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# RECHARGE ROOM PILOT PROGRAM

HEALTH DATA REPORT  
JULY 2025

TOWN OF GILBERT

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# INTRODUCTION

The Recharge Room Pilot Program aimed to enhance participants' mental and physical health by offering access to Recharge Rooms with therapeutic devices. The pilot phase included setting up the rooms, training staff, and tracking the program's progress. Main activities involved health screenings, stress tests, and surveys to measure the program's success. This report presents results from the pre- and post-pilot health screenings and assessments.

# PARTICIPANT INFORMATION

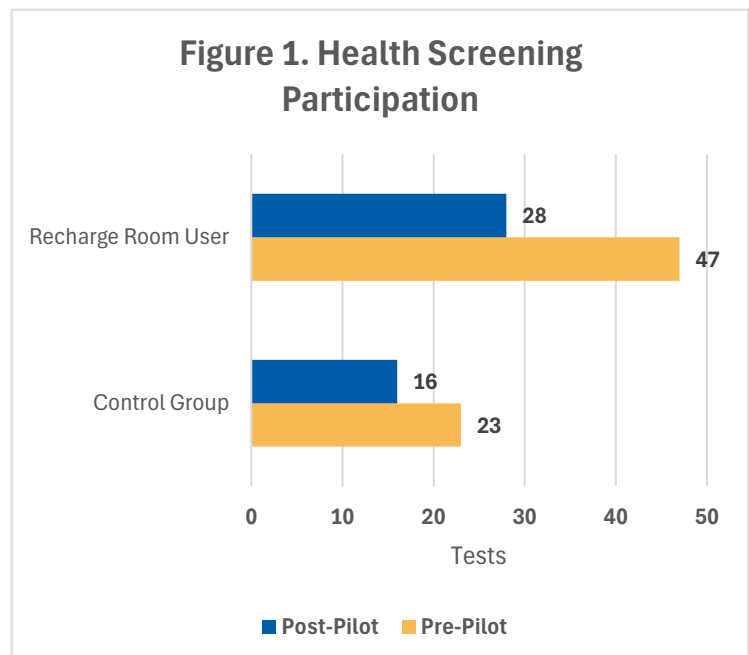
Participants were recruited from the Gilbert Fire & Rescue Department and Police Department. Of the 118 applications, 82 individuals participated in the pilot program while the remaining applicants opted out. Of the 82 participants, 55% (45) were Police Department employees, and 26% (21) were female. Apart from 10 individuals, participants were randomly assigned to one of the two groups: those who used the recharge rooms (i.e., “Recharge Room User”) and those who did not use the recharge rooms (i.e., “Control Group”). The 10 individuals who were not randomly assigned were selected as pilot “champions” who supported the pilot as liaisons between participants and the administrators of the program. There were 60 Recharge Room Users and 22 Control Group Members.

Both groups were encouraged to participate in voluntary pre- and post-pilot health screenings and stress assessments at no cost to the participant. All pilot program data is anonymized to ensure privacy and protection for employees’ information. The vendor withheld all unique identifiers, such as names, age, gender, and contact information, but allowed the Town of Gilbert to compare pre- and post-pilot non-identifiable data. To maintain data transparency, each section will contain notes about the data collection process.

# HEALTH SCREENING DATA

The health screening included a full lipid panel (finger stick), lab-tested blood samples, and manual assessment. It captured total cholesterol, high-density lipids (HDL), low-density lipids (LDL), triglycerides, blood glucose, cortisol levels, high-sensitivity C-reactive protein (hs-CRP), blood pressure, height/weight/waist measurements, and BMI calculations.

Figure 1 (to the right) shows participation rates for the health screenings. The pre-pilot health screening events occurred from February 12-15, 2024 (see in yellow to right), and the post-pilot health screening events occurred six months later from August 19-21, 2024 (see in blue to right). For the remainder of this report, all pre-pilot data will be yellow and all post-pilot data will be blue.



### Figure 1 Notes:

- Due to a sample error at the lab, 13 blood specimens from the pre-pilot screening were not analyzed. According to the vendor, this could have happened for various reasons, such as hemolysis, blood clotting, rough or calloused fingers, insufficient blood, etc. Only 11 participants were able to retest. This report includes data from each individual's most recent test. Inconclusive results are excluded from analyses and will be noted under the respective charts.
- Due to the anonymous nature of the data provided, one participant's data could not be categorized into the user or control group. This individual's data was removed from the remainder of the report.

### Analysis:

- 86% of all pilot program participants participated in the pre-pilot screening, compared to 54% who participated in the post-pilot screening, representing a significant drop in participation rates.
- 62% of individuals who participated in the pre-pilot screening also participated in the post-pilot screening, showing a 38% drop in participation from the pre-pilot to post-pilot screenings.

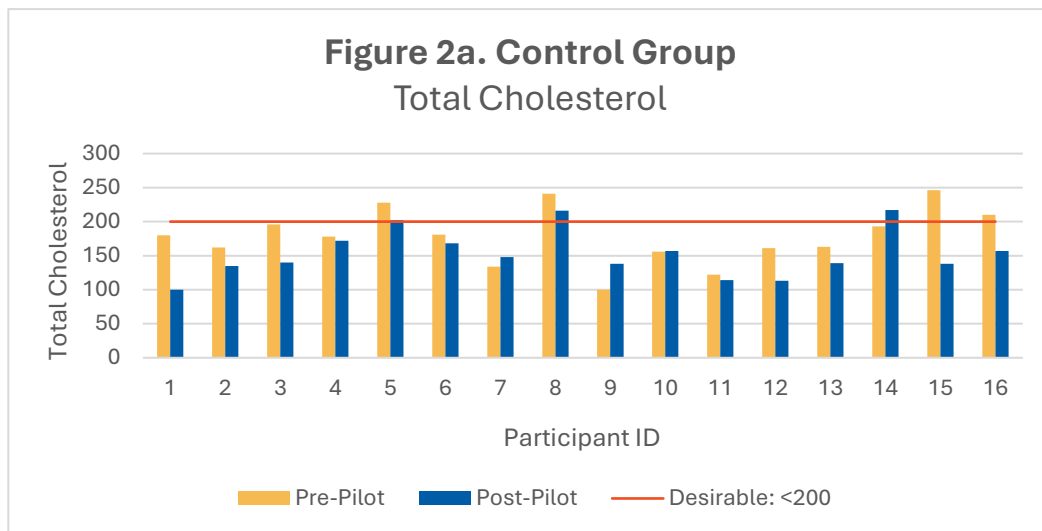
The following sections will show data for the 28 recharge room users and 16 control group members who participated in both screenings. The data's intent is to show whether there were any significant changes to participants' health after using the Recharge Room equipment.

## CHOLESTOROL

Cholesterol is a waxy substance that's found in the fats (lipids) in the blood. While the body needs cholesterol to continue building healthy cells, having high cholesterol can increase the risk of heart disease. Total cholesterol is the total amount of cholesterol circulating in the blood. The total cholesterol ranges are defined by mg/dL below:

- Desirable: < 200
- Borderline High: 200 - 239
- High: 240+

Figures 2a (Control Group) and 2b (Recharge Room Users) below show pre- and post-pilot results per participant.



### Figure 2a Notes:

- 75% (12 out of 16) of the Control Group Members experienced a **decrease** in total cholesterol from pre-pilot to post-pilot.
- 25% (4 out of 16) of the Control Group Members had borderline high or high total cholesterol levels during pre-pilot, which **decreased** to 19% (3 out of 16) post-pilot.

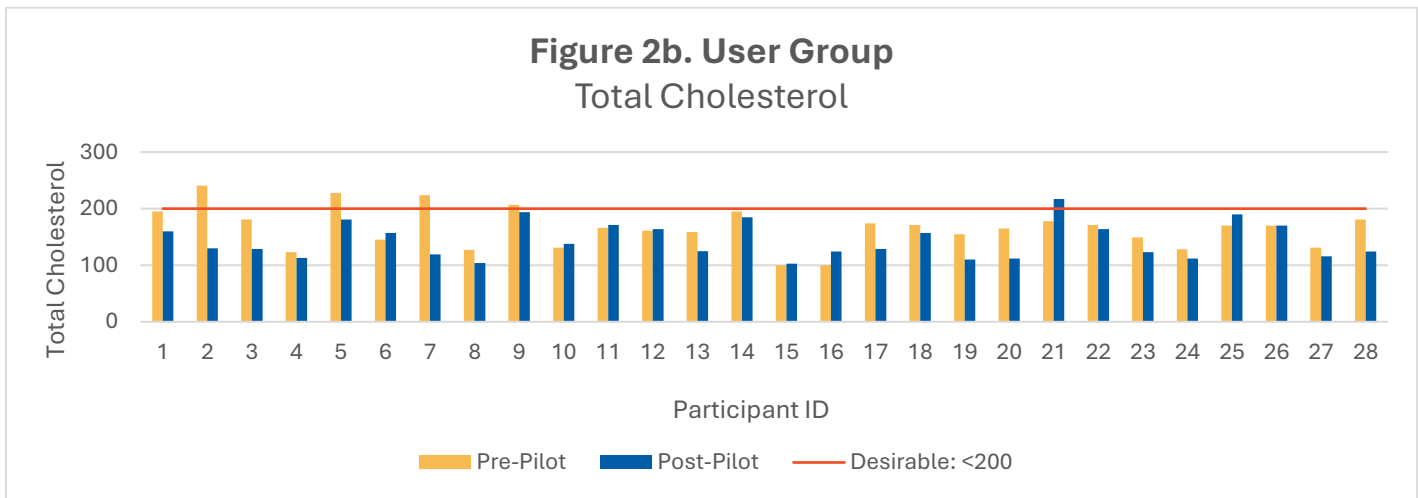


Figure 2b Notes:

- 68% (19 out of 28) of the Recharge Room Users experienced a **decrease** in their total cholesterol from pre-pilot to post-pilot.
- 14% (4 out of 28) of the Recharge Room Users had borderline high or high total cholesterol levels during the pre-pilot, and this **decreased** to 4% (1 out of 28) after the pilot.

Analysis:

For the Control Group Members, 75% (12 out of 16) experienced a decrease in total cholesterol from pre-pilot to post-pilot. This suggests that even without the intervention of the Recharge Room, participants' total cholesterol levels can improve, likely due to lifestyle changes or other factors outside the study. Additionally, 25% (4 out of 16) of the Control Group Members had borderline high or high total cholesterol levels during pre-pilot. This percentage decreased to 19% (3 out of 16) post-pilot, indicating a modest improvement in cholesterol levels among some of the control group members.

When examining the Recharge Room Users, 68% (19 out of 28) experienced a decrease in their total cholesterol from pre-pilot to post-pilot. This is a significant finding, as it demonstrates that a majority of the participants saw positive changes in their cholesterol levels after using the Recharge Room. Moreover, the proportion of Recharge Room Users with borderline high or high total cholesterol levels decreased from 14% (4 out of 28) during pre-pilot to 4% (1 out of 28) post-pilot. This notable reduction suggests that the Recharge Room may be particularly effective in helping users manage and reduce high cholesterol levels.

Overall, these results highlight the potential benefits of the Recharge Room in improving participants' cholesterol levels, as evidenced by the significant decrease in both total cholesterol and high cholesterol levels among the users. This data points to the Recharge Room's effectiveness as a health intervention tool.

## TRIGLYCERIDES

Triglycerides are a type of fat (lipid) found in the blood. When eating, the body converts excess calories into triglycerides. They are stored in fat cells. Later, hormones release triglycerides for energy between meals.

Triglyceride ranges are defined in mg/dL below:

- Healthy/Normal: < 150
- Borderline High: 150 - 199
- High: 200 - 499

- Very High : 500+

Figures 3a (Control Group) and 3b (Recharge Room Users) below show pre- and post-pilot results per participant.

