

## COVID-19 Maryland County by County Hospital Bed Demand versus Supply

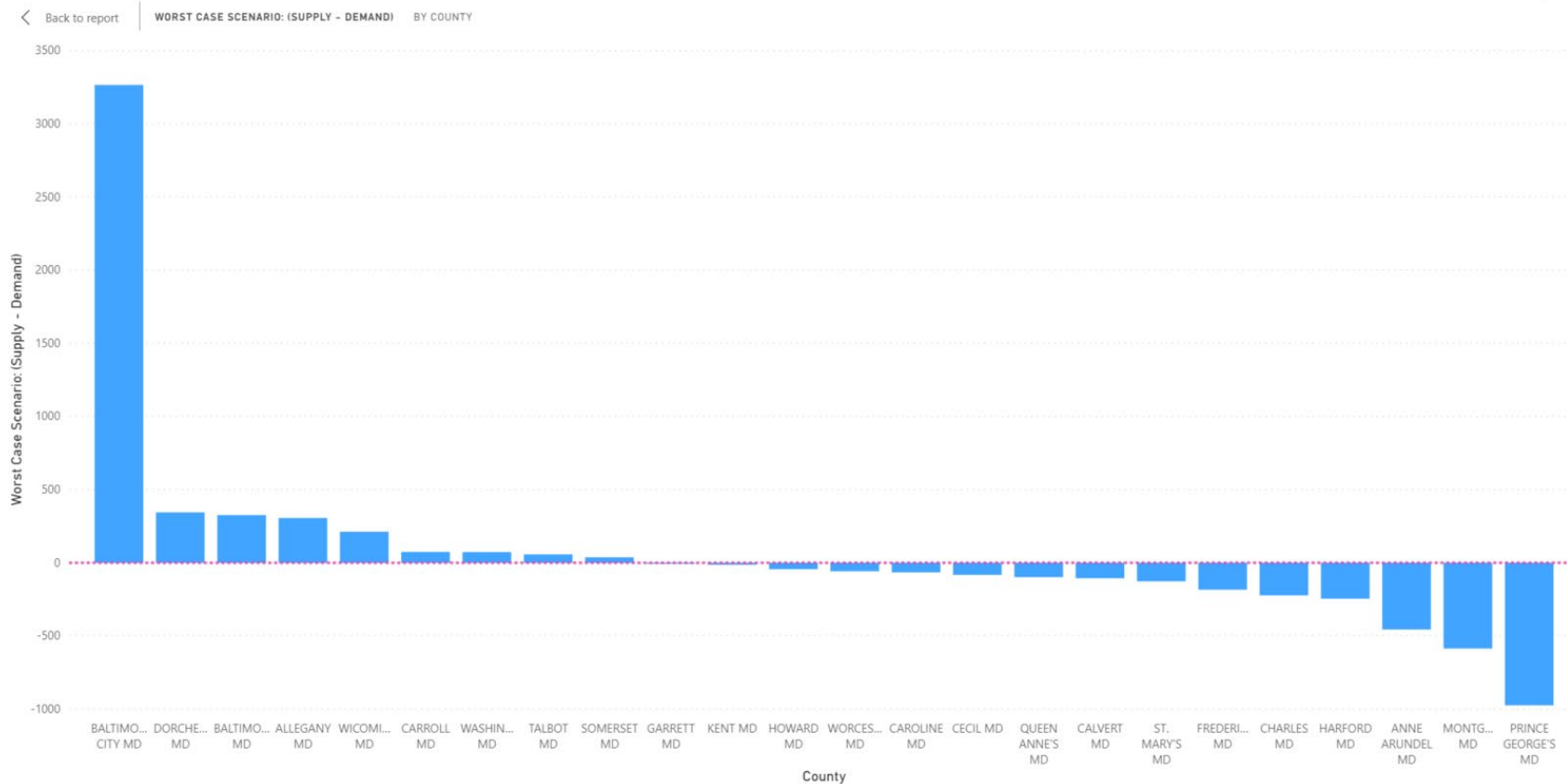


Fig 1: The above figure shows Supply minus Demand at peak using the Imperial-College-COVID19-NPI-modelling-16-03-2020 and the exponential regression model in the article published. All appearing above the red dashed line have capacity even at peak. All Counties that at or falling below the red line are will not be able to meet demand. In this scenario, peak will hit mid-May. Planning for servicing counties that either do not have hospitals or overburdened systems should be made. Some Counties will have capacity to redirect to needed areas.

