

**Final Report to Florida Agency for Health Care  
Administration and CMS**



Project Leader: Dillon Brooks

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Phone Number: 309-877-0647

CMP Request Number: 2019-04-FL-0701

Program Name:	Reducing Falls with AI; Proactive Approach to Mobility Improvement and Fall Prevention
Project Start Date and End Date:	08/01/20 - 07/31/23
[Contract/Agreement] Number:	2019-04-FL-0701
Location of Project:	Florida
Reporting Period:	08/01/2020 - 07/31/2023

1. Ayers Health and Rehabilitation Center, Trenton, FL

**Total Beds** - 120 **Administrator** - Joanna Buckles **CMS ID** - 105401

**DON:** Amber Philmon

**Project Facilitator:** Sherry Landers

**Medical Director:** Sherry Landers

**Notified:** Mar 9th, 2020

2. Plaza Health and Rehab, Gainesville, FL

**Total Beds** - 180 **Administrator** - Charylon Hicks **CMS ID** - 105434

**DON:** Randall Vargas

**Project Facilitator:** Shannon Dubose

**Medical Director:** Regina Witt

**Notified:** Feb 25th, 2021

3. Courtenay Springs Village, Merritt Island, FL

**Total Beds** - 96 **Administrator** - Jose Arroyo **CMS ID** - 105463

**DON:** Rosemarie Perri

**Project Facilitator:** Dawn Tucker

**Medical Director:** Dawn Tucker

**Notified:** Mar 12th 2020

4. The Glenview at Pelican Bay, Naples, FL

**Total Beds** - 42, **Administrator** - Patrick Noonan **CMS ID** - 105856

**DON:** Juan Ricardo and Yare Traviezo-Baez

**Project Facilitator:** Cindy Babb

**Medical Director:** Cindy Babb

**Notified:** Mar 10th, 2020

5. Miami Jewish Health, Miami, FL

**Total Beds - 412 Administrator -** Jason Pincus **CMS ID - 105030**

**DON:** Stephanie Cosden

**Project Facilitator:** Osvaldo Medina

**Medical Director:** Osvaldo Medina

**Notified:** Mar 9th, 2020

6. Pines of Sarasota, Sarasota, FL

**Total Beds - 204 Administrator -** Melanie Manney **CMS ID - 105147**

**DON:** Open Position

**Project Facilitator:** Jennifer Weinstein

**Medical Director:** Jennifer Weinsten

**Notified:** Mar 11th, 2020

7. Suwannee Valley Nursing Center, Jasper, FL

**Total Beds - 60 Administrator -** Danny Williamson **CMS ID - 105825**

**DON:** Rachel Rodgers

**Project Facilitator:** Robyn Allen

**Medical Director:** April Tharp

**Notified:** Mar 23rd, 2021

8. Stratford Court of Boca Pointe, Boca Raton, FL

**Total Beds - 60 Administrator -** Janet Hansen **CMS ID - 105851**

**DON:** Elaine Daniels

**Project Facilitator:** Adriana Genung

**Medical Director:** Adriana Genung

**Notified:** Mar 10th, 2020

9. Westminster Towers, Orlando, FL

**Total Beds** - 120 **Administrator** – Mark Niemeyer **CMS ID** - 105757

**DON:** Melissa Dubon

**Project Facilitator:** Shaquita Martin

**Medical Director:** Shaquita Martin

**Notified:** Mar 12th, 2020

10. Westminster Woods on Julington Creek, Jacksonville, FL

**Total Beds** - 60 **Administrator** – Elizabeth Sholar **CMS ID** - 105901

**DON:** Kim Pagana

**Project Facilitator:** Anne McCoy

**Medical Director:** Anne McCoy

**Notified:** Mar 13th, 2020

## 1.1 Number of Residents that Participated

For the entirety of the project, we had a total of 841 SNF patients participate in the project. This includes both patients who were screened through the assessments on VSTBalance and patients who participated in the Bio-feedback trainings. For the patients who were screened on the system using the assessments, we had a total of 596 patients who care teams were able to collect mobility data on and use that data to create more personalized plans of care. Out of these 596 patients, there were a total of 195 patients who were screened at least twice, which allows care teams to get outcome data on how their new plans of care were helping the patients to improve. Following is the total number of patients who participated in the screenings broken down by each facility.

1. **Ayers Health and Rehabilitation** – 93 patients screened and 45 were screened at least twice
2. **The Plaza Health and Rehabilitation Center** – 12 patients screened and 3 were screened at least twice
3. **Courtenay Springs Village** - 19 patients screened and 7 were screened at least twice
4. **Glenview of Pelican Bay** - 98 patients screened and 15 were screened at least twice
5. **Miami Jewish Health, Inc.** - 13 patients screened, and 1 were screened a second time
6. **Pines of Sarasota** - 4 patients screened, and 1 were screened a second time
7. **Suwannee Valley Nursing Center** – 3 patients screened and 1 were screened at least twice
8. **Stratford Court of Boca Pointe** – 47 patients screened and 14 were screened at least twice
9. **Westminster Towers of Orlando** – 168 patients screened and 63 of those were screened at least twice
10. **Westminster Woods on Julington Creek**- 139 patients screened and 45 of them were screened at least twice

As for the Bio-feedback training games, we had a total of 351 patients participate in the games throughout the entirety of the project. The list of patients who participated in the bio-feedback training games is as follows:

