



# **Bladder Pilot Report**

Prepared 1Q2024

# Bladder Pilot Report

## Introduction

As people age, bladder symptoms such as urinary urgency and incontinence become more prevalent and severe, largely due to physiological changes in the bladder and surrounding structures. The bladder's capacity decreases, and its muscles weaken, reducing control over urination. Additionally, the loss of elasticity in the bladder wall and changes in the coordination between the bladder and urethral sphincter contribute to these issues.

These symptoms significantly impact older adults' quality of life, leading to physical health problems like skin irritation and urinary tract infections, increased risk of falls, and disturbed sleep due to nocturia. The psychological effects include heightened anxiety, depression, and social isolation stemming from the embarrassment and inconvenience of incontinence. Consequently, bladder symptoms in older adults necessitate effective management strategies to mitigate their extensive impacts on daily life.

In 4Q2023, Nymbbl conducted a pilot program of over 20,000 users to test the engagement and outcomes of a new bladder health program aimed at addressing these symptoms and complement Nymbbl Balance - Nymbbl's balance training and education program for fall prevention. The program, consisting of educational modules, pelvic floor training, and tips for managing urgency, showed promising results. Key findings include:

- **High Engagement:** 10.7% of Nymbbl enrollees engaged with the program, a rate similar to the engagement of Nymbbl's balance program.
- **Increased Communication with Primary Care Provider (PCP):** 18% of participants who hadn't previously discussed bladder symptoms with their PCPs did so during the pilot period, and 67% reported increased likelihood to discuss these issues in the future.
- **Improved Symptom Management:** 25% of users with urinary urgency as a primary symptom reported increased time they could comfortably hold their urine.
- **Increased App Usage:** Pilot users were twice as likely to return to the Nymbbl app compared to those not offered the bladder program.

The pilot program also revealed areas for improvement, such as enhancing navigation within the app and introducing levels and progression in pelvic floor training. Nymbbl plans to address these issues and continue studying the program's impact, with the goal of offering a comprehensive solution that improves the lives of older adults and supports health plan partners in achieving their goals.

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*User Quote: "Impressed Nymbbl branched out into the topic"*

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## Pilot Process

The Nymbbl Bladder pilot program consists of a module in Nymbbl's existing mobile application. It includes an assessment of urinary urgency symptoms, education modules, pelvic floor training, and quick tips to address urgent symptoms.

Goals of the program:

1. Support health plan partners' Medicare Advantage Star Rating performance by addressing another measure from the Health Outcomes Survey (HOS) - *Improving Bladder Control*. Nymbbl achieves influence by encouraging MA members to discuss urinary urgency and incontinence symptoms with their doctor and providing an intervention.
2. Further reduce fall risk in Nymbbl users by addressing an additional common risk factor for falls - urinary urgency.
3. Build trust and engagement with users by offering a solution to address a top concern of aging that impacts member experience, physical, mental and social health, and mobility.

Nymbbl enrollees were randomly selected into a test or control group. The Control group continued with the original experience - solely having access to the Balance program and receiving planned nudges to encourage engagement within the app.

The Test group was offered a novel dashboard of both the original Balance program plus the new Bladder program. The test group (defined as "pilot users") also received a series of emails notifying them that the Bladder program was available. This educational email series explained the impact of urinary urgency and related symptoms, and how the program would empower enrollees to address these symptoms.

The pilot program ran for approximately three months to capture insights on engagement and leading indicators of outcomes.

