

Tivity SilverSneakers Impact Analysis Pre-/Post- and Matched Medicare Advantage Control Group Analyses

Prepared for Tivity Health
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Executive Summary

1 SilverSneakers participants had a mean age of 68 years and were more likely to be female (64%), White (79%), live in the South (28%) in an urban area (95%), less likely to be dual eligible than the overall Medicare population (11%), most likely to have age as reason for entitlement to Medicare (75%), and had relatively low mean Charlson Comorbidity Index Scores of 0.8.

2 The top five chronic conditions among SilverSneakers participants included Hypertension (41.4%), Hyperlipidemia (39.0%), Rheumatoid Arthritis/Osteoarthritis (20.0%), Cataracts (16.1%), Diabetes (15.6%).

3 SilverSneakers participants were matched 1:5 with non-participating MA members on multiple characteristics, all with standardized differences below the threshold of 10% difference.

4 SilverSneakers participants demonstrated similar or higher proportions of top comorbid conditions compared to the matched cohort, indicating that they were not a “healthier” population. The matched cohort of MA beneficiaries had slightly lower rates of Hyperlipidemia (36.5%), Rheumatoid Arthritis (16%), and Cataracts (13.5%), but slightly higher rates of Diabetes (16.4%).

Executive Summary, Pre-/Post-SilverSneakers Initiation

5 Following initiation of the SilverSneakers program, participants demonstrated significant reductions in hospitalizations from 13 to 10 stays per 100 patient years. Emergency room visits and observations stays were also lower, but not significantly.

6 The proportion of patients with rescue inhalers decreased following initiation of the SilverSneakers program, and the proportion of patients with cholesterol and blood pressure medications increased, suggesting better management of chronic conditions.

7 Total healthcare costs were reduced significantly by 16% overall; the medical component of costs was reduced by 18.4% driven primarily by reductions in inpatient costs. Pharmacy costs were also reduced by 12.5% but the difference was not statistically significant.

8 Several key Quality Measure rates improved significantly following initiation of the SilverSneakers program including: 1) Care for Diabetics (including Hemoglobin HbA1c Testing and Eye Exams); 2) Medication Adherence to Hypertension Medications; 3) Colonoscopy Screening; and 4) Breast Cancer Screening.

Executive Summary, Intervention/Matched Control

9

SilverSneakers participants demonstrated significantly lower HRU, including 77% lower rates of hospitalizations with significantly shorter lengths of stay by 1.4 days and 22% fewer emergency room visits compared to the non-participants.

10

Use of outpatient care was 14% higher among SilverSneakers participants, and in combination with less acute care, suggests better management of health among participants compared to non-participants.

11

Average total healthcare costs were approximately 16% lower (\$840 per member per year) for SilverSneakers participants compared to non-participants, with significantly lower component medical costs (including acute inpatient, outpatient, physician services and tests, emergency room visits, durable medical equipment, and post-acute care). No significant difference in pharmacy costs were demonstrated.

12

SilverSneakers participants performed significantly better on key Quality Measures including all-cause 30-day readmissions, adherence to hypertension and cholesterol medications, care for diabetics (HbA1c testing and eye exam), and many preventive testing/screening measures including colonoscopy, depression, cholesterol, breast cancer, and prostate cancer screening when compared to non-participants, suggesting potential impact on MA Plan Five Star ratings.

HRU: Healthcare Resource Utilization; MA: Medicare Advantage

Background

Private Medicare Advantage (MA) plans have seen rapid growth as a proportion of the Medicare population. As of 2019, MA enrollment reached approximately 40 percent of all Medicare beneficiaries, and the Congressional Budget Office forecasts 47 percent of all Medicare enrollees will be in a MA plan by 2029.¹

Tivity enlisted Avalere's support as an independent third party to use real-world data and analytics to assess the impact of the SilverSneakers program on members' healthcare utilization and cost.

The objective of this analysis was to quantify the impact of the SilverSneakers program for Tivity's MA customer base and potential new MA plan partners.

1. Gretchen Jacobsen et al., "[*A Dozen Facts About Medicare Advantage in 2019*](#)" (Henry J. Kaiser Family Foundation, June 2019).

Study Objectives

- **Provide a foundational descriptive profile** of the demographic and clinical characteristics of SilverSneakers participants who were linked to Medicare Advantage claims data, along with a descriptive review of their SilverSneakers participation
 - **Conduct a pre-/post-intervention analysis** of healthcare resource utilization, costs, and quality among SilverSneakers participants with MA claims data
 - **Conduct a comparative analysis** of healthcare resource utilization, costs, and quality between the intervention group of SilverSneakers participants and a matched control group of non-participants enrolled in MA plans
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Methods

> **Defining Study Populations /**

SilverSneakers participant data was shared securely with Avalere to link with Medicare Advantage (MA) healthcare claims data in the Inovalon MORE² Registry. SilverSneakers participants with linked claims data were propensity score matched to a similar cohort of non-participating MA patients using a 1:5 match ratio of SilverSneakers participants to MA non-participants.

> **Pre-/Post-Intervention Analysis /**

Avalere evaluated healthcare resource utilization (HRU), cost, and quality measures in the 6-months prior to and 6-months following program initiation. This analysis evaluated whether MA beneficiaries participating in the SilverSneakers program had lower utilization and/or costs or improved quality outcomes in the 6 months after joining the program compared to the 6-months prior to joining the program.

> **Intervention/Matched Control Group Analysis /**

Avalere compared differences in outcomes (HRU, costs, and quality measures) between the intervention group of SilverSneakers participants and matched control group of similar non-participating MA beneficiaries. This analysis evaluated whether MA beneficiaries participating in the SilverSneakers program had lower utilization and/or costs over the 6-month observation period compared to MA beneficiaries not participating in the program, after controlling for differences in other patient characteristics (e.g., age, gender, race/ethnicity, dual status, reason for eligibility to Medicare).

Data Sources

MORE² Registry[®]

This study leveraged access to Inovalon's Medical Outcomes Research for Effectiveness and Economics Registry (MORE² Registry[®]), a warehouse of healthcare administrative claims data sourced from more than 150 health plans across the nation that have utilized Inovalon's data analytic services from the year 2000 to date.

Tivity SilverSneakers

Tivity provided SilverSneakers membership program data for members from 2006-2019.

Data Linking

- Avalere remained the sole custodian of the data throughout the entirety of the study. **The data were hosted on a secure server and once linked, were deidentified for analysis.**

SilverSneakers Participants Were Matched to MA Non-Participants on Demographic and Clinical Characteristics

- 1 Age (Less than 65, 65-74, 75-79, 80+)
- 2 Gender (Female, Male)
- 3 Race/Ethnicity (White, Black, Hispanic, Other/Unknown)
- 4 Census Region (9 Regions + Puerto Rico)
- 5 Rural/Urban Area (Urban, Rural, Unknown)
- 6 Medicare/Medicaid Dual Eligibility Status
- 7 Original Reason for Entitlement to Medicare (Age, Disability, Unknown)
- 8 Charlson Comorbidity Index Score

MA: Medicare Advantage



Outcomes of the Pre-/Post- Intervention and Intervention/ Matched Control Analyses Include HRU and Cost Metrics

1

Descriptive Characteristics

- Age
- Gender
- Race/Ethnicity
- Census Region
- Top Chronic Conditions
- Severity of Illness
 - CMS HHC Risk Score
 - Charlson Comorbidity Index
- Frailty Indicators

2

Healthcare Resource Utilization

- Hospitalizations
- Length of Stay
- Emergency Room Visits
- Observation Stays
- Outpatient Visits
- Post-Acute Care
 - Skilled Nursing Facility
 - Home Health
 - Inpatient Rehabilitation Facility
 - Long Term Acute Care Hospital

3

Healthcare Costs

- Total Healthcare Costs (Medical + Pharmacy)
- Total Medical Costs
 - Acute Inpatient
 - Outpatient
 - Physician Services and Tests (labs, etc.)
 - Post-Acute Care
 - Durable Medical Equipment
- Total Pharmacy Costs

HRU: Healthcare Resource Utilization; CMS: Centers for Medicare & Medicaid Services; HHC: Hierarchical Condition Category

Quality Metrics for Both Pre-/Post- and Intervention/Control Analyses Were Also Included in Study Outcomes

All-Cause 30-Day Readmissions

Medication Adherence (Hypertension, Diabetes, Cholesterol)

Hospitalization for Potentially Preventable Complications (Overall, Acute, Chronic)

Care for Diabetics (HbA1c Testing, Eye Exam Performed)

Preventive Testing (Pneumonia/Flu Vaccination, Screenings)

Post-acute Care Follow-up



Tivity Participant and Matched
MA Non-Participant
Characteristics

8,627 SilverSneakers Participants Were Identified in the MORE² Registry and Met Inclusion Criteria

Avalere assessed the overlap between SilverSneakers participants and Medicare Advantage (MA) beneficiaries in the Inovalon MORE² Registry® between 2006-2019

Number of SilverSneakers Participants with Match to MORE² Registry: **168,821**

Patients with Overlapping Enrollment Periods in MA Plan and SilverSneakers Program:

- 1) Medical coverage: 38,174
- 2) Medical + Pharmacy coverage: 28,224

Minimum Continuous MA Plan Enrollment Pre- and Post-SilverSneakers Activity:

- 1) 3 months pre- and 6 months post-: 10,805
- 2) 6 months pre- and 6 months post-: 8,627**
- 3) 12 months pre- and 12 months post-: 4,303

Final cohort of SilverSneakers participants linked to MORE² claims with continuous MA medical and pharmacy enrollment for at least 6 months pre- and 6 months post-first SilverSneakers activity: **8,627**

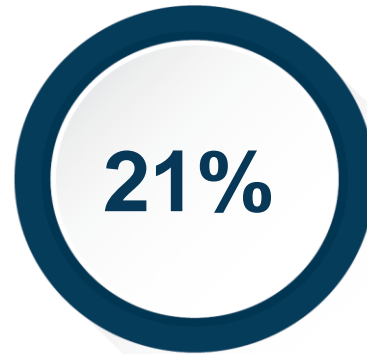


Six months minimum pre-/post- continuous enrollment criteria were used to balance sample size and allow for enough time to capture patient characteristics used to inform further analyses

