data collection tools and resources
- NHSN LTCF COVID-19 Module Web-page: https://www.cdc.gov/nhsn/ltc/covid19/index.html
  - NHSN data collection forms and accompanying instructions
  - NHSN COVID-19 Frequently Asked Questions
  - Archived and upcoming trainings
  - CSV templates
  - Guidance documents

Clarification – Scenario Based Training

Trump Administration Announces New Resources to Protect Nursing Home Residents Against COVID-19

July 22, 2020 CMS Press Release

Additional Technical Assistance & Support

- CMS, in partnership with the CDC, is rolling out an online, self-paced, on-demand Nursing Home COVID-19 Training focused on infection control and best practices.
- The training being offered has 23 educational modules and a scenario-based learning modules.
- The training is a requirement for nursing homes to receive the additional funding from the Provider Relief Fund (PRF) Program.
- **CLARIFICATION: Only the scenario-based learning module is tied to the PRF, not the 23 educational topics that are presented on a weekly basis. The module has not launched yet.**

Open Discussion and Questions

Join Us!

Join us for the next

National CMS/CDC Nursing Home

COVID-19 Training Call

on Thursday, August 13, 2020

from 4:00 - 5:00 pm ET

Registration Required: https://zoom.us/webinar/register/WN_w16sb6o8TBa-PR7oAFNg2g

Transparency: Resident and Family Notification, Department of Health and Other Notifications

Thank You

Your opinion is valuable to us. Please take a moment to complete the post-event assessment here:

https://www.surveymonkey.com/r/08_06_20

We will use the information you provide to improve future events.

This material was prepared by The Bizzell Group (Bizzell), the Data Validation & Administrative Contractor, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. 12SOW/Bizzell/DVAC-0163-07/29/2020