

Appendix C. Phase 1 and Phase 2 Tool vs MBSC Registry

Phase 1 Intervention vs. MBSC Registry

	MBSC			PHASE 1 INTERVENTION			p	difference (95% CI)	
	n	Mean	SD	n	Mean	SD			
Age (baseline)	11865	46.0	11.7	438	44.4	11.8	0.0045	1.6 (0.48, 2.72)	
BMI (baseline)	11865	47.4	8.5	423	46.9	8.9	0.2408	0.5 (-0.33, 1.33)	
		n	%	n	%	p	OR (95% CI)		
Gender:	Female	9458	79.7	351	80.1	0.8286	1.03 (0.81, 1.30)		
	Male	2407	20.3	87	19.9				
		n	%	n	%	p	OR (95% CI)		
Race:	White	7495	72.9	344	78.5	0.0086	1.36 (1.08, 1.72)		
	Not White	2793	27.1	94	21.5				
		n	%	n	%	p	OR (95% CI)		
Income:	Less than 10K	903	8.9	60	13.7	0.0007	1.63 (1.23, 2.15)		
	10K to 25K	1706	16.8	85	19.4	0.1541	1.19 (0.94, 1.52)		
	25K to 45K	2246	22.1	94	21.5	0.7475	0.96 (0.76, 1.21)		
	45K to 75K	2588	25.5	92	21.0	0.0353	0.78 (0.62, 0.98)		
	75K or more	2714	26.7	107	24.4	0.2884	0.89 (0.71, 1.11)		
		n	%	n	%	p	OR (95% CI)		
Education:	Some HS or less	344	3.3	18	4.1	0.3564	1.26 (0.77, 2.04)		
	HS	1998	19.2	78	17.8	0.4781	0.91 (0.71, 1.17)		
	Some College	5014	48.1	208	47.5	0.8003	0.98 (0.81, 1.18)		
	College	1951	18.7	82	18.7	0.9986	1.00 (0.78, 1.28)		
	Grad	1116	10.7	52	11.9	0.4409	1.12 (0.84, 1.51)		
		n	%	n	%	p	OR (95% CI)		
High BP:	Yes	5992	50.5	251	57.3	0.0052	1.32 (1.09, 1.60)		
Hyperlipidemia	Yes	5403	45.5	190	43.4	0.3730	0.92 (0.76, 1.11)		
Diabetes	Yes	3755	31.7	103	23.5	0.0003	0.66 (0.53, 0.83)		
Psych Disorder	Yes	6634	55.9	273	62.3	0.0079	1.30 (1.07, 1.59)		
Asthma	Yes	8446	71.2	212	48.4	<0.0001	0.38 (0.31, 0.46)		
GERD	Yes	6263	52.8	207	47.3	0.0230	0.80 (0.66, 0.97)		
History of VTE	Yes	560	4.7	12	5.6	0.0564	0.57 (0.31, 1.02)		
Asthma	Yes	2664	22.5	115	26.3	0.0616	1.23 (0.99, 1.53)		
Sleep Apnea	Yes	5588	47.1	176	40.2	0.0044	0.75 (0.62, 0.92)		
Heart Disease	Yes	641	5.4	27	6.2	0.4895	1.15 (0.77, 1.71)		
Current Smoker	Yes	1289	10.9	40	9.1	0.2429	0.82 (0.59, 1.15)		
		N = 11865	%	N = 215	%	p	OR (95% CI)		

