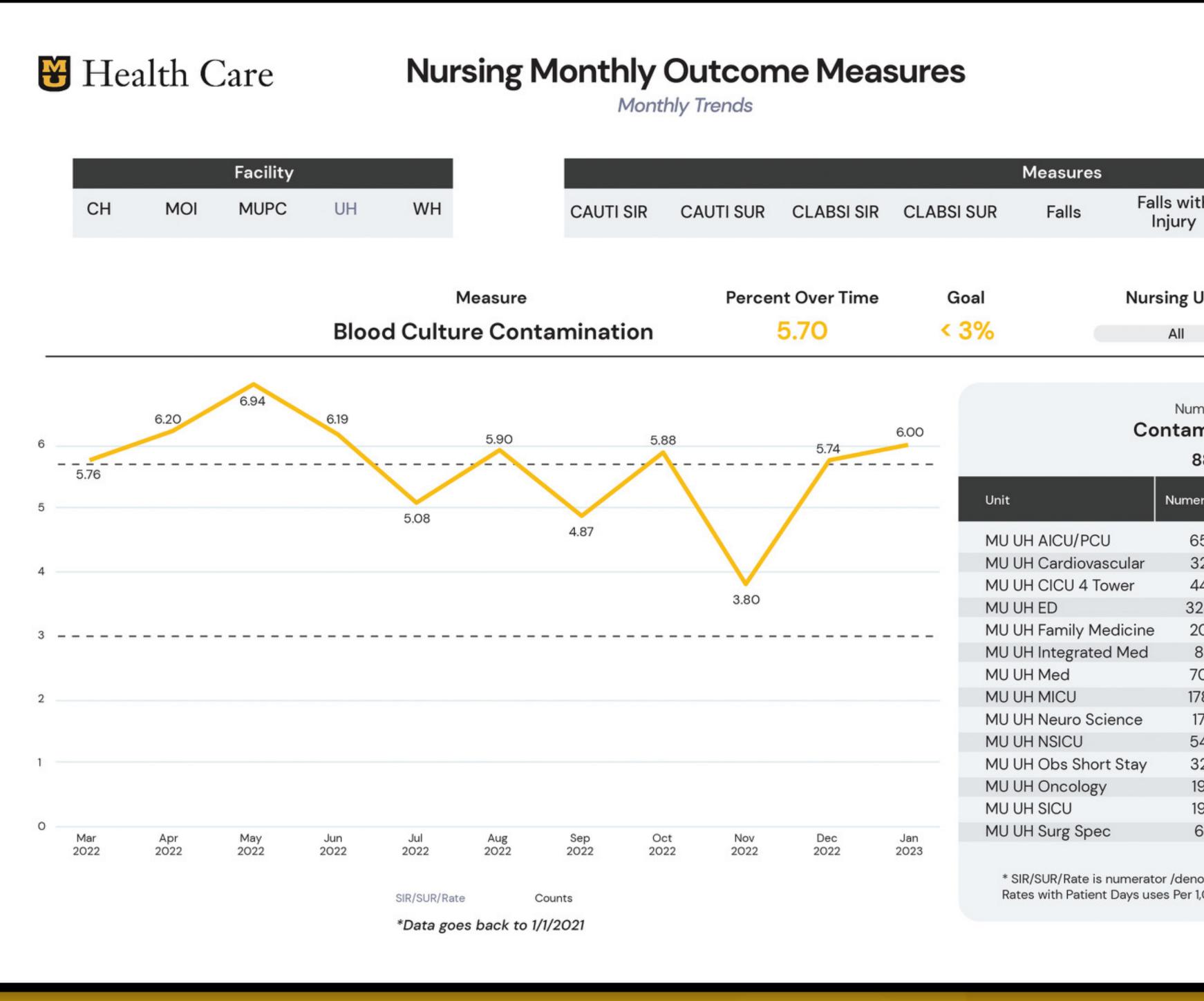
University of Missouri MU Health Care | Sinclair School of Nursing **Initial Specimen Diversion Technique to Reduce Blood Culture Contamination**

INTRODUCTION

 Problem: Burdens on healthcare systems including unnecessary antibiotic administration, longer length of stay, and greater cost Typically caused by improper technique when drawing, but can also be from skin bacteria

 In a 600-bed academic hospital, 5.6% blood culture contamination rate above national benchmark of 3%

 Literature review PICOT: Does the initial specimen diversion technique reduce blood culture contamination?