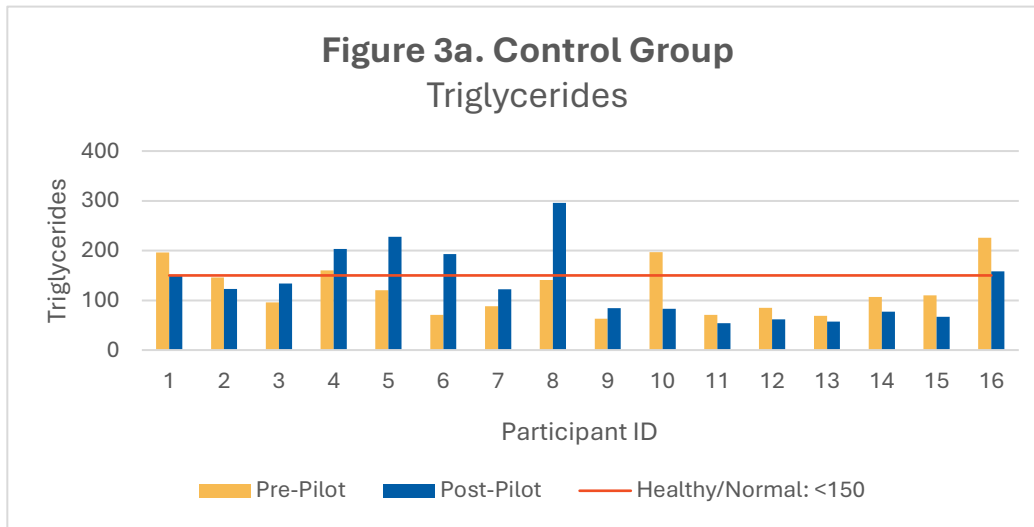


Figure 3a Notes:

- 56% (9 out of 16) of the Control Group Members experienced a **decrease** in triglyceride levels from pre-pilot to post-pilot.
- 31% (5 out of 16) of the Control Group Members had borderline high or high triglyceride levels during pre-pilot, which **increased** to 38% (6 out of 16) post-pilot.

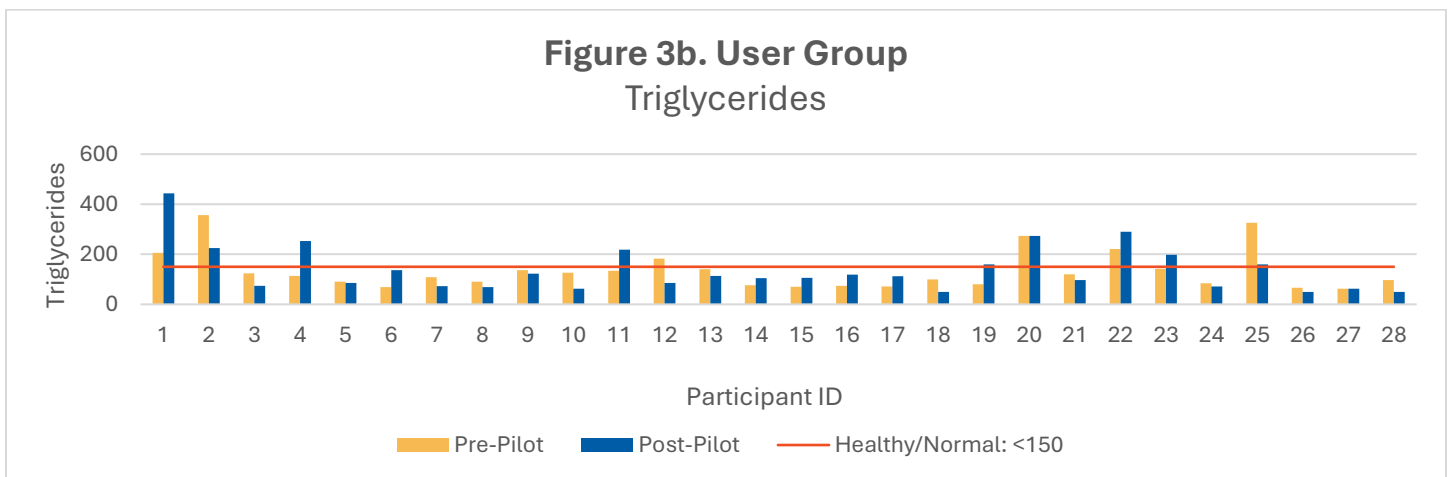


Figure 3b Notes:

- 54% (15 out of 28) of the Recharge Room Users experienced a **decrease** in their triglyceride levels from pre-pilot to post-pilot.
- 21% (6 out of 28) of the Recharge Room Users had borderline high or high triglyceride levels during the pre-pilot, and this **increased** to 32% (9 out of 28) after the pilot.

Analysis:

The data from Figure 3a indicates that a majority of the Control Group Members, 56%, experienced a decrease in their triglyceride levels from pre-pilot to post-pilot. However, there was a slight increase in the percentage of members with borderline high or high triglyceride levels, rising from 31% pre-pilot to 38% post-pilot. This suggests that while some control group members, who did not use the recharge room equipment or receive any specific treatment, benefited from the control conditions, a subset of the group still experienced worsening triglyceride levels.

In contrast, Figure 3b shows that 54% of the Recharge Room Users had a decrease in their triglyceride levels, a figure slightly lower than that of the Control Group. Notably, the percentage of users with borderline high or high triglyceride levels increased more significantly, from 21% pre-pilot to 32% post-pilot. This larger increase might indicate that while the Recharge Room had positive effects for many users, it was not equally beneficial for all, with some users experiencing an adverse effect on their triglyceride levels.

These results suggest variations in individual responses to the interventions, underscoring the need for tailored approaches to managing triglyceride levels among different populations.

## HIGH-DENSITY LIPIDS (HDL)

High-density lipids (HDL), also known as “Good Cholesterol”, help remove the LDL cholesterol from blood vessels by carrying it back to the liver. This helps protect from the negative side effects of LDL cholesterol build up. HDL ranges are defined in mg/dL below:

- Low: < 40
- Desirable: 40+

Figures 4a (Control Group) and 4b (Recharge Room Users) below show pre- and post-pilot results per participant.

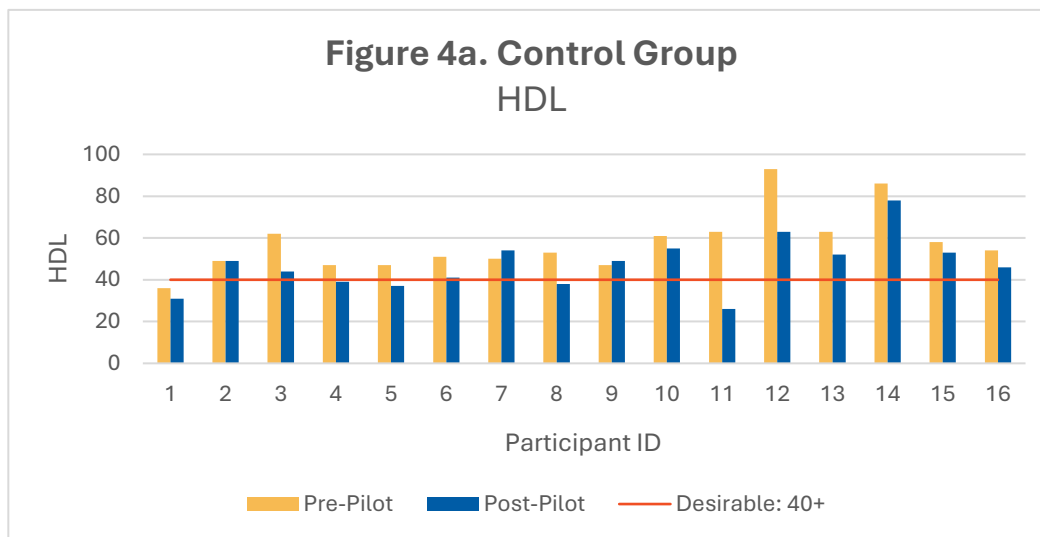
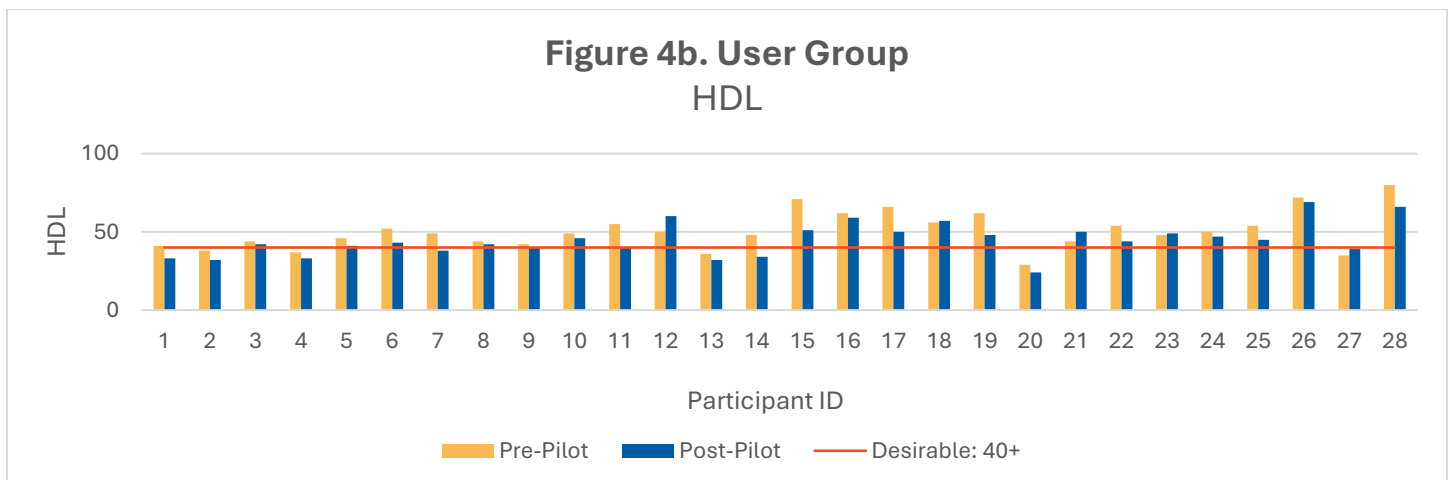


Figure 4a Notes:

- 13% (2 out of 16) of the Control Group Members experienced an **increase** in HDL (good cholesterol) levels from pre-pilot to post-pilot.
- 94% (15 out of 16) of the Control Group Members had desirable HDL (good cholesterol) levels during pre-pilot, which **decreased** to 69% (11 out of 16) post-pilot.



## Figure 4b Notes:

- 18% (5 out of 28) of the Recharge Room Users experienced an **increase** in HDL (good cholesterol) levels from pre-pilot to post-pilot.
- 82% (23 out of 28) of the Recharge Room Users had desirable HDL (good cholesterol) levels during the pre-pilot, and this **decreased** to 71% (20 out of 28) after the pilot.

## Analysis:

Figures 4a and 4b reveal distinct observations regarding the HDL levels among the Control Group Members and the Recharge Room Users. For the Control Group, only 13% of members experienced an increase in HDL levels from pre-pilot to post-pilot. However, a notable decline was observed in the percentage of members with desirable HDL levels, decreasing from 94% pre-pilot to 69% post-pilot.

In comparison, the Recharge Room Users exhibited a slightly better outcome, with 18% experiencing an increase in HDL levels. Similarly, the percentage of users with desirable HDL levels also decreased, albeit less drastically, from 82% pre-pilot to 71% post-pilot.