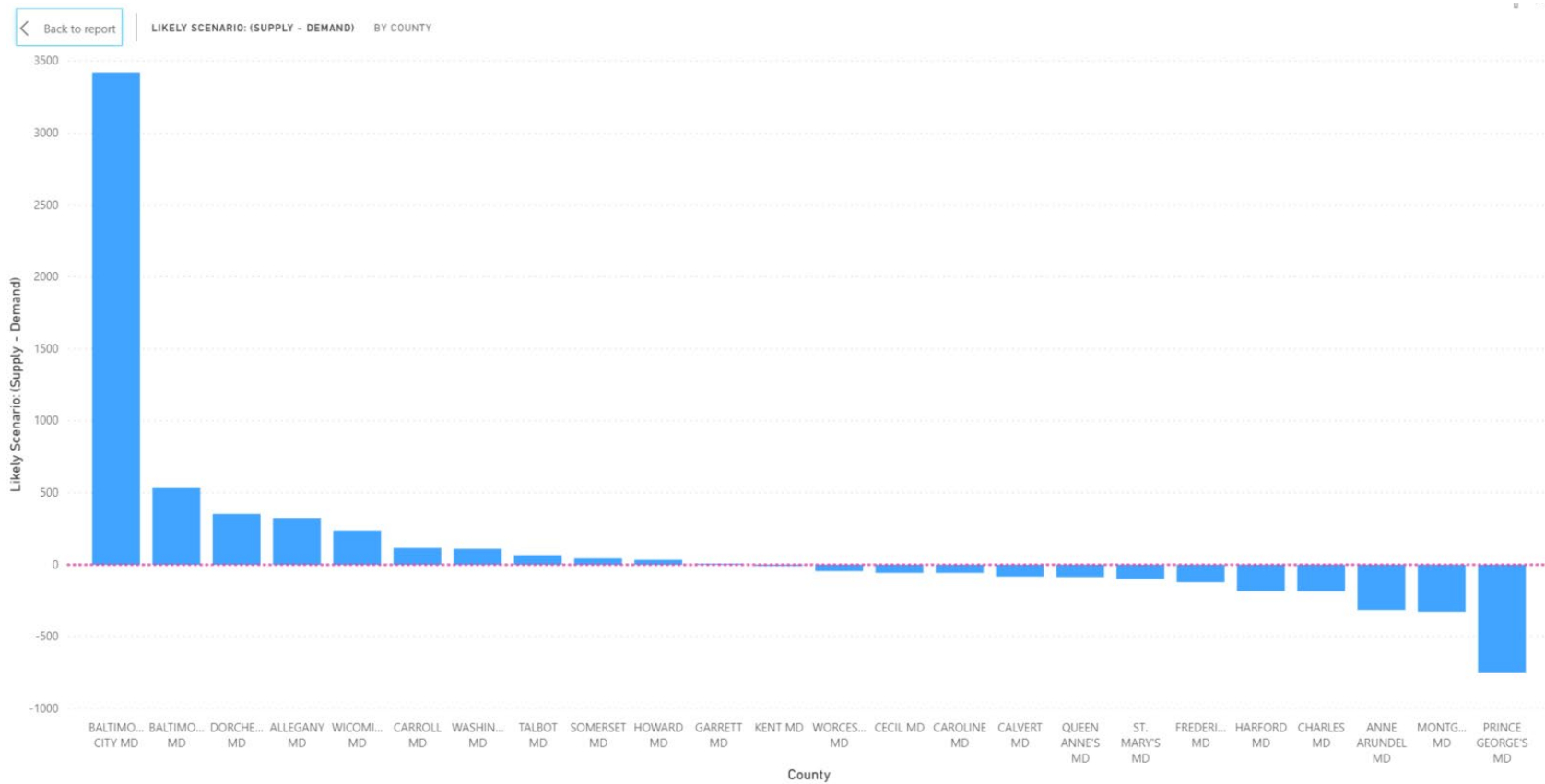


Fig 2: In the more likely scenario where some precautions are taken to flatten the curve, data suggests some Counties will still be unable to meet the needed demand. The peak will hit in early June. Planning for servicing counties that either do not have hospitals or overburdened systems should be made. Some Counties will have capacity to redirect to needed areas.