Summary Characteristics of SilverSneakers Participants



Average Age



Eligible for Medicare Due to Disability

10.8%

Eligible for Dual Medicare/
Medicaid Enrollment

63.6%

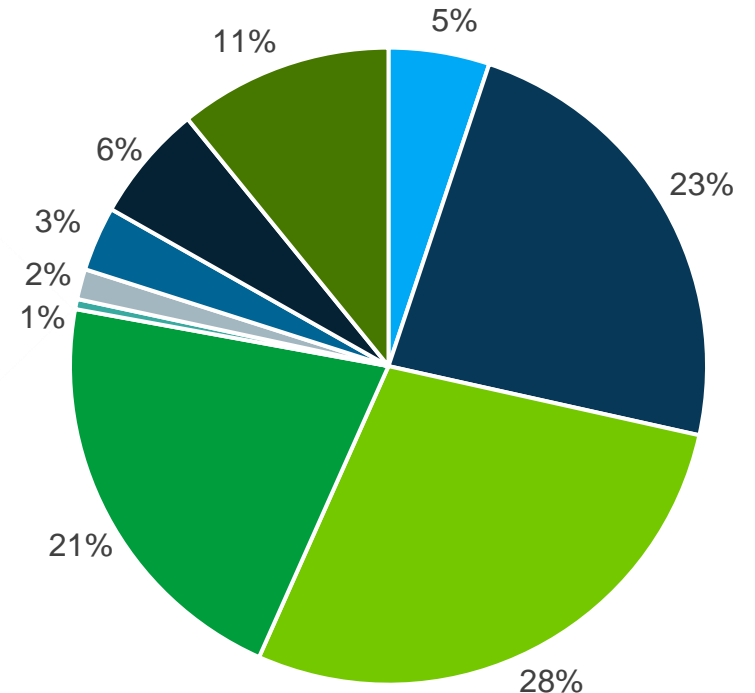
Female

0.8

Average CCI Score

94.6%

Reside in Urban Area



New England

South Atlantic

East South Central

West South Central

Pacific

Middle Atlantic

East North Central

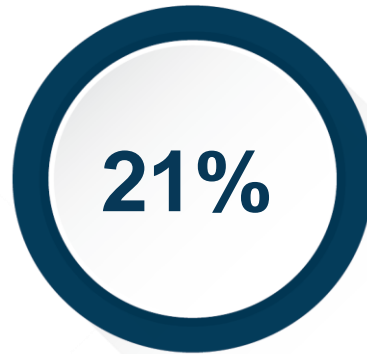
West North Central

Mountain

Summary Characteristics of Matched MA Non-Participants



Average Age



Eligible for Medicare
Due to Disability

10.8%

Eligible for Dual Medicare/
Medicaid Enrollment

63.9%

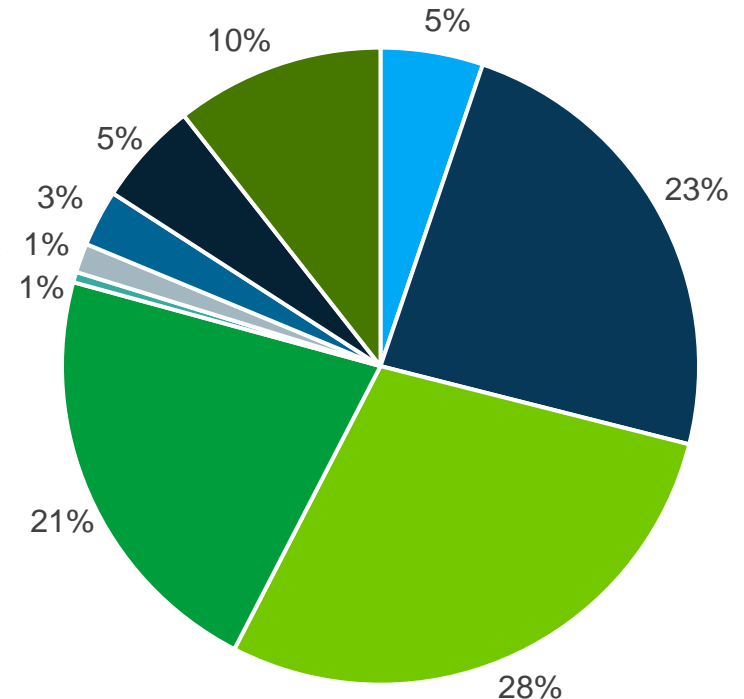
Female

0.8

Average CCI Score

95.0%

Reside in Urban Area



New England

South Atlantic

East South Central

West South Central

Pacific

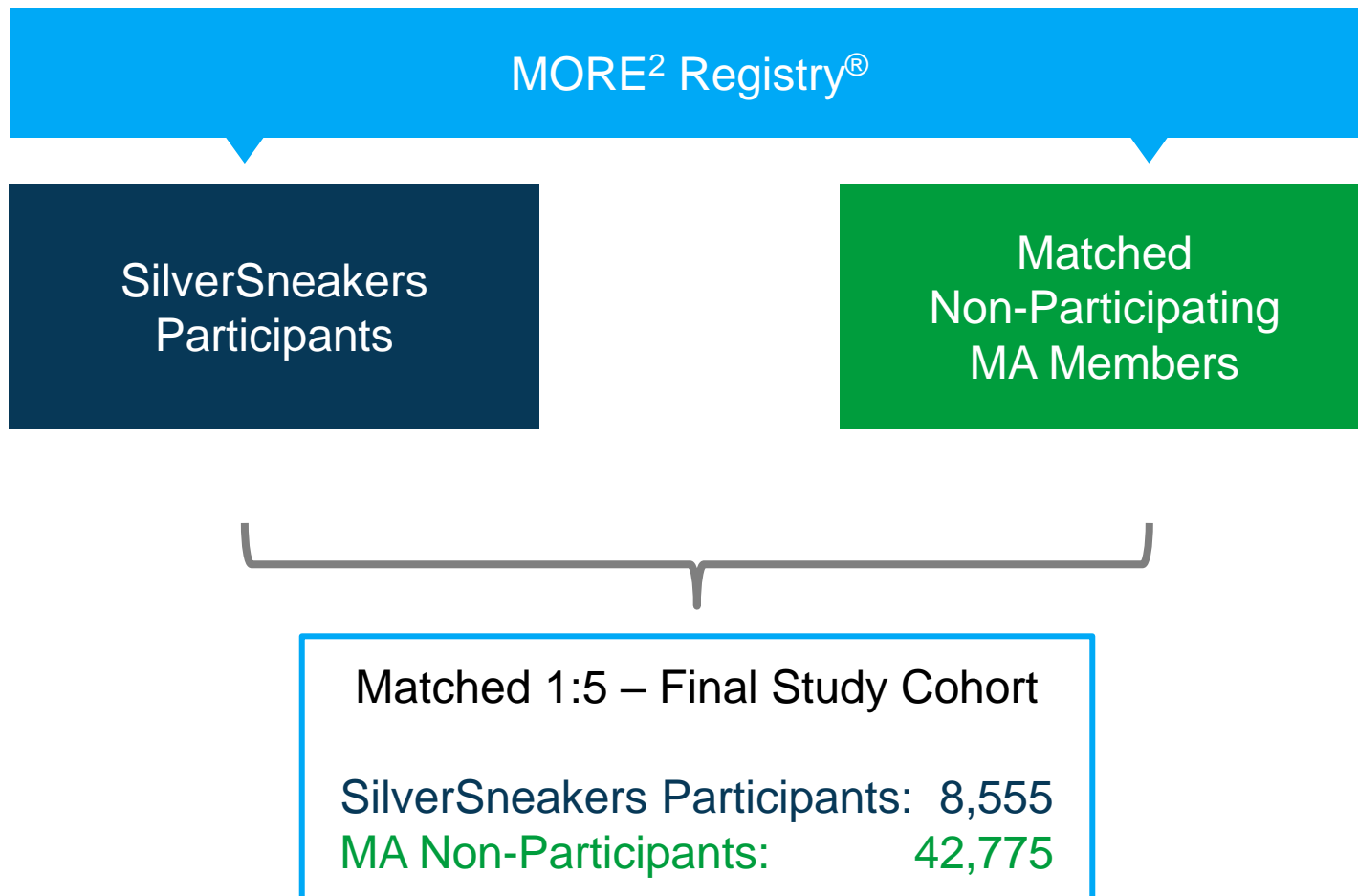
Middle Atlantic

East North Central

West North Central

Mountain

99.2% of SilverSneakers Participants Identified Were Matched 1:5 to Similar Non-Participating MA Patients



72 SilverSneakers participants were not matched to similar non-participating MA patients due to non-overlap among the two groups.
MA: Medicare Advantage

Standardized Differences of All Matching Characteristics Fell Well Below 0.1 Threshold, Indicating Successful Matching

	SilverSneakers Participants	MA Non- Participants	Standardized Differences
Unique Patients	8,555	42,775	
Age, Mean (SD)	67.5 (8.5)	68.1 (8.6)	0.0451
Female	63.6%	63.9%	-0.0074
Race			
White	78.8%	79.5%	-0.0153
Black	10.2%	10.6%	-0.0116
Hispanic	2.5%	2.7%	-0.0122
Other	8.5%	7.3%	0.0434
Region (Top 4)			
South Atlantic	27.5%	27.8%	-0.0058
Middle Atlantic	22.8%	23.0%	-0.0041
East North Central	20.7%	21.8%	-0.0269
Pacific	10.6%	10.2%	0.0142
Urban	94.6%	95.0%	-0.0163
Dual Eligible*, Yes	10.8%	10.8%	0.0012
Original Reason for Entitlement Age	75.3%	75.7%	-0.0097
Charlson Comorbidity Index Score, Mean (SD)	0.8 (1.4)	0.8 (1.4)	-0.0115

*Dual Eligible indicates eligibility for both Medicare and Medicaid
SD: Standard Deviation

