



Enhancing Metabolic and Autoimmune Health: Revero's Innovative Approach

The State of Care

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Executive Summary

The State of the Problem

Inflammatory conditions affect over 23.5 million Americans, with autoimmune diseases like rheumatoid arthritis and lupus costing an estimated \$100 billion annually. These conditions lead to high healthcare costs, reduced quality of life, and decreased productivity, increasing the need for accessible and effective treatments. (source: [Frontiers](#), [MDPI](#))

Likewise, metabolic diseases, including diabetes and obesity, impact millions of Americans, with diabetes alone costing an estimated \$327 billion annually. These conditions contribute to high healthcare expenses, lower quality of life, and decreased productivity, highlighting the urgent need for accessible and effective treatment solutions. (source: [MDPI](#), [SpringerLink](#)).

Meet Revero: A New Solution

Revero is an online medical provider of a root-cause treatment for autoimmune and metabolic conditions that delivers personalized treatments through low-carbohydrate nutrition therapy and remote medical care to treat insulin resistance, improve metabolic health, reduce inflammation, and restore gut health. Accessed entirely remotely through a smartphone and guided by licensed medical providers and coaches, the Revero program combines several different evidence-based treatments such as medical nutrition therapy, ongoing remote care, medication adjustment, regular lab testing, and on-demand coaching. The program also includes biomarker feedback based on smart glucose monitoring devices, blood pressure cuffs, and patient daily symptom tracking, to provide insights for Revero clinicians for continuous medical supervision and support of several gastrointestinal, skin, musculoskeletal, and metabolic conditions (Figure ES-1)

Table 1. Conditions Treated by Revero

 Musculoskeletal Conditions - Rheumatoid Arthritis - Psoriatic Arthritis - Fibromyalgia - Ankylosing Spondylitis - Chronic Back Pain - Lupus	 Skin Conditions - Psoriasis - Eczema - Acne - Chronic Urticaria - Dermatitis - Rosacea	 Gastrointestinal Conditions - Crohn's Disease - Ulcerative Colitis - Celiac Disease - IBS - GERD - SIBO	 Metabolic Conditions - Type 2 Diabetes - Obesity - Prediabetes - Primary Hypertension - High Triglycerides
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The Revero program provides an excellent alternative to existing care models. Because each provider can support about 100 patients at a time through tech-enabled analytics, the program addresses the scalability challenge faced by traditional teletherapy and face-to-face options caused by the shortage of health providers in the U.S. As opposed to the traditional appointment-based care, which lacks medical support between each provider visit, the Revero program provides continual, proactive care for each patient that can be accessed anywhere at any time. Revero can complement primary care as a preferred solution over traditional treatments offered for these inflammatory and metabolic conditions through their health insurance. We here provide several research papers supporting the science behind Revero's method, as well as data demonstrating how well the program has worked, how engaged, and how satisfied its participants were with the care received as a result of implementing Revero's solution into existing care pathways.

Science Behind the Revero Program

The benefits of low carbohydrate diets to metabolic conditions have been shown in numerous studies. For example, studies have indicated that putting patients on low-carbohydrate diets can lead to weight loss and significantly improved type 2 diabetes, hyperlipidemia, and hypertension, as well as result in substantial cost savings ([Brinkworth et al., 2022](#); [Samaha et al., 2003](#); [Santesso et al., 2024 \(Meta-analysis\)](#), [Wang et al., 2023 \(Umbrella Review\)](#), [Unwin et al., 2019; 2023](#); [Yancy et al., 2004](#).) as well as arthritis, psoriasis, IBS and IBD symptoms, and thyroid diseases ([Ciaffi et al., 2024](#); [Ji et al., 2025 \(Meta-analysis\)](#); [Jactel et al., 2022](#); [Michaelsson et al., 2000](#); [Heidt et al., 2023 \(MIKARA RCT\)](#); [Pedersen et al., 2017](#))

Methods for Data Collection and Analysis

Accessibility to the program is captured via program sign-ups and early patient actions as monitored by Revero's platform. Each patient completes three questions regarding their overall program experience as well as specific satisfaction with their coach and provider.

Clinical effectiveness assessments included data from specific lab, anthropometric, and self-report assessments from patients that varied with respect to frequency and type according to presenting condition. In addition, Revero ensures patient safety through a number of carefully monitored methods, each governed by standardized protocols and licensed provider oversight.