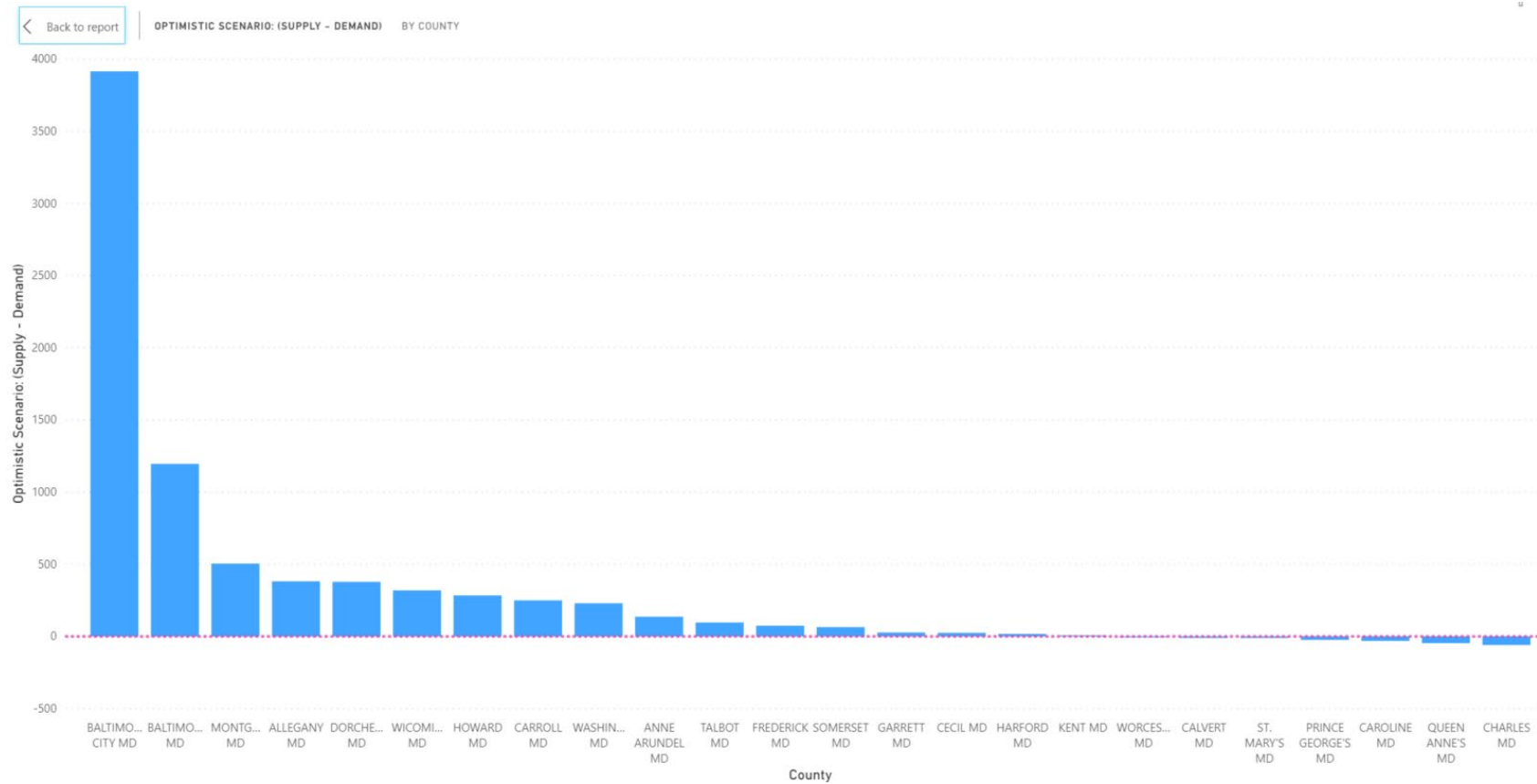


Fig 3: In the scenario where all precautions are taken to flatten the curve, data suggests almost all Counties will be able to meet the needed demand. The peak will hit in June. Planning for servicing counties that either do not have hospitals or overburdened systems should be made. Several Counties will have capacity to redirect to needed areas.