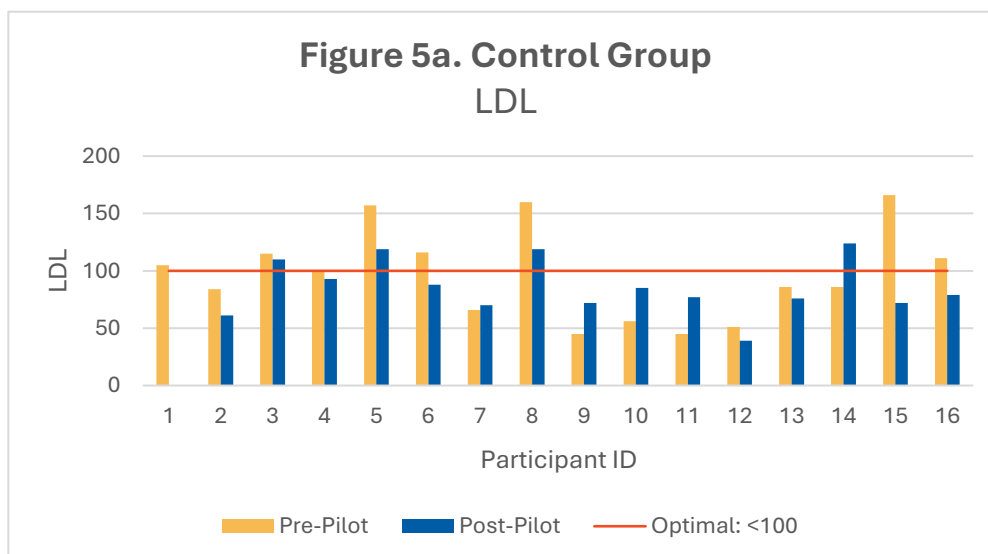
These observations suggest that while a small portion of both groups saw improvements in HDL levels, there was a significant decrease in the proportion of members maintaining desirable HDL levels overall. This decline was more pronounced in the Control Group as compared to the Recharge Room Users, indicating that the latter may have had some benefit or mitigating factors affecting their HDL levels during the pilot period.

## LOW-DENSITY LIPIDS (LDL)

Low-density lipids (LDL), also known as “Bad Cholesterol”, contribute to plaque, a thick, hard deposit that can build up in blood vessels, making it more difficult for blood to flow freely, thus damaging circulation. LDL ranges are defined in mg/dL below:

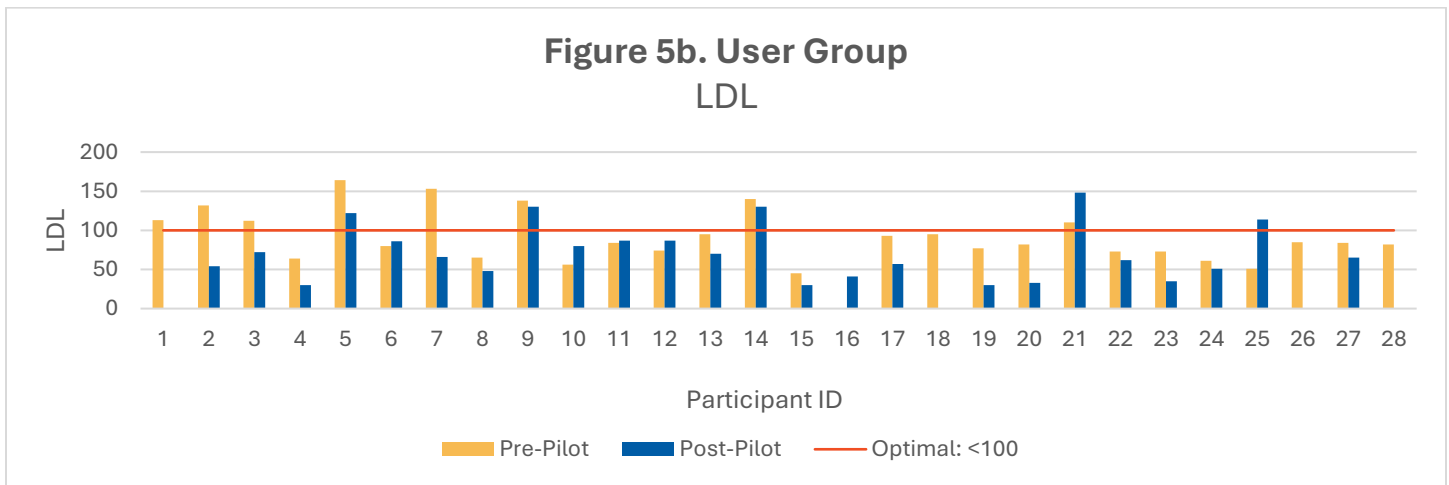
- Optimal: < 100
- Borderline High: 130 - 159
- High: 160+

Figures 5a (Control Group) and 5b (Recharge Room Users) below show pre- and post-pilot results per participant.



## Figure 5a Notes:

- One post-pilot test was inconclusive (LDL=0) for participant #1. This data was removed from the analysis.
- 67% (10 out of 15) of the Control Group Members experienced a **decrease** in LDL (bad cholesterol) levels from pre-pilot to post-pilot.
- 40% (6 out of 15) of the Control Group Members had borderline high or high LDL (bad cholesterol) levels during pre-pilot, which **decreased** to 27% (4 out of 15) post-pilot.



**Figure 5b Notes:**

- One pre-pilot test was inconclusive (LDL=0) for participant #16. This data was removed from the analysis.
- Four post-pilot tests were inconclusive (LDL=0) for participants #1, 18, 26, and 28. This data was removed from the analysis.
- 74% (17 out of 23) of the Recharge Room Users experienced a **decrease** in LDL (bad cholesterol) levels from pre-pilot to post-pilot.
- 30% (7 out of 23) of the Recharge Room Users had borderline high or high LDL (bad cholesterol) levels during the pre-pilot, and this **decreased** to 22% (5 out of 23) after the pilot.

**Analysis:**

Both Figures 5a and 5b highlight the impact of interventions on LDL cholesterol levels in two groups: the Control Group Members and the Recharge Room Users. In the Control Group, which did not receive any intervention, 67% experienced a reduction in LDL levels, with a notable decrease in the percentage of participants with borderline high or high LDL levels from 40% pre-pilot to 27% post-pilot. Conversely, the Recharge Room Users, who did receive an intervention, saw a slightly higher reduction rate of 74%, and those with initially high LDL levels decreased from 30% to 22% post-pilot.

The removal of inconclusive data points underscores the importance of accurate measurements for reliable analysis. Overall, these figures suggest that while both groups showed a reduction in LDL levels, the Recharge Room intervention had a slightly better outcome in terms of percentage reduction.

**TOTAL CHOLESTEROL-HDL RATIO**

The total cholesterol (TC) to HDL ratio compares the amount of total cholesterol in blood to the amount of high-density lipoprotein (HDL) cholesterol. This ratio is important because it helps assess individuals’ risk for heart disease by showing the balance between "good" (HDL) and "bad" (LDL) cholesterol in the body. A lower ratio indicates a lower risk, while a higher ratio suggests a higher risk. The TC-HDL Ratio ranges are defined below:

- Desirable: < 3.5
- Borderline High: 3 - 5
- High: > 5

Figures 6a (Control Group) and 6b (Recharge Room Users) below show pre- and post-pilot results per participant.

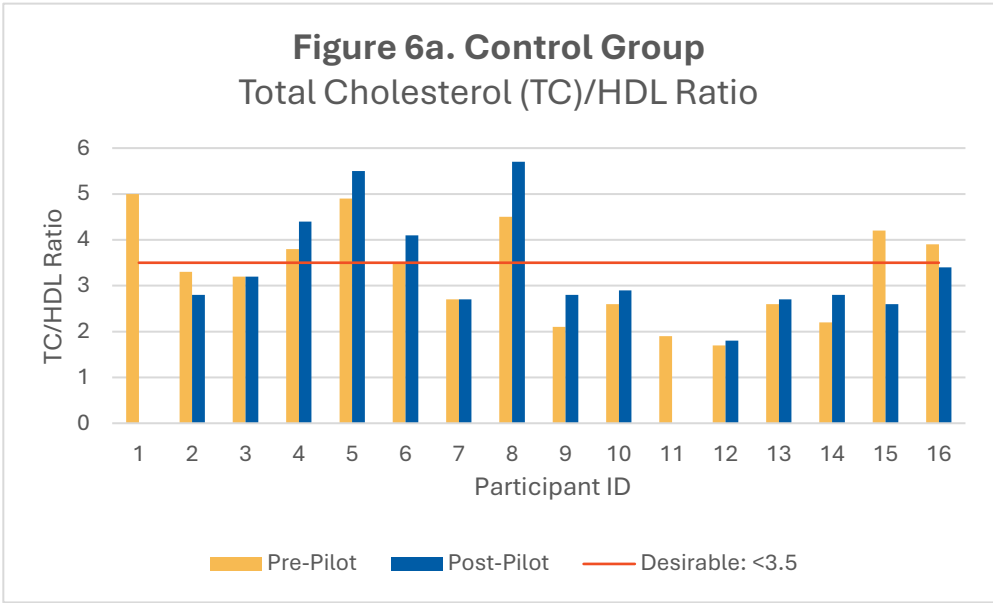


Figure 6a Notes:

- Two post-pilot tests were inconclusive (TC/HDL=0) for participant #1 and 11. This data was removed from the analysis.
- 21% (3 out of 14) of the Control Group Members experienced a **decrease** in their TC/HDL ratios from pre-pilot to post-pilot.
- 43% (6 out of 14) of the Control Group Members had borderline high or high TC/HDL ratios during pre-pilot, which **decreased** to 29% (4 out of 14) post-pilot.

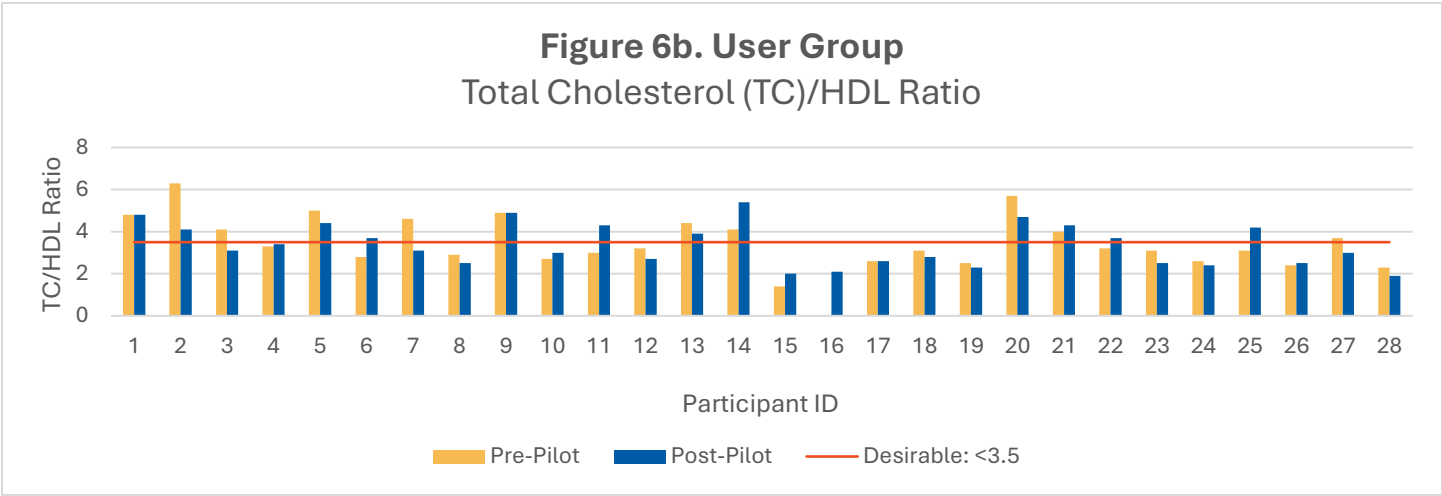


Figure 6b Notes:

- One pre-pilot test was inconclusive (TC/HDL=0) for participant #16. This data was removed from the analysis.
- 52% (14 out of 27) of the Recharge Room Users experienced a **decrease** in TC/HDL ratios from pre-pilot to post-pilot.
- 41% (11 out of 27) of the Recharge Room Users had borderline high or high TC/HDL ratios during the pre-pilot, and this **increased** to 44% (12 out of 27) after the pilot.

Analysis:

When comparing the Control Group and the Recharge Room Users, several key differences emerge. The Control Group, which did not receive any treatment, exhibited less improvement overall in their TC/HDL ratios compared to the Recharge Room Users. Specifically, 21% of the Control Group experienced a decrease in their TC/HDL ratios from pre-pilot to post-pilot, whereas 52% of the Recharge Room Users saw a reduction in their ratios during the same period.