Results: Accessibility, Satisfaction, Preliminary Effectiveness, and Safety

Accessibility metrics

Patients have had easy accessibility to the program, with Revero enrolling 818 patients from launch through July 31, 2025. A typical patient enters the program and immediately starts engaging by filling out health history forms, coordinating with Revero's enrollment team, completing their first set of labs, and meeting their Revero medical provider for their first appointment. Patients then gain access to the Revero app within a mean of 9 days to fully enroll in the program and experience all of its benefits. After logging into the app for the first time, patients have a call with their assigned coach and go over their goals and care plans. They then gain access to a library of educational and lifestyle articles and recipes, start to complete video learning modules and set a date to start their low carbohydrate diet, begin inputting biomarker information, and speak with their medical provider if adjustment is needed for any medications. Coaches keep in touch daily, with particular attention given to the diet transition period.

Engagement metrics

Among Revero current users, about half actively engage with the Revero platform daily. A typical user sends about 10.7 chat messages per month.

Satisfaction metrics

Patients report high levels of satisfaction as evidenced by the most recent month's ratings (July, 2025):

1. A Net Promoter Score (how likely to recommend the Revero program to a friend) of 65, which is in the excellent range for a healthcare organization ([How to Use Net Promoter Score \(NPS\) in Healthcare | Relias](#)).
2. On a 5 point agreement scale, a mean of 4.8 to the statement, "my Revero coach and I are working well together and I have no questions or complaints"
3. On a 5 point agreement scale, a mean of 4.6 to the statement, "my Revero medical provider is accomplishing these goals, keeping me safe and answering any medical questions I have."

Preliminary Effectiveness.

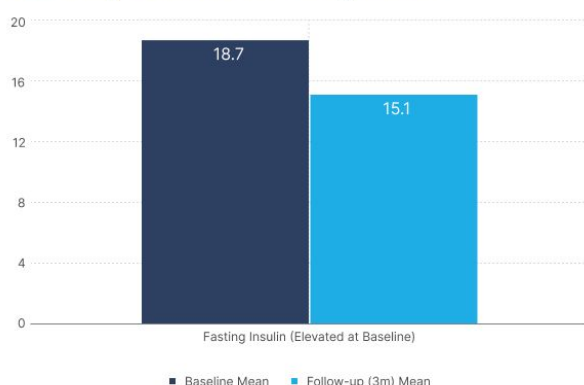
Overall, patients in the Revero program experienced reductions in their conditions' symptoms, as well as meaningful and significant reductions in markers of inflammation and metabolic disturbances such as insulin resistance within only three months of program enrollment. Patients in the program for at least 3 months and at least one follow-up assessment after baseline reported overall improvements in symptoms tracked by the Revero program (Figure ES-2).

Reported:

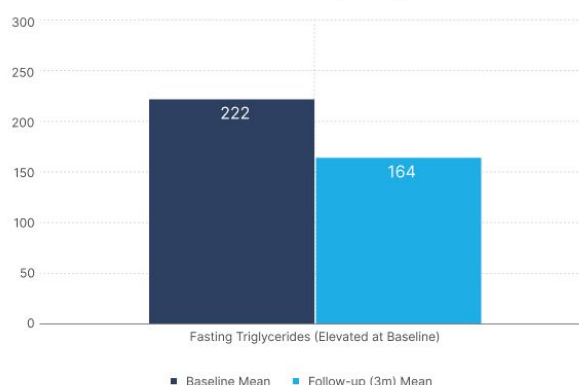
1. Fasting insulin level for patients with elevated insulin level (>10) at baseline: 18.7 to 15.1 uIU/mL (19.3% improvement) and (>20) at baseline: 28.5 to 19.7 uIU/mL (30.9% improvement)
2. Fasting triglyceride level for patients with elevated triglycerides level at baseline: 222 to 164 mg/dL (26.1% improvement)
3. Inflammatory marker hs-CRP: 10.3 to 7.8 mg/L (25.0% improvement)
4. Liver enzymes AST and ALT for patients who had elevated liver enzymes at baseline: 35.9 to 30.8 IU/L for a 14.2% improvement and 49.3 to 41.9 IU/L (15.0% improvement), respectively
5. HbA1C for patients with type 2 diabetes: 7.65% to 6.57% (14% improvement)
6. Fasting blood glucose levels over time for patients with type 2 diabetes: 158.5 to 140 mg/dL (11.7% improvement)
7. Blood pressure reading for patients with hypertension: 141.6|84.2 mm Hg at baseline to 126.1|76.0 mm Hg (10.9% improvement in Systolic, 9.7% improvement in diastolic)
8. Lowered rates of obesity with an improved BMI from 37.5 to 35.4 (5.4% improvement)
9. Self-reports symptoms of their condition,
 - a. Ulcerative Colitis (IBD-8 questionnaire score): Patients with Ulcerative Colitis showed even greater improvements in self-reported symptoms (6.7 to 15.3, 128.4% improvement).
 - b. Crohn's disease (IBD-8 questionnaire score): Patients with Crohn's Disease showed large improvements in self-reported symptoms (10.0 to 16.0, 60.0% improvement).
 - c. Rheumatoid arthritis (Patient Activity Scale II (PAS II) for RA score): 3.7 to 2.2 (40.5% improvement)
 - d. Psoriasis (Psoriasis Symptom Inventory (PSI) score): 8.6 to 7.8 (9.3% improvement)
10. Quality of Life Improvements (SF-36): Patients who entered the Revero program with low baseline SF-36 scores — a validated and widely used survey for assessing health-related quality of life in chronic disease research — experienced substantial and clinically meaningful improvements across nearly every domain. After three or more months in the program (n=57), average gains were +1.2 points in the Physical Component Summary (PCS) and +1.4 points in the Mental Component Summary (MCS). Among patients who started with the lowest baseline scores, improvements were substantially larger, with +8.1 points in PCS and +8.0 points in MCS.