Top Chronic Conditions Between SilverSneakers Participants and MA Non-Participants Were Similar

SilverSneakers participants had a similar or higher proportion of each of the top comorbid chronic conditions indicating that, at baseline, SilverSneakers Participants are not a “healthier” population when compared to non-participants

	SilverSneakers Participants	MA Non- Participants
Unique Patients	8,555	42,775
Hypertension	41.4%	41.1%
Hyperlipidemia	39.0%	36.5%
Rheumatoid Arthritis/Osteoarthritis	20.0%	16.0%
Cataract	16.1%	13.5%
Diabetes	14.6%	16.4%
Acquired Hypothyroidism	12.3%	10.4%
Depression	11.6%	9.2%

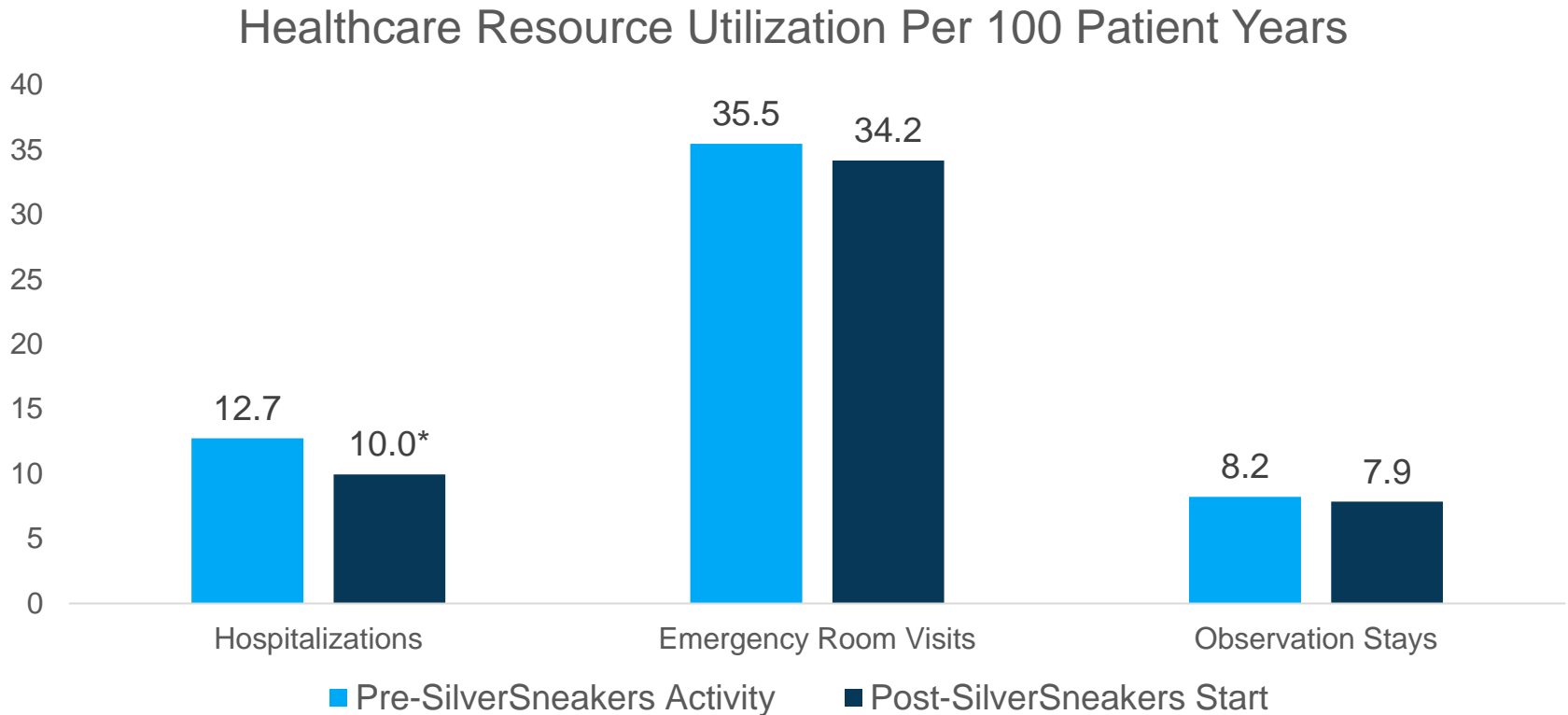
Top Chronic Conditions presented are all conditions with >10% of study population from the CMS Chronic Conditions Warehouse 27 Top Chronic Conditions List

Note: Chronic Conditions were not included in matching between SilverSneakers participants and Non-participants



Pre-/Post-SilverSneakers Participation Comparison

Following Initiation of the SilverSneakers Program, Patients Demonstrated Reduced HRU




The mean number of hospital stays declined significantly pre-/post-SilverSneakers initiation from nearly 13 per 100 patient years to 10 stays. ER visits and observation stays also numerically declined.

HRU: Healthcare Resource Utilization; ER: Emergency Room

*Statistically significant, p-value < 0.001

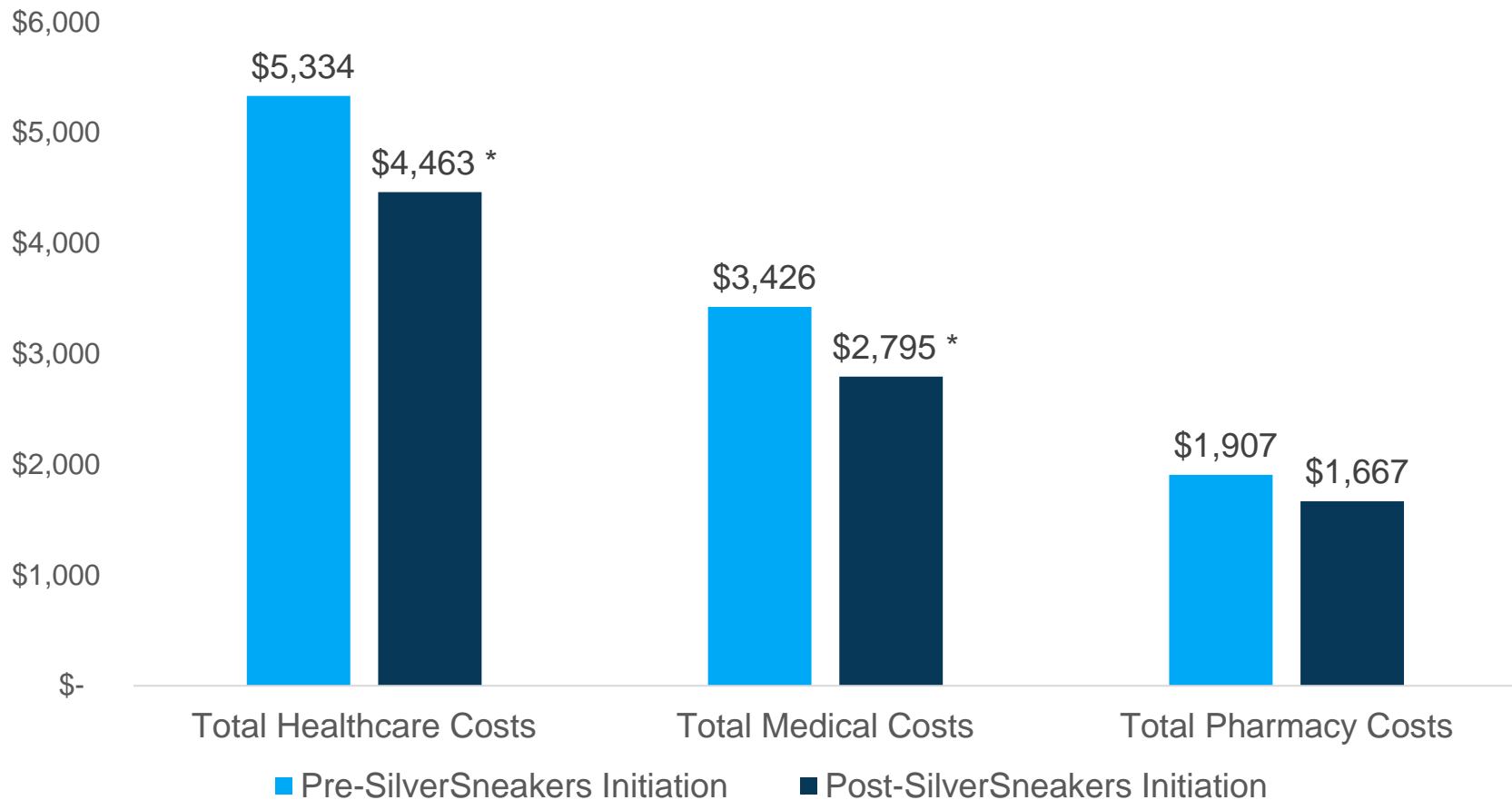
Top 10 Medications Pre-/Post-SilverSneakers Initiation Align with Top Chronic Conditions

Pre-SilverSneakers Initiation			Post- SilverSneakers Initiation	
Rank	Medication	Change	Rank	Medication
1	Fluticasone Propionate Nasal Susp 50 MCG/ACT	Same	1	Fluticasone Propionate Nasal Susp 50 MCG/ACT
2	Azithromycin Tab 250 MG	Same	2	Azithromycin Tab 250 MG
3	Albuterol Sulfate Inhal Aero 108 MCG/ACT (90MCG Base Equiv)	Reduced	3	Glucose Blood Test Strip
4	Glucose Blood Test Strip	Increased	4	Omeprazole Cap Delayed Release 20 MG
5	Omeprazole Cap Delayed Release 20 MG	Increased	5	Amlodipine Besylate Tab 5 MG (Base Equivalent)
6	Simvastatin Tab 20 MG	Reduced	6	Atorvastatin Calcium Tab 20 MG (Base Equivalent)
7	Atorvastatin Calcium Tab 20 MG	Reduced	7	Albuterol Sulfate Inhal Aero 108 MCG/ACT (90MCG Base Equiv)
8	Amlodipine Besylate Tab 5 MG	Increased	8	Amoxicillin (Trihydrate) Cap 500 MG
9	Amoxicillin (Trihydrate) Cap 500 MG	Increased	9	Simvastatin Tab 20 MG
10	Hydrochlorothiazide Tab 25 MG	Reduced	10	Atorvastatin Calcium Tab 40 MG (Base Equivalent)