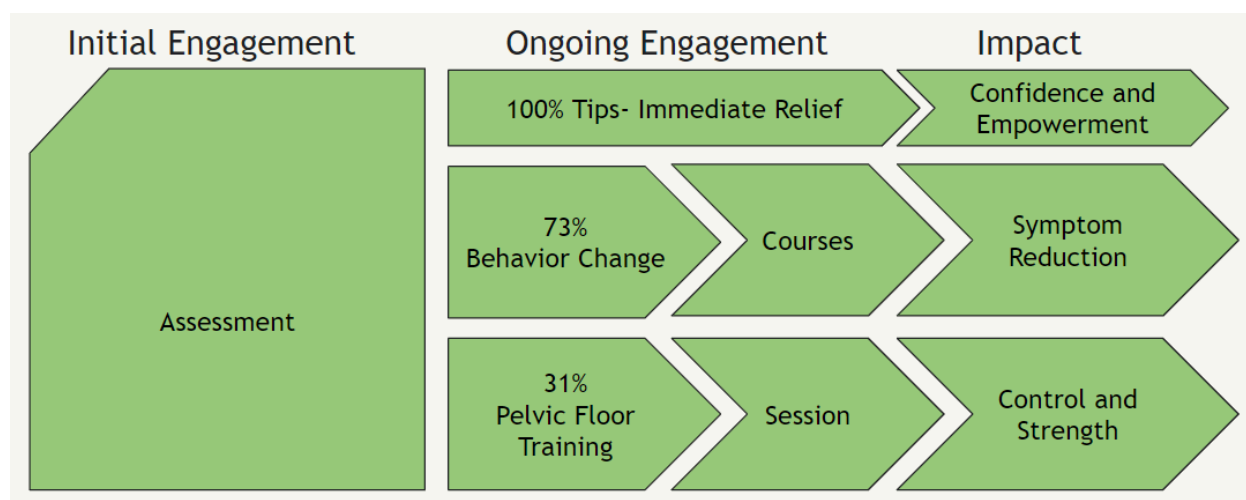
## Early Engagement

Almost 11% of all Nymbbl enrollees who were offered Bladder engaged during the pilot period. Not all targeted enrollees were active in the Nymbbl app during the pilot period. Fifty-seven percent of those who were actively using the Nymbbl app engaged in the Bladder program. The potential impact on enrollment of eligible members who were not currently enrolled in Nymbbl was not tested in this pilot.

Pilot users assessed the severity of their urinary urgency symptoms using the Urgency Severity and Impact Questionnaire (USIQ). Following this assessment, pilot users had the opportunity to engage in the Bladder program in three ways:

- Tips for immediate relief for urgency symptoms (shown immediately following the assessment to provide immediate value).
- Education courses designed to drive behavior change (73% of pilot users engaged in education).
- Pelvic floor training sessions (31% engaged in pelvic floor training exercises).

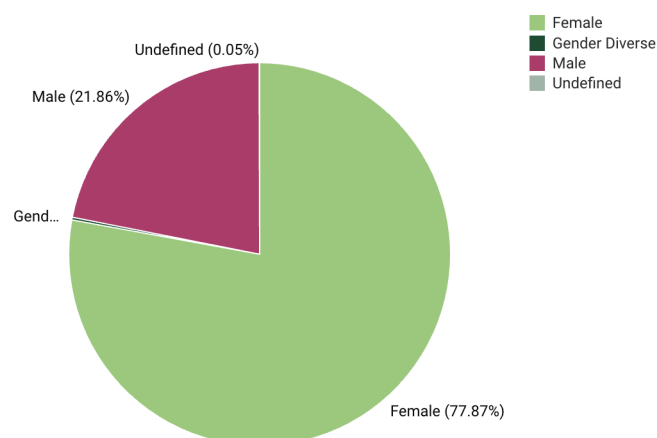
Exhibit 1: User Engagement Journey in Bladder Program



## Demographics of Engagement

Demographics of those who engaged in Bladder largely mirrored Nymbi enrollee demographics. Average age of pilot users was 70 years, and engagement patterns in the program did not vary by age. Three in four participants were female, and more men participated in the Bladder program than anticipated.

