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# **Nymbbl Science's Stars Impact**

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# Overview

Improving Health Outcome Survey (HOS) performance has been challenging for Medicare Advantage (MA) health plan's quality teams to improve their Star Rating. As a result, the primary strategy for many health plans has been to facilitate provider-led efforts.

Yet, these attempts have led to mixed results that were difficult to interpret and communicate across patients, practices, and healthcare professionals (HCPs). Some of the reasons are due to the complexity of changing workflows and provider habits, variable member perception, attribution, and recall (due to the timing of the survey frequently occurring well after) of receiving the interventions within the fast-paced office visit environment; and the inability to capture ongoing survey data after an intervention was conducted. These challenges were exacerbated during the COVID-19 pandemic as health plans struggled to transition from in-person to remote engagements. Additionally, the triple weighted physical and mental health measures were moved to display status (measures were not being included in the 2022- and 2023-Star Ratings due to validity concerns). As a result, the weighted impact of HOS measures temporarily declined but has returned to their original value with 2023 measurement.<sup>1</sup> Despite years of ongoing efforts to address these limitations, the HOS measures remain stagnant in their performance. Furthermore, the Centers for Medicare & Medicaid Services (CMS) have employed a heightened emphasis on the member experience as a critical scoring factor for the Star Ratings. This has resulted in a greater focus and priority for Medicare stars teams to address the greater needs of members, including the number one anxiety point of aging: mobility.

Nymbi Science recognized an opportunity to shift tactics to a more predictable and scalable solution during this period. This paper captures the results of Nymbi's investigation on the impact of the global HOS and member experience on the Medicare Star Ratings system through the deployment of a digital balance and mobility enhancement platform - Nymbi.<sup>2</sup> Nymbi's initial goal was to deliver the first ever patented, digital balance and mobility training program for older adults that is scalable, affordable, effective, engaging, and can be adopted across a broad population.

<sup>1</sup> CMS Star Ratings Alert: Two highly-weighted HOS measures removed from 2022 and 2023 calculations due to covid-19. RISE. (n.d.). Retrieved June 24, 2022, from <https://www.risehealth.org/insights-articles/cms-star-ratings>

<sup>2</sup>McGarrigle, L., Boulton, E., & Todd, C. (2020, November 18). Map the apps: A rapid review of digital approaches to support the engagement of older adults in strength and balance exercises - BMC Geriatrics. BioMed Central. Retrieved June 24, 2022, from <https://bmcgeriatr.biomedcentral.com/articles/10.1186/s12877-020-01880-6>.



Nymbbl Science’s mobility program was found to be effective in driving novel health behavior changes in a large, broad population. This white paper summarizes how these outcomes led to significantly greater patient satisfaction and quality of life, which in return, benefited MA health plans by improving member retention and satisfaction.

## **Nymbbl Drives Health Behavior and Outcome Changes in a Broad Population**

In collaboration with a national top 4 Medicare Advantage plan, Nymbbl Science performed a feasibility study with 42,000 MA members in 2020 eligible to participate in Nymbbl while using non-participants as a control group.

To enroll in the study, all members must be considered in a “high-risk” category for falls, report not discussing fall risk with their doctor, or had not received any fall intervention or mitigation as determined by a hybrid HOS survey. All primary measures were reassessed by the MA plan partner while outcomes were collected by Nymbbl Science. A follow-up survey was sent to assess outcomes post deployment of Nymbbl as the intervention with the following findings:

- Across all Nymbbl participants, 38% more MA members converted to reporting a discussion on fall risk and intervention/mitigation with their HCP compared to the control group after enrolling in the program. This outcome was 2X the efficacy of our partner’s best efforts focused on provider education and a standard call center approach.
- Within a sub-population of members who engaged in at least 12 Nymbbl sessions, the impact grew to 54% more reporting a fall risk discussion and intervention with their HCP.
- Nymbbl participants were 30% more likely to leave the “high-risk” fall category compared to the control group who were offered standard community-based balancing training classes instead.



Further outcomes among Nymbbl users collected within the program also showed:

- 62% had a clinically meaningful improvement in performance when retested for balance on the 30-second sit-to-stand physical measure (using the 30-second sit-to-stand test)
- 48% reported “they felt more steady walking”
- >70% report no longer being fearful of losing their balance within their own home

We were surprised by these overwhelmingly positive outcomes, especially given the challenges to change behaviors and patient outcomes in a large population through a digital health intervention. These study findings also confirmed that the combination of education and balance training is critical to improving balance and reducing the risks of falls in older adults.

<sup>3</sup>We found this strategy to be much more effective compared to those who only spoke to the HCP or pursued community-based in-person balance training. This is consistent with fall prevention literature where a multimodal approach outperforms narrow scope interventions.

Our evidence indicates several factors influenced this significant conversion rate and change in health behavior outcomes. First, Nymbbl uses cognitive behavioral theory (CBT) and coping self-efficacy to improve confidence in users by encouraging older adults to complete tasks as part of a larger framework called the Health Actions Approach. Studies have shown that users with a high coping efficacy have greater confidence that their behaviors would lead to the desired outcome.