 **Reduction in patients with rescue inhalers and increase in patients with blood pressure and cholesterol medication suggests patients are better managing chronic conditions following SilverSneakers initiation**

Total Average Healthcare Expenditures Were Significantly Reduced by 16% Following Initiation of SilverSneakers

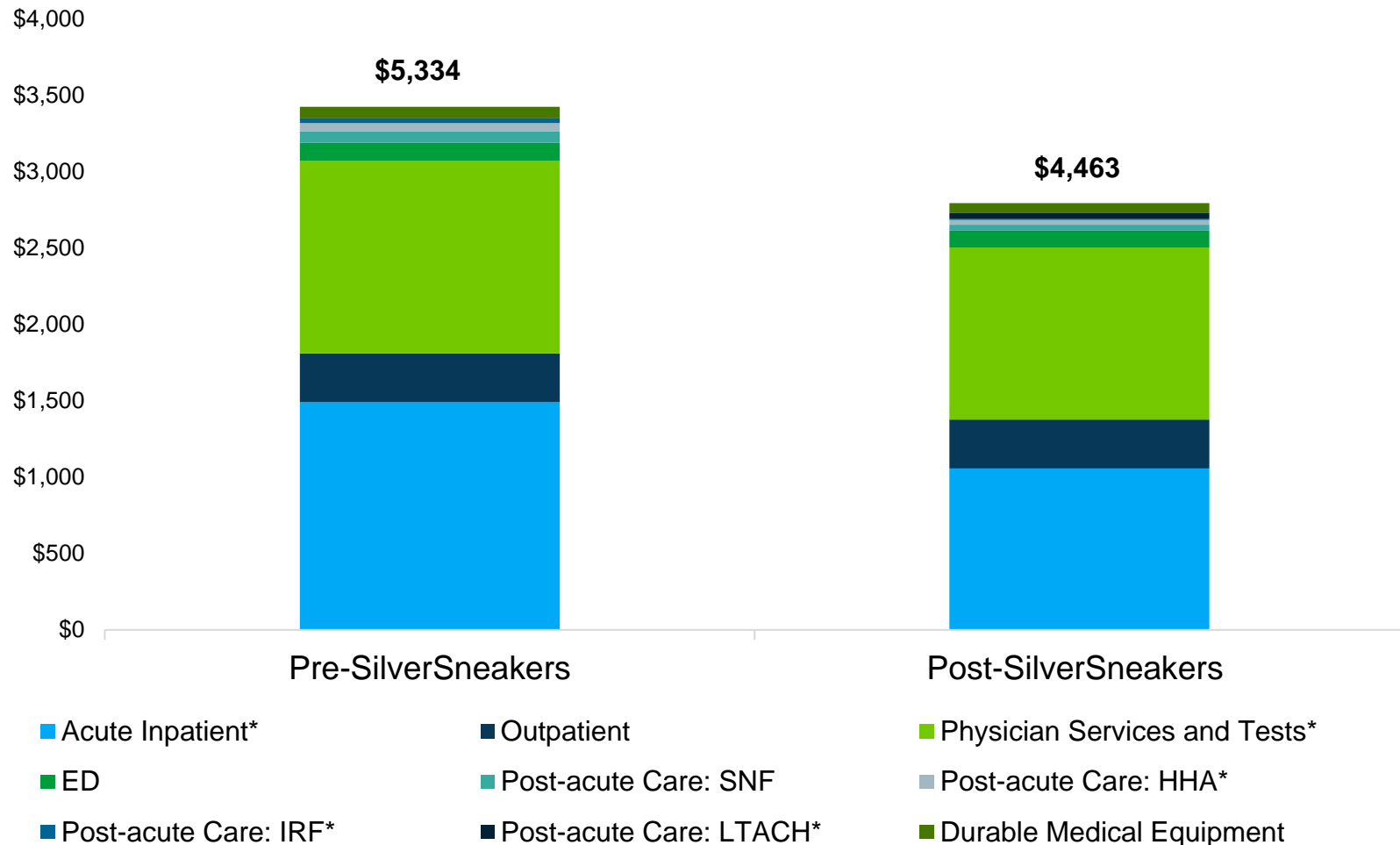
Average Healthcare Expenditures
Pre-/Post-SilverSneakers Initiation



*Statistically significant: total healthcare (medical + pharmacy) p-value = 0.0003; total medical p-value = 0.0005; numerical reduction in total pharmacy costs was not statistically significant.

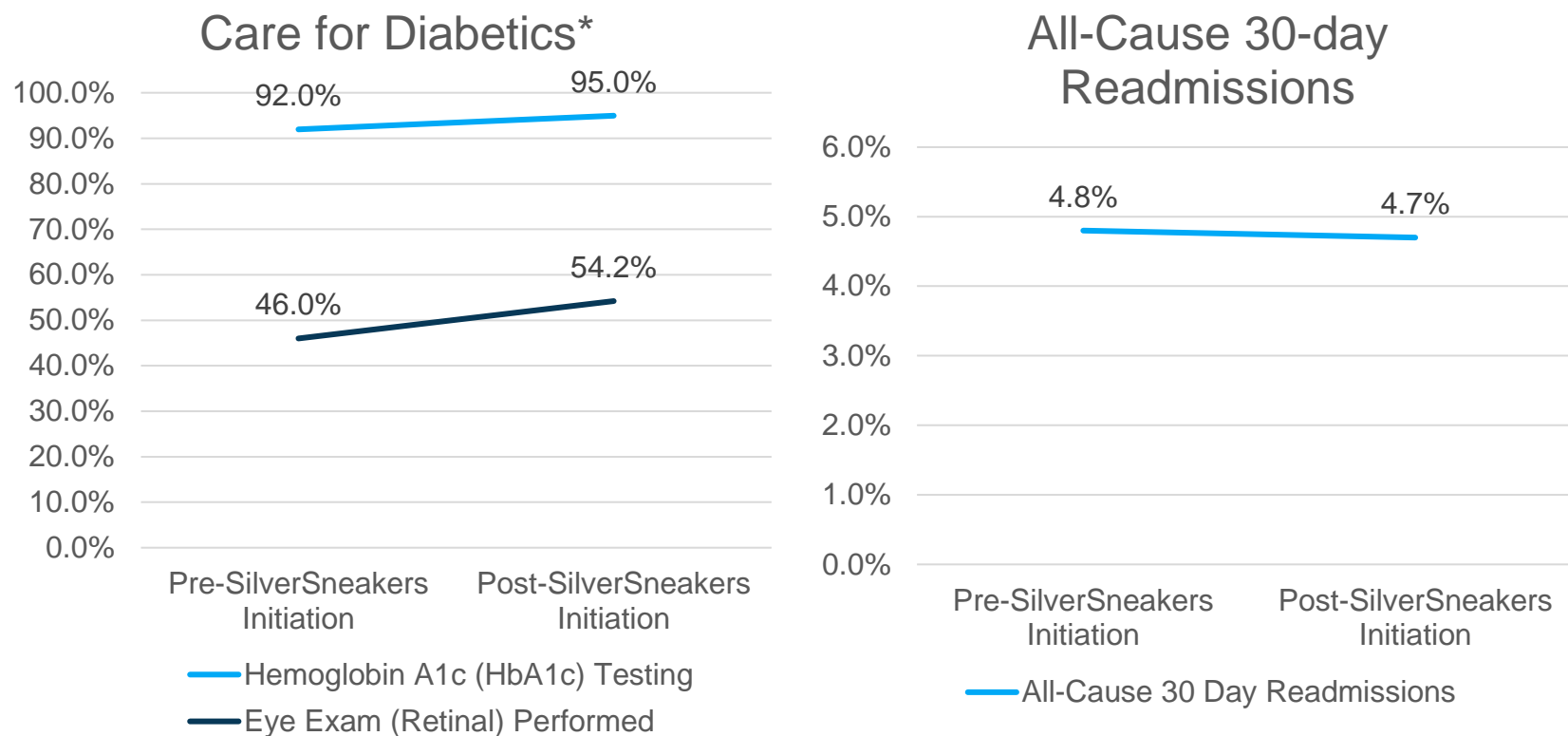
Engagement in SilverSneakers Correlates with Reduced Cost Among Participants

Pre- vs Post-SilverSneakers Total Cost by Expenditure Category



*Statistically significant, p-value <0.05

Improvements in Quality Metrics Were Demonstrated Following Initiation of SilverSneakers

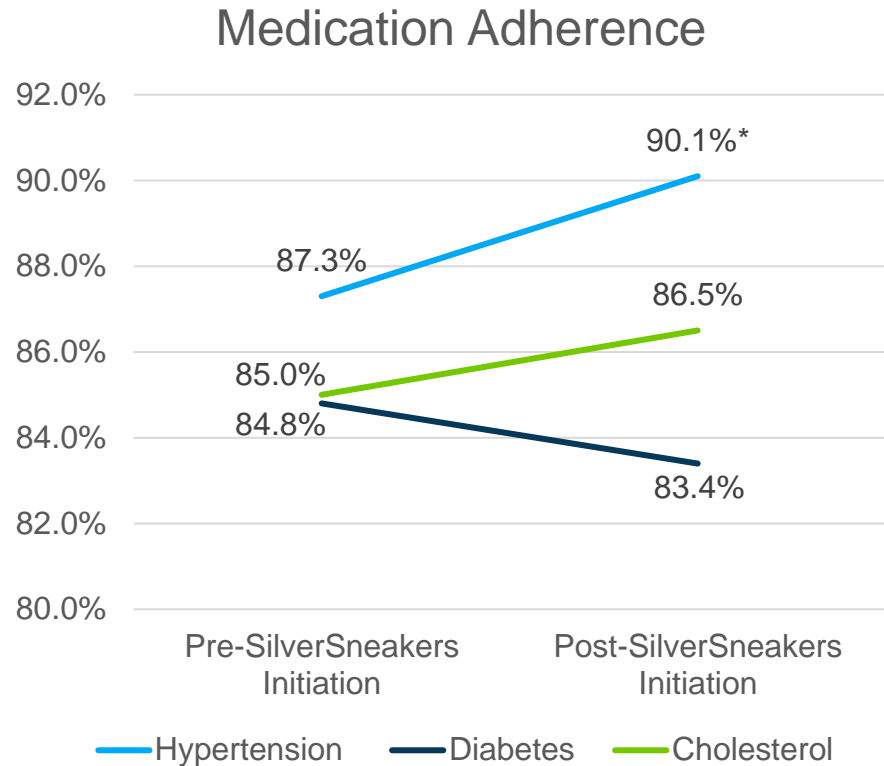


Following initiation of the SilverSneakers program, significant increases were demonstrated in “care for diabetics” metrics. The rate of all-cause 30-day readmissions also numerically decrease, however, the difference was not statistically significant.