These changes exceed the half a standard deviation (~ 3–5 point threshold) often used to quantify the minimum clinically important difference (MCID) ([Ware & Sherbourne, 1992](#); [Norman et al., 2003](#)) and appear to be substantially greater than the modest improvements typically reported in other samples using digital health interventions ([Jodar et al., 2020](#); [MacDonald et al., 2021](#)). Together, these findings demonstrate Revero's potential to deliver real-world patient impact that extends across physical, mental, and social domains.

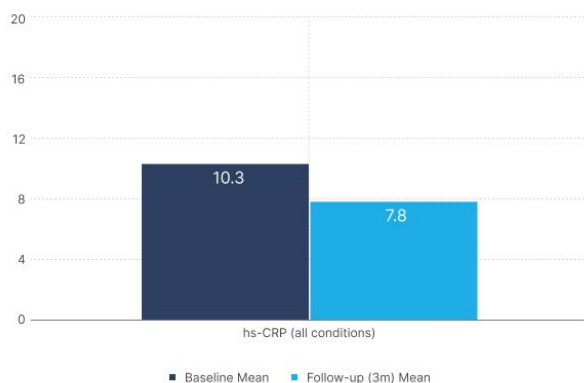
19.3% improvement in Fasting Insulin



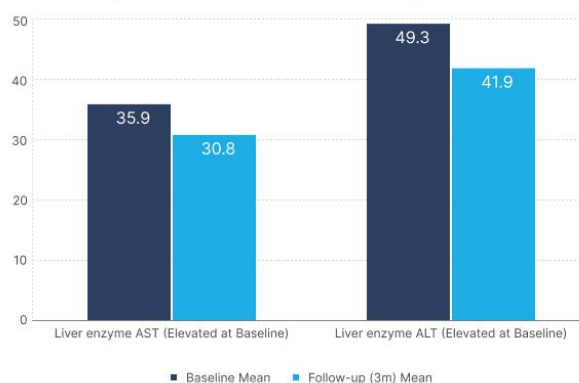
26.1% improvement in Fasting Triglycerides



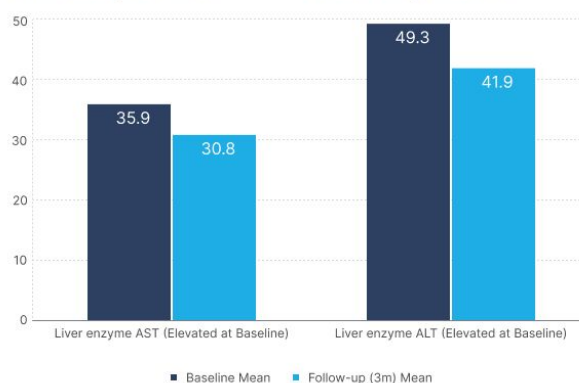
25% improvement in hs-CRP (all conditions)