1. Nancy S.	118.	Dorothy S.	235.	Parthenia M
2. Virginia C.	119.	Virgina L.	236.	Celia B.
3. Donna M.	120.	William S.	237.	Melody R.
4. Vera B.	121.	Christie C.	238.	Lynn S.
5. Edna P.	122.	Louis I.	239.	Dori S.
6. Tommie B.	123.	Marina C.	240.	Rose C.
7. Helen R.	124.	Marie S.	241.	Robert V.
8. Barbra M.	125.	Barbara P.	242.	Modesto F.
9. Jo C.	126.	Rose O.	243.	Harriet C.
10. Nancy P.	127.	Marlanea M.	244.	Karen G.
11. Virginia W.	128.	John B.	245.	Lamar M.
12. Jane H.	129.	Paulo O.	246.	Mildred L.
13. Sandy M.	130.	Christine C.	247.	Georgia F.
14. Pamela T.	131.	Jacquelin C.	248.	Lucy R.
15. Claude R.	132.	James K.	249.	Steven B.
16. Nancy M.	133.	Frederick S.	250.	Lawrence K.
17. Elizabeth C.	134.	Richard A.	251.	Ruth D.
18. Robert R.	135.	Richard M.	252.	MaryAnn M.
19. Barbra C.	136.	Dolores E.	253.	Marion V.
20. Joe G.	137.	Ramona M.	254.	Leah S.
21. Edward B.	138.	Patricia R.	255.	Oretha M.
22. Farrel K.	139.	Lynndel H.	256.	Marcia S.
23. Rose B.	140.	Lois L.	257.	Eileen G.
24. Frances B.	141.	Miriam V.	258.	Karl P.
25. Herber S.	142.	Betty H.	259.	Pearl E.
26. Marion S.	143.	Williams B.	260.	Theodore S.
27. Leonard D.	144.	Mary G.	261.	Ilene W.

28. Jane S.	145.	Lola D.	262.	Brant C.
29. Sean M.	146.	Virgina S.	263.	Mary M.
30. John S.	147.	Kenneth V.	264.	Patricia D.
31. Shirley B.	148.	Jack B.	265.	Cheryl H.
32. Nancy K.	149.	Beach C.	266.	Joan M.
33. Nancy E.	150.	Sandra M.	267.	Mary A.
34. Diana W.	151.	Roy B.	268.	Virginia H.
35. Retha E.	152.	Theresa R.	269.	Annette M.
36. Donald K.	153.	Glen H.	270.	James D.
37. David G.	154.	Jo P.	271.	Mildred K.
38. Jovan Z.	155.	Van H.	272.	Charles D.
39. Magdalene B.	156.	George K.	273.	Fran S.
40. Jeanette B.	157.	John F.	274.	Marlene R.
41. Corrie P.	158.	Nancy W.	275.	Joe D.
42. Judith H.	159.	Johnie A.	276.	John R.
43. Lazaro P.	160.	Francile S.	277.	Reiderer D.
44. Flora P>	161.	Stallings W.	278.	Josefina E.
45. Doreene B.	162.	Todd N.	279.	Barbara K.
46. Nedra T.	163.	Mary W.	280.	Sophia T.
47. Dorothy H.	164.	Rena S.	281.	Gerry G.
48. Clarence K.	165.	James H.	282.	Sirley A.
49. Mary K.	166.	Joyce H.	283.	Linda R.
50. Steve P.	167.	Jane R.	284.	Linda P.
51. Michael D.	168.	Martha T.	285.	Beverly J.
52. Reba M.	169.	Joanne M.	286.	Rosalyn R.
53. Joye K.	170.	Karen P.	287.	Pauline R.
54. Marie Q.	171.	Millicent M.	288.	Robin W.
55. Renee D.	172.	Brenda A.	289.	Janet N.
56. Richard S.	173.	Sandra O.	290.	Charlene S.
57. Annette S.	174.	Dietrich A.	291.	Linda M.
58. Ruby W.	175.	Katherine G.	292.	Queen S.
59. Frances S.	176.	William D.	293.	Diana C.
60. Beverly C.	177.	Nancy D.	294.	Irma T.
61. Ruth V.	178.	Carolyn C.	295.	Ana P.
62. Janet H.	179.	Robert Y.	296.	Dorothy M.
63. Kathleen M.	180.	Lydia P.	297.	Betty S.
64. Alva M.	181.	Betty R.	298.	Garcia J.
65. Adela R.	182.	Brenda G.	299.	Susan P.
66. Gloria B.	183.	Kathryn G.	300.	Donald L.
67. Sue T.	184.	Richard B.	301.	Fonzie G.
68. Geoffery K.	185.	Rosaura R.	302.	Afsarelmolook S.
69. Diana F.	186.	Phoebe S.	303.	Alic J.
70. Thomas C.	187.	Nancy Z.	304.	Patricia S.
71. Robert S.	188.	Nati D.	305.	Marilyn S.
72. Lynn K.	189.	Casey C.	306.	Jacqueline R.
73. Jennie L.	190.	Opal A.	307.	Alice J.
74. Shirley G.	191.	Frankie R.	308.	Hudson I.
75. Marylin S.	192.	Jimmy A.	309.	William R.
76. Georgina K.	193.	Frances D.	310.	Humphreys L.
77. Gloria C.	194.	Margarita R.	311.	Robert G.
78. Ralph H.	195.	Patricia G.	312.	Vonna H.