Moreover, the proportion of Control Group Members with borderline high or high TC/HDL ratios decreased from 43% pre-pilot to 29% post-pilot. In contrast, for the Recharge Room Users, the percentage of participants with borderline high or high TC/HDL ratios increased slightly from 41% pre-pilot to 44% post-pilot.

These results suggest that while the Recharge Room intervention was effective in reducing TC/HDL ratios for a significant portion of its users, it did not consistently lower the number of participants with higher-risk ratios. This contrasting outcome points to the complexity of individual responses to the intervention and highlights the necessity for further research to optimize and understand the benefits fully.

## HS-CRP – RISK FOR CARDIOVASCULAR DISEASE

C-reactive protein (CRP) is produced by the liver. Its level rises when there's inflammation in the body. LDL (bad cholesterol) not only coats the walls of the arteries but also damages them. This damage causes inflammation that the body tries to heal by sending a "response team" of proteins, which includes CRP. The high-sensitivity C-reactive protein (hs-CRP) test is a blood test that measures low levels of CRP and is used to check for cardiovascular disease. The hs-CRP test is most useful for people who have a 10-20% chance of having a heart attack within the next 10 years. The risk for cardiovascular disease ranges are defined in mg/L below:

- Low risk: < 1.0
- Moderate risk: 1.0 - 3.0
- High risk: 3.0+

Figures 7a (Control Group) and 7b (Recharge Room Users) below show pre- and post-pilot results per participant.

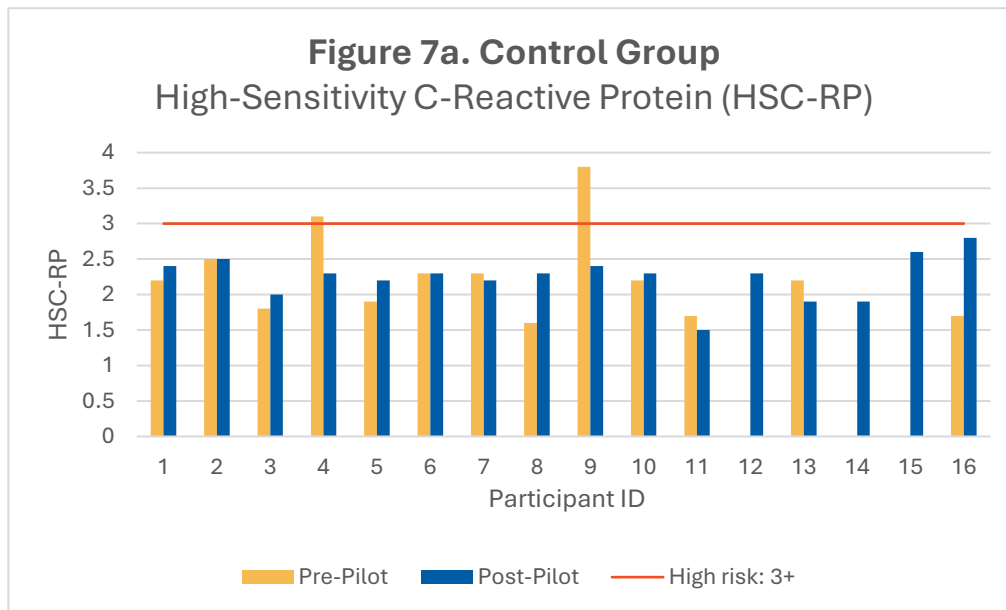
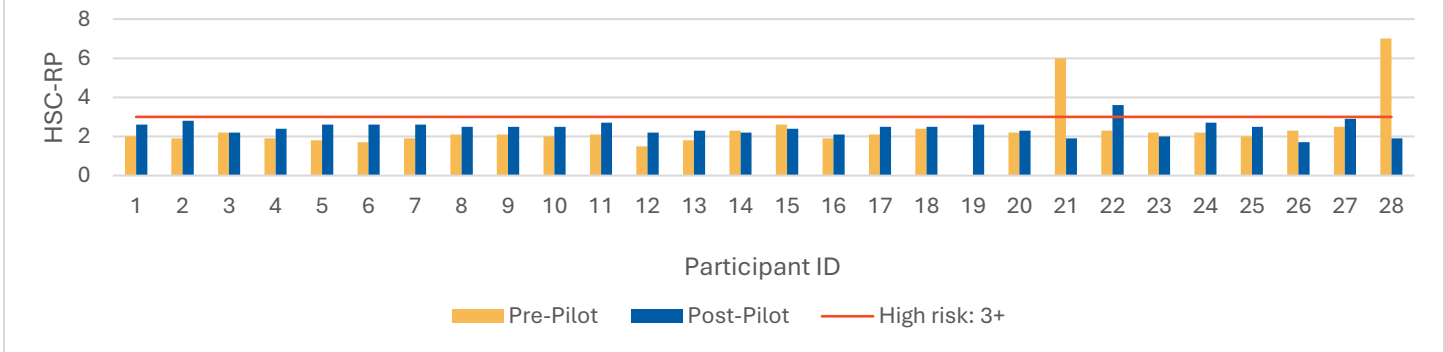


Figure 7a Notes:

- Three pre-pilot tests were inconclusive (hs-CRP=0) for participants #12, 14, and 15. This data was removed from the analysis.
- 38% (5 out of 13) of the Control Group Members experienced a **decrease** in their hs-CRP levels from pre-pilot to post-pilot.
- 15% (2 out of 13) of the Control Group Members had high-risk hs-CRP levels during pre-pilot, which **decreased** to 0% (0 out of 13) post-pilot.

**Figure 7b. User Group**  
High-Sensitivity C-Reactive Protein (HSC-RP)



**Figure 7b Notes:**

- One pre-pilot test was inconclusive (hs-CRP=0) for participant #19. This data was removed from the analysis.
- 22% (6 out of 27) of the Recharge Room Users experienced a **decrease** in hs-CRP levels from pre-pilot to post-pilot.
- 7% (2 out of 27) of the Recharge Room Users had high-risk hs-CRP levels during the pre-pilot, and this **decreased** to 4% (1 out of 27) after the pilot.

**Analysis:**

The analysis of Figures 7a and 7b reveals notable differences in outcomes between the Control Group and the Recharge Room Users. In the Control Group, 38% of participants experienced a decrease in hs-CRP levels from pre-pilot to post-pilot, while in the Recharge Room Users, this percentage was lower at 22%. This suggests that despite not receiving any treatment, a higher proportion of the Control Group saw improvements in their hs-CRP levels.

Moreover, the percentage of participants with high-risk hs-CRP levels in the Control Group decreased significantly from 15% pre-pilot to 0% post-pilot. In contrast, the Recharge Room Users saw a smaller reduction in high-risk hs-CRP levels, from 7% pre-pilot to 4% post-pilot. This indicates that the Control Group, which did not receive any specific intervention, had a more pronounced improvement in reducing high-risk levels of hs-CRP compared to the Recharge Room Users.

In summary, the comparative analysis suggests that the natural variation observed in the Control Group led to greater reductions in both hs-CRP levels and high-risk hs-CRP levels than those observed in the Recharge Room Users. These findings highlight the importance of considering natural physiological changes or other external factors that might influence such outcomes when evaluating the effectiveness of interventions.

**BLOOD PRESSURE**

Blood pressure readings consist of two numbers, reflecting the pressure within your arteries at two different points in your cardiac cycle:

- **Systolic blood pressure:** The first number (or top number) measures the pressure in your arteries when your heart beats and pumps blood out.
- **Diastolic blood pressure:** The second number (or bottom number) measures the pressure in your arteries when your heart is resting between beats and refilling with blood.

These numbers are expressed in millimeters of mercury (mm Hg), for example, 120/80 mm Hg, which is read as "120 over 80".

The American Heart Association and American College of Cardiology have established guidelines for blood pressure readings:

- Normal: Less than 120 systolic AND less than 80 diastolic.
- Elevated: 120-129 systolic AND less than 80 diastolic.
- High Blood Pressure (Hypertension) Stage 1: 130-139 systolic OR 80-89 diastolic.
- High Blood Pressure (Hypertension) Stage 2: 140 or higher systolic OR 90 or higher diastolic.
- Hypertensive Crisis (consult your doctor immediately): Higher than 180 systolic AND/OR higher than 120 diastolic.

Tables 1 (Control Group) and 2 (Recharge Room Users) below show pre- and post-pilot results per participant.

Table 1. Control Group Blood Pressure				
	Pre-Pilot		Post-Pilot	
Participant ID	Systolic	Diastolic	Systolic	Diastolic
1	138	88	159	104
2	134	82	145	75
3	122	78	142	89
4	124	80	140	79
5	122	80	139	87
6	130	82	134	79
7	124	88	129	76
8	126	80	128	80
9	120	80	128	87
10	124	80	122	78
11	120	82	120	80
12	120	80	120	66
13	126	80	110	74
14	122	78	110	70
15	128	88	109	64
16	122	82	109	78
Key:				
Normal: Less than 120 systolic AND less than 80 diastolic.				
Elevated: 120-129 systolic AND less than 80 diastolic.				
High Blood Pressure (Hypertension) Stage 1: 130-139 systolic OR 80-89 diastolic.				
High Blood Pressure (Hypertension) Stage 2: 140 or higher systolic OR 90 or higher diastolic.				
Hypertensive Crisis (consult your doctor immediately): Higher than 180 systolic AND/OR higher than 120 diastolic.				

Table 1 Notes:

- 50% (8 out of 16) of the Control Group Members experienced an **improvement** in their blood pressure levels from pre-pilot to post-pilot.
- 100% (16 out of 16) of the Control Group Members had elevated blood pressure, Stage 1 Hypertension, or Stage 2 Hypertension during pre-pilot, which **decreased** to 75% (12 out of 16) post-pilot.

Table 2. Recharge Room User Blood Pressure

Participant ID	Pre-Pilot		Post-Pilot	
	Systolic	Diastolic	Systolic	Diastolic
1	118	78	140	90
2	116	70	140	84
3	110	78	140	80
4	100	60	140	93
5	118	80	139	92
6	120	70	137	84
7	110	70	135	78
8	118	84	134	78
9	110	70	133	92
10	100	60	124	73
11	100	80	123	68
12	120	60	120	74
13	118	78	120	82
14	116	72	119	75
15	110	80	119	70
16	118	82	118	76
17	118	62	118	76
18	110	60	118	79
19	108	70	116	75
20	120	70	115	68
21	118	78	114	70
22	120	80	113	68
23	116	78	113	74
24	118	82	108	68
25	110	76	108	69
26	90	60	106	66
27	100	80	103	68
28	110	70	102	56
Key:				
Normal: Less than 120 systolic AND less than 80 diastolic.				
Elevated: 120-129 systolic AND less than 80 diastolic.				
High Blood Pressure (Hypertension) Stage 1: 130-139 systolic OR 80-89 diastolic.				
High Blood Pressure (Hypertension) Stage 2: 140 or higher systolic OR 90 or higher diastolic.				
Hypertensive Crisis (consult your doctor immediately): Higher than 180 systolic AND/OR higher than 120 diastolic.				

Table 2 Notes:

- 21% (6 out of 28) of the Recharge Room Users experienced an **improvement** in their blood pressure levels from pre-pilot to post-pilot.
- 39% (11 out of 28) of the Recharge Room Users had elevated blood pressure, Stage 1 Hypertension, or Stage 2 Hypertension during pre-pilot, which **increased** to 46% (13 out of 28) post-pilot.

## Analysis:

Table 1 outlines the various blood pressure categories, highlighting the importance of maintaining optimal levels. It serves as a baseline for understanding the health metrics of the control group, which did not experience any intervention during the pilot study.