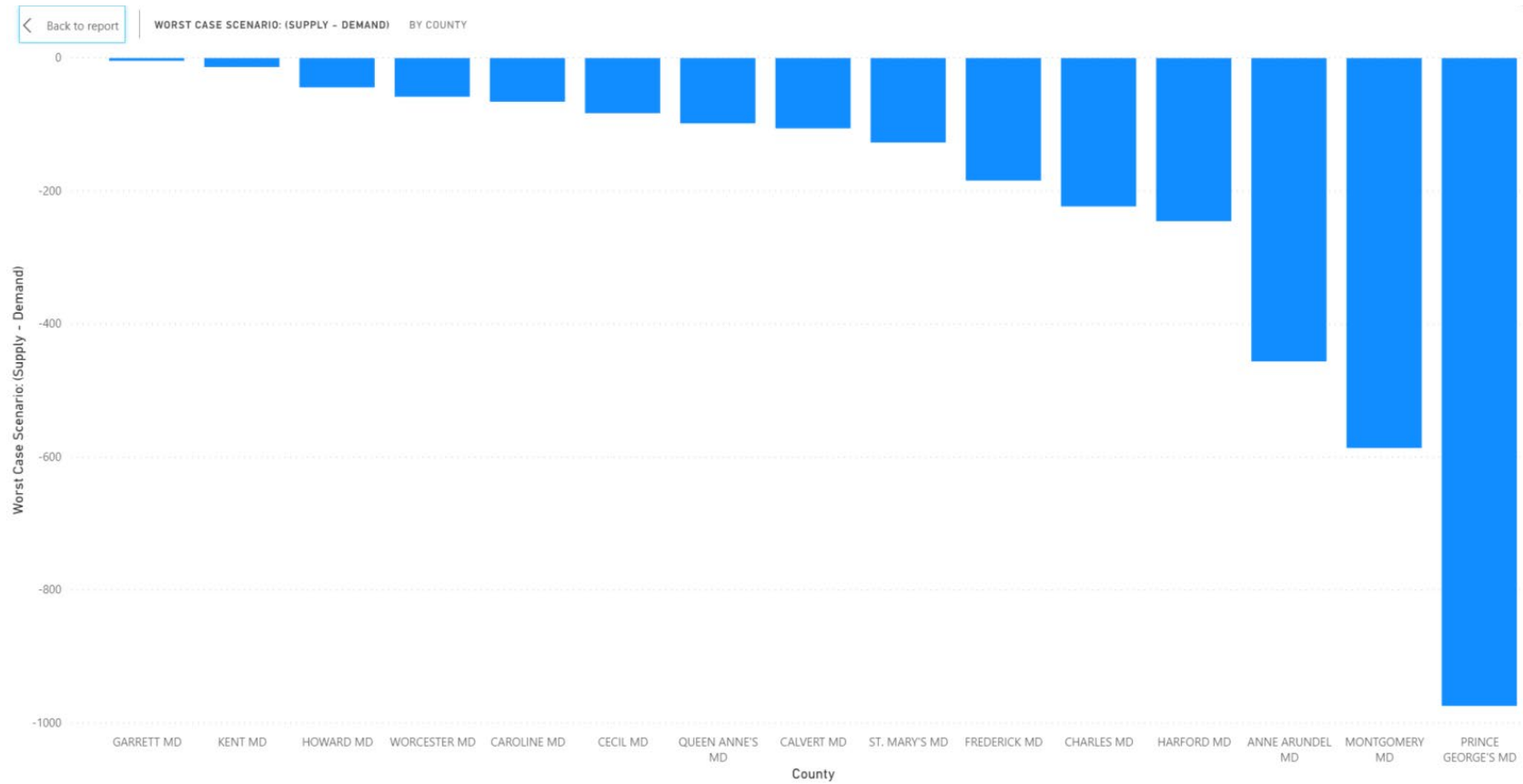


Fig 4: The figure above represents Counties that will run out of beds at peak for the Worst-Case scenario