Through CBT and coping self-efficacy, users become more confident in their balance training which, in turn, motivates them to continue their engagement and progression through Nymbbl. Second, Nymbbl’s balance training platform was designed based on the experiences, perspectives, and challenges reported by older adults rather than from the perspective of the health plan or provider. The program is personalized at the member level and progresses based on performance.



In addition, there is a low barrier to entry with Nymbl, making it easy, efficient, fun, and convenient for older adults all while not requiring the use of broadband connectivity that 80% of rural older adults do not have access to. Since users can engage the app in the comfort of their own home for only 10 minutes each day, this significantly increases its adoption rate and engagement level which leads to lasting outcomes and Nymbl's high retention rate compared to other digital health programs. Nymbl demonstrates a 10 x of the industry average for 30-day retention of 4% and ranks as a top 160 app in the Google app store for 90-day retention<sup>5</sup>. For these reasons, 88% of older adults reported that Nymbl can easily fit into their daily routine and 80% of users have already met their goal or expressed a desire to continue Nymbl.

## **Broader Impact of Improved Mobility for HOS Outcomes**

Nymbl's goal is to engage large, broader populations and to improve their mobility, which would improve physical and mental health measures for MA health plans serving that population.

Following the success in improving the falls management performance, Nymbl launched a two-phase assessment of impact, first with a regional MA plan in December 2021 and then with an existing partner plan in 2022. Nymbl sought to better understand the impact of improved mobility on the remaining HOS questions. The threshold of success for CMS is maintaining ability, but wellness requires regaining or growing the ability to truly impact the quality of life and health outcomes.

Results were collected via a user experience survey to 6,500 enrollees in two distinct US geographies using a 90% confidence there is a +/- 6% margin of error with a focus on improvement and or maintaining (CMS metrics are reported in the sub bullets for each topic).

<sup>4</sup>It's Time to Address Broadband Connectivity Issues for Older Adults (July 09, 2021). Retrieved June 24, 2022, from <https://www.ncoa.org/article/its-time-to-address-broadband-connectivity-issues-for-older-adults>

<sup>5</sup>Published by L. Ceci, & 6, A. (2022, April 6). Mobile app user retention rate by category 2020. Statista. Retrieved June 24, 2022, from <https://www.statista.com/statistics/259329/ios-and-android-app-user-retention-rate/>



## Physical Health:

- 38% reported increased moderate level activity participation (also relates to physical monitoring due to increased mobility)
  - 95% reported increased or maintained moderate level activity participation
- 35% I am less limited by my physical health for completing my work or regular daily activities (ADL's)
  - 87% reported they were able to maintain or improve the above

## Mental Health:

- 34% reported feeling calmer and more peaceful
  - 96% reported maintained or improved feeling calm and peaceful
- 37% reported having more energy
  - 98% reported maintained or improved feeling full of energy

## Improving Bladder Control:

- NymbL is currently testing initial product enhancements to impact this measure, beginning with the behaviors that have been shown to reduce symptom burden (results are unknown currently)

The impact of the HOS survey is promising and demonstrates the value of deploying NymbL at a large broader population level. The mechanism of this impact is theorized to be related to improved balance and balance confidence leading to increased mobility and then functional participation. The mental health impact is correlated with the improved confidence the member will not lose their balance within their own home. This addresses the number one anxiety point of aging, failing mobility, that would limit a member's ability to age in place.



# From HOS Value to Member Experience

The above outcomes resulted in significant benefits that led to improved HOS performance ratings, a better quality of life for the served population and improved experience outcomes in a broad older adult population. As a result, Nymbbl Sciences recognized there was a need to assess the downstream impact on key drivers of retention and satisfaction for our MA partners. The partner participating in the investigation into falls management HOS impact reported the measures and impact on the plans NPS score in those who participated in Nymbbl. Further assessment of over 500 members from this plan's cohort resulted in a measured NPS score of 84. This score is considered world-class<sup>6</sup>.

The secondary study of broader HOS value demonstrated an NPS of 80 among 400 respondents as well. Further survey responses from this cohort indicated that 66% of older adults who engaged with Nymbbl were found to report greater satisfaction with their MA plan.

Consequently, this led to 48% reporting an increased likelihood to renew their Medicare Plan.



<sup>6</sup>What is a good net promoter score (NPS)? Qualtrics. (2022, April 15). Retrieved June 24, 2022, from <https://www.qualtrics.com/experience-management/customer/good-net-promoter-score/#:~:text=Above%20%20is%20good%2C,Above%2080%20is%20world%20class/>

# Conclusion

Nymbbl Science has demonstrated that the mobility program can drive novel changes in a large, broad population through a digital, scalable program that benefits the HOS performance and star ratings for MA health plans.

Nymbbl started by targeting fall risk management and found the program was effective in changing behaviors and health trends by improving quality of life, physical and mental health, satisfaction with the health plan, and mobility.

Users were much more likely to renew their MA insurance plan, as well as report better engagement with their HCP leading to an improvement in member experience outcomes.

As a result, Nymbbl can create value across all domains by being a broadly effective HOS management tool for MA organizations while improving member retention and satisfaction.





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