*All values statistically significant at p-value < 0.05
Difference in All-cause Readmissions was not statistically significant

SilverSneakers Participants Demonstrated Some Increases in Medication Adherence Following Program Initiation

- There were statistically significant increases in adherence rates for hypertension medications among SilverSneakers participants following initiation of the program.
- Although not statistically significant, improved medication adherence rates were observed among cholesterol medications, and an insignificant decline was seen with adherence to diabetes medications.

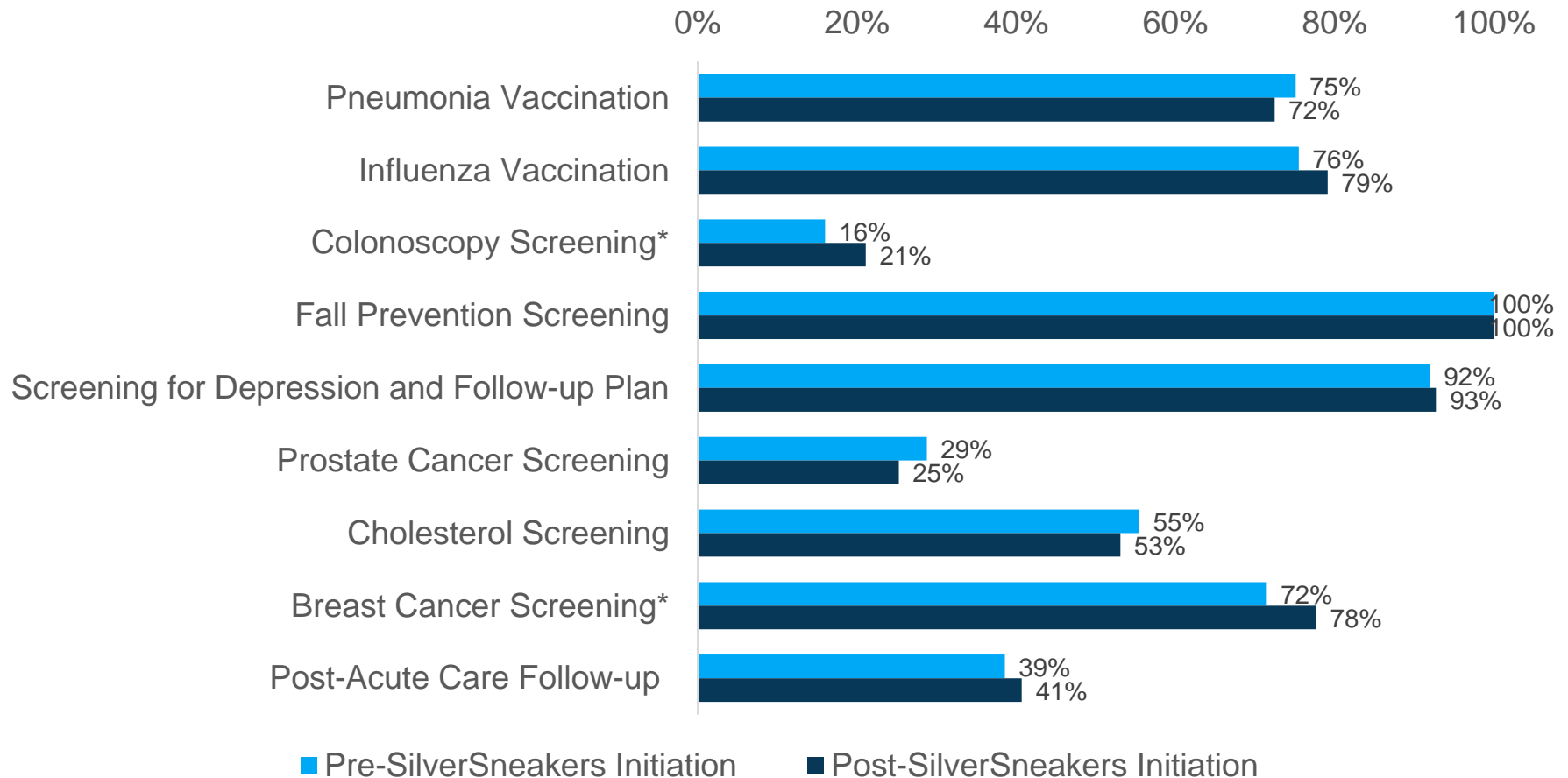


SilverSneakers participants demonstrated a significant increase in hypertension medication adherence following initiation of the program.

*Statistically significant, p-value <0.01

Following SilverSneakers Initiation, Breast Cancer and Colonoscopy Screenings Significantly Improved

SilverSneakers participants performed slightly better on most preventive testing measures, but not all represented statistically significant differences



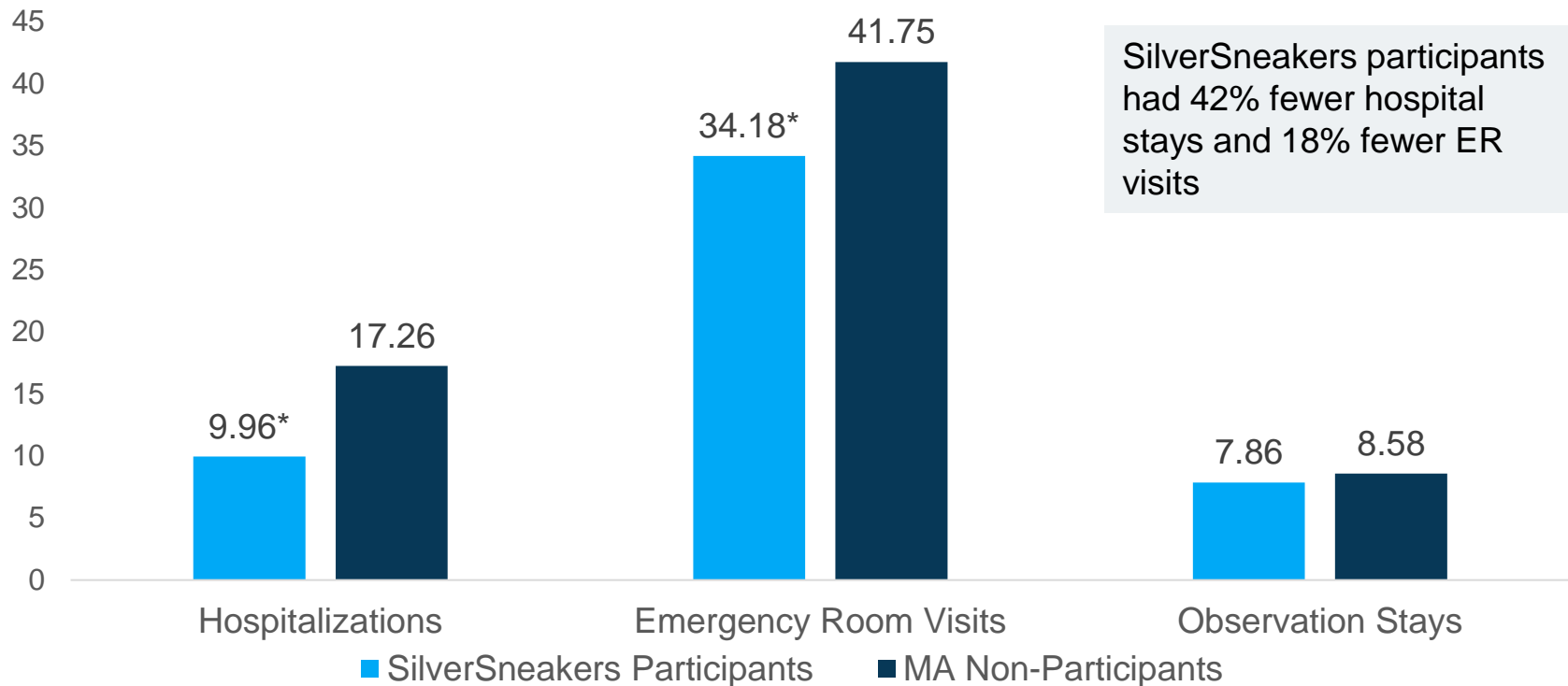
*Statistically significant, p-value <0.0001



Matched Control Group Analysis:
SilverSneakers Participants
Compared to Similar Non-
Participating MA Members

SilverSneakers Participants Had Significantly Reduced HRU Compared to Matched Non-Participating MA Members

Healthcare Resource Utilization Per 100 Patient Years



Length of stay for hospitalizations was also significantly shorter for SilverSneakers participants, 4.4 days (± 3.6) compared to 5.8 days (± 9.5) for MA non-participants (p-value<0.0001)

*Statistically significant, p-values <0.0001;

HRU: Healthcare Resource Utilization; MA: Medicare Advantage

SilverSneakers Participants Had More Outpatient Visits Compared to Matched MA Non-Participants

Decreases in other, more costly, healthcare settings, were accompanied by higher rates of outpatient care

Outpatient care includes clinic and office visits, physician services, tests, and other outpatient hospitalization procedures