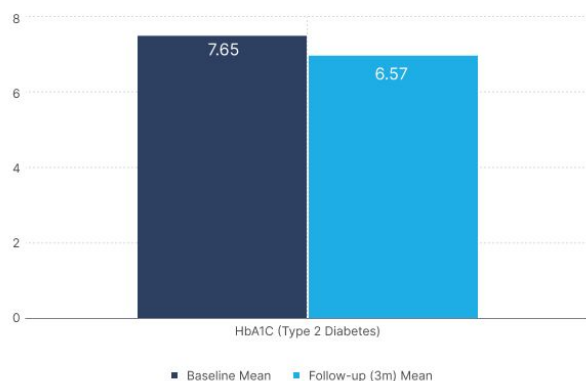
14.2% improvement in Liver enzyme AST



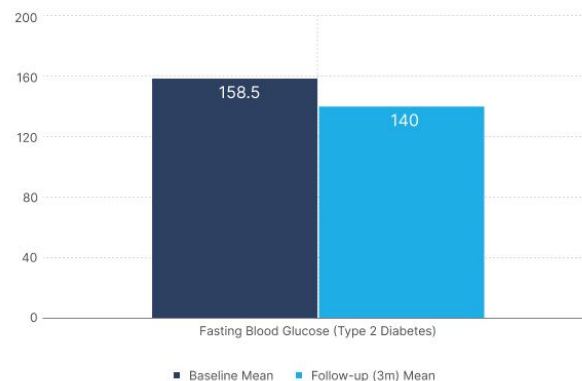
15% improvement in Liver enzyme ALT



14% improvement in HbA1C

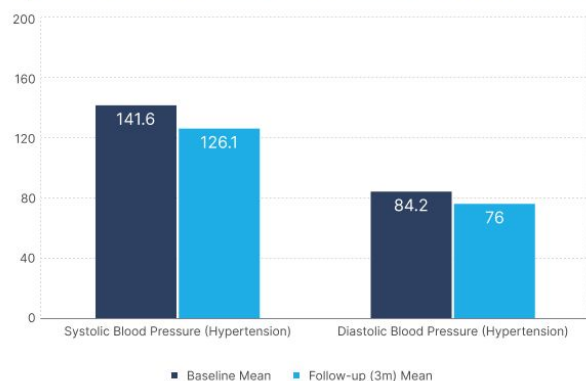


11.7% improvement in Fasting Blood Glucose (Type 2 Diabetes)

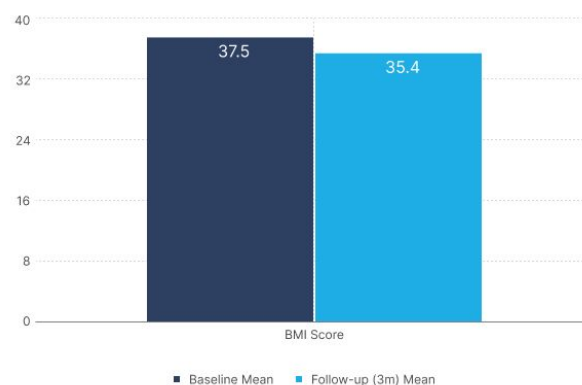


10.9% improvement in Systolic Blood Pressure

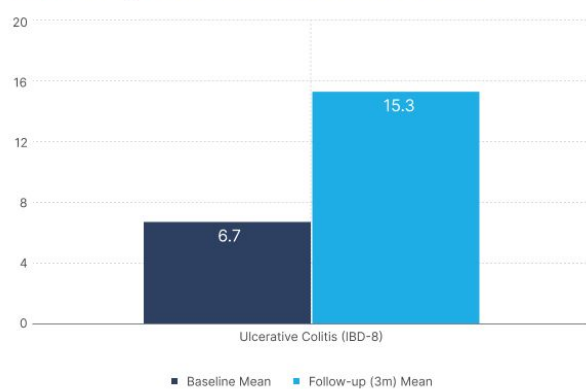
9.7% improvement in Diastolic Blood Pressure



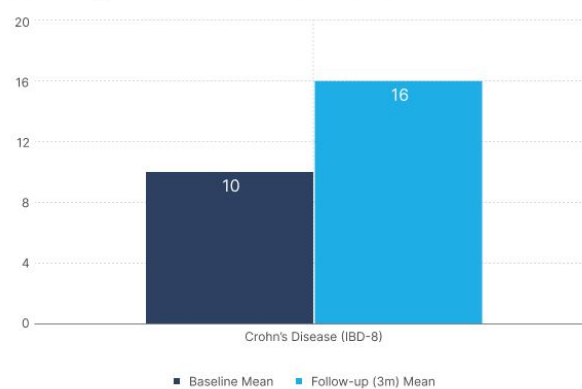
5.4% improvement in Obesity



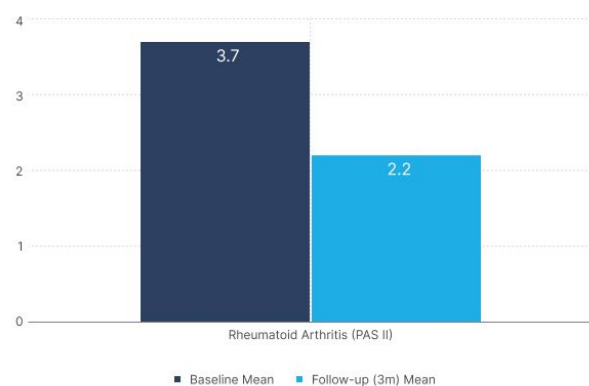
128.4% improvement in Ulcerative Colitis