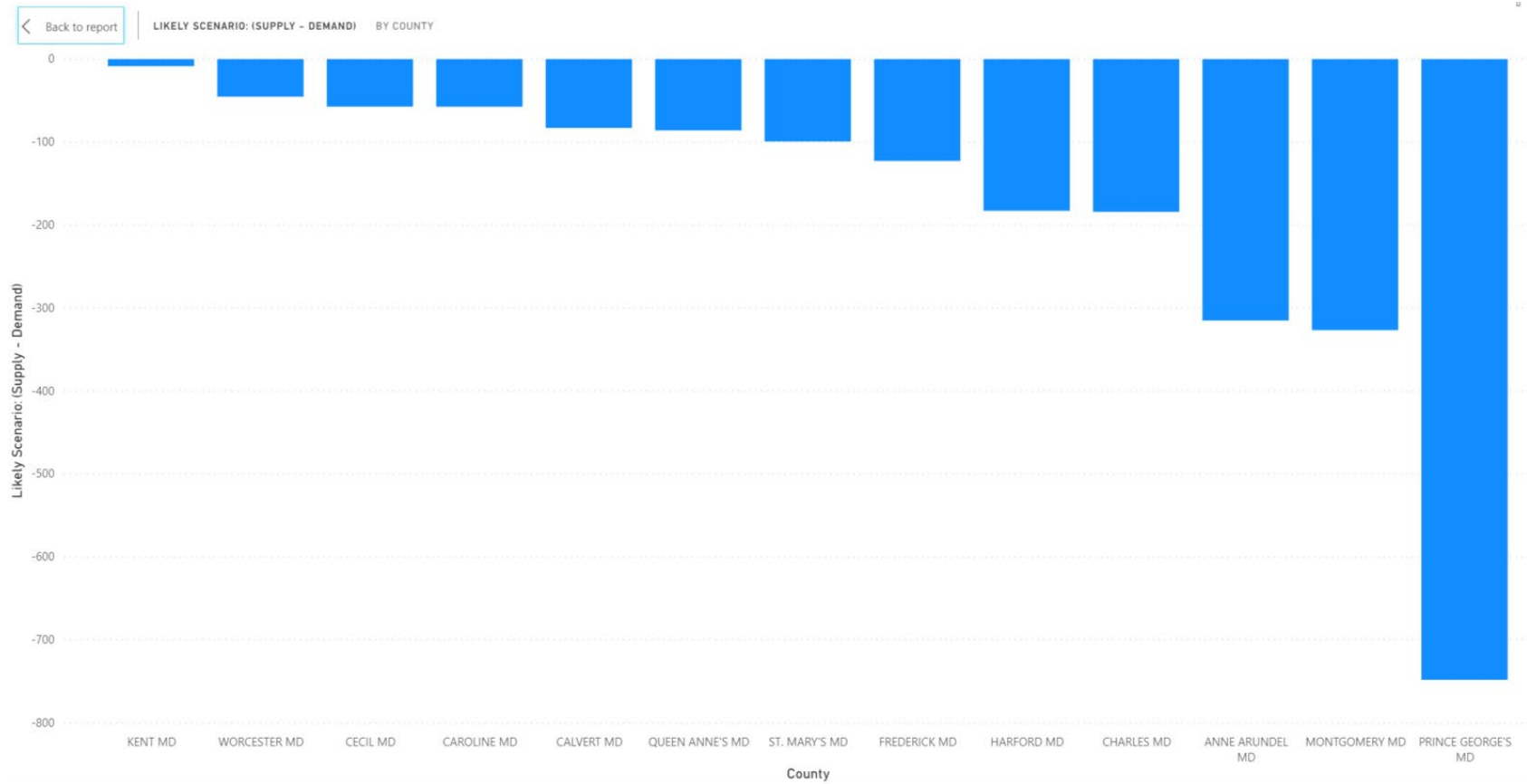


Fig 5: The figure above represents Counties that will run out of beds at peak for the Likely scenario