713.5

Per 100 Patient Years

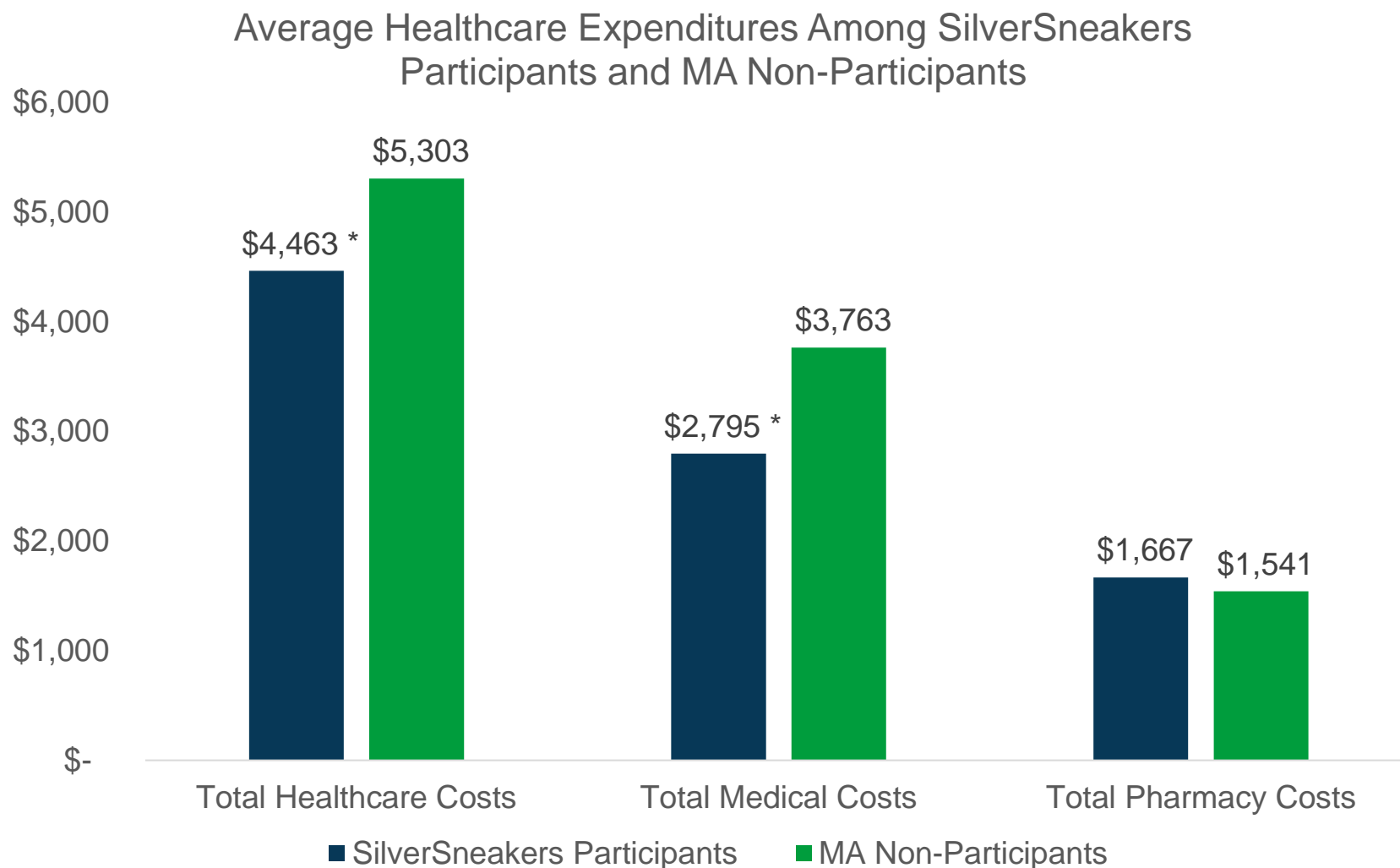
624.5

Per 100 Patient Years

Lower rates of acute healthcare use and increases in outpatient services suggest better management of health among the SilverSneakers participants

MA: Medicare Advantage

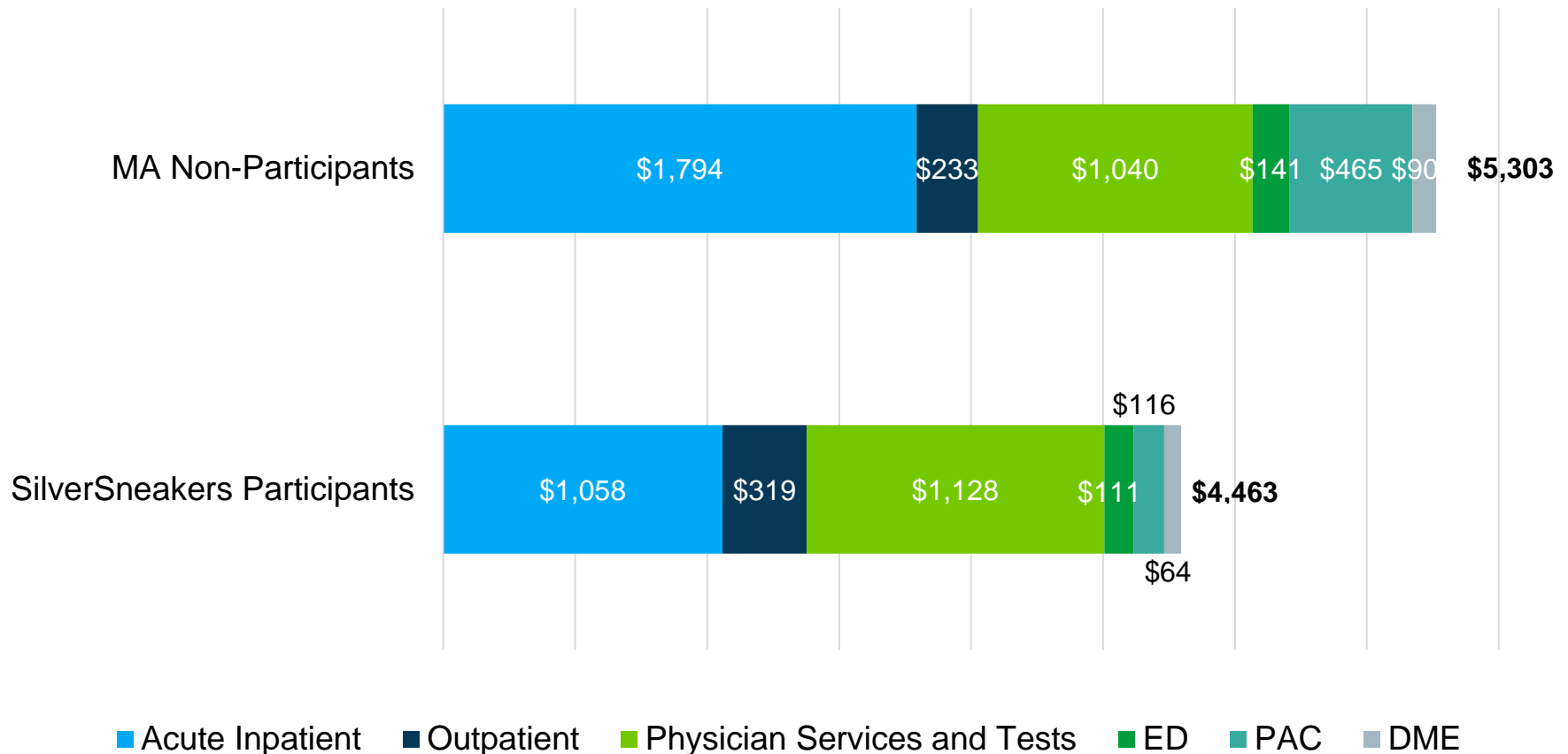
Total Annual Costs Per Member were \$840 Lower (15.8%) Among SilverSneakers Participants Compared to Similar Non-Participants



*Statistically significant: Total healthcare (medical + pharmacy) p-value <0.0001; Total medical p-value <0.0001; Numerical difference in total pharmacy costs was not statistically significant, p-value = 0.3266.

SilverSneakers Participants Had 16% Lower Total Cost of Care Compared to Non-participants

Component Medical Costs, Per Patient Per Year



ED: Emergency Department; PAC: Post-Acute Care, including use of Skilled Nursing Facilities, Home Health Agencies, Inpatient Rehabilitation Facilities, and Long-term Acute Care Hospitals; DME: Durable Medical Equipment

All differences in component costs were statistically significant, except for LTACH costs, a subgroup of PAC.

SilverSneakers Participants Healthcare Costs Are Significantly Different Compared to MA Non-Participants

Healthcare Costs, Annualized Per Patient Per Year			
	SilverSneakers Participants (N=8,555)	MA Non-Participants (N=42,775)	P-Value
	Mean (SD)	Mean (SD)	
Total Healthcare Costs	\$4,463 (\$17,093)	\$5,303 (\$21,414)	<.0001
Total Medical Costs	\$2,795 (\$12,884)	\$3,763 (\$17,576)	<.0001
Total Pharmacy Cost	\$1,667 (\$10,802)	\$1,541 (\$11,424)	0.3266
Component Medical Costs			
Acute Inpatient	\$1,058 (\$8,781)	\$1,794 (\$12,826)	<.0001
Outpatient	\$319 (\$1,514)	\$233 (\$1,165)	<.0001
Physician Services and Tests	\$1,128 (\$2,177)	\$1,040 (\$2,633)	0.0011
Emergency Room	\$111 (\$520)	\$141 (\$695)	<.0001
Post-acute Care: SNF	\$38 (\$1,063)	\$312 (\$5,466)	<.0001
Post-acute Care: HHA	\$31 (\$462)	\$82 (\$898)	<.0001
Post-acute Care: IRF*	\$9 (\$523)	\$56 (\$2,064)	<.0001
Durable Medical Equipment	\$64 (\$435)	\$90 (\$1,393)	0.0018

*Number of SilverSneakers participants with IRF claims is <11; SilverSneakers participants and MA Non-participants with Long Term Acute Care Hospitalization claims are <11 and not included in above table.
MA: Medicare Advantage