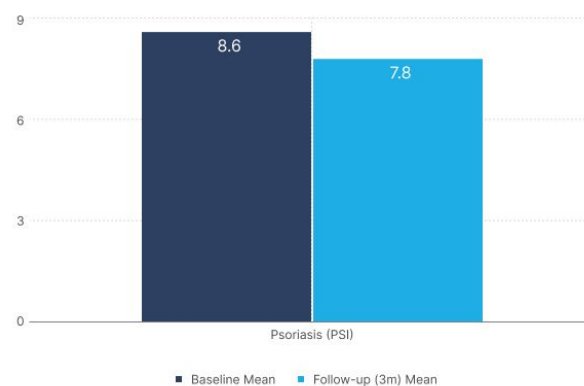
60% improvement in Crohn's Disease



40.5% improvement in Rheumatoid Arthritis



9.3% improvement in Psoriasis



No serious adverse events were reported; the only potential harms experienced by our users were those monitored by the Revero program (e.g., typical symptoms of temporary GI upsets, occasional mild headaches and muscle cramps during the body's period of transition to a low-carbohydrate diet) and addressed by the provision of electrolytes, supplements, smart device-monitoring of blood glucose, and continuous coaching.

These results underscore Revero's ability to drive meaningful transformation, especially for individuals most burdened by chronic disease. Together, the outcomes presented herein highlight the program's impact across a variety of domains studied. Our findings demonstrate that the Revero program provides an accessible, engaging, safe, and preliminarily effective form of comprehensive care for those suffering from these chronic conditions that may be a preferable option over appointment-based care provided by traditional programs, some of which are associated with adverse side effects.

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Introduction

Inflammatory and metabolic diseases affect millions of Americans, with significant health, social, and economic consequences. Metabolic diseases, like diabetes, cost the U.S. an estimated \$413 billion annually, while autoimmune diseases add another \$100 billion in healthcare expenses. These conditions lead to direct medical costs and also contribute to substantial indirect costs, such as decreased worker productivity, higher rates of comorbidities, and reduced quality of life. (source: [CDC](#), [CDC](#), [NIH](#))

Now is a critical time to provide comprehensive, effective, and accessible care for inflammatory and metabolic diseases. Rates of conditions like diabetes, obesity, and autoimmune diseases are rising, especially among individuals with preexisting health issues. Innovative and effective treatment solutions are urgently needed, and with the U.S. healthcare system facing a shortage of specialists, these interventions must be both engaging and accessible to meet the growing demand. (source: [CDC](#))

Gaps in the Treatment Landscape Addressed by Revero's Solution

Revero is an online medical provider of a root-cause treatment for autoimmune and metabolic conditions (see Figure 1). Accessed entirely remotely through a smartphone and guided by licensed medical providers and coaches, the Revero program combines several different evidence-based treatments such as medical nutrition therapy, ongoing remote care, medication adjustment, regular lab testing, and on-demand coaching. The program also includes biomarker feedback based on smart glucose monitoring devices, blood pressure cuffs, and patient daily symptom tracking, to provide insights for Revero clinicians for continuous medical supervision and support.

Revero's diet is a low-carbohydrate nutrition therapy, personalized based on each patient's unique conditions and characteristics, and is further enhanced based on patients' ongoing daily biomarkers and symptoms and regular lab results and assessments. It is designed to reduce or eliminate foods that contribute to insulin resistance and inflammation. It includes elimination of grains, sugar, and processed foods. It is further personalized for autoimmune and inflammatory patients to reduce inflammatory foods such as dairy and soy. It is also customized for metabolic conditions to reduce high carbohydrate foods such as rice and potatoes. The personalized nutrition for patients with gastrointestinal conditions includes a personalized low-FODMAP protocol.