METHOD

 Searched PubMed and CINAHL databases for peer-reviewed journal articles published in the last twelve years

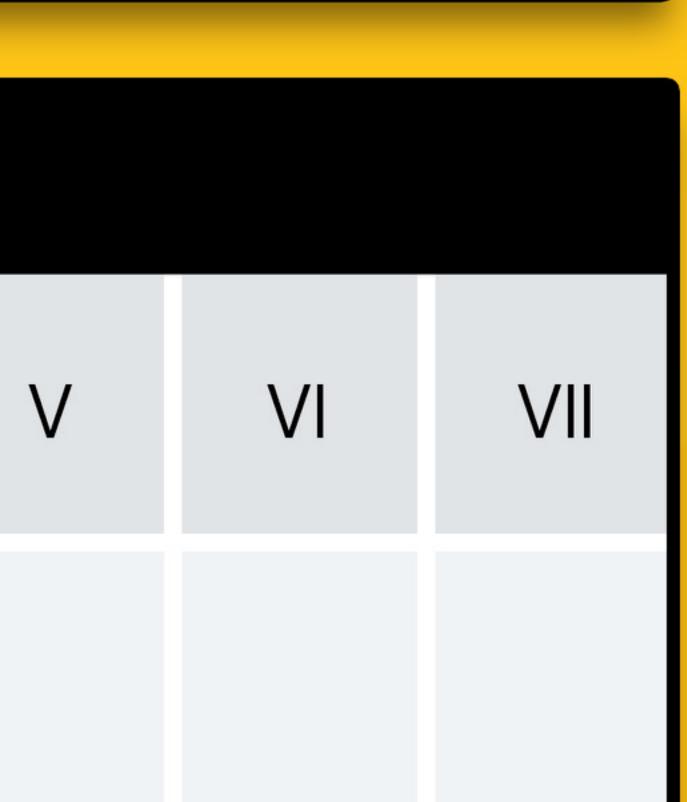
 Search criteria used were "blood specimen collection diversion or discard," and "blood culture contamination or discard," and "phlebotomy or blood/microbiology"

