Summary of R3^2 Program Results on Key Performance Indicators

Presented to:

Hebrew SeniorLife

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Introduction

A key objective of the R3[2] program is to ensure that individuals who are at high risk for adverse health outcomes are identified, engaged, and linked to needed services, in order to address and fill gaps in care. The program pays particular attention to identifying individuals with risks related to: (1) mental health (requiring access to specialized services and supports), (2) memory (requiring some level of ongoing supervision or care), (3) nutrition (requiring food counseling), (4) food insecurity (nutrition deficiencies requiring food supports), and (5) emergency department or inpatient hospitalizations (requiring a broad range of mitigation activities). To assign individuals to these risk categories, clinical staff used data collected during the Vitalize360[1] assessment process to draw up an initial classification, and then reviewed this list for accuracy. The goal was to identify and address unmet need; consequently, individuals whose needs were being adequately met were removed from the list. For example, individuals reporting depression on their assessments but managing it appropriately would not be counted as high risk – typically, because they were consistently taking their medications or receiving therapy and had been stable for many years. In other cases, individuals were added to the list when clinical staff were aware of needs due to their interactions with or observations of residents: for example, when staff could observe significant memory challenges.

The decision to target care coordination efforts on these risk categories was made for good reason: Mental health and memory issues, for example, are often under-diagnosed in older adult populations, leading to under-treatment. However, the Vitalize360 assessment is able to identify individuals with the most common conditions including anxiety, severe cognitive impairment, and mood disorders (such as depression or bipolar disorder). Doing so is particularly important because mental health conditions, including the most prevalent – depression -- can lead to impairments in physical, mental, and social functioning. As well, older adults with mental health conditions such as depression visit the doctor and emergency room more often, use more medication, incur higher outpatient charges, and stay longer in the hospital. Thus, because the R3[2] program is designed to both increase the quality of life of residents and reduce avoidable hospitalizations and visits to the emergency room, addressing these concerns -- mental health, memory, nutrition, and other issues that put people at high risk for adverse outcomes -- is particularly important.

In addition to targeting individuals in one of the four condition-based high-risk groups, R3[2] staff conducted monthly check-ins with individuals assessed to be at risk for emergency room visits or inpatient hospitalizations, but who may not have identified as falling into one of the four risk categories. This group changed over time; the team aimed to reach 100% of such

[1] The assessments used a modified version of the Vitalize 360 health assessment instrument, which is part of Vitalize 360, a person-centered wellness coaching system (see www.vitalize360.org).

individuals on a monthly basis. Appendix 1 summarizes the risk criteria used to classify individuals into each of the five risk categories tracked.

To assess the success of the R3[2] strategy (along with other goals, such as routine project management), data management systems were established to track key performance indicators (KPI). KPIs tracked included:

- The number of participants in the five risk domains
- The proportion of participants in the five risk domains whose needs were addressed by the R3[2] program

