cited reason (ie, 95% of HCFs) was fewer patients receiving services. The most common IPC-related reason for disruption was diversion of resources to accommodate physical distancing measures (76%) followed by COVID-19 outbreaks among patients or staff (34%); staff shortages due to COVID-19 illness (25%) or perceived infection risk (19%); and lack of adequate personal protective equipment (20%). **Conclusions:** Most HCFs reported disruptions to EHS during the pandemic, including many that were related to IPC. Some disruptions may be mitigated by strengthening IPC infrastructure and practices, including protecting healthcare personnel to prevent staffing shortages.

Funding: None Disclosures: None

 $Antimicrobial\ Stewardship\ &\hbox{\it Healthcare\ Epidemiology\ 2022;} 2 (Suppl.\ S1): s49-s50$ 

doi:10.1017/ash.2022.151

## Presentation Type:

Poster Presentation - Poster Presentation **Subject Category:** Long-Term Care

Using a learning needs assessment to develop infection prevention training for certified nursing assistants

Erin Garcia; Tisha Mitsunaga; Vikram Haridass; Brieanne Martin; Neha Sardana; Lisa Franqui; Kiya Komaiko; Tracy Lanier and Erin Epson

Background: In 2021, the California Department of Public Health Healthcare-Associated Infections Program developed new infection prevention and control (IPC) training for skilled nursing facility (SNF) certified nursing assistants (CNAs), as part of the CDC Project Firstline. CNAs comprise approximately one-third of SNF healthcare personnel (HCP) nationwide; ~50,000 CNAs are employed in California SNFs. Despite making up a large proportion of direct care HCP, CNAs can frequently lack understanding of fundamental IPC practices, including hand hygiene and appropriate personal protective equipment use. We conducted a learning needs assessment for SNF can and leadership to understand and design our program to mecanCNA IPC training needs and preferences. Methods: We distributed the learning needs assessment via SurveyMonkey in English and Spanish with questions regarding current IPC practices and challenges, as well as preferred training delivery methods and posttraining support. We leveraged partnershipscanth CNA-affiliated organizations to engage CNAs throughout California. Results: Of 193 respondents, 80 (41%) were CNAs and 113 (59%) were leadership staff, representing 97 SNFs in 41 local health jurisdictions. Among CNAs, 34 (43%) believed that they had to do workarounds in their IPC practice and 18 (23%) stated that they would benefit from one-on-one question-and-answer sessions with an infection prevention expert. Also, 50 (63%) selected visual learning, 34 selected (43%) in-person learning, and 30 (38%) selected live or online trainings as their preferred learning style and training method. Most CNAs stated that they were most comfortable listening and speaking (73%) and reading (76%) in English only, followed by listening and speaking (16%) and reading (13%) in English and Spanish. For posttraining support, CNAs preferred access to online training materials (75%), digital materials (68%), virtual office hours with IPC educators (53%), and regular webinars (49%). Conclusions: The results of our learning needs assessment confirm the need for accessible IPC training and materials and continued engagement with posttraining support for CNAs. We will continue to provide online training and resources, access to IPC experts including an 'AskBox' for CNAs to e-mail IPC questions or request one-on-one support, and monthly office hours. Even though most CNAs are comfortable with training in English only, we will translate curricula into Spanish to support our bilingual Spanish-canaking CNA population. We are developing a tool kit to support SNFs and local health jurisdictions interested in providing their own training using our materials, and we will offer icanerson CNA training. We will use our experience from this process in future learning needs assessments to inform other frontline HCP training, including for SNF environmental services staff.

Funding: None Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2022;2(Suppl. S1):s50 doi:10.1017/ash.2022.152

## Presentation Type:

Poster Presentation - Poster Presentation **Subject Category:** Long-Term Care

Long-term care facility employee infection prevention adherence and prevention of COVID-19 outbreaks in a high-incidence area

Jennifer Cihlar; Karen Volpe; Morgan Johnson; Claudio Mosse; Christianne Roumie; Todd Hulgan and Milner Staub