Surgery Performed	RYGB	2206	18.6	26	12.1	0.0160	0.60 (0.40, 0.91)		
	Sleeve	9469	79.8	188	87.4	0.0062	1.76 (1.17, 2.64)		
	Lap-Band	92	0.8	0	0.0	0.3903	0.30 (0.02, 4.77)		
	BPD/DS	88	0.7	1	0.5	0.6069	0.60 (0.08, 4.29)		
	SIPS	10	0.1	0	0.0	0.5063	2.62 (0.15, 44.85)		
		11777		215			UNIVARIATE		MULTIVARIATE
30 day outcomes	Total	N = 11865		N = 215		p-value	OR (95% CI)	p-value	OR (95% CI)
Any Complication	Yes	802	6.8	8	3.7	0.0775	0.53 (0.26, 1.08)	0.1715	0.606 (0.296, 1.242)
Severe Complication	Yes	258	2.2	4	1.9	0.7541	0.85 (0.31, 2.31)	0.9352	1.043 (0.381, 2.856)
Leak or Perforation	Yes	59	0.5	0	0.0	0.3000	0.46 (0.03, 7.47)	0.8839	<0.001 (<0.001, >999.999)
Obstruction	Yes	81	0.7	0	0.0	0.2241	0.34 (0.02, 5.43)	0.9311	<0.001 (<0.001, >999.999)
Infection	Yes	169	1.4	0	0.0	0.0780	0.16 (0.01, 2.57)	0.8553	<0.001 (<0.001, >999.999)
hemorrhage	Yes	202	1.7	1	0.5	0.1618	0.27 (0.04, 1.93)	0.2627	0.323 (0.045, 2.336)
VTE	Yes	64	0.5	2	0.9	0.4410	1.73 (0.42, 7.12)	0.3946	1.863 (0.445, 7.806)
ED visit	Yes	1021	8.6	19	8.8	0.9043	1.03 (0.64, 1.66)	0.6735	1.110 (0.684, 1.801)
Readmission	Yes	468	3.9	8	3.7	0.8675	0.94 (0.46, 1.92)	0.6769	1.166 (0.566, 2.401)
Reoperation	Yes	146	1.2	2	0.9	0.6907	0.75 (0.19 3.06)	0.9781	1.020 (0.247, 4.211)
Long Stay	Yes	443	3.7	2	0.9	0.0304	0.24 (0.06, 0.98)	0.1028	0.310 (0.076, 1.266)
Surgical Complication	Yes	444	3.7	1	0.5	0.0115	0.12 (0.02, 0.86)	0.0439	0.132 (0.018, 0.946)
Medical Complication	Yes	157	1.3	2	0.9	0.6163	0.70 (0.17, 2.84)	0.7856	0.822 (0.200, 3.372)
Utilization	Yes	1475	12.4	22	10.2	0.3321	0.80 (0.51, 1.25)	0.7014	0.915 (0.581, 1.441)
Death	Yes	13	0.1	0	0.0	0.6272	2.04 (0.12, 34.38)	0.9229	<0.001 (<0.001, >999.999)

Phase 2 Intervention vs. MBSC Registry

	MBSC			PHASE 2 INTERVENTION			p	diff (95% CI)
	n	Mean	SD	n	Mean	SD		
Age (baseline)	8983	45.6	11.7	311	42.0	10.5	<0.0001	3.6 (2.28, 4.92)
BMI (baseline)	8983	47.1	8.5	311	49.2	9.9	0.0004	2.1 (1.13, 3.07)
		n	%	n	%	p	OR (95% CI)	
Gender:	Female	7174	79.9	261	83.9	0.0784	1.32 (0.97, 1.79)	
	Male	1809	20.1	50	16.1			
		n	%	n	%	p	OR (95% CI)	
Race:	White	5064	71.3	252	80.8	0.0003	1.69 (1.27, 2.25)	
	Not White	2038	28.7	60	19.2			
		n	%	n	%	p	OR (95% CI)	
Income:	Less than 10K	637	9.1	47	15.1	0.0004	1.79 (1.30, 2.47)	
	10K to 25K	1066	15.1	64	20.6	0.0096	1.45 (1.09, 1.93)	
	25K to 45K	1482	21.1	59	19.0	0.3788	0.88 (0.66, 1.17)	
	45K to 75K	1742	24.7	71	22.8	0.4443	0.90 (0.69, 1.18)	
	75K or more	2114	30.0	70	22.5	0.0048	0.68 (0.52, 0.89)	
		n	%	n	%	p	OR (95% CI)	
Education:	Some HS or less	269	3.7	19	6.1	0.0341	1.68 (1.04, 2.71)	
	HS	1257	17.4	49	15.8	0.4470	0.89 (0.65, 1.21)	
	Some College	3395	47.1	159	51.1	0.1602	1.18 (0.94, 1.48)	
	College	1486	20.6	59	19.0	0.4867	0.90 (0.68, 1.21)	
	Grad	807	11.2	25	8.0	0.1491	0.74 (0.49, 1.12)	
		n	%	n	%	p	OR (95% CI)	
High BP:	Yes	4503	50.1	173	55.6	0.0565	1.25 (0.99,1.57)	
Hyperlipidemia	Yes	3848	42.8	120	38.6	0.1362	0.84 (0.66, 1.06)	
Diabetes	Yes	2838	31.6	91	29.3	0.3840	0.90 (0.70, 1.15)	
Psych Disorder	Yes	5008	55.8	175	56.1	0.9054	1.02 (0.81, 1.28)	
Arthritis	Yes	6298	70.1	131	42.1	<0.0001	0.31 (0.25, 0.39)	
GERD	Yes	4654	51.8	144	46.3	0.0561	0.80 (0.64, 1.01)	
Asthma	Yes	2015	22.4	101	32.5	<0.0001	1.66 (1.31, 2.12)	
Sleep Apnea	Yes	4206	46.8	160	51.5	0.1081	1.20 (0.96, 1.51)	
Heart Disease	Yes	553	6.2	14	4.5	0.2307	0.72 (0.42, 1.24)	
Ever a Smoker	Yes	3393	38.1	118	40.6	0.9513	1.01 (0.80, 1.27)	
Current Smoker	Yes	840	9.4	25	8.0	0.4085	0.85 (0.56, 1.28)	
		n	%	n	%	p	OR (95% CI)	
Surgery Performed	RYGB	1832	20.4	38	24.5	0.2083	1.27 (0.88, 1.83)	
	Sleeve	7023	78.2	117	75.5	0.4210	0.86 (0.59, 1.24)	