79. Bob J.	196.	Harriett B.	313.	Pinkie F.
80. Marjorie H.	197.	Aldena P.	314.	Mark Y.
81. Joann W.	198.	April S.	315.	Marvin F.
82. Linda W.	199.	Cliford L.	316.	Irene M.
83. Carol R.	200.	Donna B.	317.	Bariele D.
84. Carol D.	201.	Walter F.	318.	Yvonne M.
85. Juanaita F.	202.	Juanita F.	319.	Margie S.
86. Harriet L.	203.	Andrea P.	320.	Don S.
87. Kathleen E.	204.	Audrey S.	321.	Christine W.
88. Audrey C.	205.	William E.	322.	Ernestina S.
89. Charles B.	206.	Terry G.	323.	Glenwood B.
90. Leonidas K.	207.	Nam N.	324.	Daniel P.
91. Gisela D.	208.	Ida A.	325.	Emily I.
92. Mary J.	209.	Trudi S.	326.	Sanford S.
93. Alan W.	210.	Howard C.	327.	Charles R.
94. Claire C.	211.	Ann T.	328.	Nina J.
95. Lisa R.	212.	Janis I.	329.	Donna E.
96. Dennis P.	213.	Donald S.	330.	Michael H.
97. Norma W.	214.	Edward G.	331.	James N.
98. Alice H.	215.	Julia D.	332.	Janet S.
99. William L.	216.	Richard K.	333.	Alan d.
100. Nada C.	217.	Silvana R.	334.	Rogers N.
101. Carol M.	218.	Mildred T.	335.	Karen D.
102. Gatley P.	219.	Barbara C.	336.	Barbara F.
103. James F.	220.	Martha W.	337.	Gayl M.
104. Linder S.	221.	Amelia A.	338.	Wendy F.
105. Dustin H.	222.	Kathrne O.	339.	Mitchelle F.
106. Jess F.	223.	Romona O.	340.	Mary N.
107. Earl M.	224.	Robert W.	341.	Denalu s.
108. Emily H.	225.	Georgina M.	342.	Mary D.
109. Raul A.	226.	Kathleen R.	343.	David N.
110. Earlene C.	227.	Mercedes M.	344.	Carolyn H.
111. Edward S.	228.	Patricia B.	345.	Sharon O.
112. Doris F.	229.	Barbara S.	346.	Floyd H.
113. Majorie H.	230.	Alin D.	347.	Valerie G.
114. Joseph P.	231.	Norene A.	348.	Catie C.
115. Shirley H.	232.	Blanche D.	349.	Mittie K.
116. Kathryn L.	233.	Greg T.	350.	Leanne B.
117. Margaret P.	234.	Sonia P.	351.	Martha C.

## 1.2 Project Metrics

Project Outcomes Measures – 10% reduction in the score for MDS item I3900 (Hip Fractures).	Baseline FY 2019/20	Annual Target	Y1 FY 2021	Y2 FY 2022	Y3 FY 2023	Annual Performance (%)	On Target  Y/N
Ayers	2 -I3900 3 -J1900C	2 -I3900 3 -J1900C	33 - I3900 5 - Hip Fx	32 - I3900 2 – J1900C	25 – I3900 1 – J1900C	-1150% -I3900 66%-J1900C	No Yes
The Plaza	22 -I3900 3 -J1900C	20 -I3900 3 -J1900C	29 - I3900 3 – J1900C	44 - I3900 6 – J1900C	22 – I3900 0 – J1900C	-200% -I3900 100% -J1900C	No Yes
Courtenay Springs	30 – I3900 1 -J1900C	27 -I3900 1 – J1900C	30 - I3900 4 - Hip Fx	15 - I3900 0 – J1900C	N/A	N/A	No
Glenview	2 -I3900 3 -J1900C	2 -I3900 3 -J1900C	31 - I3900 4 – J1900C	25 - I3900 7 – J1900C	15 – I3900 2 – J1900C	-650% -I3900 33%-J1900C	No Yes
Miami Jewish	2 -I3900 2 -Hip Fx	2 -I3900 2 -Hip Fx	54 - I3900 6 – J1900C	59 - I3900 5 – J1900C	30 – I3900 3 – J1900C	-1400% -I3900 -50%-J1900C	No No
Pines of Sarasota	13 – J1900C	12 – J1900C	9 - I3900 11 – J1900C	0 - I3900 6 – J1900C	4 – J1900C	69.23%-J1900C	Yes
Suwannee Valley Nursing	1 -I3900 1 – Hip Fx	1 -I3900 1 – Hip Fx	1 - I3900 0 - Hip Fx	N/A	N/A	N/A	No
Stratford Court	2 -I3900 2 -J1900C	2 -I3900 2 -J1900C	19 - I3900 1 – J1900C	18 - I3900 2 – J1900C	4 – I3900 0 – J1900C	-100% -I3900 100% -J1900C	No Yes
Westminster Towers	2 – Hip Fx	2 –Hip Fx	1 - Hip Fx	0 - Hip Fx	0 – Hip Fx	100% -Hip Fx	Yes
Westminster Woods	2 – Hip Fx	2 -Hip Fx	0 - Hip Fx	1 - Hip Fx	1 – Hip Fx	50% - Hip Fx	Yes



