

The Montana Outcomes Project – Montana Association of Cardiovascular and Pulmonary Rehabilitation’s Outcomes Performance

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INTRODUCTION

The Montana Outcomes Project started in 2006 and includes over 125 programs representing 15 states. The intent of the project was to create a standardized outcomes program in which cardiac rehabilitation (CR) programs could utilize and submit outcomes data for analysis and feedback. The feedback would provide benchmarking information that programs could use to identify areas to focus quality improvement (QI) activities. Unlike the majority of other programs participating in the outcomes project, programs from the Montana Association of Cardiovascular and Pulmonary Rehabilitation (MACVPR) have been actively participating in both individual program and affiliate-wide QI projects utilizing the outcomes data since 2008. The QI projects were organized and implemented by the Montana Cardiovascular Health Program (CVHP), within the state health department, and MACVPR’s Outcomes Committee.

PURPOSE

To compare outcomes data from participating programs within MACVPR to all the other programs participating in the outcomes project.

METHODS

Outcomes data included patients who started CR between July and September 2010. Each program submitted de-identified data to the CVHP for analysis in January 2011. The outcomes data from MACVPR, which included 24 programs from Montana and Wyoming, were compared to the 101 participating programs from the remaining 13 states. Data analysis involved evaluating standardized indicators from the clinical, health, behavior and service domains.

RESULTS

There were 2453 patients who completed Phase II CR which included 243 patients from MACVPR programs. Compared to other programs participating in the project, MACVPR programs had significantly ($P \leq 0.05$) higher program completion rates (81% vs. 76%), patient satisfaction scores (49.3 vs. 48.6), and patients with blood pressure at goal (93% vs. 87%). (Table 1) Additionally, MACVPR programs showed significant improvements (from pre to post) in depression scores (2.88 vs. 2.23), DASI MET capacity (2.09 vs. 1.69), and in both quality of life surveys SF-36 (physical: 11.5 vs. 8.0 and mental: 6.2 vs. 3.5) and Dartmouth (6.7 vs. 5.0) compared to other programs.

CONCLUSION

Organized local and affiliate-wide QI projects facilitated by the CVHP and MACVPR’s Outcomes Committee contribute to improved outcomes in MACVPR programs compared to other programs participating in the project.

TABLE 1 – OUTCOMES DATA

	MACVPR (N = 243)	All Others (N = 2210)	P-value
<i>Demographic characteristics</i>			
Age, years	Mean (SD) 65.6 (11.7)	Mean (SD) 66.3 (11.1)	0.350
	% (n)	% (n)	
Male	67 (163)	69 (1531)	<0.01
Race			<0.01
White	97 (237)	93 (2054)	
Non-white	3 (6)	7 (156)	
<i>Clinical domain</i>			
Blood pressure at target	93 (223)	87 (1886)	<0.01
LDL at target	70 (125)	74 (959)	0.20
A1c test completed*	80 (36)	67 (395)	0.12
	Mean difference (SD) [range]	Mean difference (SD) [range]	
BMI * ¹	0.29 (1.0) [-3.33 – 3.54]	0.29 (1.0) [-3.8 – 6.25]	0.94
PHQ-9 ¹	2.88 (3.7) [-10.0 – 16.0]	2.23 (4.1) [-17.0 – 24.0]	0.03
DASI ¹	-2.09 (1.55) [-5.93 – 1.17]	-1.69 (1.67) [-6.60 – 4.82]	<0.01
<i>Health domain</i>			
SF-36 – physical ¹	-11.54 (8.1) [-33.1 – 4.0]	-8.00 (9.3) [-35.0 – 21.0]	< 0.01
SF-36 – Mental ¹	-6.21 (9.0) [-35.0 – 19.5]	-3.54 (10.0) [-39.2 – 33.0]	<0.01
Dartmouth ¹	6.67 (5.5) [-4.0 – 21.0]	4.97 (5.4) [-35.2 – 25.0]	0.01
<i>Behavioral domain</i>			
Fat screener ¹	4.76 (7.76) [-19.0 – 33.0]	5.47 (8.81) [-22.0 – 48.0]	0.59
<i>Service domain</i>			
	% (n)	% (n)	
Completion rate	81 (243)	76 (2210)	0.04
	Mean (SD)	Mean (SD)	
Patient satisfaction	49.3 (1.8)	48.6 (4.0)	0.01

* Includes patients with diabetes

**Includes patients with pre-BMI ≥ 25.0 kg/m²

¹ Includes patients that completed both a pre- and post-assessment. Mean difference: Pre-value - Post - valued