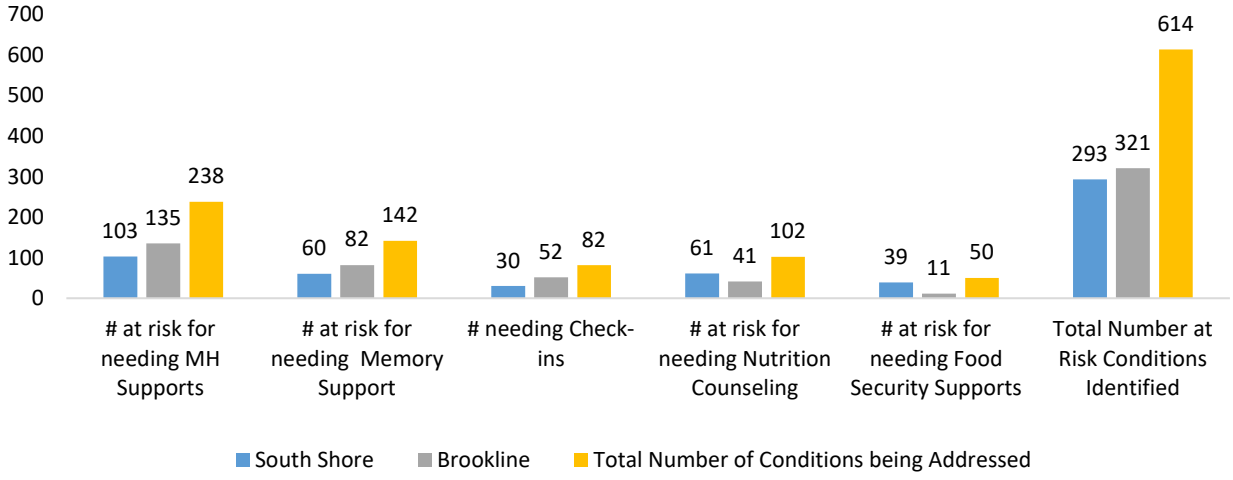
Findings are reported separately for the two regions in which the seven properties are located – the South Shore and Brookline regions. Among the seven sites, four are owned or operated by Hebrew SeniorLife, two by MRE properties and one by Winn corporation. Roughly, 1,100 individuals reside in these sites and on average about 460 unique residents were enrolled in the R3[2] program.[2]

Findings

Figure 1 shows the how many people were classified into each of the five risk domains. Many fell into multiple categories: thus, the numbers below represent the total number of care gaps and not the total number of people with care gaps. At a minimum, we know that at least 238 individuals had a mental health issue, 142 needed memory support, 82 received regular check-ins due to concerns about emergency department and hospitalization risk, 102 needed nutrition counseling and 50 needed food security supports. In total, among the population of R3[2] participants, the program identified 614 care gaps covering more than half of the total 400 participants.

[2] Note that 73 program enrollees died or were lost to follow-up during the evaluation period.

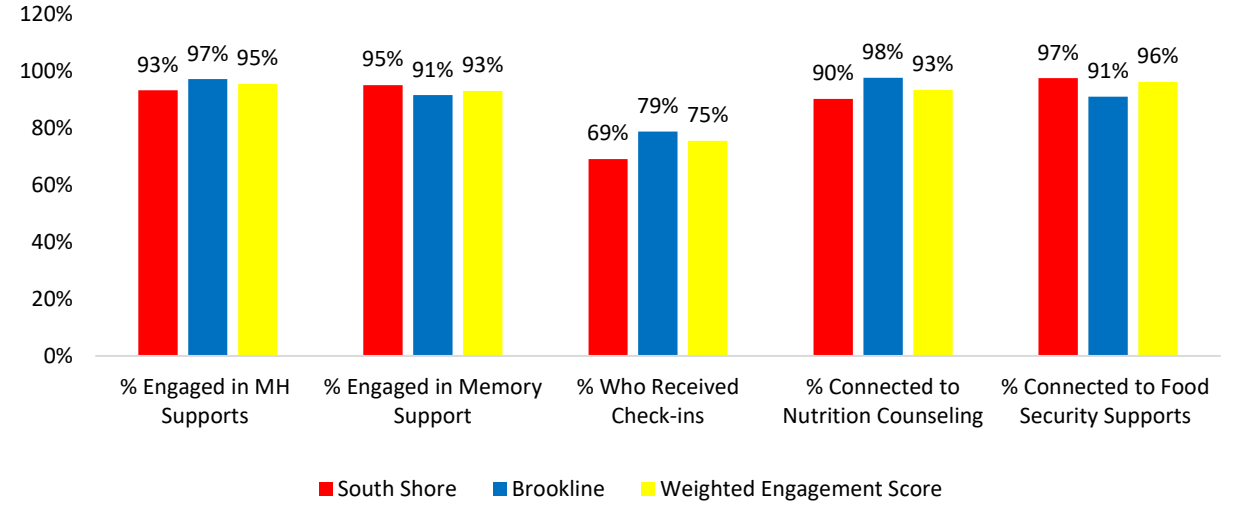
Figure 1: Number of High Risk Conditions among Program Parcipipants by Specific Issue



Note: Total represents the total number of care gaps among the population of roughly 400 participants.