Gender Breakdown for Nymbi Bladder



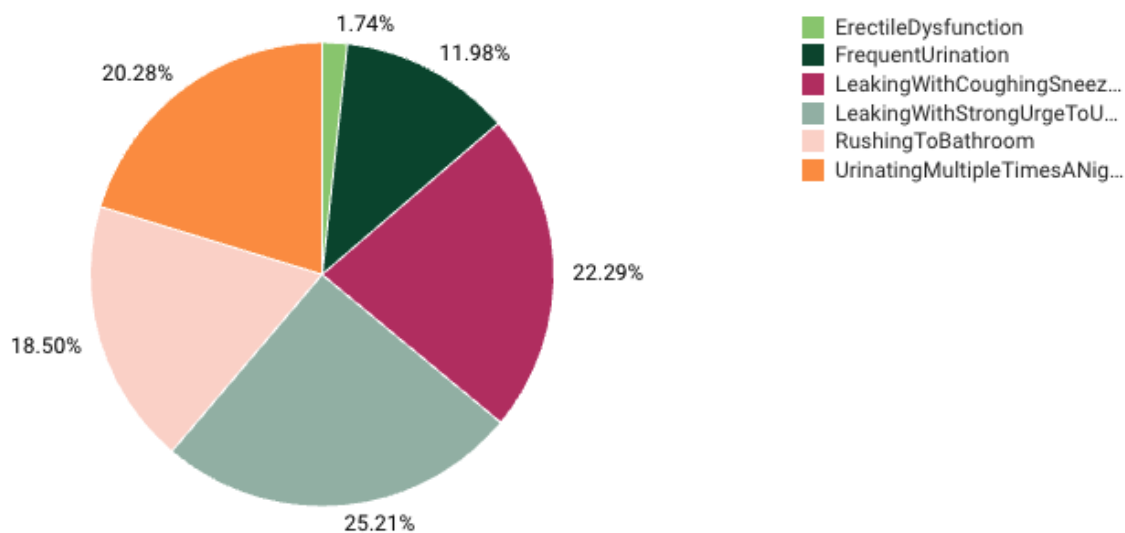
## Bladder Symptoms

Nymbi used the Urgency Severity and Impact Questionnaire (USIQ) to assess severity of urinary urgency symptoms at baseline. Results of the baseline assessment are shown in Exhibit

2 below.

- Eighty-two percent of pilot users indicated incontinence in initial assessment and nearly half identified incontinence as their most bothersome symptom.
- The most bothersome symptoms reported at baseline were urge and stress incontinence, with 1 in 4 pilot users indicating urge incontinence and nearly 1 in 4 indicating stress incontinence.
- One in 5 pilot users indicated nocturia (urinating multiple times at night) as a primary symptom and slightly fewer indicated urinary urgency (rushing to the bathroom).

Exhibit 2: USIQ Baseline



## Ongoing Engagement

### Education

Of the Nymbbl pilot users who initially engaged (by answering the USIQ assessment in the Bladder program), 73% completed at least one of the education modules. This process was personalized by directing pilot users to the education module most relevant to the symptom they indicated as most bothersome during the assessment. Incontinence was found to be a much

more common symptom identified by pilot users than anticipated. As a result, Nymbbl identified an opportunity for improvement and has implemented an education module on incontinence.

## Outcomes of Education Engagement

- The average performance on quizzes following educational modules was 90%, indicating high recall of the lessons learned from the education program.
- Of pilot users who completed a challenge (a 48 hour period following each education module in which the user commits to applying what they learned), 55% indicated their symptoms were reduced as a result of the behavior changes implemented during the challenge period.
- Pilot users implemented behavior changes as a result of Nymbbl's Cognitive Behavioral Technique (CBT) approach to health education:
  - Pilot users indicated that the education portion of the program helped them understand bladder irritants, proper hydration, and techniques to control urges.
  - Many pilot users noted success in increasing their water intake throughout the day, often by spreading out consumption and being mindful of hydration levels.
  - Another key result of the education was reduction or elimination of bladder irritants, such as caffeine and alcohol, from pilot users' diets.
  - Pilot users reported success in adopting new habits related to bladder health, such as practicing breathing techniques, adjusting hydration patterns (e.g., drinking less after 7:00 pm), and managing toilet habits (e.g., going to the toilet before leaving home).

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*User Quote: "I drank less of the bladder irritants and felt better not only in terms of my bladder but overall."*

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## Pelvic Floor Training

One in 3 pilot users who initially engaged in the pilot program participated in pelvic floor training ("training"). Only 1 in 4 of pilot users who started training completed more than three sessions.

Increasing engagement in training is a key opportunity for improvement.

- **Navigation:** An identified opportunity for improvement was the ease of navigation from education to training. Improvements in navigation are anticipated to increase the portion of users participating in training sessions.
- **Levels:** During the pilot, users were purposefully not able to progress through levels of pelvic floor training. The introduction of levels and progression is anticipated to result in more users engaging in more pelvic floor training sessions over time.

In the future Nymbbl intends to compare the impact of additional communications on Balance specific topics versus the impact of Bladder specific topics as it pertains to overall Nymbbl user engagement.

