SHEA Spring 2022 Abstracts

## Figure 1: Outpatient Azithromycin Prescriptions in Brazil by Age



aged 65-74 years. Prescribing of levofloxacin or moxifloxacin decreased for most ages, ranging from -39.1% (95% CI, -39.4% to -38.8%) in those aged 20-39 years to -16.9% (95% CI, -18.1% to -15.7%) in those aged 60-64 years. For those aged ≥75 years, prescribing of amoxicillin-clavulanate and levofloxacin or moxifloxacin increased by 13.2% (95% CI, 11.9%-14.5%) and 43.1% (95% CI, 41.7%-44.5%), respectively. In Q4 2019 and Q4 2020, the 2 most common prescribing specialties for azithromycin were general practice (48%-50% of prescriptions) and gynecology (19%-25%). Compared to Q4 2019, infectious disease specialists in Q4 2020 saw the largest decline in percentage of azithromycin prescriptions (10% to 1%) and surgeons saw the largest increase (0% to 7%). General practitioners were also the most common prescribers of the remaining antibiotics (43%-54%), followed by gynecology for levofloxacin or moxifloxacin (25%–29%) and otolaryngology for amoxicillin-clavulanate (14%–20%). Conclusions: Despite decreases in prescribing of amoxicillin-clavulanate and respiratory fluoroquinolones for most adults, azithromycin prescribing increased dramatically across all adults during the COVID-19 pandemic. Targeting inappropriate outpatient antibiotic use in Brazil, particularly azithromycin prescribing among general practitioners, gynecologists, and surgeons, may be high-yield targets for antibiotic stewardship.

Funding: None

Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2022;2(Suppl. S1):s48-s49 doi:10.1017/ash.2022.149

### Presentation Type:

Poster Presentation - Poster Presentation

Subject Category: Infection Control in Low and Middle-Income Countries Virtual assessments of infection prevention and control practices in African neonatal facilities: A pilot study

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**Background:** Evidence-based infection prevention and control (IPC) practices to reduce healthcare-associated infections in low- and middle-income countries may be difficult to implement due to lack of resources. We pilottested the feasibility of virtual assessments of IPC practices in African facilities caring for small and/or sick neonates for opportunities to improve IPC. **Methods:** We created a checklist (in English and French) to assess IPC practices in African facilities caring for small and/or sick neonates **Results:** In total, 10 sites participated in this pilot study. Among them, 3 sites had unreliable Internet connections, and all checklist items could be observed and scored in these videos and photos. The lowest scores occurred for kangaroo mother care (KMC) spacing and presence of screens

### Table 1. Scores for Checklist Item

Domain	Mean <sup>1</sup>
Crowding	
Crib sharing	1.6
Crib spacing	1.4
KMC spacing	1.1 <sup>2</sup>
HH resources	
Running water, disposable towels, soap	1.8 <sup>3</sup>
Access to sinks	1.5
Patient-care environment	
Presence of window screens	0.7
Sharps container without overflow	1.4
Rubbish bin access/without overflow	1.9
Procedure area clutter	1.3 <sup>4</sup>
Bedside clutter	1.3

<sup>1</sup>Each item scoring range 0-2

<sup>2</sup>N=9 sites

<sup>3</sup>All 3 resources=3, (range 0-3)

4N=6 sites

(Table 1). **Conclusions:** This pilot study demonstrated the feasibility of using virtual assessments of IPC practices. We identified several potentially low-cost opportunities to improve IPC. We are recruiting additional sites to confirm the findings of this pilot study.

Funding: Bill and Melinda Gates Foundation

Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2022;2(Suppl. S1):s49 doi:10.1017/ash.2022.150

Presentation Type:

Poster Presentation - Poster Presentation

Subject Category: Infection Control in Low- and Middle-Income Countries

# Disruptions to essential health services in Kenya during the COVID-19 pandemic — February 2020-May 2021

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Background: The COVID-19 pandemic disrupted essential health services (EHS) delivery worldwide; however, there are limited data for healthcare facility (HCF)-level EHS disruptions in low- and middle-income countries. We surveyed HCFs in 3 counties in Kenya to understand the extent of and reasons for EHS disruptions occurring during February 2020-May 2021. Methods: We included 3 counties in Kenya with high burden of COVID-19 at the time of study initiation. Stratified sampling of HCFs occurred by HCF level. HCF administrators were interviewed to collect information on types of EHS disruptions that occurred and reasons for disruptions, including those related to infection prevention and control (IPC). Analyses included descriptive statistics with proportions for categorical variables and median with interquartile range (IQR) for continuous variables. Results: In total, 59 HCFs in Kenya provided complete data. All 59 HCFs (100%) reported EHS disruptions due to COVID-19. Among all HCFs, limiting patient volumes was the most common disruption reported (97%), while 56% of HCFs reduced staffing of EHS and 52% suspended EHS. Median duration of disruptions ranged from 7 weeks (IQR, 0-15) for inpatient ward closures to 25 weeks (IQR, 14-37) for limiting patient volumes accessing EHS. Among HCFs that reported disruptions, the most

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 & 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.