Project Outcome Measures – 10% reduction in falls and a 10% reduction in falls with injury. This improvement would correlate to a 10% reduction in score for MDS items J1800, J1900 (Any Falls Since Admission/Entry or Reentry or Prior Assessment, whichever is more recent).	Baseline FY 2019/20	Annual Target	Total Falls Numbers for Year One	Total Falls Numbers for Year Two	Total Falls Numbers for Year Three	Final Performance Achieved (%)	On Target Y/N
Ayers	68 – J1800 34 – J1900A 34 -J1900B&C	61 – J1800 31 – J1900A 31 - J1900B&C	103 – J1800 71 – J1900A 57 - J1900B&C	94 – J1800 49 – J1900A 49 - J1900B&C	90 – J1800 67 – J1900A 41 - J1900B&C	-32.35% - J1800 -97.05%- J1900A -20.58% - J1900B&C	No
The Plaza	104 – J1900A 39 – J1900B&C	94 – J1900A 35 – J1900B&C	96 – J1800 113 – J1900A 46 - J1900B&C	206 – J1900A 114 - J1900B&C	220 – J1900A 88 - J1900B&C	-111%- J1900A -74.3% - J1900B&C	No
Courtenay Springs	26 – J1800 25 – J1900A 8 -J1900B&C	23 – J1800 22 – J1900A 7 -J1900B&C	58 – J1800 29 – J1900A 34 - J1900B&C	63 – J1800 46 – J1900A 17 - J1900B&C	N/A	N/A	No
Glenview	104 – J1800 65 – J1900A 39 -J1900B&C	94 – J1800 58 – J1900A 35 - J1900B&C	68 – J1800 60 – J1900A 28 - J1900B&C	44 – J1800 38 – J1900A 18 - J1900B&C	30 – J1800 23 – J1900A 15 - J1900B&C	71.15% - J1800 64.61%- J1900A 61.53% - J1900B&C	Yes
Miami Jewish	271 – J1800 196- J1900A 141 – J1900B&C	244 – J1800 176-J1900A 126 – J1900B&C	158 – J1800 166 – J1900A 62 - J1900B&C	138 – J1800 136 – J1900A 35 - J1900B&C	115 – J1800 116 – J1900A 31 - J1900B&C	57.56% - J1800 40.81%- J1900A 78.01%- J1900B&C	Yes
Pines of Sarasota	292 – J1900A 169 – J1900B&C	263 – J1900A 152 – J1900B&C	190 – J1800 186 – J1900A 92 - J1900B&C	313 – J1900A 62 - J1900B&C	424 – J1900A 118 - J1900B&C	-45.2%- J1900A 30.17% - J1900B&C	No Yes
Suwannee Valley Nursing	63 – J1800 44 – J1900A 19 – J1900B&C	57 – J1800 40 – J1900A 17 – J1900B&C	33 – J1800 33 – J1900A 10 - J1900B&C	72 – J1800 64 – J1900A 28 - J1900B&C	N/A	N/A	No
Stratford Court	10 – J1800 8 – J1900A 4 -J1900B&C	9 – J1800 7 – J1900A 4 -J1900B&C	46 – J1800 44 – J1900A 24 - J1900B&C	34 – J1800 46 – J1900A 17 - J1900B&C	36 – J1800 34 – J1900A 15 - J1900B&C	-260% - J1800 -325%- J1900A -275% - J1900B&C	No
Westminster Towers	124 – J1900A 67 – J1900B&C	112 – J1900A 60 – J1900B&C	78 – J1900A 48 – J1900B&C	56 – J1900A 21 – J1900B&C	37 – J1900A 21 – J1900B&C	62.09%- J1900A 68.65% - J1900B&C	Yes
Westminster Woods	96 – J1900A 47 – J1900B&C	86 – J1900A 42 – J1900B&C	60 – J1900A 22 – J1900B&C	86 – J1900A 42 – J1900B&C	44 – J1900A 22 – J1900B&C	54.16%- J1900A 53.19% - J1900B&C	Yes

\*Highlighted Annual Performance indicates a projection due to us not receiving all MDS data for Year Three

Project Outcomes Measures – Patients that were identified to have balance deficiencies and were provided treatment will show on average an improvement of at least 15% in balance assessment scores.	Baseline FY 2023	Annual Target	Year One Performance	Year Two Performance	Year Three Performance	Final Performance Achieved (%)	On Target Y/N
Ayers	9.33 in	10.71 in	8.39 in.	10.07 in.	10.15 in	8.78%	No
The Plaza	12.68 in.	14.58 in	8.44 in.	8.45 in.	8.45 in	-33%	No
Courtenay Springs	11.26 in.	12.94 in	N/A	10.47 in.	10.47 in	-7.02%	No
Glenview	14.83 in.	17.05 in	N/A	N/A	N/A	N/A	No
Miami Jewish	13.73 in.	15.79 in	N/A	N/A	N/A	N/A	No
Pines of Sarasota	N/A	N/A	N/A	N/A	N/A	N/A	No
Suwannee Valley Nursing	6.85 in.	7.87 in	N/A	N/A	N/A	N/A	No
Stratford Court	8.20 in.	9.43 in.	N/A	N/A	4.69 in.	-42.8%	No
Westminster Towers	10.89 in.	12.52 in	10.36 in.	8.5 in.	8.77 in	-19.46%	No
Westminster Woods	11.74 in.	13.5 in	N/A	14.48 in.	14.06 in.	19.76%	Yes

\*Balance is determined by Forward Reach scores (measured in Inches)