Figure 2 highlights the percentage of individuals with care gaps that were addressed by the R3[2] program. As shown, across four of the five risk categories—mental health, memory, nutrition counseling, and nutrition supports, the program has engaged at a rate in excess of 90%. By "engaged" we mean connected with the individual and addressed their care gap either directly or through referrals to needed services. By contrast, the weighted engagement score for the fifth risk domain, regularly scheduled check-ins due to emergency department/ hospitalization risk, is 75% across the sites. The success rates across the five risk domains do not vary greatly across the two sites.

Figure 2: Percentage of Care Risks Identified and Engaged by the Program



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Implications

To interpret these figures, they need to be set in a context that will allow us to determine whether they represent a high or merely average level of performance. We identified three studies that suggest that the $R3^2$ results do indeed represent a high level of performance. First, a study conducted between November 2015 and December 2016 by Kaiser Permanente of Southern California evaluated the impacts of a social needs screening and navigation program for adults. It identified individuals predicted to be high service utilizers and measured how engaging and connecting them to services affected total medical visit utilization. If patients screened positive for one or more unmet social need, a program associate performed a full intake assessment for enrollment in social needs navigation and referred them to community-based resources. The researchers found that among individuals identified through a social needs screening as potentially high service utilizers, 77% of those who wanted assistance addressing needs and received navigation services were connected to services.

Second, another Kaiser Permanente study showed that less than 10% of individuals referred to SNAP enrollment were successfully enrolled in the program, thus indicating great opportunity for further quality improvement efforts. Finally, a third study by Lumeris showed that through deployment of a digital health engagement program, between 24% and 35% of calls made to individuals resulted in one or more care gaps being addressed. Taken together, these studies suggest that the performance metrics of the $R3^2$ program were far superior.

It may be more accurate, however, to compare $R3^2$ performance to that found in managed care plans -- more specifically, to Medicare Advantage plans that specialize in care coordination. As part of their strategy for managing health care costs, these plans invest significant resources in the identification (through assessment) and the closing (through care coordination) of care gaps. In fact, to help Medicare beneficiaries make choices about enrollment in either traditional Medicare or specific Medicare Advantage plans, the Centers for Medicare and Medicaid Services (CMS) post quality ratings that are related to a plan's ability to manage high-risk individuals --the idea is to help beneficiaries by providing them with information about the plans offered in their area. The CMS rates Medicare Advantage plans on a scale of one to five stars, with five stars representing the highest quality and one star representing the lowest quality. Plans that consistently perform poorly -- that is, those scoring less than three on a measure -- can be prohibited from enrolling Medicare beneficiaries. Broadly speaking, these Star ratings are defined as indicated in Table 1:

Table 1: Star Ratings for Medicare Advantage Plans

Number of Stars	Rating
5	Excellent Performance
4	Above Average Performance
3	Average Performance
2	Below Average Performance
1	Poor Performance

These star ratings provide an objective basis of comparison for R3^2 performance in managing the risks it has identified as critical to program success. Summary star ratings are based on a host of quality indicators, each of which is assessed according to whether a certain performance threshold has been reached. These include parameters such as access to care, plan responsiveness, beneficiary satisfaction, and customer service. In total, there are 34 individual measures. For each, CMS benchmarks are used to assign specific star ratings. For example, if a plan is able to improve or maintain mental health for between 82% and 84% of members with mental health issues, it is awarded 4 stars on this metric. Anything over 84% earns the plan 5 stars.

As mentioned, the R3^2 risk factors include: (1) mental health (requiring access to specialized services and supports); (2) memory (requiring some level of ongoing supervision or care), (3) nutrition (requiring food counseling); (4) food insecurity (nutrition deficiencies requiring food supports), and; (5) emergency department or inpatient hospitalizations. The CMS metrics -- along with the performance standard ranges used to evaluate managed care plans – do not precisely match those employed by the R3^2 program. Nevertheless, many of the underlying metrics approximate those that are the focus of the R3^2 program and provide a good basis for comparison. We also include several measures that are not considered part of the key performance indicator tracking, but occur in the context of the R3^2 program, such as completion of the Vitalize360 assessment.