During the program, participants can access video-lessons and complete prescribed practices and exercises designed to help them learn about implementing Revero's nutrition therapy at times most convenient for them. Participants complete routine labs and outcomes assessments including standard questionnaires to measure symptoms for each condition. We also measure indicators of overall health and mental health, as secondary outcomes, as well as engagement and satisfaction. These evaluations inform both the Revero healthcare providers, as well as any external primary care providers as needed. The Revero medical providers support patients' progress and give feedback via in-app chat and, when needed, phone or televideo calls. Both the biomarkers as routine labs and assessment help Revero providers adjust the treatment as needed, including medications and the prescribed nutrition. The tools and learnings of the program can be used indefinitely to enhance a patient's learning long after the program concludes.

The Revero program provides an excellent alternative to existing care models. Because each provider can support about 100 patients at a time through tech-enabled analytics, the program addresses the scalability challenge faced by traditional teletherapy and face-to-face options caused by the shortage of health providers in the U.S. As opposed to the traditional appointment-based care, which lacks medical support between each provider visit, the Revero program provides continual, proactive care for each patient that can be accessed anywhere at any time. Revero can complement primary care as a preferred solution over traditional treatments offered for these inflammatory and metabolic conditions through their health insurance. We here provide several research papers supporting the science behind Revero's method, as well as data demonstrating how well the program has worked, and how engaged and satisfied its participants are with the care received.

The Science Behind Revero's Solution: Root-Cause Treatment

Only a root-cause treatment offers a non-invasive, cost effective and sustainable way to improve chronic inflammatory and metabolic conditions by addressing the root causes of the conditions. There are several ways to address chronic conditions. Some are intended to keep the disease from getting worse. The Revero treatment is aimed to reverse the disease or put it into remission entirely. Table 1 illustrates chronic condition treatment options by costs and typical clinical outcome expectancies.

Table 1. Chronic Condition Treatments Comparison by Cost and Clinical Outcomes

Chronic Condition Treatments	Cost	Outcomes
Biologic medications, GLP-1s, and Bariatric Surgery	High 	High 
Lifestyle and Prevention Programs	Low 	Low 
Management Strategies Through Medication Adherence	High 	Low 
Root-Cause Treatment	Low 	High 

Root-Cause Treatment For Inflammatory Conditions

A major root cause of inflammatory conditions is chronic dietary inflammation (see below for links to scientific literature). This manifests as an intolerance to pro-inflammatory foods, such as refined sugars, processed oils, gluten, and dairy, leading to systemic inflammation, immune dysregulation, and gut inflammation. Over time, this dietary inflammation leads to elevated levels of inflammatory markers in the body, contributing to conditions like autoimmune diseases, chronic inflammation, and obesity.

Root cause treatment for inflammatory diseases through Revero's low-carbohydrate diet focuses on eliminating pro-inflammatory foods (like gluten, dairy, and processed sugars), reducing gut inflammation, stabilizing blood sugar, replenishing essential nutrients, and calming the immune system— without calorie restriction. By removing specific food triggers and emphasizing whole, nutrient-dense foods, Revero's nutrition therapy is designed to reduce systemic inflammation and treat the inflammatory conditions.

Root-Cause Treatment For Metabolic Conditions

A major root cause of poor metabolic health is insulin resistance. Insulin resistance manifests as carbohydrate intolerance, leading to elevations in blood sugar, a defining clinical marker for those with type 2 diabetes, prediabetes, and obesity (see below for links to scientific literature).

Root-cause treatment for metabolic disease is the process of returning glucose levels below those diagnostic of diabetes, treating insulin resistance, and restoring metabolic health. It can be achieved through adopting a low-carbohydrate diet. Low-carbohydrate diets do not require calorie restriction, and can lead to lower blood sugar, less reliance on diabetes medications, and weight loss. And they work quickly—sometimes in as little as two weeks.

Prior Evidence for Metabolic Conditions

The benefits of low carbohydrate diets to metabolic conditions have been shown in numerous studies as detailed in Table 2 below. For example, studies have indicated that putting patients on low-carb diets can lead to weight loss and significantly improved type 2 diabetes, hyperlipidemia, and hypertension, as well as result in substantial cost savings ([Brinkworth et al., 2022](#); [Samaha et al., 2003](#), [Santesso et al., 2024 \(Meta-analysis\)](#), [Wang et al., 2023 \(Umbrella Review\)](#), [Unwin et al., 2019; 2023](#); [Yancy et al., 2004.](#))

Table 2. Scientific Evidence Exemplifying Benefits of Low Carbohydrate Diets on Metabolic Health Conditions