EVIDENCE SU	JMM	ARY T	ABLE		
Evidence Level				IV	
Article #	3		1	1	

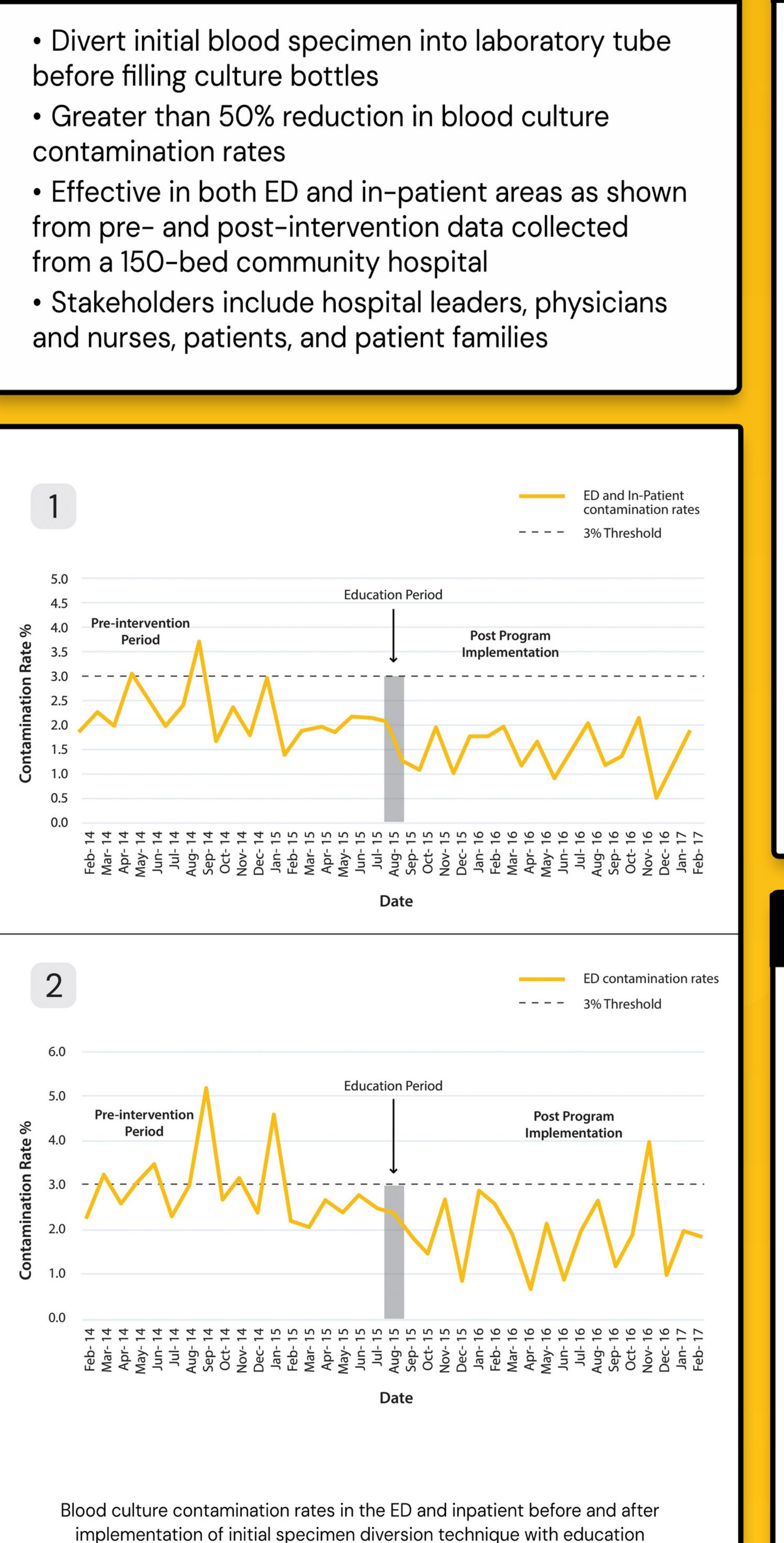


Jessica Tompkins, RN, BSN, CCRN, Katrina Schache, RN, BSN, CCRN

		3/1/2022 -	2/28/2023			
ith	HAPI	HAPI	Blood Culture			
y		(PSI-03)	Contam			
Unit	Nu	Nursing Category				
		All				
umerato			nominator			
mina	tions	Total E	Blood Draws			
888		15,591.00				
nerator	Denominator	SIR/SUR/Rate Over Time*	Fiscal Year Fiscal Year Events/Days Target			
65	1,430.00	4.55	35			
32	480.00	6.67	16			
44	840.00	5.24	32			
324	4,484.00	7.23	199			
20	563.00	3.55	15			
8 70	123.00 1,553.00	6.50 4.51	4 36			
178	3,257.00	5.47	101			
17	267.00	6.37	8			
54	710.00	7.61	38			
32	721.00	4.44	16			
19	658.00	2.89	13			
19	329.00	5.78	10			
6	176.00	3.41	1			
0	1/0.00	0.41	I.			
			erator / time frame months.			
r 1,000 P	atient Days in ca	lculation.				



RESULTS AND KEY FINDINGS



Syed, et al. 2020

RECOMMENDATIONS FOR PRACTICE AND NEXT STEPS Blood Culture Waste Diversion: Educate staff drawing blood cultures regarding Weekend Trial propertechnique including 01 initial specimen diversion Prepare site for venipuncture. Education was Wash hands and don gloves. Gather needed supplies. Apply tourniquet and select vein for blood draw. After vein selection, completed in November remove tourniquet. Mark bottles for necessary volumes. 2022 with one unit Decontaminate. beginning a trial in which Remove tab from top of bottle. Clean the tops of the bottles with alcohol prep and leave on top until blood is drawn into vial. Clean skin with alcohol or ChloraPrep for 30 seconds. staff were instructed to Allow to dry for 30 seconds. divert 1-2 mL of blood into 05 a red top tube or 3 mL Perform venipuncture. Apply tourniquet. Perform venipuncture, first drawing 1-2 mLs syringe before filling of waste into either a red top tube or 3 mL syringe. Draw blood into the aerobic bottle, followed by the anaerobic bottle. In culture bottles case of a small sample, a pediatric bottle is acceptable. Conduct an EBP project in two adult intensive care Conclude venipuncture. Gently invert bottles once immediately after drawing. units to implement practice change and achieve a reduction in Label bottles. blood culture Place label in designated area on each bottle. Label with time, date, and initials. contamination rates to 3% or smaller Staff education detailing new instructions on blood culture waste diversion technique Surgical Intensive Care Unit, 2023

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