

Table S1. Sensitivity analyses using different screen-positive rates: outcome measures for models of the existing system and two proposed universal screening scenarios

Screen-positive rate set	Imminent risk of screen-positive patients (%)	Overall LOS for patients with BHC (min)			Secure unit overflow (day/yr)		
		Existing system	Universal ED screening	Universal hospital-wide screening	Existing system	Universal ED screening	Universal hospital-wide screening
At baseline 6.3%	0%	11.35 ± 0.10	11.37 ± 0.05	11.77 ± 0.08	53.75 ± 3.67	73.06 ± 1.42	255.32 ± 2.81
	10%	11.35 ± 0.10	11.39 ± 0.05	11.67 ± 0.09	53.75 ± 3.67	79.07 ± 1.62	261.02 ± 2.86
	20%	11.35 ± 0.10	11.36 ± 0.05	11.85 ± 0.08	53.75 ± 3.67	87.09 ± 1.53	270.88 ± 2.34
	27% <sup>a</sup>	11.35 ± 0.10	11.48 ± 0.05	11.85 ± 0.09	53.75 ± 3.67	94.42 ± 1.78	276.48 ± 3.09
	30%	11.35 ± 0.10	11.43 ± 0.06	11.92 ± 0.09	53.75 ± 3.67	93.94 ± 1.49	279.80 ± 2.80
	40%	11.35 ± 0.10	11.50 ± 0.05	11.98 ± 0.08	53.75 ± 3.67	103.89 ± 1.62	285.04 ± 2.28
	50%	11.35 ± 0.10	11.51 ± 0.06	12.04 ± 0.09	53.75 ± 3.67	112.65 ± 1.77	293.98 ± 2.54
	60%	11.35 ± 0.10	11.59 ± 0.06	12.14 ± 0.08	53.75 ± 3.67	123.36 ± 1.57	300.72 ± 2.10
	70%	11.35 ± 0.10	11.58 ± 0.05	12.19 ± 0.08	53.75 ± 3.67	128.94 ± 1.68	304.74 ± 2.05
	80%	11.35 ± 0.10	11.60 ± 0.06	12.17 ± 0.08	53.75 ± 3.67	134.96 ± 1.72	309.84 ± 2.64
Theoretically at 20%	90%	11.35 ± 0.10	11.67 ± 0.06	12.26 ± 0.09	53.75 ± 3.67	137.36 ± 1.96	310.34 ± 2.46
	100%	11.35 ± 0.10	11.61 ± 0.06	12.32 ± 0.09	53.75 ± 3.67	138.1 ± 2.09	315.12 ± 2.32
	0%	11.35 ± 0.10	11.64 ± 0.09	12.40 ± 0.11	53.75 ± 3.67	132.24 ± 3.26	306.26 ± 1.82
	10%	11.35 ± 0.10	11.87 ± 0.09	12.87 ± 0.10	53.75 ± 3.67	163.38 ± 2.64	328.36 ± 2.82
	20%	11.35 ± 0.10	12.02 ± 0.10	13.25 ± 0.12	53.75 ± 3.67	193.96 ± 2.93	352.18 ± 2.20
	27% <sup>a</sup>	11.35 ± 0.10	12.21 ± 0.11	13.86 ± 0.16	53.75 ± 3.67	217.28 ± 2.80	Every day
	30%	11.35 ± 0.10	12.27 ± 0.10	13.94 ± 0.15	53.75 ± 3.67	226.36 ± 2.98	Every day
	40%	11.35 ± 0.10	12.50 ± 0.09	14.65 ± 0.16	53.75 ± 3.67	259.84 ± 3.03	Every day
	50%	11.35 ± 0.10	12.91 ± 0.11	15.74 ± 0.17	53.75 ± 3.67	296.80 ± 3.08	Every day
	60%	11.35 ± 0.10	13.46 ± 0.14	16.60 ± 0.20	53.75 ± 3.67	327.96 ± 3.09	Every day
70%	11.35 ± 0.10	13.88 ± 0.14	17.82 ± 0.27	53.75 ± 3.67	351.74 ± 2.28	Every day	
80%	11.35 ± 0.10	14.22 ± 0.14	18.43 ± 0.33	53.75 ± 3.67	362.28 ± 2.68	Every day	
90%	11.35 ± 0.10	14.62 ± 0.16	19.43 ± 0.31	53.75 ± 3.67	Every day	Every day	
100%	11.35 ± 0.10	14.83 ± 0.18	20.05 ± 0.41	53.75 ± 3.67	Every day	Every day	

Values are presented as mean ± half-width of 95% confidence interval.

BHC: behavioral health complaint, ED: emergency department.

<sup>a</sup>Among patients that screen positive for suicide risk in the ED, we estimated 27% would be categorized as imminent risk of suicide, using published response rates in adult ED patients. From Roaten K, Johnson C, Genzel R, Khan F, North CS. Development and implementation of a universal suicide risk screening program in a safety-net hospital system. *Jt Comm J Qual Patient Saf* 2018;44(1):4-11.