Project Outcomes Measures – Patients that were identified to have function deficiencies and were provided treatment will show on average an improvement of at least 15% in function assessment scores.	Baseline FY 2022	Annual Target	Year One Performance	Year Two Performance	Year Three Performance	Annual Performance Achieved	On Target Y/N
Ayers	32.14 sec	27.32 sec	28.74 sec.	25.97 sec.	25.83 sec	19.63%	Yes
The Plaza	32.59 sec	27.7 sec	19.37 sec.	19.37 sec.	19.37 sec	40.56%	Yes
Courtenay Springs	19.04 sec	16.18 sec	30.87 sec.	22.34 sec.	16.23 sec	14.73%	Yes
Glenview	26.14 sec	22.22 sec	26.41 sec.	26.42 sec.	26.42 sec	-1.03%	No
Miami Jewish	19.28 sec	16.39 sec	N/A	N/A	N/A	N/A	No
Pines of Sarasota	N/A.	N/A	N/A	N/A	N/A	N/A	No
Suwannee Valley Nursing	32.77 sec	27.85 sec	32.43 sec.	32.43 sec.	32.43 sec	1%	No
Stratford Court	31.28 sec.	26.58 sec.	N/A	35.53 sec.	28.63 sec	8.47%	No
Westminster Towers	34.0 sec	28.9 sec	20.75 sec.	22.59 sec.	24.31 sec	28.5%	Yes

Westminster Woods	23.67 sec	20.12 sec	16 sec.	18.75 sec.	16.66 sec	29.61%	Yes
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\*Function is measured in 5x Sit to Stand scores (measured in Seconds) (A lower time is a better score)

Project Outcomes Measures - 20% improvement in patient gait speed	Baseline FY 2022	Annual Target	Year One Performance	Year Two Performance	Year Three Performance	Annual Performance Achieved to the End of Reporting Period (%)	On Target Y/N
Ayers	0.376 m/s	0.451 m/s	.328 m/s	.481 m/s	0.499 m/s	28%	Yes
The Plaza	0.301 m/s	0.361 m/s	.61 m/s	.61 m/s	0.61 m/s	51%	Yes
Courtenay Springs	0.448 m/s	0.537 m/s	.435 m/s	.7 m/s	0.603 m/s	25.83%	Yes
Glenview	0.364 m/s	0.436 m/s	.46 m/s	.473 m/s	0.473 m/s	29.94%	Yes
Miami Jewish	0.451 m/s	0.541 m/s	N/A	N/A	N/A	N/A	No
Pines of Sarasota	N/A	N/A	N/A	N/A	N/A	N/A	No
Suwannee Valley Nursing	0.505 m/s	0.606 m/s	.45 m/s	.45 m/s	0.45 m/s	-12%	No
Stratford Court	0.207 m/s	0.248 m/s	N/A	.117 m/s	0.110 m/s	-46.85%	No
Westminster Towers	0.256 m/s	0.307m/s	.4 m/s	.349 m/s	0.341 m/s	25.02%	Yes
Westminster Woods	0.329 m/s	0.394 m/s	.42 m/s	.621 m/s	0.707 m/s	53.44%	Yes

\*Gait Speed is measured in Meters per Second (m/s)

Project Outcomes Measures - Patient satisfaction of at least 75%	Baseline FY 22	Annual Target	Year One Performance	Year Two Performance	Year Three Performance	Annual Performance	On Target Y/N
Ayers	100%	75%	100%	N/A	100%	100%	Yes
The Plaza	96.8%	75%	96.8%	N/A	N/A	96.8%	Yes
Courtenay Springs	0%	75%	N/A	N/A	N/A	N/A	No
Glenview	100%	75%	100%	N/A	N/A	100%	Yes
Miami Jewish	0%	75%	N/A	N/A	N/A	N/A	No
Pines of Sarasota	0%	75%	N/A	N/A	N/A	N/A	No
Suwannee Valley Nursing	0%	75%	N/A	N/A	N/A	N/A	No
Stratford Court	95.83%	75%	N/A	95.83%	95.83%	95.83%	Yes
Westminster Towers	81.59%	75%	81.59%	N/A	100%	90.79%	Yes
Westminster Woods	100%	75%	100%	100%	100%	100%	Yes

### 1.3 Fall Metrics Summary

When looking at the fall metrics for the Florida CMP project, we looked at the final fall reduction achieved by the end of year three. The fall metrics were continuously compared against the baseline year of 2019 to 2020 that were pulled at the start of the project. Throughout the project we continued to meet very similar challenges across all years, mainly having baseline falls numbers coming from a year of COVID and isolation, and low to no usage from majority of sites during the project due to staffing and COVID issues. Throughout all three years of the project, facilities were consistent in either achieving or not achieving their fall reduction goals. The majority of the sites that were utilizing the equipment continued to hit the fall and mobility goals in each of the three years, and most of the ones who were not missed the mobility goals and reduction goals. Four of the ten achieved the fall without injury reduction, and two of the six sites that reported J1800 achieved the reduction goal. In the case of Suwannee Valley Nursing, The Plaza, and Courtenay Springs they did not get us the required MDS data due to not wishing to continue with the project because of change of ownership or not having an MDS coordinator in the case of Courtenay Springs. The Plaza and Courtenay Springs did not report for the final year and Suwannee Valley had not reported since quarter two of year two.

