

#### 5.4.4a Attach Risk/Case-mix Adjustment Modeling

The tables below represent the variables found to be statistically significant predictors of MRSA Bacteremia LabID Events and are used in the negative binomial regression model to calculate the number of predicted healthcare facility-onset MRSA Bacteremia LabID Events in hospital inpatients under the 2022 baseline data.

The negative binomial generalized linear models for acute care hospitals and critical access hospitals are listed below.

##### Acute Care Hospitals

Parameter		Estimate	Standard Error	Pvalue
Intercept		-11.6685	0.1598	<.0001
Outpatient CO prevalence rate	2. 0.013 <= EDRate < 0.040	0.2471	0.0437	<.0001
	3. 0.040 <= EDRate < 0.064	0.3537	0.0448	<.0001
	4. 0.064 <= EDRate < 0.085	0.4703	0.0492	<.0001
	5. 0.085 <= EDRate	0.6112	0.0483	<.0001
	1. No ED/Obs or EDRate < 0.013	0	0	.
Inpatient CO prevalence rate	2. 0 < InpCOPrevRate < 0.042	0.1259	0.0336	0.0002
	3. 0.042 <= InpCOPrevRate < 0.071	0.2238	0.0374	<.0001
	4. 0.071 <= InpCOPrevRate	0.3538	0.0343	<.0001
	1. Zero InpCOPrevRate	0	0	.
Average length of stay	2. 2.6 <= avgLOS < 4.8	0.5149	0.121	<.0001
	3. 4.8 <= avgLOS < 5.2	0.6104	0.1238	<.0001
	4. 5.2 <= avgLOS	0.765	0.1211	<.0001
	1. 1 <= avgLOS < 2.6	0	0	.
Proportion of total beds that are ICU	2. 0.061 <= ICUbedPropn < 0.161	0.1856	0.0667	0.0054
	3. 0.161 <= ICUbedPropn < 0.232	0.2758	0.0685	<.0001
	4. 0.232 <= ICUbedPropn	0.4254	0.0714	<.0001
	1. 0 <= ICUbedPropn < 0.061	0	0	.
Total number of beds	2. 67 <= numbeds	0.2204	0.0783	0.0049
	1. 1 <= numbeds < 67	0	0	.
Medical school affiliation	M	0.1188	0.0264	<.0001
	U,G,N	0	0	.
Facility type (based on NMSN enrollment):	GEN,ONC	0.2477	0.0799	0.0019
	CHLD,WOMCHILD,MIL,ORTHO,SURG,WOM	0	0	.

##### Critical Access Hospitals

Parameter		Estimate	Standard Error	Pvalue
Intercept	Intercept	-11.3451	0.2029	<.0001
Outpatient CO prevalence rate	EDrate_GRP 1:EDrate>0	0.9991	0.2773	0.0003
	EDrate_GRP 0:EDrate 0 or missing	0	.	.
Inpatient CO prevalence rate	COrate_GRP 1:COrate>0	0.8824	0.3418	0.0098
	COrate_GRP 0:Corate=0	0	.	.