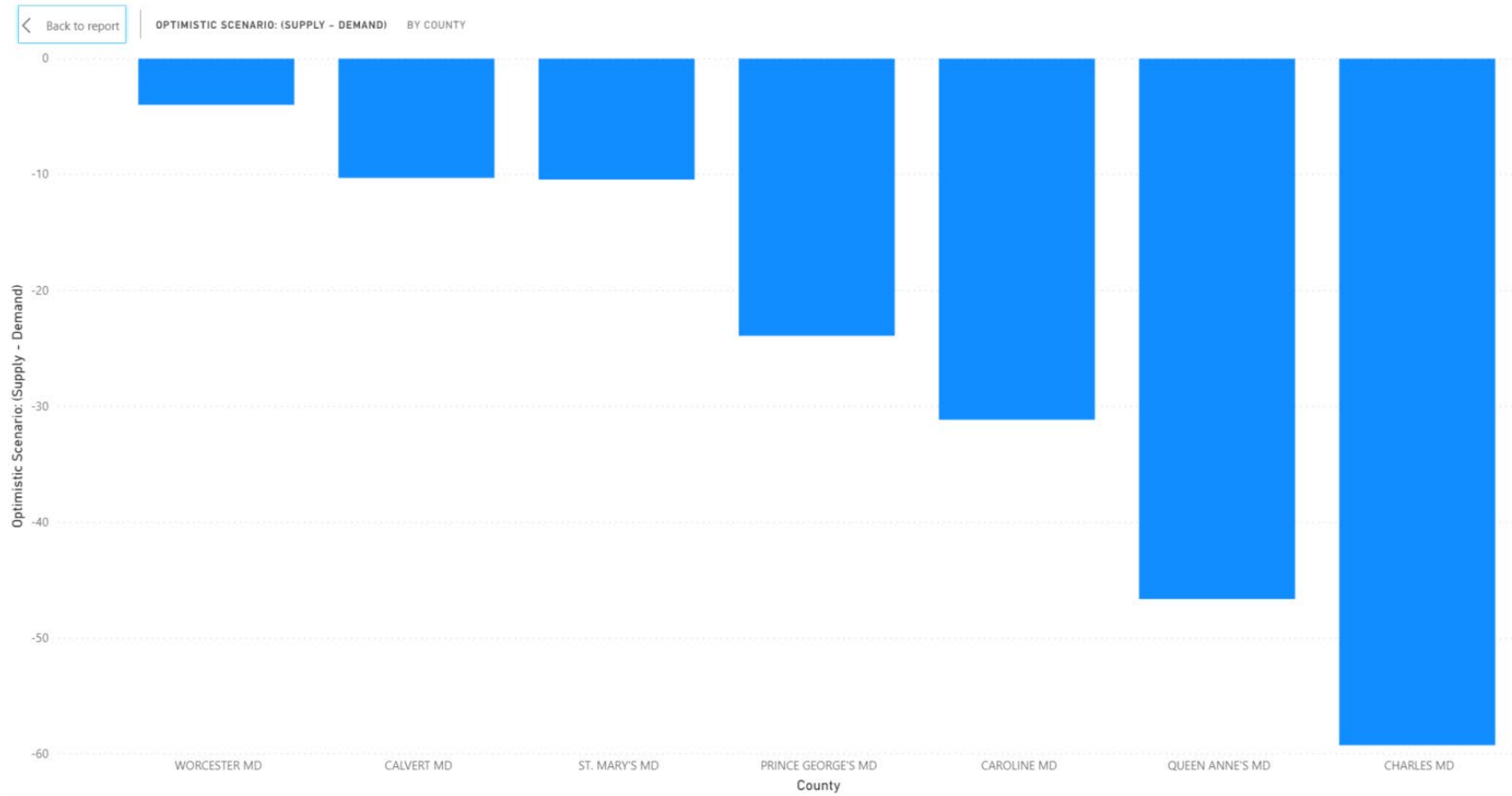


Fig 6: The figure above represents Counties that will run out of beds or do not have a hospital at peak for the Optimistic scenario