## Outcomes

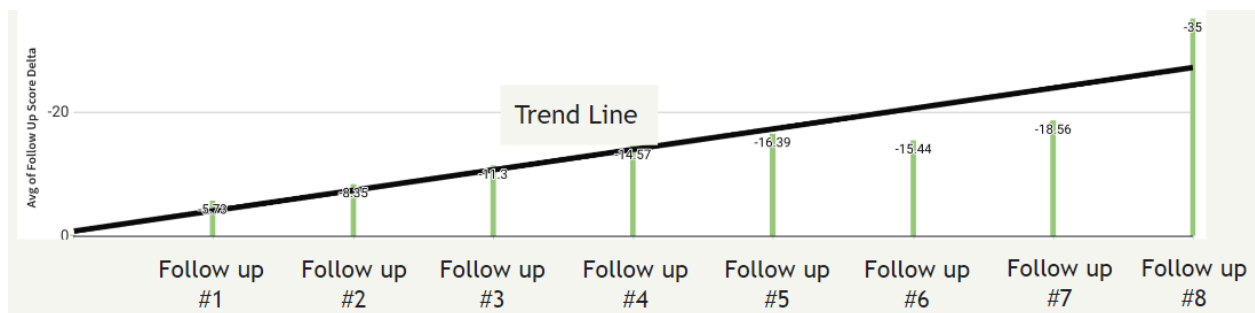
Nymbbl measured several outcomes resulting from engagement in the Bladder program. Due to the pilot timeline, these are very early outcomes; Nymbbl expects outcomes to increase with time and with noted product enhancements.

### Fall Risk Reduction

Overall, 2 in 3 pilot users indicated an improvement in their bladder symptoms during the pilot period.

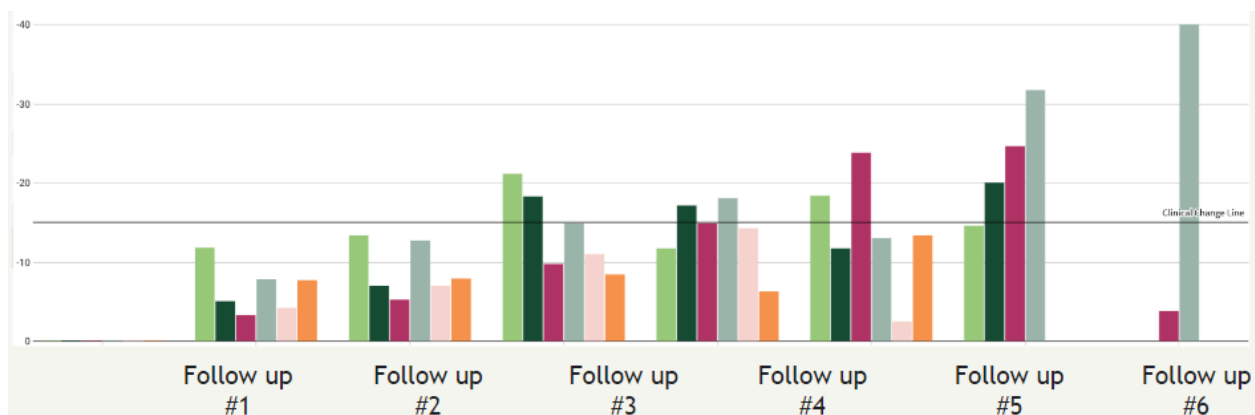
Pilot users were reassessed on the USIQ every two weeks to evaluate the impact of training on symptom severity. The trend line in Exhibit 4 below shows the dose relationship between training and symptom severity. **The more training a user does, the more their symptom severity is reduced.**

Exhibit 3: Average Change in USIQ Score by Follow up Assessment (every 2 weeks)



Certain symptoms take longer to impact than others, as demonstrated in Exhibit 5 below. Erectile dysfunction and urinary urgency symptoms improved fairly quickly, whereas incontinence symptoms required more training to see substantial symptom reduction.

Exhibit 4: Average Change in USIQ Score by Most Bothersome Symptom (follow-up every 2 weeks)



- ErectileDysfunction
- FrequentUrination
- LeakingWithCoughingSneez...
- LeakingWithStrongUrgeToU...
- RushingToBathroom
- UrinatingMultipleTimesANig...

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*User Quote: “Since using Nymbbl Bladder a few times and off and on practicing pelvic floor exercises, I very rarely now have the urgency problem I used to have.”*

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The degree of change indicated at follow-up 4 (8 weeks into the program) is equivalent to the average impact of anticholinergic medications - a 15 point reduction in symptom severity on the USIQ. These medications are typically prescribed to reduce overactive bladder symptoms, but come with many side effects that can impact medication adherence and quality of life.

