

Supplementary Table 1. Correlations of hazard ratios for mental health excess mortality with state and facility characteristics

	Categories of Mental Health Conditions									
	Serious Mental Illness		PTSD		Major Depressive		Substance Use Disorder		Any Mental	
	r	p	r	p	r	p	r	p	r	p
State suicide rate	0.456	<.001	0.444	<.001	0.391	<.001	0.596	<.001	0.476	<.001
State overdose rate	-0.024	0.780	0.100	0.240	0.045	0.602	0.056	0.511	-0.019	0.820
State serious suicidal ideation	0.395	<.001	0.310	<.001	0.289	0.001	0.356	<.001	0.372	<.001
Facility suicide rate	0.428	<.001	0.413	<.001	0.355	<.001	0.420	<.001	0.440	<.001
Facility overdose rate	-0.162	0.061	-0.099	0.254	-0.028	0.746	-0.128	0.140	-0.200	0.020
Facility MH quality	-0.012	0.891	0.178	0.036	0.054	0.529	-0.169	0.047	0.097	0.258
Facility MH staff ratio	0.024	0.783	0.097	0.255	0.057	0.508	-0.221	0.009	0.089	0.300

Legend: Pearson correlations for 139 facilities for hazard ratios versus state and facility variables. Abbreviations MH, mental health; PTSD, post-traumatic stress disorder. Substance use disorder diagnoses exclude tobacco use disorder. Hazard ratios (SD) were Serious mental illness (Schizophrenia, Bipolar Disorder or other primary psychoses), 1.75(.24); PTSD, 1.13(.15); Major depressive disorder, 1.23(.16); Substance use disorder, 1.63(.23); Any mental illness/substance use disorder, 1.23(.11). The average age- and sex-adjusted all-cause mortality rate was 3,389 (263) deaths per 100,000 person years for the patient population as a whole, 2,956 (256) for patients with no mental health or substance use condition, and 4,287 (375) for patients with any mental health or substance use condition. Rates for suicide and overdose deaths were 40.38 (12.66) and 34.85 (15.53) per 100,000 person years, respectively. Both were substantially lower than the increase in all-cause mortality attributable to mental disorders, and, therefore, could not account for the increase. Correlations were with Box-Cox transformed variables calculated with STATA 16. Correlations were analyzed with SPSS 26.