	Lap-Band	36	0.4	0	0.0	0.8675	0.79 (0.05, 12.90)		
	BPD/DS	90	1.0	0	0.0	0.4173	0.32 (0.02, 5.11)		
	SIPS	2	0.0	0	0.0	0.1147	11.55 (0.55, 241.63)		
		n	%	n	%	p	OR (95% CI)		
						UNIVARIATE		MULTIVARIATE	
30 day outcomes	Total	N = 8983		N = 155			OR (95% CI)	p-value	OR (95% CI)
Any Complication	Yes	575	6.4	16	10.3	0.0490	1.68 (1.00, 2.84)	0.6192	0.876 (0.519, 1.477)
Severe Complication	Yes	173	1.9	2	1.3	0.5671	0.67 (0.16, 2.71)	0.2191	0.411 (0.100, 1.696)
Leak or Perforation	Yes	35	0.4	0	0.0	0.4362	0.81 (0.05, 13.27)	0.9767	<0.001 (<0.001, >999.999)
Obstruction	Yes	42	0.5	1	0.7	0.7487	1.38 (0.19, 10.11)	0.9030	0.881 (0.114, 6.800)
Infection	Yes	97	1.1	4	2.6	0.0764	2.43 (0.88, 6.68)	0.7469	1.188 (0.417, 3.389)
hemorrhage	Yes	139	1.6	5	3.2	0.0962	2.12 (0.86, 5.25)	0.0268	2.896 (1.130, 7.421)
VTE	Yes	38	0.4	0	0.0	0.4171	0.75 (0.05, 12.22)	0.9837	<0.001 (<0.001, >999.999)
ED visit	Yes	661	7.4	8	5.2	0.2978	0.69 (0.33, 1.40)	0.2039	0.624 (0.301, 1.292)
Readmission	Yes	315	3.5	1	0.7	0.0532	0.18 (0.02, 1.28)	0.2063	0.279 (0.039, 2.018)
Reoperation	Yes	109	1.2	1	0.7	0.5199	0.53 (0.07, 3.81)	0.8784	0.855 (0.116, 6.324)
Long Stay	Yes	311	3.5	7	4.5	0.4781	1.32 (0.61, 2.84)	0.1776	1.724 (0.781, 3.806)
Surgical Complication	Yes	272	3.0	10	6.5	0.0145	2.21 (1.15, 4.24)	0.5676	1.214 (0.625, 2.359)
Medical Complication	Yes	99	1.1	0	0.0	0.1888	0.29 (0.02, 4.64)	0.9786	<0.001 (<0.001, >999.999)
Utilization	Yes	1006	11.2	13	8.4	0.2702	0.73 (0.41, 1.29)	<0.0001	0.308 (0.175, 0.545)