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*User Quote: “My need to go is mostly at night, and I was going 2 to 4 times a night, with Rx. Now, due to a better understanding and Nymbbl Bladder awareness tools, it's one to two times, with several hours of sleep between trips to the restroom. I am getting more sleep than I have in years, thank you!”*

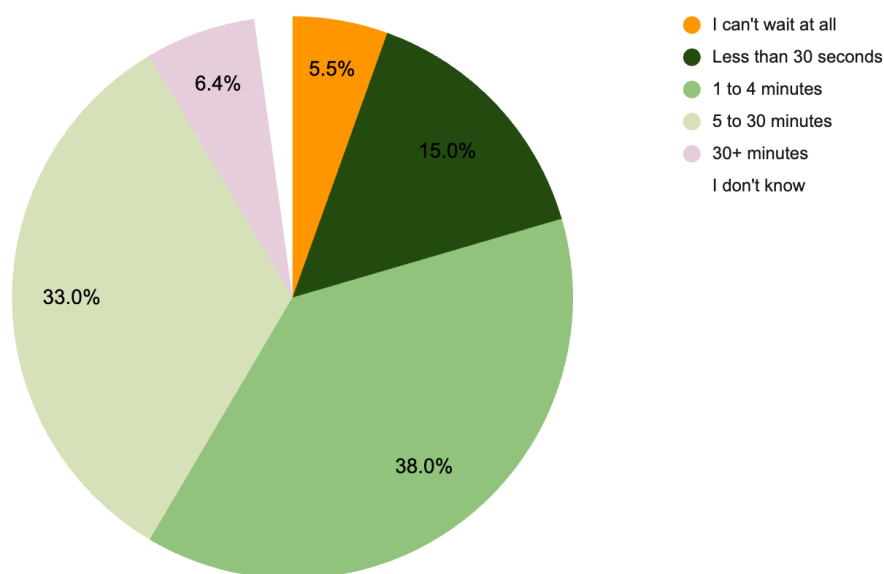
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## Quality of Life Impacts

Of those indicating urinary urgency as a primary symptom, 61% indicated they could not wait more than 4 minutes to get to a restroom when they felt the urge to urinate. **This indicates a significant quality of life impact, likely limiting mobility, desired health behaviors, and social interactions.** Exhibit 3 shows the length of time users can wait.



Exhibit 5: On Average, how long can you wait to urinate once you have urgency?



One in 4 pilot users were able to increase the amount of time they felt confident holding their urine from less than four minutes to more than four minutes during the pilot period. This has a significant impact on quality of life and enables greater mobility, social engagement, and access to care, as well as key health behaviors.

## Driving Engagement from Bladder to Balance

Nymbbl found a correlation between engagement in Bladder and engagement in Balance during the pilot period. In general, pilot users were more likely to engage, and to do so in more depth, than those who were not offered the bladder program.

- Pilot users were 2x more likely to return to the Nymbbl app than those who were not offered Bladder.
- Users who participated in both the Bladder and Balance programs completed more balance training sessions per person than those who participated in only the Balance program.

Additionally, Nymbbl investigated whether promotion of the Bladder program might take users away from the Balance program, risking overall fall reduction results. However, findings during the pilot indicated that while balance training behavior initially slowed after the offer, engagement in Balance returned to normal within about 3 weeks.

As a result of these engagement patterns, as well as the knowledge that urinary urgency and incontinence are leading risk factors for falls, Nymbbl strongly recommends offering Bladder as part of the overall program. Offering Bladder in addition to Balance can enhance the impact of the Balance program on mobility, experience, and fall risk reduction.

## Star Rating and Quality Impacts

The Bladder program was designed to influence the Health Outcomes Survey (HOS) and Consumer Assessment of Health Plans and Systems (CAHPS) surveys to support overall improvement in Medicare Star Ratings.

- HOS:
  - At baseline, 59% of pilot users with a complaint of incontinence indicated they had not discussed bladder symptoms with their doctor.
  - As many as 2 in every 3 pilot users indicated that they are more likely to talk with their doctor about their bladder symptoms as a result of using the program; likelihood to do so increased with greater engagement in the program
  - During the pilot period, 18% of those engaged in the Bladder program converted from a “no” to a “yes” on this question (whether they had talked to their doctor about their symptoms) in the Bladder Control measure, indicating they actually had discussed the topic with their doctor.
  - Pilot users indicated a slight improvement in their ability to engage in social activities as a result of participating in the Bladder program (1-5%) during the pilot period (Nymbbl will continue to track the impact of long term engagement on this metric).

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*User Quote: “Will share this with my primary physician at my regular physical in March”*

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## Recommendations

Nymbbl Bladder works in conjunction with Nymbbl Balance to reduce fall risk and drive desired health outcomes while bolstering member satisfaction and retention, as shown by its initial impact on HOS and CAHPS metrics. Due to these results, and the Bladder program’s ability to drive re-engagement in the Balance program, Nymbbl recommends enabling and promoting the Bladder program to all eligible members.