Background: Long-term care facility (LTCF) employees pose potential risk for COVID-19 outbreaks. Association between employee infection prevention (IP) adherence with facility COVID-19 outbreaks remains a knowledge gap. Methods: From April through December 2020, prior to COVID-19 vaccination, we tested asymptomatic Veterans' Affairs (VA) community living center (CLC) residents twice weekly and employees monthly, which increased to weekly with known exposure, for SARS-CoV-2 via nasopharyngeal PCR. Employees voluntarily completed multiple choice questionnaires assessing self-reported IP adherence at and outside work. Surveys were longitudinally administered in April, June, July, and October 2020. Changes in paired employee responses for each period were analyzed using the McNemar test. We obtained COVID-19 community rates from surrounding Davidson and Rutherford counties from the Tennessee Department of Health public data set. CLC resident COVID-19 cases were obtained from VA IP data. Incidence rate and number of positive tests were calculated. Results: Between April and December 2020, 444 employees completed at least 1 survey; 177 completed surveys in both April and June, 179 completed surveys in both June and July, and 140 completed surveys in both July and October (Fig. 1). Across periods, employee surveys demonstrated an increase in masking at work and outside work between April and June (63% to 95% [P < .01] and 36% to 63% [P < .01], respectively), and June to July (95% to 99% [P < .05] and 71% to 84% [P < .01], respectively) that were both maintained between July and October (Fig. 2). Distancing at work and limiting social contacts outside work significantly decreased from April to June but increased in subsequent periods, although not significantly. COVID-19 community incidence peaked in July and again in December, but CLC resident COVID-19 cases peaked in August, declined, and remained low through December (Fig. 3). **Discussion:** Wearing a mask at work, which was mandatory, increased, and voluntary employee masking outside work also increased. CLC COVID-19 cases mirrored community increases in July and August; however, community cases increased again later in 2020 while CLC cases remained low. Employees reporting distancing at work and limiting social contacts outside work decreased preceding the initial rise in CLC cases but increased and remained high after July. Conclusions: These data from the

	Matched Surveys 1 &2	Matched Surveys 2 &3	Matched Surveys 3&4
Female	131/179 (73.2%)	112/159 (70.4%)	76/118 (64.4%)
Age			
18-30	27/178 (15.2%)	21/181 (11.6%)	12/136 (8.8%)
31-40	29/178 (16.3)	23/181 (12.7%)	21/136 (15.4%)
41-50	46/178 (25.8%)	52/181 (28.7%)	36/136 (26.5%)
51-60	60/178 (33.7%)	62/181 (34.3%)	51/136 (37.5%)
61-70	15/178 (8.4%)	23/181 (12.7%)	15/136 (11.0%)
71-80	1/178 (0.6%)	0	1/136 (0.7%)
81-89	0	0	0
90+	0	0	0
Sick contact within 30			
days since prior survey	10	44	32
Reported travel outside			
state in last 30 days	22	34	34
Reported attending			
large gathering (>50			
people) in last 30 days	16	28	20

Figure 1: Demographics of Paired Responders by Survey Period

Female and Age were calculated as the number (%) of all employees who responded to both surveys in the given period. For reported sick contact, travel outside the state and attending large gatherings, the total number of affirmative responses were summed for both surveys in the given period. Therefore, employees who answered in the affirmative on both surveys in the given period for any of those categories were counted as two separate responses.

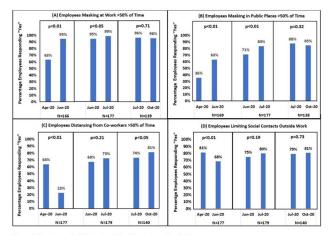


Figure 2: Employee Self-Reported Infection Prevention Adherence

Panel A shows an increase in employees who reported wearing masks at work >50% of the time from April to June and from June to July with high levels of masking sustained from July to October. Panel B shows a similar pattern of increase in masking outside of work when going to public places. Panels C and D shows an initial decrease in distancing at work and limiting social contact from April to June followed by an increase, although not statistically significant, in adherence from June to July.

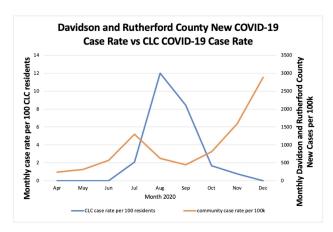


Figure 3: COVID-19 Incidence Rate of Community Living Center Residents Compared to COVID-19 Incidence Rate of Surrounding Counties

Incidence rate calculated as positive COVID-19 cases per 100 community living center (CLC) residents is shown via the blue line. The CLC monthly census from April through December 2020 ranged from 119 to 153 residents. Incidence rate calculated as positive COVID-19 cases per 100,000 population in the surrounding Davidson and Rutherford Counties is depicted in orange. The initial peak and fall pattern of CLC cases mirrors county cases; however, unlike in the community, there is no second peak.

pre–COVID-19 vaccination era suggest that widespread, increased support for and emphasis on LTCF IP adherence, especially masking, may have effectively prevented COVID-19 outbreaks in the vulnerable LTCF population.

