between the workstations and specimen entry points – pneumatic tube stations, doors and specimen windows. For blood culture volume alone, this resulted in 132,000 saved steps, or approximately 22 hours of travel time annually.

This reduction in transport time decreased specimen dwell and cycle times, shortening the TAT between the sample receipt in the laboratory and the login time in the microbiology department. Additionally, pickup frequency by microbiology staff was increased to reduce logging delays and to decrease batching. These efforts helped the lab move closer to continuous processing.

These changes shaved 6 minutes and 15 seconds off the collect to login TAT and 1 hour 2 minutes and 24 seconds off the login to call TAT. This was an overall time savings of 33 minutes and 34 seconds on the collect to final report TAT for the immediate post-implementation phase.

During the project, laboratory staff were retrained on the requirement to call positive results within a 60-minute target. Previously, only 89 percent of calls were meeting this threshold. After completion, nearly 95 percent of calls met the threshold, with the average call time decreasing from 46 minutes to 24 minutes.

Finally, a phlebotomy pilot project began in the emergency department with the goal of demonstrating the impact dedicated phlebotomy resources would have on the contamination rate. While the project had lowered emergency department rates under the 5 percent threshold, the facility’s internal phlebotomy rates generally hovered around 1 percent, indicating the potential for even more savings.

A phlebotomist was assigned four random evening shifts over a two-week period in November 2014, resulting in 33 sample collections over a cumulative 32 hours. None of the collected samples during the pilot period were contaminated, for a phenomenal zero percent rate. And the internal phlebotomy rate for the period of November 2014 was 0.93 percent in contrast to the 4.82 percent rate observed by emergency department staff.

It was determined that with an average of two to three specimens collected per hour/per day, it would require 8.4 full-time equivalents (FTEs) at an estimated annual cost of $230,000 to adequately staff phlebotomy resources to cover the emergency department on a full-time, 24-hour-a-day, seven-day-week basis.

Using defect reduction to generate cost avoidance projected that providing phlebotomy services in the emergency department would justify the return on investment. In November 2015, Navicent Health laboratory and nursing administrations partnered in securing the resources to staff the emergency department with dedicated phlebotomy staff. The emergency department blood culture contamination average rate of 4.3...