For the hip fracture reduction goal, similar to the fall reduction goal we had sites consistently achieve or miss their metrics across all three years. When looking at hip fractures it is best to focus on falls with major injury or true hip fractures, if reported, as I3900 is looking at patients getting admitted with a hip fracture and not always indicating that these injuries occurred on-site. We had six of the seven sites who reported this data achieve their goal. The best performers in this category were the Westminster locations who consistently saw a 100% most years or a 50% reduction. They never saw more than 1 hip fracture on-site within a year. Courtenay Springs and Suwannee both achieved the goal one year each but both locations along with the Plaza did not report MDS data in the final year of the project. Miami Jewish was the only location to not hit this goal all three years of the project and this location was one of the sites with the lowest utilization. Though seeing this success for the other locations is great as it shows the biggest impact in terms of cost savings as well as improving over all well being and keeping patients safe.

### 1.4 Mobility Metrics Summary

As stated above, when locations used the equipment as intended, we saw great results across all categories. Two of the four sites who achieved all of the fall reduction goals are the best users of the system out of the ten partner facilities, being both of the Westminster sites, Towers of Orlando and Julington Creek. In addition to this, they were the only sites that achieved all of their mobility improvement goals as well (outside of Towers of Orlando with the balance goal). In addition to this, while Ayers still did not achieve their goal due to low reported baseline falls, they did see great mobility improvements over the project but dealt with a low number of reported falls for the baseline year. Though looking at the data we can see Ayers improved in reducing falls compared to the total from year one – seeing a reduction in years two and three. Additionally, Ayers and the Westminster locations saw continued mobility improvements year over year, comparing data to the previous year in each metric. This is a great example of how VSTBalance can continuously improve quality metrics if utilized properly and consistently.

The balance mobility metric was the metric that locations had the most difficulty achieving. Consistently across the three years we had all of the partner locations except for one not achieve this goal. The reason being is that the balance test was the most under utilized test over the span of the project and also had the most human error occur. This is due to the starting point of the test being specific and if teams were not starting the test correctly, starting before patients had their arms raised, then this would over exaggerate the reaching distance. Due to this we often saw reach scores of upwards of 30 inches and then the second go around of the test, teams were performing correctly which was showing a drastic decline between the two tests. We believe this is the main reason that most locations were not

able to see an improvement in the balance metric. Julington Creek was the only location that was able to achieve the balance metric goal in two of the three years of the project, with most locations not even having re-test data for the balance sitting reach test.

For the functional improvement metric, we saw better success than the balance mobility improvement. Again sites were consistent in achieving this goal – mostly related to their how well they were utilizing the system. Each location that was a consistent user of the system was able to achieve the metric for the functional improvement. Both Ayers and the Westminster locations consistently hit this goal across all three years of the project. Most other locations that had data reported were still able to see a positive improvement, though was unable to achieve the 15% improvement that we had set the goal at. The Plaza was one location that shows they achieved this goal but this is because of the screenings they did in year one. Due to us rolling over the mobility improvements year over year, this is showing that they consistently achieved this goal, though had minimal re-test data after the first year of the project. Miami Jewish and Pines of Sarasota were the only sites that were unable to get any re-test data for the functional mobility improvement metric.

When looking at the gait mobility improvement metric, this is the metric we had the most success in. For mobility improvements, this is the most important metric to focus on as there is so much research that correlates gait speed to longevity and fall risk overall. The Gait speed analysis is the test that will predict at what percent risk of fall a patient is at in the next twelve months and can give care teams good insight into the overall risk of the patient and how to provide therapy or create a plan of care. Seeing good improvements in this category will most directly correlate to the overall reduction in falls that a facility may see. We consistently had 6 of the 8 locations who were able to re-test patients in gait achieve the mobility improvement goal of 20%, with most locations getting well above the 20% goal. The gait test was the most utilized test on the system which is great to see with it being the most correlated to falls. Westminster Julington Creek, one of the highest users of the system, was able to consistently see right around a 50% improvement across the final two years of the project. Miami Jewish and Pines of Sarasota were the only locations that were unable to get any re-test data for this mobility metric. Suwannee Valley and Stratford Court were the only two locations with re-test data and did not see a positive improvement in Gait. This is likely due to Suwannee under utilizing the system and opting out of the project after they changed ownership, and for Stratford Court, they did not start properly utilizing the equipment until the last two quarters of the project. Though overall we are excited to see that the gait improvement goal was the highest achieving mobility metric.

The way VSTBalance is able to reduce falls is by giving the care teams on-site access to objective detailed mobility data that will help adjust plans of care to meet the needs of each specific patient. If a community is not using the system to get objective data on what is leading to mobility deficiencies and fall risk, then it will not be able to help reduce falls. Again, the sites that did see reduction in falls all achieved their Gait and Function mobility improvement goal, except for Miami Jewish and Glenview. The sites that did not use properly did not see the correlated mobility improvements and all of the fall reduction goals. Stratford Court, had good potential and saw great increase in usage of the system in the last two quarters of year three as they were already seeing mobility improvements in these last two quarters. Though the limited usage in the first two years of the project, did not allow them to see similar success as the Westminster locations. Though this is still good to see that the program will be sustained after the close of the project so they can continue to work towards seeing similar improvements. Already after the close of the project, these three locations plus Ayers, are continuing to utilize the system showing that they intend to continue using VSTBalance to improve quality care metrics past the scope of this project, which is a success for us.

