Background. A 2011 prevalence survey conducted by CDC and the Emerging Infections Program (EIP) showed that 1 in 25 hospital patients had ≥1 healthcare-associated infection (HAI). We repeated the survey in 2015 to assess changes in HAI prevalence.

Methods. In EIP sites (CA, CO, CT, GA, MD, MN, NM, NY, OR, TN) hospitals that participated in the 2011 survey were recruited for the 2015 survey. Hospitals selected 1 day from May to September 2015 which a random sample of patients seen on that day was identified from the morning census. Trained EIP staff reviewed patient medical records using comparable methods and the same National Healthcare Safety Network HAI definitions used in 2011. Proportions of patients with HAIs were compared using chi-square tests; patient characteristics were compared using chi-square or median tests.

Results. Data were available from 143 hospitals that participated in both surveys; data from 8954 patients in the 2011 survey were compared with preliminary data from 9184 patients in the 2015 survey. Patient characteristics such as median age, days from admission to survey, and critical care location were similar. Urinary catheter prevalence was lower in 2015 (1,589/8,833, 18.0%) compared with 2011 (2,052/8,954, 22.9%, P < 0.0001), as was central line prevalence (2015: 1,539/8,833, 17.4%, vs. 2011: 1,687/8,954, 18.4%, P = 0.02). The proportion of patients with HAIs was lower in 2015 (284/8,833, 3.2%, 95% confidence interval [CI] 2.9–3.6%) than in 2011 (362/8,954, 4.0%, 95% CI 3.7–4.5%, P = 0.003). Of 309 HAIs in 2015, pneumonia (PNEU) and Clostridium difficile infections (CDI) were most common (Figure); proportions of patients with PNEU and/or CDI were similar in 2015 (130/8833, 1.5%) and 2011 (133/8954, 1.5%, P = 0.94). A lower proportion of patients had surgical site (SSI) and/or urinary tract infections (UTI) in 2015 (77/8833, 0.9%) vs 2011 (136/8954, 1.5%, P < 0.001).

Conclusion. HAI prevalence was significantly lower in 2015 compared with 2011. This is partially explained by fewer SSI and UTI, suggesting national efforts to prevent SSI, reduce catheter use and improve UTI diagnosis are succeeding. By contrast, there was no change in the prevalence of the most common HAIs in 2015, PNEU and CDI, indicating a need for increased prevention efforts in hospitals.

Figure: Prevalence and Distribution of HAIs, 2011 vs 2015

Disclosures. All authors: No reported disclosures.

1769. Assessing The Impact of The National Healthcare Safety Network’s (NHSN) New Baseline on Acute Care Hospital Standardized Infection Ratios (SIRs)

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Background. To more accurately measure the progress of healthcare-associated infection (HAI) prevention efforts, the CDC’s National Healthcare Safety Network (NHSN) surveillance system updated risk-adjustment models for computation of updated Standardized Infection Ratios (SIRs), the primary HAI summary measure by NHSN. This study sought to examine how the updated SIRs varied from the previous SIRs calculated using older baselines for acute care hospital HAIs.

Methods. We analyzed NHSN data for healthcare facility-onset laboratory-identified Clostridium difficile [CDI] and methicillin-resistant Staphylococcus aureus [MRSA] bacteraemia reported in accordance with the CMS’ inpatient quality reporting program requirements. The unit of analysis was CMS hospital inpatient facility reporting in 2015. We compared overall distributions of CCN-level SIRs (CCN-SIRs) between new risk-adjustment models using a 2015 baseline (SIR.NEW) and old models using a 2011 baseline (SIR.OLD) and tested location shift (median away from tail of pairwise differences. We also examined the magnitude of shift in SIR from old to new baseline.

Results. For each HAI, the national pooled mean SIR of the new baseline was <1.0. For CDI, the overall distributions of CCN SIR.NEW and CCN-SIR.OLD were similar. For MRSA, the median difference was low (<0.5) and the SIR.NEW was lower than SIR.OLD for 64% of facilities. For CDI, SIR.NEW was lower than SIR.OLD for 95% of facilities.

Conclusion. Updating the risk-adjustment models for computation of NHSN SIRs using updated baselines likely improved the accuracy of measuring HAI prevention efforts.

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CCN-SIRs, their relative position in the quartile distributions of SIR_NEW and SIR_OLD remained the same. The discrepancies between SIR_NEW and SIR_OLD were not large, indicating a modest impact of new baseline as updated benchmark for tracking CDI and MRSA prevention progress. The shifts in CCN-level SIRs between old and new baselines were not large, indicating a modest impact of new baseline as updated benchmark.

**Conclusion.** The updated national pooled mean SIRs were close to 1.0, validating the potential use of new risk adjustment models and baseline as updated benchmark. The discrepancies between SIR_NEW and SIR_OLD tended to be small.

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**1770. Wide Range of Carbapenem-resistant Enterobacteriaceae Incidence and Trends in Emerging Infections Program Surveillance, 2012–2015**

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**Background.** Carbapenem-resistant Enterobacteriaceae (CRE) are an urgent threat in the United States because of high morbidity and mortality; few treatment options, and potential for rapid spread among patients. To assess for changes in CRE epidemiology and risk among populations, we analyzed CDC Emerging Infections Program (EIP) 2012–2015 surveillance data for CRE.

**Methods.** Active, population-based CRE surveillance was initiated in January 2012 in 33 EIP sites (GA, MN, OR) and expanded to 5 additional sites (CO, MD, NM, New York, TN) by 2014. An incident case was the first Enterobacteriaceae isolate (non-susceptible to at least one carbapenem and resistant to all carbapenems) identified through urine cultures; 946 (60%) were female, and median age was 80 years (interquartile range: 70–90). Among the three sites with a long-term care facility (LTCF) onsets, 23% were CO. Of CO cases, 308 (53%) had been hospitalized, 308 (53%) had been hospitalized, and no significant trend was seen in each (Figure). Trends in GA and MN were statistically significant, with OR that was statistically significant, and no significant trend was seen in OR. Overall, 480 cases (30%) were HO, 524 (33%) were LTCF onset, and 578 (37%) were CO. Of CO cases, 308 (53%) had been hospitalized, admitted to a long-term acute care hospital or were a LTCF resident in the prior year.

**Results.** A total of 1,582 incident CRE cases were reported in 2012–2015. Most cases (88%) were identified through urine cultures; 946 (60%) were female, and median age was 66 years (interquartile range: 55–77). The median incidence by site was 2.93 per 100,000 population (range: 0.35–8.96). Among the three sites with four full years of data, a different trend was seen in each (Figure). Trends in GA and MN were statistically significant, and no significant trend was seen in OR. Overall, 480 cases (30%) were HO, 524 (33%) were LTCF onset, and 578 (37%) were CO. Of CO cases, 308 (53%) had been hospitalized, admitted to a long-term acute care hospital or were a LTCF resident in the prior year.

**Conclusion.** CRE incidence varied more than 20-fold across surveillance sites, with evidence of continued increases in MN. Measuring impact of programs aimed at reducing CRE transmission in other regions will require obtaining local data to identify cases occurring during and after healthcare facility discharge. Further study of changes in incidence in some settings and areas might offer opportunities to refine and expand effective control strategies.

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**1771. The Effect of National Healthcare Safety Network (NHSN) Rebaselining on Community Hospital SIRs**

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