significant association between facility type (ie, acute-care hospital, critical access hospital, long-term acute-care hospital, or rehabilitation hospital or unit) and the probability of getting all questions correct (Fisher exact $P$ = .42). Of the 303 hospitals (88.0%) that perform at least 1 of the 28 surgical procedures reportable in California, 269 (88.8%) apply CDPH-recommended postoperative ICD-10 diagnosis flag codes to identify records that might indicate a possible surgical site infection (SSI). Moreover, ~289 (84.0%) hospitals confirmed that someone at their facility reviews CDPH quality assurance–quality control reports to verify the accuracy and completeness of their hospital's reported HAI data. In 321 hospitals (93.0%) decisions about which infections are reported to NHSN are made solely by the infection preventionists or hospital epidemiologists, who are thoroughly familiar and follow NHSN protocol, definitions, and criteria. **Conclusions:** Most hospitals reported following best practices for evaluating records for SSIs; however, only half responded correctly to all 3 hypothetical scenarios. Our results highlight the need for ongoing education on HAI surveillance, decision making and reporting methods, and external HAI data validation in hospitals. This survey could serve as a model for other states that work with hospitals to improve HAI surveillance data and to ensure the integrity of public reports. Future research will link the results of this survey to NHSN validation audits.

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## Lessons learned: Characteristics of first-year COVID-19 hospital outbreaks

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**Background:** At the start of the COVID-19 pandemic, the DC Department of Health (DC Health) mandated new case reporting for early outbreak detection: (1) weekly healthcare personnel (HCP) absenteeism line lists indicating staff absent for confirmed or suspected SARS-CoV-2, (2) daily line lists of all SARS-CoV-2–positive inpatients, and (3) hospital contact tracing. Between March 27, 2020, and December 31, 2020, DC Health detected 36 confirmed and 14 suspected hospital outbreaks, of which only 18% (8 confirmed and 1 suspect) were known to the affected hospital. DC Health learned which outbreaks warranted early or aggressive intervention by tracking outbreak characteristics across its jurisdiction. This allowed prioritization of during surges when it was difficult for DC Health and hospital staff to investigate every outbreak. **Methods:** Potential outbreaks in short-stay and inpatient rehabilitation hospitals were flagged after identifying SARS-CoV-2 hospital-onset (HO) inpatients or staff clusters on line lists. Variables of interest in line lists included specimen collection and hospital admission dates, units or departments, and patient contact. Facility contact tracing by infection preventionists further verified epidemiological links among cases. Outbreak details were systematically tracked in a locally developed REDCap database and were analyzed if they had an initial case, outbreak start date, or an investigation start date in 2020. Frequency procedures, SQL statements, and date calculations were computed using SAS Enterprise Guide version 8.3 software. **Results:** Confirmed outbreaks had an average of 6.92 (range, 0–32) HCP and 2.58 (range, 0–22) patient cases, with 69% being confirmed-HO cases and 31% probable HO. Moreover, 53% of confirmed outbreaks occurred in the following departments: cardiac, behavioral health, intensive care, and environmental services (EVS)/facilities. All of these departments had recurrent outbreaks. Behavioral health, medical and cardiac units had the highest number of patient cases. On average, confirmed outbreak investigations lasted 24.6 days, with outbreaks prolonged in the ICU (40.25 days) and the medical unit (37.67 days). Top triggers for investigations ultimately classified as confirmed outbreaks were (1) positive symptomatic HCP, (2) confirmed-HO cases, and (3) exposures from positive HCP. **Conclusions:** The dynamic nature of COVID-19 created challenges in detecting and responding to hospital outbreaks. Developing a low-resource outbreak tracking system helped identify outbreak types and triggers that warranted early or aggressive interventions. Understanding the characteristics of hospital outbreaks was critical for maximizing infection control resources during surges of infectious disease outbreaks, such as COVID-19. Hospitals or local health departments could adapt this system to meet their needs.

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## Susceptibility results discrepancy analysis between NHSN Antibiotic Resistance (AR) Option and laboratory instrument data

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**Background:** The NHSN Antibiotic Resistance (AR) Option can serve as a useful tool for tracking antibiotic-resistant infections and can aid in the development of inpatient antibiograms. We recently described the frequency of antibiotic suppression in NHSN AR Option data. In this analysis, we describe the effects of suppression on practical uses of the NHSN AR Option, specifically selected agent antibiogram development, and detection of reportable conditions. **Methods:** Antibiotic susceptibility data were collected from the NHSN AR Option and commercial automated antimicrobial susceptibility testing instruments (cASTI) from 3 hospital networks. Data were obtained from January 1, 2017, to December 31, 2018. The clinical susceptibility data for third-generation cephalosporins and carbapenems against carbapenem-resistant Enterobacterales (CRE), *Pseudomonas aeruginosa*, and *Acinetobacter baumannii* were included. Susceptibility results were defined as suppressed when susceptibility results were observed from the laboratory instrument but not from NHSN data. For the overall percentage susceptibility estimation, isolates with <30 susceptibility results were excluded. Percentage susceptibility of NHSN results were compared to their counterparts from cASTI. **Results:** Of the 852 matched isolates in the primary analysis, 804 had at least 1 suppressed result. Of the 804 isolates, 16.9% were *P. aeruginosa*, 67.3% by *E. coli*, and 11.1% by *Klebsiella* spp. The following pathogen–drug combinations had no difference observed in the percentage susceptible between the 2 systems: ceftazidime tested against *P. aeruginosa*, ceftriaxone tested against *Klebsiella* spp, ertapenem tested against *Klebsiella* spp, imipenem tested against *E. coli* and *P. aeruginosa*, and meropenem tested against *P. aeruginosa*. Significant differences were observed for the following drugs tested against *E. coli*: ceftazidime (11.1%), cefotaxime (8.6%), and ceftriaxone (8.3%). In the NHSN AR Option, the following isolates showed suppressed results related to their phenotypic case definition: 17 (3%) CRE isolates, 7 (28%) carbapenem-resistant *Acinetobacter baumannii* (CRAB) isolates, 511 (93.2%) extended spectrum β-lactamase (ESBL) isolates, and 94 (66.7%) carbapenem-resistant *Pseudomonas aeruginosa* (CRPA) isolates. **Conclusions:** For select isolates, notably *E. coli*, we observed a large difference in the percentage of susceptible isolates reported into the NHSN AR Option compared to the cASTI data. This difference significantly limits the ability of the AR Option to create valid antibiograms for select pathogen–drug combinations. Moreover, significant numbers of CRAB, ESBL, and CRPA isolates would not be identified from NHSN AR Option because of suppression. This finding warrants the need for antimicrobial stewardship teams to regularly assess the impact of selective reporting in identifying pathogens of public health importance.

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