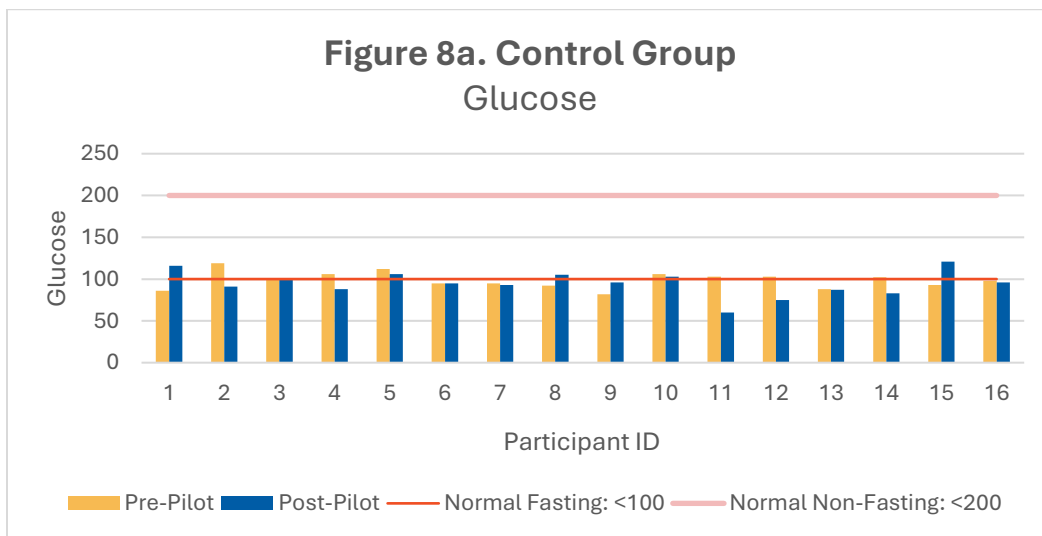
Table 2 provides insights into the outcomes observed among the Recharge Room users. Notably, 21% (6 out of 28) of these users experienced an improvement in their blood pressure levels from pre-pilot to post-pilot. This suggests that the Recharge Room had a positive impact on some participants' blood pressure regulation. However, there is a counterpoint to this improvement. Initially, 39% (11 out of 28) of the Recharge Room users had elevated blood pressure, Stage 1 Hypertension, or Stage 2 Hypertension during the pre-pilot phase. This percentage increased to 46% (13 out of 28) post-pilot, indicating that while some users benefited, others saw their blood pressure worsen over time.

In the absence of treatment for the control group, the comparison reveals a mixed efficacy of the Recharge Room intervention. The improvement in blood pressure for a subset of users highlights potential benefits, whereas the increase in hypertension rates suggests that the intervention was not universally effective. These findings underscore the necessity for individualized approaches and further research to determine the factors influencing such diverse outcomes.

## GLUCOSE

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Glucose is the primary source of energy for the body's cells. A normal blood glucose range on a fasting test is under 100 milligrams per deciliter (mg/dL), and a normal range on a non-fasting test is under 200 mg/dL. Anything above these ranges has been categorized as undesirable.



### Figure 8a Notes:

- It is important to note that the vendor did not capture fasting status for the post-pilot phase, making it difficult to accurately analyze the pre- and post-pilot results. Despite this limitation, it appears that most, if not all, participants had glucose levels within the normal range.

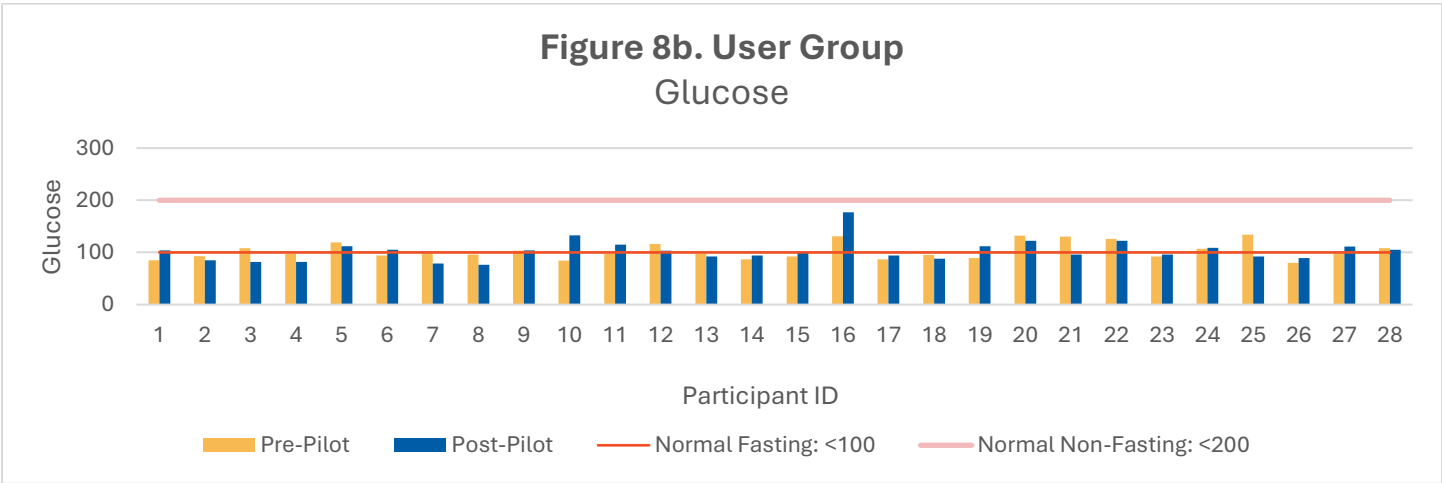


Figure 8b Notes:

- It is important to note that the vendor did not capture fasting status for the post-pilot phase, making it difficult to accurately analyze the pre- and post-pilot results. Despite this limitation, it appears that most, if not all, participants had glucose levels within the normal range.

## CORTISOL

Cortisol, often called the "stress hormone", is a steroid hormone produced by your adrenal glands. While it's released in response to stress, it's also essential for many other bodily functions, including regulating blood sugar, controlling inflammation, and helping regulate the sleep-wake cycle.

Cortisol levels naturally fluctuate throughout the day, following a circadian rhythm. They are typically highest in the morning (around 6-8 a.m.) and gradually decrease throughout the day, reaching their lowest point around midnight. This diurnal variation is a key aspect of healthy cortisol function.

Cortisol levels are measured in micrograms per deciliter (mcg/dL):

- Blood Cortisol (taken in the morning, between 6 a.m. and 8 a.m.): 10 to 20 mcg/dL
- Blood Cortisol (taken in the afternoon, around 4 p.m.): Normal 3 to 10 mcg/dL

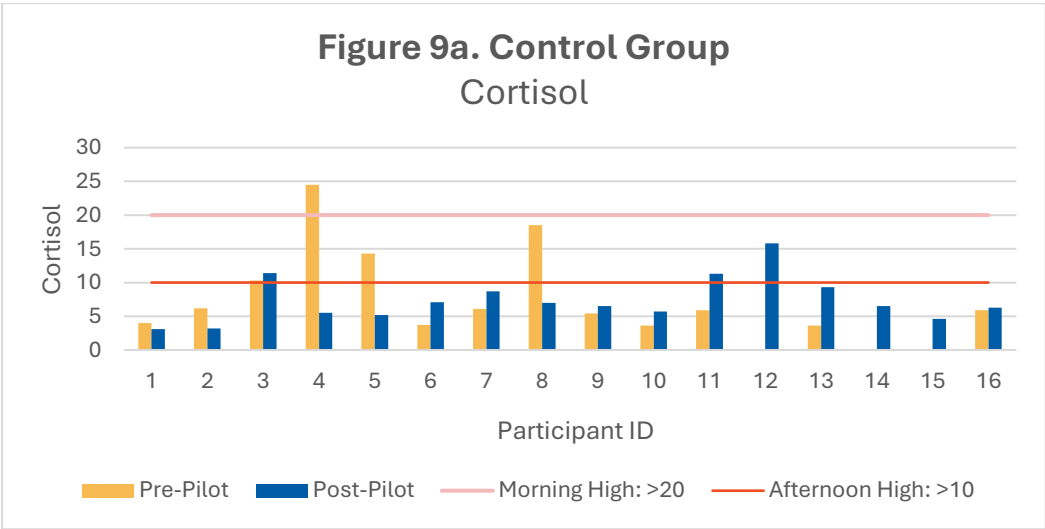


Figure 9a Notes:

- The vendor did not record the time at which each cortisol sample was taken. As a result, it is impossible to accurately assess the cortisol levels considering the natural fluctuations throughout the day.
- Participant #4 had elevated cortisol levels during the pre-pilot regardless of the time of the test, indicating consistently high stress levels.

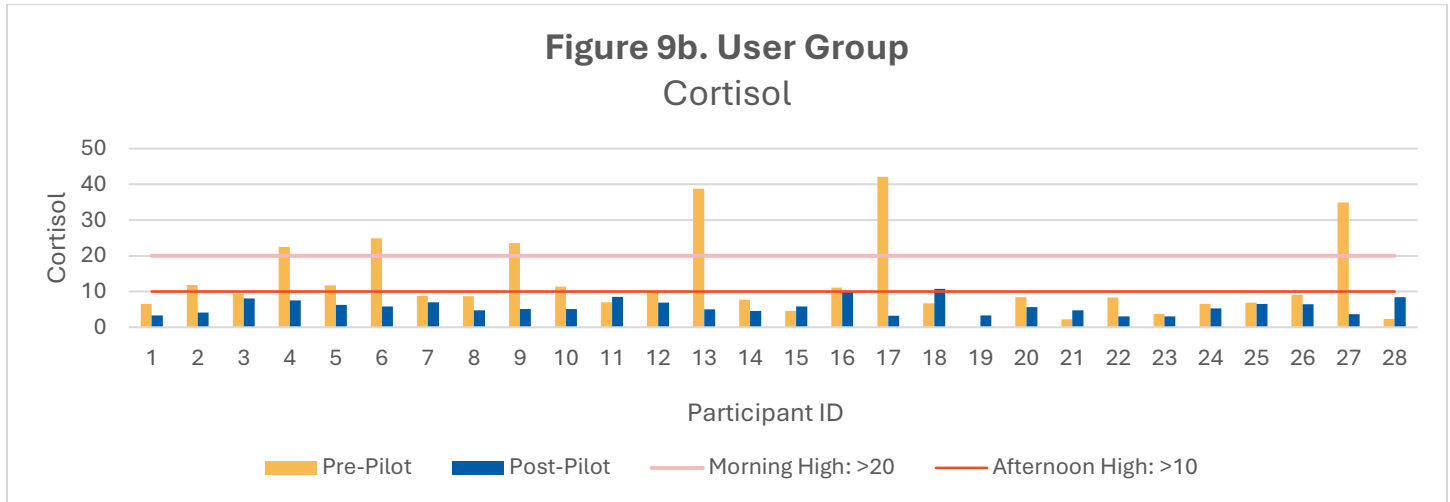


Figure 9b Notes:

- The vendor did not record the time at which each cortisol sample was taken. As a result, it is impossible to accurately assess the cortisol levels considering the natural fluctuations throughout the day.
- Participants #4, 6, 9, 13, 17, and 27 had elevated cortisol levels during the pre-pilot regardless of the time of the test, indicating consistently high stress levels.

Analysis:

The health screening results highlighted several key observations regarding the cortisol levels of the participants. Cortisol, often referred to as the stress hormone, follows a diurnal pattern, with levels peaking in the early morning and gradually declining throughout the day. Normal morning levels range from 10 to 20 mcg/dL, while afternoon levels typically range from 3 to 10 mcg/dL.

However, the vendor's failure to record the time at which each cortisol sample was taken significantly complicates the interpretation of the data. Given the natural fluctuations of cortisol throughout the day, accurate assessment hinges on consistent timing of sample collection. This oversight necessitates a cautious approach to data analysis.

Despite this limitation, the results indicate that Participant #4 consistently exhibited elevated cortisol levels during the pre-pilot phase, irrespective of the testing time. This suggests a persistent state of high stress, which could have significant implications for their overall health and well-being.

Further analysis of Figure 9b reveals similar findings for Participants #4, 6, 9, 13, 17, and 27. These individuals also displayed elevated cortisol levels during the pre-pilot phase, pointing to a broader trend of high stress among this subset of participants.

In summary, while the lack of precise timing data poses challenges, the consistently high cortisol levels observed in several participants warrant further investigation and potential intervention to address underlying stress factors.