Metabolic Health Condition	Study Reference	Benefit of Low-Carb Diet	Description of Findings
Type 2 Diabetes & Obesity	Unwin et al., 2023	Drug-free T2D remission achievable in primary care	An 8-year study in a UK clinic found that one in five people with type 2 diabetes achieved drug-free remission on a low-carb diet. Patients also lost weight, and the practice reported major cost savings.
Obesity & Dyslipidemia	Yancy et al., 2004	Greater weight loss and triglyceride improvement vs low-fat diets	In a direct comparison, patients on a low-carb diet lost nearly twice as much weight as those on a low-fat diet. They also lowered triglycerides more and increased HDL ("good" cholesterol).
Obesity & Metabolic Syndrome	Samaha et al., 2003	More weight loss and better TG/insulin sensitivity vs low-fat diets	Severely obese adults on a low-carb diet lost more weight than those on a calorie-restricted low-fat diet. They also showed better improvements in blood fats and insulin sensitivity.
Hypertension	Unwin et al., 2019	Sustained BP reduction with less medication in primary care	Patients in a UK practice following a low-carb approach had lasting improvements in blood pressure, weight, and cholesterol. Many were able to reduce or stop their blood pressure medications.
Type 2 Diabetes & Cardiovascular Risk	Santesso et al., 2024 (Meta-analysis)	Improved cardiovascular risk markers in T2D on low-carb	A systematic review and meta-analysis of RCTs found that very low-carb diets improved lipid profiles and other cardiovascular risk markers among T2D patients.
Obesity & Type 2 Diabetes	Wang et al., 2023 (Umbrella Review)	Strong evidence base for low-carb diet on weight loss and metabolic outcomes	An umbrella review of RCTs confirmed that low-carbohydrate diets are highly effective for weight loss, HbA1c reduction, and improvements in triglycerides and HDL cholesterol in obesity and type 2 diabetes.
Type 2 Diabetes and Obesity	Brinkworth et al., 2022	Improved glycemic control, weight loss, and lower med use	In a large Australian program with over 500 patients, those on a low-carb diet lost weight, lowered their HbA1c, and many reduced or discontinued diabetes medications. More than half of those starting with high blood sugar dropped below the diabetes threshold.

Prior Evidence for Inflammatory Conditions

In addition, other studies have evidenced the benefits of low carbohydrate diets in treating inflammatory conditions (Table 3). For example, studies have indicated associations between these diets and arthritis, psoriasis, IBS and IBD symptoms, and thyroid diseases ([Ciaffi et al., 2024](#); [Ji et al., 2025 \(Meta-analysis\)](#); [Jactel et al., 2022](#); [Michaelsson et al., 2000](#); [Heidt et al., 2023 \(MIKARA RCT\)](#); and [Pedersen et al., 2017](#))

Table 3. Scientific Evidence Exemplifying Benefits of Low-Carbohydrate Diets on Inflammatory or Autoimmune Health Problems

Inflammatory or Autoimmune Condition	Study Reference	Benefit of Low-Carb Diet	Description of Findings
Rheumatoid & Psoriatic Arthritis	Ciaffi et al., 2024	Reduced systemic inflammation and arthritis symptom improvement	Review of available studies shows low-carbohydrate diets and fasting can lower inflammation and ease joint symptoms. Mechanisms include improved insulin sensitivity and higher ketone levels (β -hydroxybutyrate), which have anti-inflammatory effects. Early reports are promising, but larger trials are needed.
Psoriasis	Michaelsson et al., 2000	Improved psoriasis in gluten-sensitive patients	In a 3-month study of 37 patients, those with anti-gliadin antibodies experienced significant skin improvement on a gluten-free diet. Inflammation markers decreased, and symptoms worsened when gluten was reintroduced.
Irritable bowel syndrome (IBS) and inflammatory bowel diseases (IBD)	Jactel et al., 2022	Improved gastrointestinal symptoms and quality of life	In a 9-week digital program with 37 participants, about 70–80% reported meaningful reductions in IBS/IBD symptoms. Quality-of-life scores improved, supporting elimination diets as a useful adjunct for gut disorders.
Irritable bowel syndrome (IBS) and inflammatory bowel diseases (IBD)	Pedersen et al., 2017	Reduced gut symptoms and better quality of life on a low-FODMAP diet	In a 6-week randomized trial of 78 patients with IBD in remission, 81% improved on a low-FODMAP diet compared with 46% on usual diet. Participants also reported fewer daily gut complaints and higher quality-of-life scores.
Rheumatoid Arthritis	Heidt et al., 2023 (MIKARA RCT)	Reduced RA disease activity through MCT-induced ketosis	In a 16-week randomized trial ($n \approx 61$), RA patients given MCTs (to induce ketosis) had greater reductions in disease activity scores (-5.2 SDAI points) compared with controls. Ketone levels rose significantly, linking ketosis to symptom improvement.
Systemic Inflammation (Multiple Conditions)	Ji et al., 2025 (Meta-analysis)	Broad reduction in inflammation-related biomarkers	A meta-analysis of 44 RCTs found low-carbohydrate diets significantly lowered CRP, IL-6, and TNF- α across diverse populations, supporting their role in reducing systemic inflammation.