As mentioned in the project application, seniors fall for three main reasons: deficiencies in their Balance, Gait, or Functional abilities. VSTBalance helps proactively identify these deficiencies before a fall even occurs. Therapy teams have been using VSTBalance to do predictive analytics to see why a senior would fall and then get them on treatment plans to improve those deficiencies before the fall even

occurs. If the teams are not using the system to get this objective data, then they will not be able to use the data to create a more specific plan of care for the patient.

Additionally, VSTBalance is not used on every patient that may be falling in the community. So the system is limited again to how the team is using the system to be able to effectively help the fall numbers to go down. If a team has not incorporated the screening process into their building screening protocol (i.e. admissions assessments, Quarterly screenings, and post-fall interventions) then the system is unable to help in assisting these patients to keep from falling.

## 1.5 Patient Satisfaction Metric Summary

For the patient satisfaction metric, this was measured by having an optional survey that care team members could take the patient through. Each patient only had to perform the survey once and we recommended that this be administered after the second time they had been on the system so the patient had the chance to see comparison data between tests and have a better understanding of the purpose of VSTBalance. For this metric, we had minimal participation from most locations in getting the patients to go through the survey as only six of the ten partner locations had responses for the survey over the three years of the project. Most of the responses to the survey came from our highest users of the system, Ayers and the Westminster locations. As stated later in the report, in hindsight it would have been better to make the survey mandatory after the patient had their second visit on the system to get more responses. Though still the responses we did achieve in the surveys were overwhelmingly positive as all locations who had data reported for this metric well exceeded the 75% goal in each of the three years of the project. Ayers, Glenview, and Julington Creek each saw all responses coming back with 100% patient satisfaction. This shows that not only is VSTBalance appreciated by the care team members but that the patients see the value in the system and appreciate how it helps enhance the overall quality of care provided by the nursing homes.

## 1.6 VSTBalance Usage Process

Over the course of the project our two main barriers were due to sporadic challenges of COVID and staffing shortages. The system continued to be under utilized at majority of the partner locations. The nursing shortage that has been a result of the pandemic made it difficult to expand the program outside of the therapy team to restorative as we originally intended. Therapy teams only sees residents who are already on their caseload, which limits the access they have to the entire census. Where restorative nursing can help, their main goal would be to use the system for the buildings screening protocols where therapy does not always have the opportunity to work with the patients due to not having orders to evaluate and treat. If the patient appears as high-risk/low mobility on the assessments of the system, their results are forwarded onto therapy so the team can determine if a decline is detected and warrant a therapy evaluation, then use the data to create a plan of care to determine what to work on during the episode of care. In cases where therapy is either refused or not applicable for the resident, then the restorative nurse can create a plan of care centered around which restorative programs will work best for them based on the deficiencies identified. This also can create a great synergy between the two departments, as someone gets discharged from therapy the team can share the discharge assessment results with restorative so they can have a continued target maintenance plan that meets the needs of each individual.

As stated in the summary of the screening process throughout the project, the process for how teams used the system did not change from beginning of the project. Teams used the data to generate more specific plans of care based on the results of each screening. The screening process for these sites was to first identify a patient that needs to be screened for mobility issues. They ran the patient through the four assessments on the system; Gait Analysis, Timed-up-and-Go, Sitting Reach, and 5x Sit to Stand. This got the team detailed objective data on the patients' current Gait, Function, and Balance abilities. Using the results care teams were to create a plan of care and exercises designed to target the

weaknesses and issues identified in the report. If needed the care team would route the patient to therapy if they are not already on caseload. To identify patients, the facility should have incorporate VSTBalance into their current screening protocol; assessing new admissions to get a baseline of risk, and then following up with quarterly screens and post-fall interventions. The therapy team will also use this for patients on therapy, assessing them during their initial evaluation, and at minimum, re-assessing them at discharge to therapy to collect objective outcome data of the episode of care. For short term patients, this will help with discharge planning and ensuring the patient is safely ready to be discharged from the facility.

Moving past a patient's initial screening, the therapy or nursing team would then re-screen the patient 90 days later, quarterly screenings, to see how treatments been able to help them improve or detect if there has been further decline and additional interventions needed. This re-screening would generate outcome data for the care team's efforts and the patient's abilities to show how the treatments are working. This outcome data would also help the patient to follow along with their progress and improvement, increasing patient buy-in. Based on research from CMS and NIH, Gait speed is one of the leading indicators in longevity of life and fall risk, so increasing this metric was to be the main focus for care teams as this is what would translate to a fall reduction for communities using the VSTBalance technology.

## 1.7 Successes and Failures

For the project overall, we were met with similar issues throughout all three years. Locations mainly struggled with COVID related issues preventing them from brining patients to the gym and staffing issues which made regularly seeing patients and getting them on the system difficult as well. While locations were able to navigate through COVID issues as the project progressed, lockdowns would still make it almost impossible to use the system when they were unable to bring patients to the gym and we were unable to involve the nursing team due to shortages. In-room treatments are possible, but difficult due to the amount of space in the rooms.