# STRESS ASSESSMENT DATA

The Perceived Stress Scale (PSS) is a widely used tool for measuring stress perception. Developed in 1983, it remains a popular choice for understanding how different situations affect our feelings and perceived stress levels. The Recharge Room Pilot Program administered the PSS to serve as a qualitative measure for assessing the impact of the recharge room equipment (i.e., the treatment) on Recharge Room Users. Similar to the health screenings, the PSS was administered to both Recharge Room Users and the Control Group members before and after the pilot. This section contains the results of the PSS for both groups.

## More about the PSS:

The PSS consists of a series of questions that ask about an individual's feelings and thoughts during the last month. For each question, the participants were asked to indicate how often they felt or thought a certain way. The responses are scored on a scale from 0 to 4, where:

- 0 means "never"
- 1 means "almost never"
- 2 means "sometimes"
- 3 means "fairly often"
- 4 means "very often"

Below are the questions in the assessment:

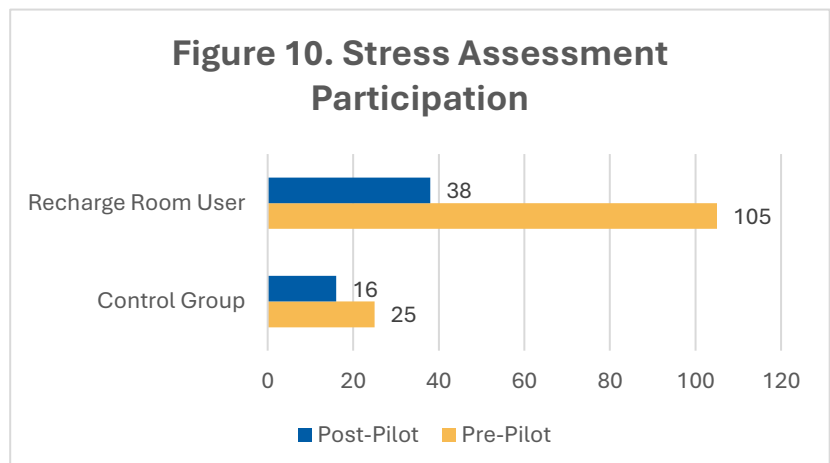
1. In the last month, how often have you been upset because of something that happened unexpectedly?
2. In the last month, how often have you felt that you were unable to control the important things in your life?
3. In the last month, how often have you felt nervous and stressed?
4. In the last month, how often have you felt confident about your ability to handle your personal problems?
5. In the last month, how often have you felt that things were going your way?
6. In the last month, how often have you found that you could not cope with all the things that you had to do?
7. In the last month, how often have you been able to control irritations in your life?
8. In the last month, how often have you felt that you were on top of things?
9. In the last month, how often have you been angered because of things that were outside of your control?
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

The PSS helps to measure the degree to which situations in one's life are appraised as stressful. It focuses on the perception of stress rather than the actual occurrence of stressful events, making it a valuable tool for assessing how individuals perceive and cope with stress in their lives

Figure 10 (to the right) shows participation rates for the PSS. The pre-pilot stress assessment was administered online during the health screening events on February 12-15, 2024 (see in yellow to right), and August 19-21, 2024 (see in blue to right).

Figure 1 Notes:

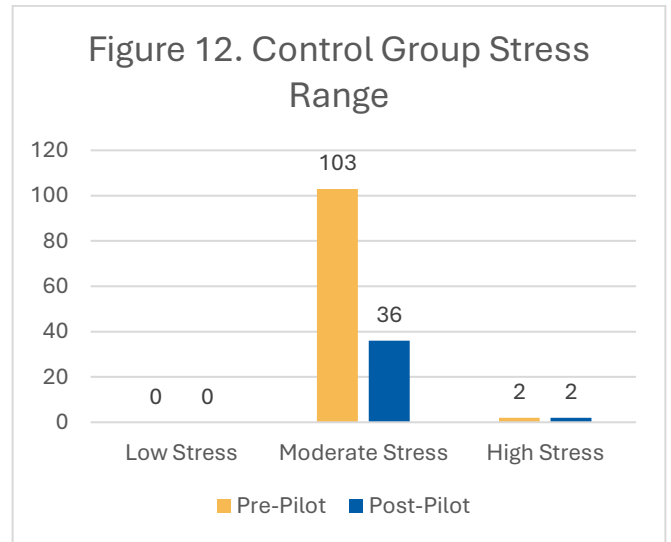
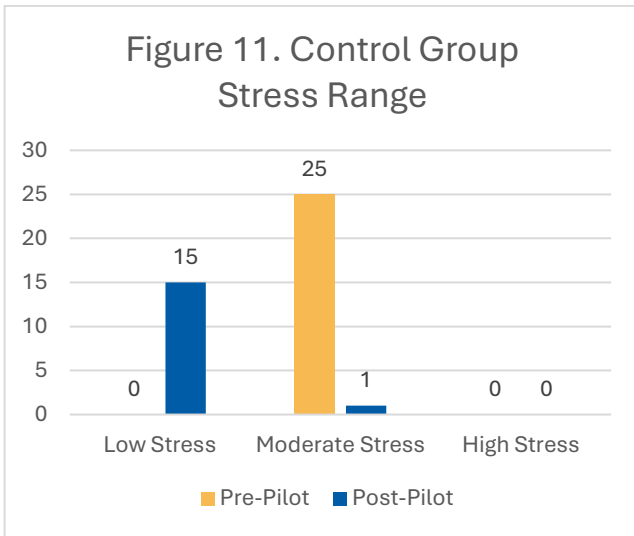
- Due to the anonymous nature of the data provided, individual participants' data could not be tracked from pre-pilot to post-pilot. The remainder of this section will contain aggregate data.



- Given the anonymity of the data collection process, there is a possibility that a participant may have completed the survey multiple times.

In the following sections, the aggregate results from the stress assessment will be presented. These results will provide an overview of the general stress levels among participants, highlighting the most common stressors and the frequency of their occurrence. This analysis aims to offer insights into the collective stress experience and to identify areas where interventions may be needed to improve overall well-being.

## STRESS RANGES

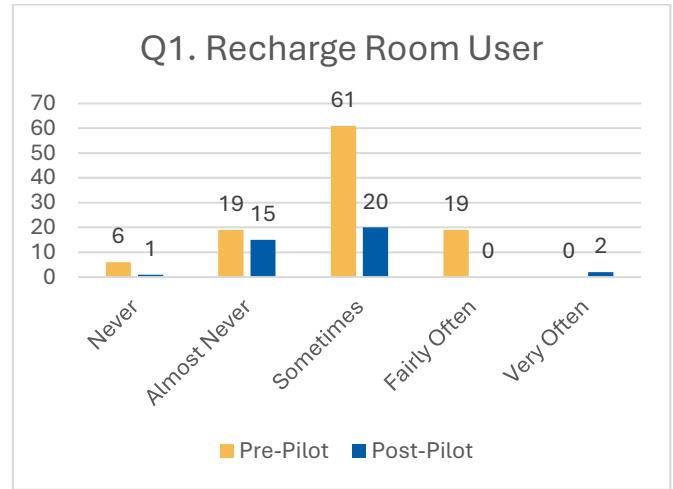
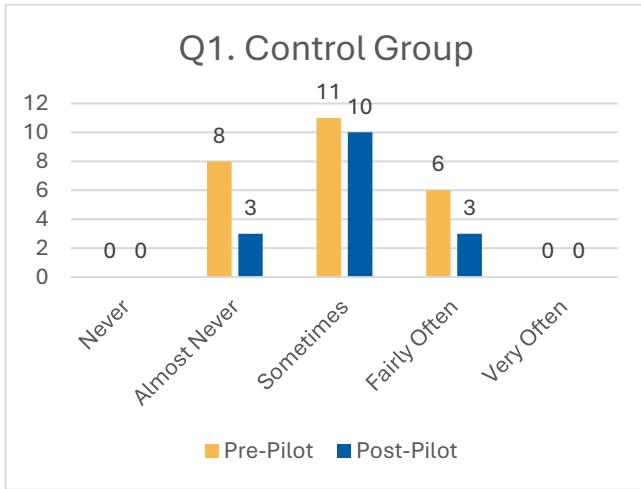


### Analysis:

For the Control Group, there was a significant shift from Moderate Stress to Low Stress from Pre-Pilot to Post-Pilot. The number of individuals experiencing Moderate Stress decreased dramatically from 25 to 1, while those experiencing Low Stress increased from 0 to 15. There were no instances of High Stress in either period.

For the Users, there was a notable decrease in Moderate Stress levels from Pre-Pilot to Post-Pilot, dropping from 103 to 36. However, the number of individuals experiencing Low Stress remained at 0, and the number of individuals experiencing High Stress remained constant at 2.

In the last month, how often have you been upset because of something that happened unexpectedly?



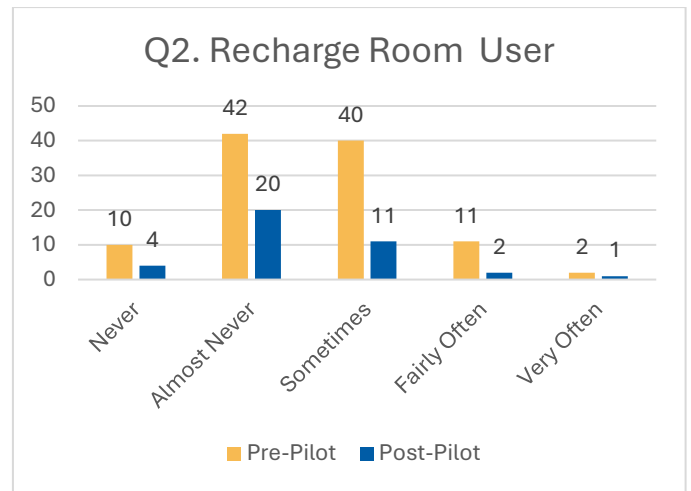
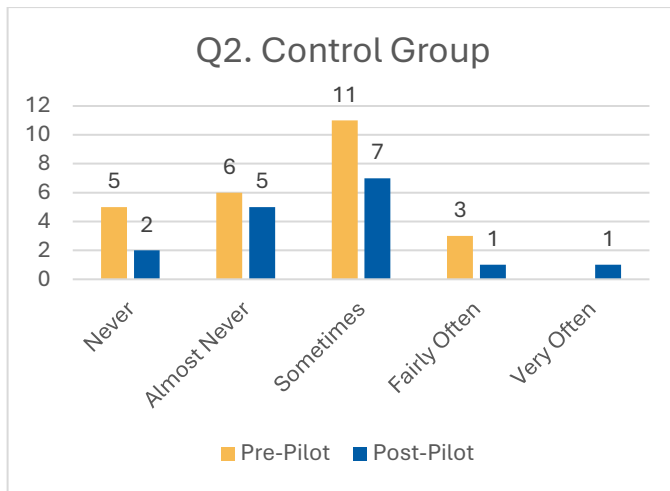
Analysis:

For the Control Group, there was a slight decrease in the number of people who were upset "Almost Never" and "Fairly Often" from Pre-Pilot to Post-Pilot. The "Sometimes" category remained relatively stable.

For the Recharge Room Users, there was a significant decrease in the "Sometimes" and "Fairly Often" categories from Pre-Pilot to Post-Pilot. Interestingly, the "Very Often" category saw a slight increase, indicating that while the majority of users experienced fewer unexpected upsets, a small number of users still faced frequent disruptions.

Overall, the Recharge Room seems to have had a positive impact on reducing the frequency of unexpected upsets for most users, though there are still some areas that could be improved.

In the last month, how often have you felt that you were unable to control the important things in your life?



