

Table S1 Large Cities with mask mandates in noMMC counties

City		County		Population City/County
Name	Population	Name	Population	
Emporia	24765	Lyon	33195	75%
Hays	20852	Ellis	28553	73%
Manhattan	53678	Riley	74232	72%
Marion	1787	Marion	11884	15%
Osawatomie	4266	Miami	34237	29%
Paola	5670	Labette	19618	49%
Parsons	9665	Cowley	34908	35%
Winfield	12057			

Table S2		Groups after step 2
NoMMC		MMC
Anderson County	Logan County	Allen County
Barber County	McPherson County	Atchison County
Barton County	Meade County	Bourbon County
Butler County	Miami County	Crawford County
Chase County	Nemaha County	Dickinson County
Clark County	Neosho County	Franklin County
Clay County	Osage County	Gove County
Coffey County	Osborne County	Harvey County
Doniphan County	Ottawa County	Jewell County
Edwards County	Pawnee County	Lyon County
Elk County	Pottawatomie County	Mitchell County
Ellsworth County	Rice County	Montgomery County
Finney County	Seward County	Morris County
Ford County	Sheridan County	Pratt County
Graham County	Sherman County	Reno County
Grant County	Stafford County	Republic County
Gray County	Stevens County	Saline County
Hamilton County	Sumner County	Scott County
Haskell County	Thomas County	Sedgwick County
Jackson County	Trego County	Shawnee County
Jefferson County	Wabaunsee County	Stanton County
Kearny County	Wallace County	
Kingman County	Washington County	
Kiowa County	Wichita County	
Leavenworth County	Wilson County	
Lincoln County	Woodson County	
Linn County		

Table S3		Steps 3 to 4b for boundaries of mCDR>600 in noMMC and mCDR>805 in MMC							
STEP 3	counties	pop% of KS	population	% infected	infected	deaths	CFR	mCDR	
NoMMC	74	24,2%	704210	1,48%	10403	137	1,32%	1048,8	
MMC	20	19,1%	556097	1,36%	7563	156	2,06%	1040,1	
Eliminated	11	56,7%				CHI ²	0,0001	0,83%	
						RR	1,58		
						95% CI	1,34		
						95% CI	1,84		
STEP 4a					survivors	dead	CFR		
NoMMC					10403	137	1,32%		
MMC					8215	156	1,90%		
						CHI ²	0,0015		
						RR	1,45		
						95% CI	1,23		
STEP 4b	population		additional death in infected	additional death in all MMC			95% CI	1,69	
	RR	2096683	57	15802					
	lower 95%CI		39	10812					
	upper 95%CI		71	19683					

Table S4 Adjusting RR for a rate of 85% of deaths with COVID-19 as underlying cause

noMMC	MMC	
9880	13665	infected
95	241	deaths
0	111	Thereof additional deaths by mask mandate ¹
73	101	deaths with COVID-19 as underlying cause of death (85%) w/o mask m. ²
73	212	deaths with COVID-19 as underlying cause of death ³
0,74%	1,55%	CFR (for deaths with COVID-19 as underlying cause of death)
	2,10	RR (for deaths with COVID-19 as underlying cause of death)

¹ As calculated in step 4b² ([deaths total] * 85% – [additional deaths by mask mandate]) * [infected in group] / [infected total]³ Total of the two rows above

Figure S1 Scatterplot of mCDR vs. CFR