MA Non-Participants Demonstrate Increased Costs From Baseline to Follow-Up Period

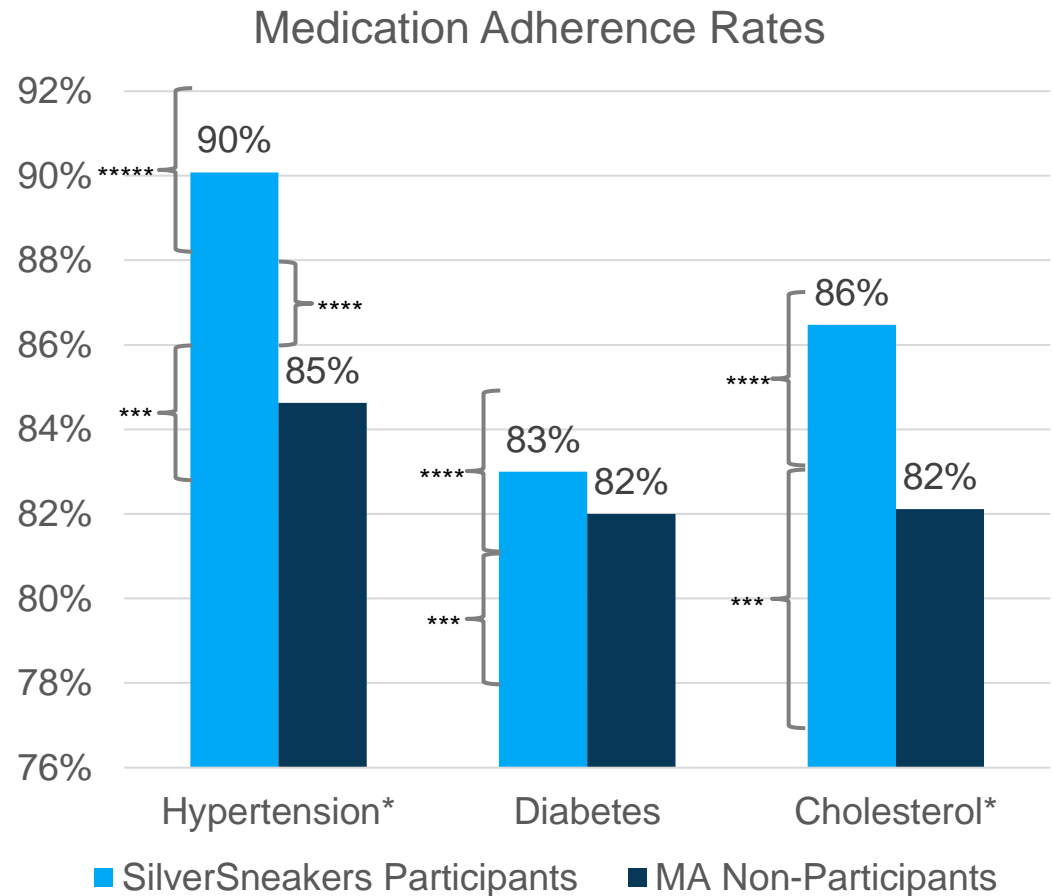
Healthcare Costs, Annualized Per Patient Per Year			
	MA Non-Participants: 6-Month <u>Baseline</u> Period (N=42,775)	MA Non-Participants: 6-Month <u>Follow-up</u> Period (N=42,775)	P-Value
	Mean (SD)	Mean (SD)	
Total Healthcare Costs	\$4,597 (\$18,092)	\$5,303 (\$21,414)	<.0001
Total Medical Costs	\$3,126 (\$14,429)	\$3,763 (\$17,576)	<.0001
Total Pharmacy Cost	\$1,472 (\$10,105)	\$1,541 (\$11,424)	0.3515
Component Medical Costs			
Acute Inpatient	\$1,448 (\$10,838)	\$1,794 (\$12,826)	<.0001
Outpatient	\$224 (\$1,267)	\$233 (\$1,165)	0.2799
Physician Services and Tests	\$964 (\$3,034)	\$1,040 (\$2,633)	<.0001
Emergency Room	\$120 (\$580)	\$141 (\$695)	<.0001
Post-acute Care: SNF	\$173 (\$3,494)	\$312 (\$5,466)	<.0001
Post-acute Care: HHA	\$67 (\$813)	\$82 (\$898)	0.0096
Durable Medical Equipment	\$85 (\$1,044)	\$90 (\$1,393)	0.5760

*Number of non-participants with Inpatient Rehab Facility and Long-term Acute Care Hospitalization claims during the baseline period is <11 and not included in above table.

MA: Medicare Advantage; SNF: Skilled Nursing Facility; HHA: Home Health Agency

SilverSneakers Participants Demonstrate Significantly Better Performance on Quality Metrics Compared to Other MA Non-participants

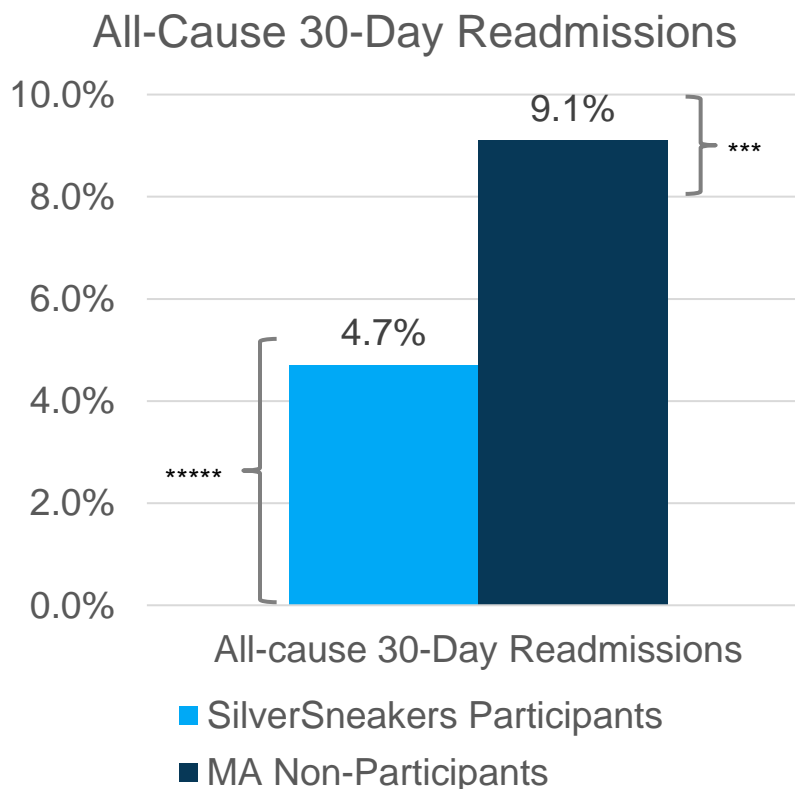
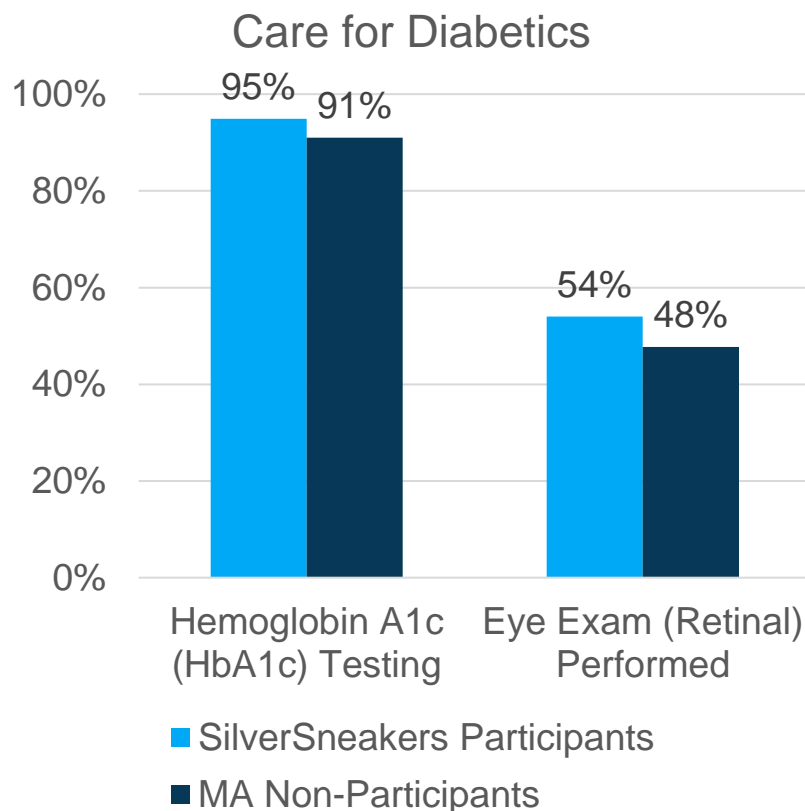
- SilverSneakers participants had significantly better adherence rates for hypertension and cholesterol compared to the matched control group
- Medication Adherence measures are triple weighted in the MA Star Rating System



The Star rating is higher for Hypertension (5* vs 3*) and Cholesterol (4* vs. 3*) in SilverSneakers participants compared to non-participants

* = statistically significant at $p < 0.001$
MAPD cut points: 3 Star=***, 4 Star=****, 5 Star=*****

SilverSneakers Participants Demonstrate Better Performance on Care for Diabetics and Readmissions Compared to Other MA Non-participants