Again, while COVID issues were not as intense as they were at the start of the project, there were still struggles with locations utilizing the equipment. The other main challenge and issue that we faced were on-site teams losing the commitment to participate in the project after year one. In year one of the project we had the most number of partner facilities utilizing the equipment – after year one we saw the biggest drop off in usage outside of the facilities that were continued best users throughout the project. This was because of the issues with COVID and staffing which led to our channels of communication not being consistent. If we were not able to maintain consistent communication with the on-site program manager, then we saw usage fall off and re-establishing this communication was difficult given the other challenges the locations were facing. To overcome this, we attempted to reach out to the regionals to get a directive of using the system for the grant. Losing communication with teams is one of the failures of the project and led to locations not seeing proper utilization. Though a success that came of this was establishing the program with Stratford Court at the end of the project. This shows that working with a good regional team does have a large impact on the utilization on-site as connecting with HPH and Sunrise regionals got the on-site team committed to using the system. Over the last two quarters of the project, Stratford Court saw the highest utilization out of all partner locations and saw positive mobility improvements by the end. This will allow the program to be sustainable past the project close as this site is still utilizing the equipment consistently. The other locations did not see success in this method even with re-trainings for the teams being completed.

Usage continued to stay low for the locations who were not already seeing success due to continued staffing issues and lack of buy in. We attempted to stay in contact with the teams, though if a regular line of communication was not already there, it was hard to re-engage teams. Due to shortage of therapists, this made it hard for teams to focus on using the system as they were more focused on treatment time. Additionally as shortages were apparent in all facilities a big factor in this also came from



the turnover in staff. If a team who was aware of the program completely shifted as a result of staff leaving or getting shifted to other locations to fill in, this is where the disconnect in communication began and restarting the program with a new director with additional challenges on-site was difficult. As stated, we tried to get the nursing teams involved, though again due to short staffing, this was impossible in most locations. As a result VSTBalance case load was greatly limited to therapy's case load and their access to the system. Our plan to get restorative involved to help with building screening protocol and follow-up post therapy never came to fruition due to these challenges.

In year one we stated that due to the issues with COVID it was not fair to assume that the project or system usage was a top priority for care teams to focus on. Though now that COVID has been less of a consistent issue and care teams are able to work around it more, we hoped for teams to have more time to focus on using the equipment to assist with maintaining the negative effects prolonged isolation can have on senior mobility. Ideally teams would utilize this equipment to track the rate of decline for their population and use it as a tool to get improvements being able to track that information. In this regard the project was not successful for half of the locations due to the lack of usage. While teams should have had more bandwidth and access to use the system on their patients, we continued to not see the increase in usage that we expected. This was due to lost channels of communication and oversight on the project from the corporate teams involved. Four of the locations did see a good program developed and have integrated VSTBalance as a part of their care workflow to improve quality metrics and patient care. This has been a success in the regard to the four locations as they saw good mobility improvements and two of the locations consistently using saw great fall reductions with a third seeing reductions when comparing to the year one. This alone shows that VSTBalance is a success in improving care and reducing falls when utilized consistently as a tool by the care teams.

Overall, we feel the project was a success at four of the sites. It was shown that teams who use VSTBalance saw great results in mobility improvements and fall reduction scores. The Westminster locations are a great example of this being able to achieve almost every metric that was set for the goals of the project. Being largely dependent on the teams utilizing the equipment – this shows that VSTBalance achieved what it set out to do. It was shown that if a team was fully utilizing the system as intended – the results are clear and is proof that VSTBalance is successful in reducing falls and improving quality metrics. If all the locations were utilizing the equipment as these locations, we are confident that they would have seen similar results. Due to this we are considering the project a success. We wanted to see better outcomes at most of the locations, though the improvements and reductions seen at Westminster shows that the system is able to achieve the goals if used properly.

The additional goal that we were tracking was resident satisfaction. While participation in the survey was optional, it only had to be done once for each patient on the system. For the locations who have not utilized the equipment well, we did not have any data for the patient satisfaction for VSTBalance. Though we were able to receive data from six of the locations for the satisfaction scores. Every single location that we did receive satisfaction scores exceeded the goal of 75% patient satisfaction. This shows that not only do the clinical teams who use the equipment appreciate it, but also the patients who the equipment is being used on appreciate and see the value of the equipment. In hindsight, it would have been better to make the survey mandatory on the second screening to ensure we got more data pertaining to this.

When looking at all of the challenges facilities faced, VirtuSense was able to deliver upon our mission: "Developing a technology that protects residents and giving facilities the tools they need to accelerate access to care". Our was not an issue with the equipment's ability to help care teams achieve the goals, but a facility/team issue in not being able to utilize the equipment properly. The system must be consistently used to see the intended results that were set for the goals. We are confident that we would have seen success in almost every single metric/outcome had the teams fully used the equipment throughout the project and on all applicable patients and had COVID not been an issue to cause such a large disruption to the world of senior living. Looking at the Westminster locations who utilized consistently, they were able to achieve all of the set goals at both of the locations throughout the project



outside of one mobility metric at Towers of Orlando, being the balance improvement metric. Staff and patients who used the system expressed their appreciation for the system and the value they see in the objective data it gives. Still the locations who were able to use the system outside of the barriers and challenges saw success in the project and that should be the true measure of VSTBalance's success in doing what we have set out to do in this project. It could have been better, given COVID had not been an issue that led to many other challenges, though overall we feel the project was a success in setting out to achieve the goals when teams were utilizing the equipment as intended. We were only able to provide so much oversight and expectations to teams to use the equipment. Without support from the corporate/organizational level, it was difficult to keep teams engaged and the project/VSTBalance a priority when providing care given everything else that was occurring in nursing homes. Though seeing the sites who did adhere to the set program and process and the success that they were able to achieve, it was a success in that regard.