that included didactic sessions and sharing of data provided ongoing mentorship and feedback on quality improvement implementation, data interpretation, and data use. **Results:** Hand hygiene data collection began in April 2018. In hospital A, hand hygiene compliance increased from a baseline of 3% to 51% over 9 months. In Hospital B, hand hygiene compliance rates increased from 23% at baseline to 44% after 9 months. Waste management data collection began in November 2018. At hospital A, waste segregation compliance scores increased from 73% at baseline to 80% over 6 months, whereas hospital B, waste segregation compliance went from 44% to 80% over 6 months. **Conclusions:** A quality improvement approach appears to be a feasible means of infection prevention and control program strengthening in low resource settings.

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Improving Appropriate Testing for *Clostridium difficile* Infection: Update on Sustainability of a Quality Improvement Project

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Background: Children aged <1 year are usually colonized with *Clostridium difficile*: colonization rates range between 30% and 70%. In children, other infectious causes of diarrhea are more common than *C. difficile*. Molecular testing for *C. difficile* yields very high sensitivity. Clinical judgement is required for testing children with suspected infectious diarrhea. Inappropriate *C. difficile* testing may lead to antibiotic overuse. **Methods:** Initially, for the years 2016–2018, we collected data for positive *C. difficile* nucleic acid amplification tests (NAATs) at Sanford Children's Hospital. In 2017, a physician-driven protocol was implemented to replace the current nurse-driven protocol for testing. We implemented national guidelines for testing and treatment in pediatric patients. Microbiology lab was given autonomy to use Bristol stool criteria to process stool samples for *C. difficile*. Formed stools were rejected for testing for *C. difficile*. The result was suppressed in patients aged <1 year. We presented the available data at the SHEA spring conference in 2020. We collected new data until June of 2019 to measure the sustainability of the intervention. **Results:** In 2016, there were 78 *C. difficile* tests: 17 were positive and 11 were categorized as an HAI. From January 1 to June 30, 2017, there were 26 *C. difficile* tests: 8 were positive and 3 were categorized as an HAI. Furthermore, 16 *C. difficile* tests were obtained from July 7 to December 31, 2017: 4 were positive and 1 categorized as an HAI. In 2018, there were 18 tests and 2 were positive; 1 was categorized as an HAI. In 2019, there were 16 tests and 2 were positive; 1 of these was categorized as an HAI. **Conclusions:** Implementing 2 interventions (removal of a nurse-driven protocol and microbiology lab autonomy for rejecting formed stool samples) for improving *C. difficile* testing accomplished a reduction of >80% in the number of tests obtained. Overall, there was a sustained reduction in the number of positive tests and HAIs in the years 2018 and 2019. The 2 interventions have been sustainable over time.

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Improving Confirmatory Testing for the Antimicrobial Resistance Surveillance Network in Ethiopia

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Table 1: Gaps and solutions

Gaps	Solutions
Sites required to submit all priority AMR isolates for confirmation. NRL tested 10%; retained all isolates indefinitely.	Selection algorithm developed that limits submissions to 12 isolates/month/site; Isolates discarded after 2 months.
Sites did not retain original isolates or work cards; were unable to retest discordant results.	Aliquot and work card retention required for up to 2 months.
Difficult to interpret result forms.	Isolate Submission and Results Form simplifies results comparison, error visualization, and captures additional data for troubleshooting and M&E.
Discordant results were not retested by the NRL, leading to mistrust from sites.	Discordant results require repeat testing by an alternate method.
Absence of scoring system.	Excel Scoring Matrix calculates scores for each isolate and each month. Errors classified by type, weighted by severity.
Site performance not monitored over time.	Excel Scoring Matrix graphs monthly scores and error rates. Biannual evaluation by NRL required.
Sites reported delays receiving results from the NRL.	One month turn-around time (TAT) required; monitored via Excel spreadsheet.
Root-cause analysis (RCA) and corrective action (CA) performed infrequently and inefficiently.	RCA/CA Checklist provides systematic guidance; requires sites submit RCA/CA to NRL for each discordant result within one month.

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Background: In July 2017, the Ethiopian Public Health Institute (EPHI) launched an antimicrobial resistance (AMR) surveillance network at 4 sentinel laboratories. The National Clinical Bacteriology and Mycology Laboratory (NRL) at EPHI performs monthly confirmatory testing on a subset of isolates submitted by these sites. We assessed the existing confirmatory testing program to identify gaps and develop solutions, including a monitoring and evaluation (M&E) system. **Methods:** We assembled a technical working group (TWG) of key stakeholders. Laboratory site visits included workflow observation, process mapping, document review, and technologist interviews. Proposed solutions to observed gaps were drafted in formats consistent with their intended application. Feedback from the TWG was incorporated into final drafts. Available AMR network staff members were trained remotely, and they will train remaining staff. **Results:** Table 1 describes major gaps and solutions identified. **Conclusions:** Confirmatory testing provides a mechanism to evaluate laboratory testing proficiency, target improvements, and estimate surveillance data quality, yet standardized methods were lacking. Our efforts highlight key components of confirmatory testing programs and provide a model for use in laboratories with similar needs.

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Improving Neonatal Survival Through Preventing Infections in Resource-Constrained Environment: A Quality Improvement Project

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Background: A recent study using minimally invasive tissue sampling at Chris Hani Baragwanath Academic Hospital (CHBAH), a public tertiary-care hospital in South Africa, reported that 70% of preterm neonatal deaths were due to healthcare-associated infections (HAIs). Based on these findings, CHBAH in collaboration with the CDC conducted an infection prevention and control (IPC) assessment and identified IPC gaps: limited training and mentorship of staff, medication preparation near the patient zone, and inadequate equipment cleaning and a high infection rates. We implemented a program from February 2019 to February 2020 to address these identified gaps, with the aim of reducing the neonatal sepsis rate. **Methods:** We focused our interventions on 3 essential activities in the neonatal wards: (1) conducting medication compounding in a safe environment with dedicated trained clinical pharmacy personnel; (2) improving cleaning and reprocessing of medical equipment through use of dedicated ward assistants; and (3) improving infection control–related behavior of frontline healthcare staff through on-site IPC mentorship and training. We captured data on process measures including medication errors and hand hygiene and outcome measures. We also looked at rates of infection, defined as positive cultures from blood and CSF per 1,000 patient days. **Results:** A NICU satellite pharmacy was established in February 2019 and was managed by a lead pharmacist and pharmacy assistants. Following the intervention, medication errors were reduced from 17% in March to 2% in September; nursing staff previously dedicated to medication preparation were able to spend more time in patient care. Furthermore, 4 full-time ward-assistants were hired in February 2019, and equipment is now cleaned using a standardized protocol in a dedicated cleaning area. A dedicated IPC team was assembled in January 2019 to develop standard operating procedures and conduct frequent trainings with healthcare personnel on IPC practices. Since these trainings were implemented, hand hygiene compliance improved from 25% to 48% over a 4-month period. There has been no significant change in blood/CSF infection rates from before implementation (2018): 17.7 per 1,000 patient days (95% CI, 16.7–18.8) compared to rate of 19.1 per 1,000 patient days (95% CI, 17.7–20.6) after implementation (March–September 2019), with a rate ratio of 1.08 (95% CI, 0.98–1.19). **Conclusions: The i**mpact of this program was demonstrated through process improvements and reduction in medication errors. However, to date there has been no change in the overall infection rates, suggesting that additional IPC interventions are needed or that other factors are contributing to the high infection rates.

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