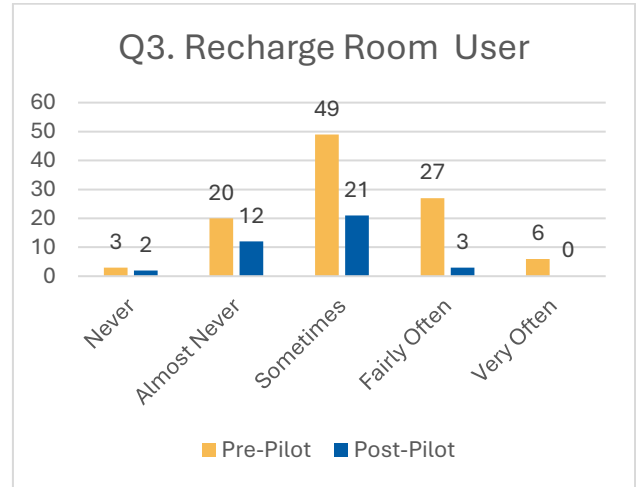
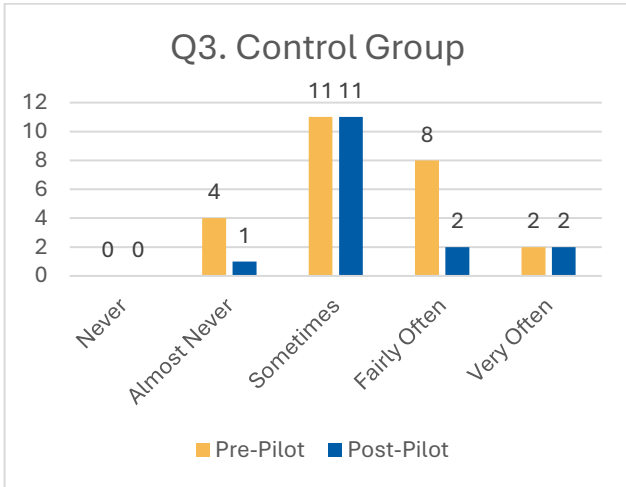
Analysis:

For the Control Group, there was a decrease in the number of people who felt they were unable to control important things, "Never" and "Sometimes," from Pre-Pilot to Post-Pilot. The "Almost Never" category remained relatively stable, while the "Fairly Often" and "Very Often" categories saw slight increases.

For the Recharge Room Users, there was a significant decrease in the "Almost Never" and "Sometimes" categories from Pre-Pilot to Post-Pilot. The "Never" category also saw a decrease, while the "Fairly Often" and "Very Often" categories remained relatively stable with slight changes.

Overall, the Recharge Room seems to have had a positive impact on reducing the frequency of feeling unable to control important things for most users, though there are still some areas that could be improved.

In the last month, how often have you felt nervous and stressed?



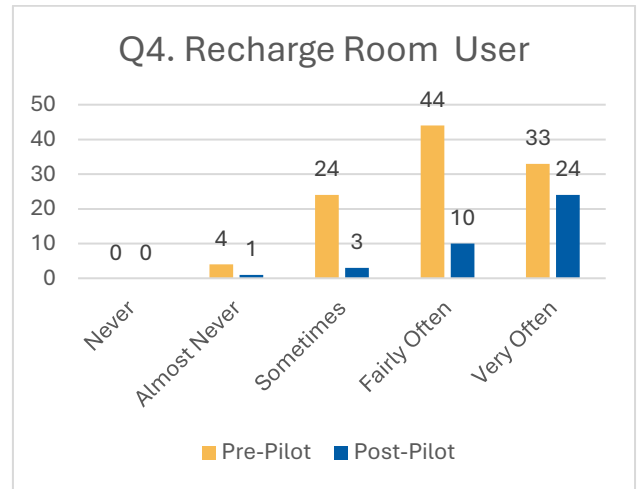
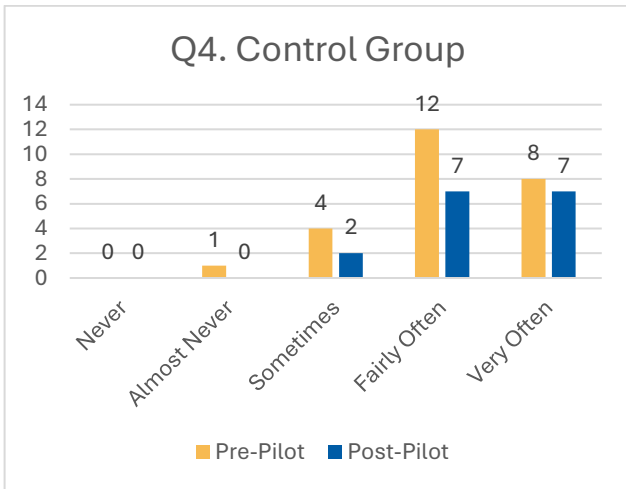
Analysis:

For the Control Group, there was a noticeable decrease in the number of people who felt nervous and stressed "Almost Never" and "Fairly Often" from Pre-Pilot to Post-Pilot. The "Sometimes" category remained stable, while the "Very Often" category saw no change.

For the Recharge Room Users, there was a significant decrease in the "Almost Never," "Sometimes," and "Fairly Often" categories from Pre-Pilot to Post-Pilot. The "Very Often" category saw a complete elimination, indicating a substantial reduction in stress levels for these users.

Overall, the Recharge Room appears to have had a positive impact on reducing the frequency of feeling nervous and stressed for most users, with a particularly notable improvement in the "Very Often" category.

In the last month, how often have you felt confident about your ability to handle your personal problems?



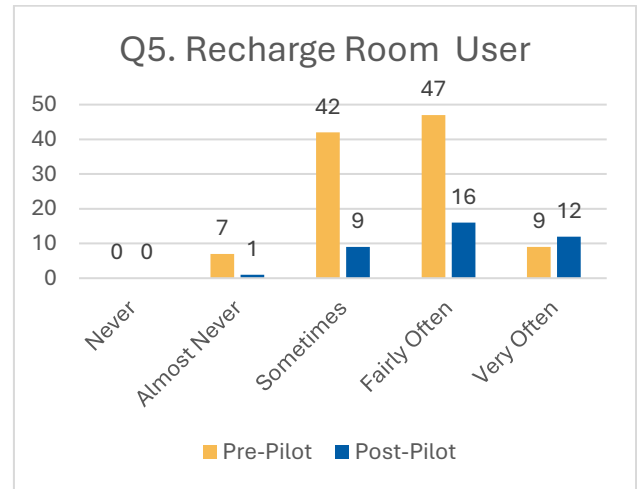
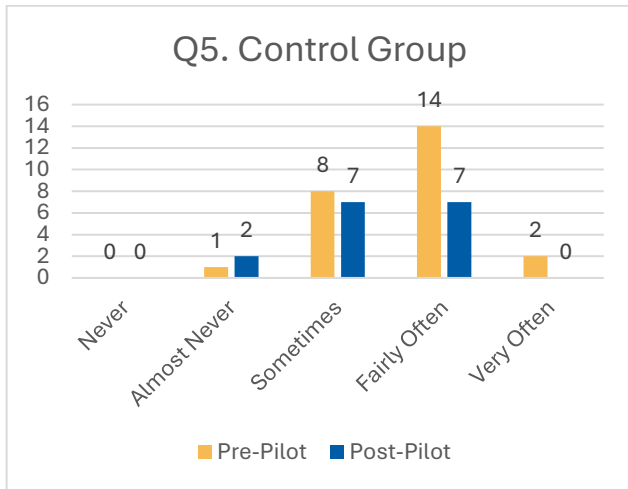
Analysis:

For the Control Group, there was a decrease in the number of people who felt confident "Almost Never," "Sometimes," and "Fairly Often" from Pre-Pilot to Post-Pilot. The "Very Often" category remained relatively stable with a slight decrease.

For the Recharge Room Users, there was a significant decrease in the "Almost Never," "Sometimes," and "Fairly Often" categories from Pre-Pilot to Post-Pilot. The "Very Often" category saw a decrease, indicating an improvement in confidence levels for these users.

Overall, the Recharge Room appears to have had a positive impact on increasing the frequency of feeling confident about handling personal problems for most users, with a particularly notable improvement in the "Very Often" category.

In the last month, how often have you felt that things were going your way?



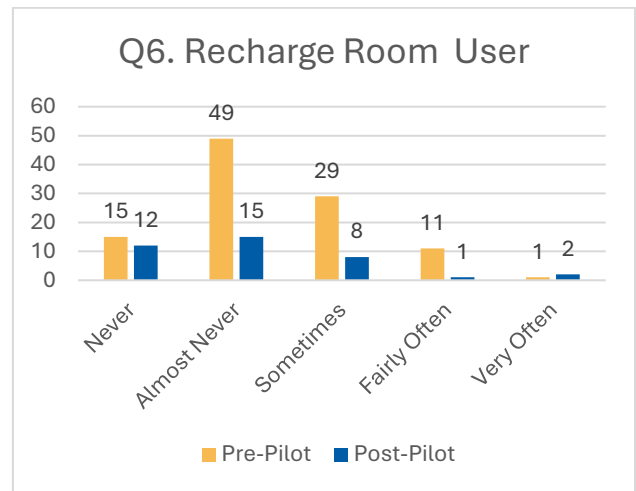
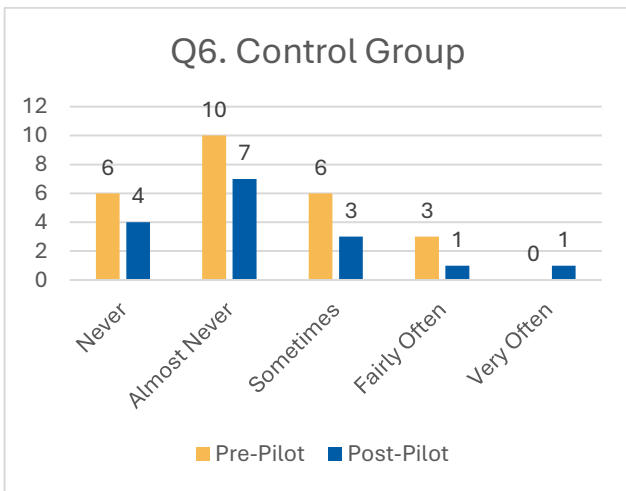
Analysis:

For the Control Group, there was a slight increase in the number of people who felt that things were going their way "Almost Never" from Pre-Pilot to Post-Pilot. The "Sometimes" category saw a slight decrease, while the "Fairly Often" category saw a significant decrease. The "Very Often" category saw a complete elimination, indicating a reduction in the frequency of feeling that things were going their way.

For the Recharge Room Users, there was a significant decrease in the "Almost Never" and "Sometimes" categories from Pre-Pilot to Post-Pilot. The "Fairly Often" category saw a decrease, while the "Very Often" category saw an increase, indicating an improvement in the frequency of feeling that things were going their way.

Overall, the Recharge Room appears to have had a positive impact on increasing the frequency of feeling that things were going their way for most users, with a particularly notable improvement in the "Very Often" category.

In the last month, how often have you found that you could not cope with all the things that you had to do?



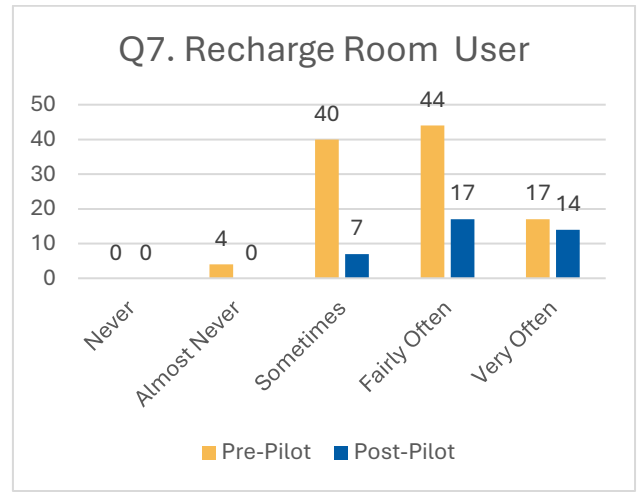
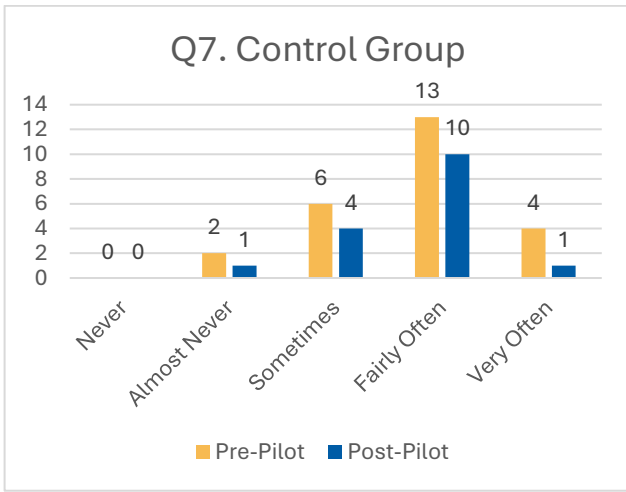
**Analysis:**

For the Control Group, there was a decrease in the number of people who felt they could not cope "Never," "Almost Never," and "Sometimes" from Pre-Pilot to Post-Pilot. The "Fairly Often" category also saw a decrease, while the "Very Often" category saw a slight increase.