Funding: None
Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2022;2(Suppl. S1):s50-s51 doi:10.1017/ash.2022.153

Presentation Type:

Poster Presentation - Poster Presentation **Subject Category:** Long-Term Care

Experiences of nurses responding to the COVID-19 outbreak at a longterm care hospital in Korea: A qualitative study

EunJo Kim and JaHyun Kang

Background: The COVID-19 pandemic revealed the fundamental vulnerability of long-term care hospitals (LTCHs) related to infection control and prevention (ICP). We examined the experiences of nurses who worked at a hospital where a COVID-19 outbreak occurred from February 24 to March 16, 2021. Method: This qualitative research was performed with 9 nurses who were engaged during the COVID-19 outbreak. We prepared a semistructured questionnaire based on the main question, "How was the experience among the nurses during the outbreak, and what difficulties did they encounter while resolving the situation?" The data were collected through in-depth, individual interviews from May to August 2021 after the approval of the institutional review board, and the results were analyzed thematically. Results: The average age of the participants was 52.1 years, and they had an average of 15.2 years of clinical experience. We extracted 4 themes and 16 subthemes from the results. The first theme, "sudden onset of the outbreak," included the following subthemes: (1) found myself accustomed to COVID-19 and desensitized; (2) unavoidable occurrence despite compliance with ICP guidelines; (3) LTCHs are gradually recognized as a breeding ground for COVID-19 by the public; and (4) fear of spreading the infection in the hospital and of becoming a spreader. The second theme, "heavier workload," included (1) daily overtime and extra shifts in violation of self-quarantine recommendations due to the shortage of nurses; (2) a barrage of phone calls from family members, other departments, public health centers, and hospitals where confirmed cases were transferred; (3) nursing assistants and private caregivers who do not have ICP knowledge as well as patients who do not cooperate due to cognitive impairment; and (4) accomplishing additional tasks while wearing personal protective equipment with some suffocation. The third theme, "emotions and lessons," included (1) unsatisfied with the initial responses; (2) awareness of the entire infectious disease; (3) increased compassion and attachment for patients; and (4) take pride in the job and the profession as a nurse. The fourth theme, "necessary support and attention," included (1) need to install isolation rooms and replenish infection control supplies; (2) need for ICP specialists in LTCHs; (3) need for continuous nationalbased monitoring on ICP for LTCHs; and (4) need to improve working environment and acknowledge nurses in LTCHs. Conclusions: Overall, participants expressed their experiences with the insufficient infection control and response system toward COVID-19 in the LTCH. To enhance ICP in LTCHs, customized policies, regulations, and financial support for infection control activities and ICP professionals must be established.

Funding: None Disclosures: None

 $Antimic robial\ Stewardship\ &\hbox{\it Healthcare\ Epidemiology\ } 2022; 2 (Suppl.\ S1): s51$ 

doi:10.1017/ash.2022.154

Presentation Type:

Poster Presentation - Poster Presentation

Subject Category: MDR GNR

Pseudomonas aeruginosa bacteremia mortality and resistance trends in the Veterans' Health Administration (VHA) system

Leila Hojat; Brigid Wilson; Federico Perez and Robert Bonomo

Background: Pseudomonas aeruginosa is an important pathogen in the hospital setting; it has the ability to cause severe disease and a high mortality rate. Its increasing ability to elude even novel antimicrobial mechanisms of action is a significant cause for concern. More effective treatment options and increasing understanding of this pathogen likely effect P. aeruginosa incidence and severity; however, longer-term studies are lacking. The Veterans' Health Administration (VHA) population is a socially, demographically, and medically distinct entity, representing a rich source of data for studying contributing factors to P. aeruginosa infection and mortality. We sought to identify the system-wide case count and mortality rate of P. aeruginosa bacteremia and the rate of resistance to antipseudomonal agents over the course of several years. We described trends observed over the study period. Methods: We utilized the nationwide VHA database to identify all inpatients with a positive blood culture for P. aeruginosa treated between January 1, 2009, and December 31, 2020. We identified the annual count of bacteremia cases and associated 30-day mortality rate.