

Examples of Studies from Developing Countries Regarding Education and Reduced CLABSI Rates

Citation	Summary
Rosenthal VD, Guzman S, Pezzotto SM, Crnich CJ. Effect of an infection control program using education and performance feedback on rates of intravascular device–associated bloodstream infections in intensive care units in Argentina. <i>Am J Infect Control</i> . 2003 Nov;31(7):405–409.	The researchers conducted a prospective cohort sequential study to analyze the impact of an infection control program for central line–associated bloodstream infections (CLABSIs) in adult intensive care units (ICUs) in Argentina. Rates of CLABSI determined during a period of active surveillance without education or performance feedback (phase 1) were compared to rates after the sequential implementation of education and performance feedback. Compliance with central venous catheter (CVC) site care improved significantly from baseline during the study period. Overall rates of CLABSI were lowered significantly from baseline after the sequential implementation of education and performance feedback (11.10 versus 46.63 CLABSIs per 1,000 CL–days; $p < .0001$).
Lobo RD, Levin AS, Gomes LM, Cursino R, Park M, Figueiredo VB, Taniguchi L, Polido CG, Costa SF. Impact of an educational program and policy changes on decreasing catheter-associated bloodstream infections in a medical intensive care unit in Brazil. <i>Am J Infect Control</i> . 2005 Mar;33(2):83–87.	The study team sought to determine the impact of an educational program in a medical ICU in Brazil. There were 20 CLABSIs per 1,000 CL–days before the intervention; after the intervention, the rate of CLABSI dropped to 11 per 1,000 CL–days ($p < .01$).
Higuera F, Rosenthal VD, Duarte P, Ruiz J, Franco G, Safdar N. The effect of process control on the incidence of central venous catheter–associated bloodstream infections and mortality in intensive care units in Mexico. <i>Crit Care Med</i> . 2005 Sep;33(9):2022–2027.	Higuera et al. conducted a prospective before/after trial at adult ICUs in Mexico in which rates of CLABSI identified during a period of active surveillance without process control (phase 1) were compared with rates of CLABSI after implementing an infection control program applying process control (phase 2). Compliance with CVC site care and hand hygiene improved significantly. After the intervention, rates of CLABSI were lowered significantly from baseline (19.5 vs. 46.3 CLABSIs per 1,000 CL–days; $p = .0001$). Overall rates of crude mortality were also lowered significantly (48.5% versus 32.8% per 100 discharges, $p = .01$).
Yilmaz G, Caylan R, Aydin K, Topbas M, Koksali I. Effect of education on the rate of and the understanding of risk factors for intravascular catheter–related infections. <i>Infect Control Hosp Epidemiol</i> . 2007 Jun;28(6):689–694.	The researchers conducted a sequential study at a university hospital in Turkey, which involved three separate periods: preeducation, education, and posteducation. During the preeducation period, the CLABSI rate was 8.3 infections per 1,000 CL–days. During the posteducation period, the CLABSI rate was 4.7 infections per 1,000 CL–days.

Note: CL–days: central line–days.