For the Recharge Room Users, there was a significant decrease in the "Almost Never" and "Sometimes" categories from Pre-Pilot to Post-Pilot. The "Never" category also saw a decrease, while the "Fairly Often" category remained stable with a slight decrease. Interestingly, the "Very Often" category saw a slight increase, indicating that while the majority of users experienced fewer instances of feeling unable to cope, a small number of users still faced frequent challenges.

Overall, the Recharge Room appears to have had a positive impact on reducing the frequency of feeling unable to cope with all the things that users had to do, though there are still some areas that could be improved.

In the last month, how often have you been able to control irritations in your life?



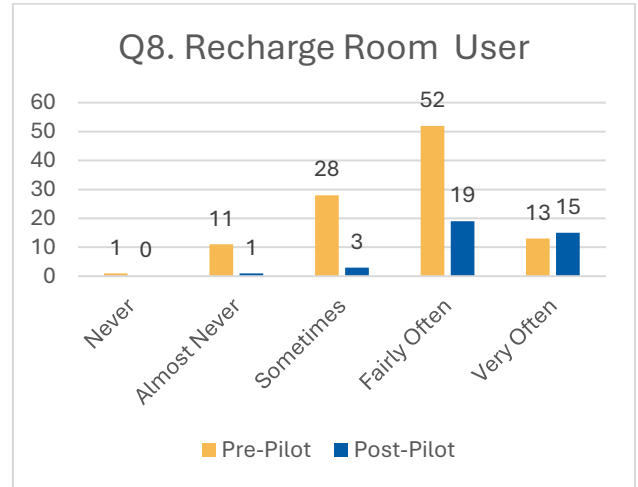
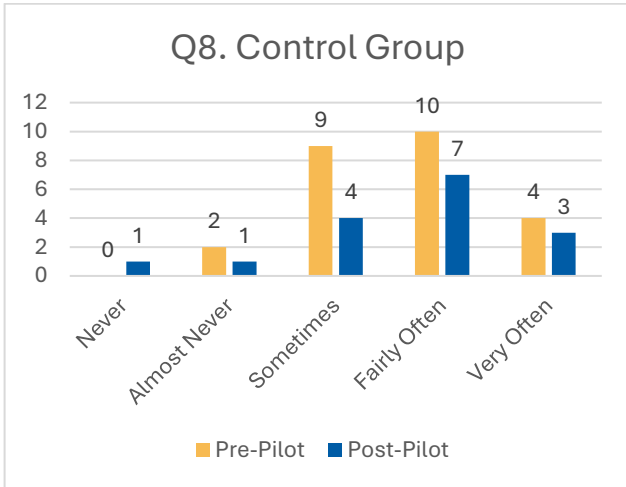
Analysis:

For the Control Group, there was a slight decrease in the number of people who were able to control irritations "Almost Never" and "Fairly Often" from Pre-Pilot to Post-Pilot. The "Sometimes" category also saw a decrease, while the "Very Often" category saw a significant decrease.

For the Recharge Room Users, there was a significant decrease in the "Almost Never" and "Sometimes" categories from Pre-Pilot to Post-Pilot. The "Fairly Often" category saw a decrease, while the "Very Often" category saw a slight increase, indicating that while the majority of users experienced fewer instances of feeling unable to control irritations, a small number of users still faced frequent challenges.

Overall, the Recharge Room appears to have had a positive impact on increasing the frequency of feeling able to control irritations for most users, with a particularly notable improvement in the "Very Often" category.

In the last month, how often have you felt that you were on top of things?



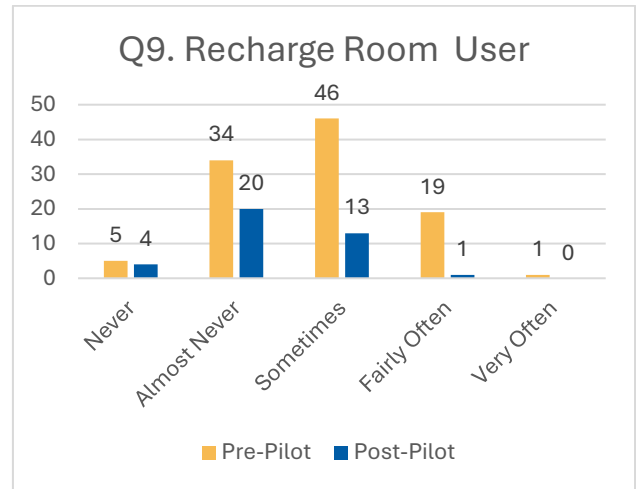
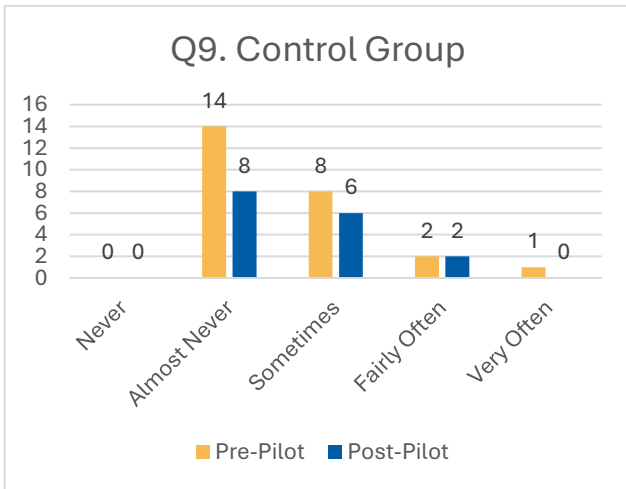
Analysis:

For the Control Group, there was a slight increase in the number of people who felt they were on top of things "Never" from Pre-Pilot to Post-Pilot. The "Almost Never" and "Sometimes" categories saw a decrease, while the "Fairly Often" and "Very Often" categories also saw a decrease.

For the Recharge Room Users, there was a significant decrease in the "Almost Never" and "Sometimes" categories from Pre-Pilot to Post-Pilot. The "Never" category saw a decrease, while the "Fairly Often" category saw a decrease. Interestingly, the "Very Often" category saw an increase, indicating an improvement in the frequency of feeling on top of things for these users.

Overall, the Recharge Room appears to have had a positive impact on increasing the frequency of feeling on top of things for most users, with a particularly notable improvement in the "Very Often" category.

In the last month, how often have you been angered because of things that happened that were outside of your control?



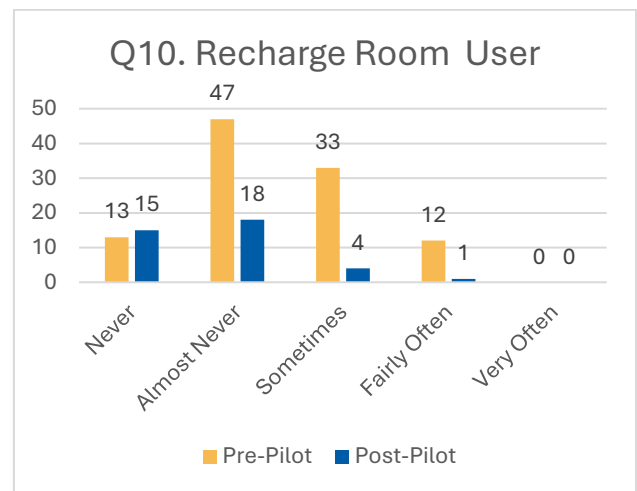
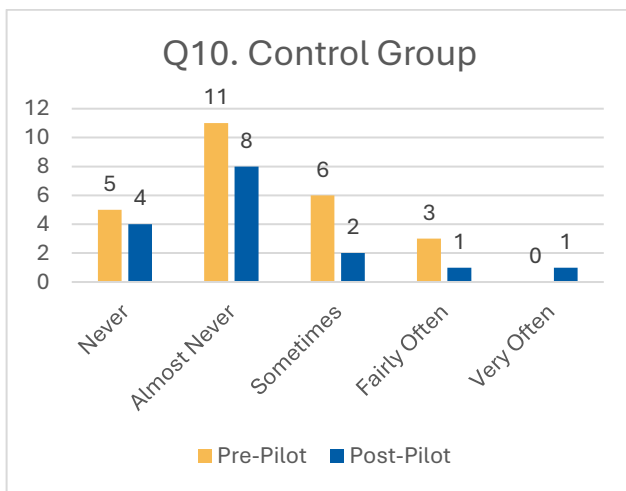
Analysis:

For the Control Group, there was a noticeable decrease in the number of people who were angered "Almost Never" and "Sometimes" from Pre-Pilot to Post-Pilot. The "Fairly Often" category remained stable, while the "Very Often" category saw a slight decrease.

For the Recharge Room Users, there was a significant decrease in the "Almost Never," "Sometimes," and "Fairly Often" categories from Pre-Pilot to Post-Pilot. The "Never" category saw a slight decrease, while the "Very Often" category saw a complete elimination, indicating a substantial reduction in anger levels for these users.

Overall, the Recharge Room appears to have had a positive impact on reducing the frequency of feeling angered by things outside of users' control, with a particularly notable improvement in the "Very Often" category.

In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?



Analysis:

For the Control Group, there was a decrease in the number of people who felt difficulties were piling up "Almost Never," "Sometimes," and "Fairly Often" from Pre-Pilot to Post-Pilot. The "Never" category saw a slight decrease, while the "Very Often" category saw a slight increase.

For the Recharge Room Users, there was a significant decrease in the "Almost Never," "Sometimes," and "Fairly Often" categories from Pre-Pilot to Post-Pilot. The "Never" category saw an increase, while the "Very Often" category remained stable with no instances reported.

Overall, the Recharge Room appears to have had a positive impact on reducing the frequency of feeling overwhelmed by difficulties for most users, with a particularly notable improvement in the "Never" category.

## STRESS ASSESSMENT ANALYSIS

The Recharge Room has had a significant positive impact on users' well-being across various aspects. Here's a summary of the overall impact:

- **Reduction in Unexpected Upsets:** Users experienced fewer unexpected upsets, with a notable decrease in the "Sometimes" and "Fairly Often" categories.
- **Improved Control Over Important Things:** Users felt more in control of important things in their lives, with a significant decrease in the "Almost Never" and "Sometimes" categories.
- **Decreased Nervousness and Stress:** There was a substantial reduction in feelings of nervousness and stress, especially in the "Sometimes" and "Fairly Often" categories.
- **Increased Confidence in Handling Personal Problems:** Users felt more confident about handling personal problems, with a notable improvement in the "Very Often" category.

- **Positive Outlook on Things Going Their Way:** Users felt that things were going their way more often, with a significant increase in the "Very Often" category.
- **Better Coping with Responsibilities:** Users felt better able to cope with their responsibilities, with a decrease in the "Almost Never" and "Sometimes" categories.
- **Improved Control Over Irritations:** Users felt more in control of irritations in their lives, with a significant decrease in the "Sometimes" category.
- **Feeling on Top of Things:** Users felt more on top of things, with a notable increase in the "Very Often" category.
- **Reduced Anger from External Factors:** Users experienced less anger due to things outside their control, with a significant decrease in the "Almost Never" and "Sometimes" categories.
- **Decreased Overwhelming Difficulties:** Users felt less overwhelmed by difficulties, with a significant decrease in the "Almost Never" and "Sometimes" categories.

Overall, the Recharge Room has contributed to improved well-being, increased confidence, and better stress management for its users.