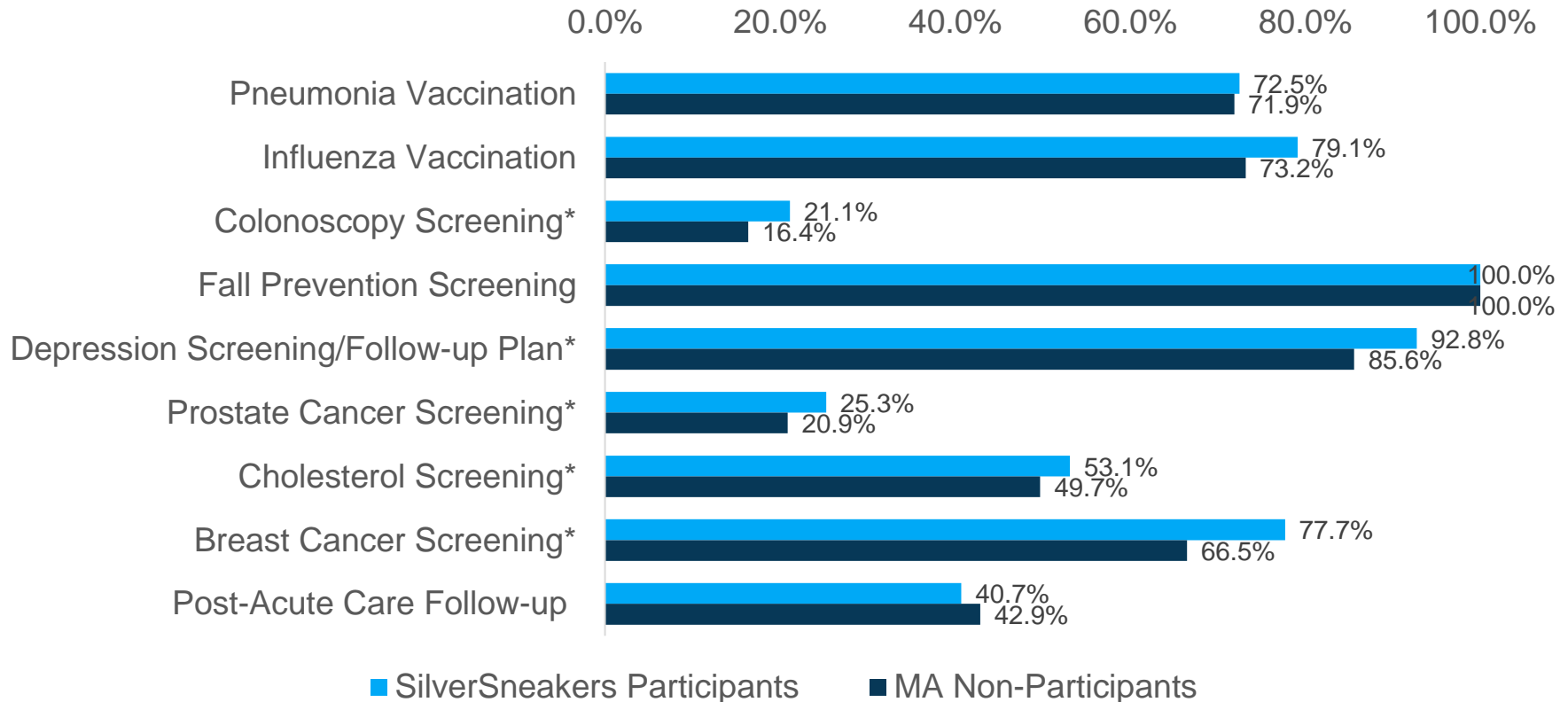


All-cause readmissions are a triple weighted measure in the MA Five Star Rating System. SilverSneakers Participants demonstrate significantly better performance in the readmissions measure (4.7%, or 5*) compared to other MA non-participants (9.1%, or 3*).

*All measures statistically significant, p-values < 0.01

SilverSneakers Participants have Higher Rates of Preventive Services Compared to Matched MA Members

Quality Measures: Preventive Testing



 **Note that though influenza vaccination is not statistically significant, the difference in rates does represent a difference in Five Star Rating (79.1% = 5* and 73.2 = 3* based on 2019 MAPD cut points)**

*Statistically significant, p-value < 0.05

Healthcare Costs Differ Among MA SilverSneakers Participants and Non-Participants By Age Group

- SilverSneakers members had significantly lower medical costs across all age groups including 49% lower costs in 80+ age group, driven largely by lower inpatient costs.
- SilverSneakers members had significantly lower inpatient costs in the disabled under age 65 group, but 67% higher outpatient and 22% higher physician services costs.

Healthcare Costs*, Annualized Per Patient Per Year, By Age Category											
Number (N)	Age <65				Age 65-79				Age 80+		
	SS (1,400)	Non-SS (6,620)	Ratio		SS (6,856)	Non-SS (33,948)	Ratio		SS (299)	Non-SS (2,207)	Ratio
	Mean	Mean			Mean	Mean			Mean	Mean	
Total Costs	\$8,691	\$9,363	0.93		\$3,645	\$4,422	0.82		\$3,409	\$6,692	0.51
Total Medical	\$4,646	\$6,058	0.77		\$2,442	\$3,213	0.76		\$2,236	\$5,337	0.42
Total Drug	\$4,045	\$3,304	1.22		\$1,203	\$1,209	1.00		\$1,173	\$1,356	0.87
Medical Components											
Acute Inpatient	\$1,872	\$3,219	0.58		\$907	\$1,476	0.61		\$690	\$2,410	0.29
Outpatient	\$516	\$309	1.67		\$283	\$217	1.30		\$227	\$255	0.89
Physician Services	\$1,667	\$1,362	1.22		\$1,015	\$960	1.06		\$1,188	\$1,310	0.91
Emergency Room	\$321	\$341	0.94		\$69	\$100	0.69		\$84	\$169	0.50

*Mean costs presented

BOLD indicates statistical significance, with p-value <0.05

Healthcare Costs Differ Among MA SilverSneakers Participants and Non-Participants by Reason for Medicare Eligibility

- SilverSneakers members had significantly lower medical costs for Medicare beneficiaries with disability, driven by 43% lower inpatient costs (which offset higher outpatient and physician costs).
- SilverSneakers members had 18% lower costs overall for beneficiaries who qualified for Medicare based on age, and 26% lower medical costs compared to similar non-participants in MA.

Healthcare Costs, Annualized Per Patient Per Year, By Original Reason for Medicare Entitlement Category						
Number (N)	Disability and/or ESRD			Age 65		
	SS (1,799)	Non-SS (8,987)	Ratio	SS (6,856)	Non-SS (32,383)	Ratio
	Mean	Mean		Mean	Mean	
Total Costs	\$8,443	\$9,346	0.90	\$3,645	\$4,422	0.82
Total Medical	\$4,719	\$6,176	0.76	\$2,307	\$3,123	0.74
Total Pharmacy	\$3,724	\$3,170	1.17	\$1,108	\$1,084	1.02
Medical Components						
Acute Inpatient	\$1,830	\$3,206	0.57	\$864	\$1,403	0.62
Outpatient	\$480	\$299	1.61	\$278	\$220	1.26
Physician Services	\$1,665	\$1,374	1.21	\$996	\$954	1.04
Emergency Room	\$281	\$312	0.90	\$63	\$94	0.67

BOLD indicates statistical significance, with p-value <0.05
ESRD: End-stage Renal Disease

Healthcare Costs Differ Among MA SilverSneakers Participants and Non-Participants by Dual Eligibility Status

- SilverSneakers members had similar total costs for dual eligible members compared to duals not in the program but had 42% lower inpatient costs among these patients.
- SilverSneakers members also had significantly lower total costs among non-dual eligible members participating in the program, driven by lower inpatient costs.

Healthcare Costs, Annualized Per Patient Per Year, By Dual Eligibility Status						
Number (N)	Dual Eligible			Non-dual Eligible		
	SS (926)	Non-SS (4,614)	Ratio	SS (7,242)	Non-SS (36,408)	Ratio
	Mean	Mean		Mean	Mean	
Total Costs	\$10,605	\$10,187	1.04	\$3,736	\$4,654	0.80
Total Medical	\$5,257	\$7,029	0.75	\$2,541	\$4,443	0.57
Total Pharmacy	\$5,348	\$3,158	1.69	\$1,195	\$1,320	0.91
Medical Components						
Acute Inpatient	\$2,104	\$3,651	0.58	\$954	\$1,512	0.63
Outpatient	\$546	\$274	1.99	\$293	\$233	1.26
Physician Services	\$1,693	\$1,323	1.28	\$1,077	\$1,010	1.07
Emergency Room	\$362	\$390	0.93	\$79	\$110	0.72

BOLD indicates statistical significance, with p-value <0.05

Healthcare Costs Differ Among MA SilverSneakers Participants and Non-participants by Number of Chronic Conditions

- SilverSneakers members had significantly lower total costs among Medicare beneficiaries with 3 or more chronic conditions, driven largely by lower inpatient costs.
- SilverSneakers members had 24% lower medical costs for Medicare beneficiaries with 1-2 chronic conditions, again driven by lower inpatient costs.

Healthcare Costs, Annualized Per Patient Per Year, By Number of Chronic Conditions									
Number (N)	Chronic Conditions = 0			Chronic Conditions = 1-2			Chronic Conditions = 3+		
	SS (2,554)	Non-SS (15,170)	Ratio	SS (2,673)	Non-SS (11,741)	Ratio	SS (3,328)	Non-SS (15,864)	Ratio
	Mean	Mean		Mean	Mean		Mean		
Total Costs	\$1,346	\$1,453	0.93	\$4,234	\$4,779	0.89	\$7,038	\$9,373	0.75
Total Medical	\$844	\$1,000	0.84	\$2,398	\$3,175	0.76	\$4,612	\$6,840	0.67
Total Drug	\$502	\$453	1.11	\$1,837	\$1,605	1.14	\$2,425	\$2,533	0.96
Medical Components									
Acute Inpatient	\$269	\$515	0.52	\$799	\$1,471	0.54	\$1,871	\$3,256	0.57
Outpatient	\$111	\$69	1.61	\$303	\$243	1.25	\$492	\$384	1.28
Physician Services	\$380	\$301	1.26	\$1,113	\$1,047	1.06	\$1,713	\$1,741	0.98
Emergency Room	\$37	\$44	0.84	\$90	\$126	0.71	\$184	\$245	0.75

BOLD indicates statistical significance, with p-value <0.05

CCW: Chronic Condition Data Warehouse, Centers for Medicare and Medicaid Services (CMS)

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