In Table 2, we show the specific measure used by CMS, the approximate measure for the R3^2 program, the CMS measure thresholds, and the R3^2 performance on that dimension. As shown, the R3^2 performance across all of the roughly comparable metrics would be at a 5 Star level, indicating excellent performance.

Table 2: Managed Care Plan and R3² performance measures and Star Thresholds

CMS Measure	STAR Measures Thresholds		R3² Measure	Performance
Improving or Maintaining Mental Health	< 72% ≥ 72% to < 78% ≥ 78% to < 82% ≥ 82% to < 84% ≥ 84%	1 Star 2 Stars 3 Stars 4 Stars 5 Stars	% engaged in mental health supports	95% **5 Stars**
Managing Chronic (Long Term) Conditions	< 47% ≥ 45% to < 58% ≥ 58% to < 75% ≥ 75% to < 88% ≥ 88%	1 Star 2 Stars 3 Stars 4 Stars 5 Stars	% engaged in memory support	93% **5 Stars**
Care Coordination	< 82% ≥ 82% to < 84% ≥ 84% to < 86% ≥ 86% to < 87% ≥ 87%	1 Star 2 Stars 3 Stars 4 Stars 5 Stars	% connected to nutrition counseling or food security supports	93% to 95% **5 Stars**
Monitoring Physical Activity	< 43% ≥ 43% to < 49% ≥ 49% to < 53% ≥ 53% to < 60% ≥ 60%	1 Star 2 Stars 3 Stars 4 Stars 5 Stars	% who received check-ins	75% **5 Stars**
Functional Status Assessment	< 55% ≥ 55% to < 71% ≥ 71% to < 85% ≥ 85% to < 93% ≥ 93%	1 Star 2 Stars 3 Stars 4 Stars 5 Stars	Completion of Vitalize360 Assessment	>95% **5 Stars**
Care for Older Adults: BMI Assessment	< 78% ≥ 78% to < 92% ≥ 92% to < 96% ≥ 96% to < 99% ≥ 99%	1 Star 2 Stars 3 Stars 4 Stars 5 Stars	Completion of Vitalize360 Assessment	>95% **5 Stars**

Conclusion

Clearly, the R3[2] program is succeeding in engaging the vast majority (>90%) of individuals who have specific risk factors, and connecting them with needed services – thereby closing identified care gaps. Viewed in the context of managed care plans, this level of performance is noteworthy, and would earn the program a 5 Star rating. This finding underscores the particularly strong advantage offered by having a wellness nurse and wellness coordinator in senior housing and using this platform as a way to manage prevention and care services to residents.

APPENDIX 1:
Criteria for At Risk Lists

Cognition Criteria:

- Score on Mini-Cog - ? use 1,2 as 'at risk' or include 3.
- Known diagnosis or symptoms of cognitive decline observed by staff
- Score on SPMSQ

Mental Health:

- Not well managed and/or no adequate supports in place
    - Staff observations/concerns
    - Resident report

Food Insecurity:

- Receiving supplemental resources (GBFB, SNAP, MOW)
- Yes or 'a few times' to either of the following questions (worried that food would run out before you had money for more or needed food but didn't have the money to buy it, weight loss question, healthy diet)
- Staff observations/judgment

Nutrition:

- weight loss question
- healthy diet
- staff observations/judgment
    - specific diagnosis, e.g. diabetes

Check-in Calls due to risk of ER/Hospitalization Criteria:

- Priority Risk Factors (any one of these indicates the person is at risk):
    - 2 or more trips to the hospital in the past three months
    - High risk medications (insulin, blood thinners, narcotics)
    - Fall Risk/Frequent lift assist – 1 or more in the past month
    - Substance abuse

- Secondary Risk Factors (any two of these indicates the person is at risk):
    - Cognitive impairment
    - Over 85
    - Mental Health – Anxiety/ Depression
    - No caregiver available
    - Incontinence
    - Financial struggles
    - Lack of transportation