County	State	Total Population	65+ Population	Beds	With Full Precautions - Optimistic Scenario of needed Demand for Hospital Beds								With Some Precautions - Likely Scenario of needed Demand for Hospital Beds					With No Precautions - Worst Case Scenario of needed Demand for Hospital Beds					Counties to run out of beds (all precautions - Optimistic)	Counties to run out of beds (some precautions - Likely)	Counties to run out of beds (no precautions - Worstcase)
					O-April	O-May	O-June	O-Mid-June	O-July	O-August	L-Apr	L-May	L-June	L-July	L-August	W-April	W-May	Mid-May	W-June	W-July	W-August				
ALLEGANY MD	MD	72591	16277	451	7	7	65	69	36	7	7	36	127	36	7	7	73	200	145	11	7				
ANNE ARUNDEL MD	MD	564600	102355	673	56	56	508	536	282	56	56	282	988	282	56	56	565	1553	1129	85	56		x	x	
BALTIMORE MD	MD	828637	165538	1983	83	83	746	787	414	83	83	414	1450	414	83	83	829	2279	1657	124	83			x	
CALVERT MD	MD	90824	16623	76	9	9	82	86	45	9	9	45	159	45	9	9	91	250	182	14	9	x	x	x	
CAROLINE MD	MD	32785	6223	0	3	3	30	31	16	3	3	16	57	16	3	3	33	90	66	5	3	x	x	x	
CARROLL MD	MD	167319	33408	409	17	17	151	159	84	17	17	84	293	84	17	17	167	460	335	25	17			x	
CECIL MD	MD	102416	19563	122	10	10	92	97	51	10	10	51	179	51	10	10	102	282	205	15	10		x	x	
CHARLES MD	MD	156021	24375	89	16	16	140	148	78	16	16	78	273	78	16	16	156	429	312	23	16	x	x	x	
DORCHESTER MD	MD	32386	8090	409	3	3	29	31	16	3	3	16	57	16	3	3	32	89	65	5	3				
FREDERICK MD	MD	246105	42439	308	25	25	221	234	123	25	25	123	431	123	25	25	246	677	492	37	25		x	x	
GARRETT MD	MD	29516	7700	55	3	3	27	28	15	3	3	15	52	15	3	3	30	81	59	4	3			x	
HARFORD MD	MD	250132	48977	255	25	25	225	238	125	25	25	125	438	125	25	25	250	688	500	38	25		x	x	
HOWARD MD	MD	312495	52836	581	31	31	281	297	156	31	31	156	547	156	31	31	312	859	625	47	31			x	
KENT MD	MD	19666	5446	26	2	2	18	19	10	2	2	10	34	10	2	2	20	54	39	3	2		x	x	
MONTGOMERY MD	MD	1039198	187898	1492	104	104	935	987	520	104	104	520	1819	520	104	104	1039	2858	2078	156	104			x	
PRINCE GEORGE'S MD	MD	905161	149202	836	91	91	815	860	453	91	91	453	1584	453	91	91	905	2489	1810	136	91	x	x	x	
QUEEN ANNE'S MD	MD	49071	11036	0	5	5	44	47	25	5	5	25	86	25	5	5	49	135	98	7	5	x	x	x	
ST. MARY'S MD	MD	110979	17549	95	11	11	100	105	55	11	11	55	194	55	11	11	111	305	222	17	11	x	x	x	
SOMERSET MD	MD	25801	5090	89	3	3	23	25	13	3	3	13	45	13	3	3	26	71	52	4	3				
TALBOT MD	MD	37461	11337	132	4	4	34	36	19	4	4	19	66	19	4	4	37	103	75	6	4				
WASHINGTON MD	MD	149546	29897	372	15	15	135	142	75	15	15	75	262	75	15	15	150	411	299	22	15			x	
WICOMICO MD	MD	102014	19433	416	10	10	92	97	51	10	10	51	179	51	10	10	102	281	204	15	10				
WORCESTER MD	MD	51559	16086	45	5	5	46	49	26	5	5	26	90	26	5	5	52	142	103	8	5	x	x	x	
BALTIMORE CITY MD	MD	619796	106051	4505	62	62	558	589	310	62	62	310	1085	310	62	62	620	1704	1240	93	62				

Table 1: Table with Data showing all three scenarios