Methods to Gather and Analyze Patient Data

Accessibility and Satisfaction

Accessibility to the program is captured via program sign-ups and early patient actions as monitored by Revero's platform. Each patient completes three questions regarding their overall program experience as well as specific satisfaction with their coach and provider.

Preliminary Effectiveness

Patients are asked to complete several standard questionnaires and self-reported measures that enable the assessment of Revero's preliminary level of clinical effectiveness. Reported herein include data from specific lab and self-report assessments from patients that were analyzed over the course of treatment. Based on presenting condition (or conditions, if multiple), patients were administered condition-specific self-report questionnaires, were asked to complete labs that were both the same across conditions (e.g., CBC, CMP, HbA1C, Insulin, Lipid Profile, TSH, Vitamin D, hs-CRP) or different across conditions C-peptide (if on insulin), Urine Albumin: Creatinine Ratio (for patients with type 2 diabetes)) every 3-6 months, and had anthropometric measurements taken (e.g., Weight, Waist Circumference) (see Table A1).

For patients with type 2 diabetes, finger stick glucose (FSG) was monitored at least once a day (morning fasting) using a bluetooth glucometer. Patients who were on high-risk diabetes medications (insulin, sulfonylurea and meglitinides) had FSG monitored three times a day. For patients with hypertension, blood pressure was monitored daily using a bluetooth blood pressure monitor.

For all patients, self-reported height at weight information is recorded at intake to enable the calculation of body mass index (BMI), in addition to waist circumference measurements. Thereafter, weight information is collected weekly and waist circumference, monthly. In addition, daily symptoms are gathered, such as cravings, mood, hunger, energy, sleep, and other symptoms.

In addition, condition-specific symptoms were also gathered daily via the app, such as Rheumatoid arthritis symptoms (joint pain or swelling, number of joints involved, morning joint stiffness) or Psoriasis symptoms (red, raised patches, skin itching or irritation, dry or cracked skin, Number of body sites affected). With respect to labs, we measure CBC, CMP, HbA1C, Insulin, Lipid Profile, TSH, Vitamin D, hs-CRP for all patients. If a patient has type 2 diabetes and is on insulin, we also measure C-peptide and urine albumin: creatinine ratio. Table 4 displays the full list of measures captured from each patient.

Also, we tracked daily compliance with nutrition therapy in the app, including personalized protein target, personalized carb target, and the personalized food list. Patients and coaches can track historical trends as well as successful consecutive streaks of following the new habits.

Table 4. Measurements Taken from Revero Patients, by Presenting Condition

Condition	Daily Biomarkers
All conditions	Daily: Cravings, Mood, Hunger, Energy, Sleep, Other Symptoms (headache, muscle cramps/twitching, dizziness, fatigue, constipation, diarrhea, nausea, vomiting, fainting/passing out, heart palpitations), Weekly: Weight, Monthly: Waist circumference
Primary Hypertension	Blood pressure (systolic and diastolic), Heart Rate
Type II Diabetes	Blood Glucose (Fasting, Before Meal, After Meal)
Crohn's Disease	Abdominal pain and cramping, Blood in the stool, Diarrhea, Fatigue
Ulcerative Colitis	Abdominal pain and cramping, Blood in the stool, Diarrhea, Fatigue
Irritable Bowel Syndrome (IBS)	Abdominal pain or Discomfort, Mucus in Stool, Gas & Bloating, Urgency to have a bowel movement
Gastroesophageal Reflux Disease (GERD)	Heartburn, Food regurgitation, Difficulty Sleeping Because of Heartburn or Regurgitation
Small Intestinal Bacterial Overgrowth (SIBO)	Abdominal pain and cramping, Gas & Bloating, Fatigue
Fibromyalgia	Widespread body pain, Fatigue, Sleep disturbance, Anxiety or depression
Rheumatoid Arthritis	Joints pain or swelling, Joints involved, Morning stiffness, Fatigue
Ankylosing Spondylitis	Back pain, Other Joints pain and swelling, Morning stiffness
Chronic Back Pain	Back pain severity, Difficulty walking, Difficulty Lifting
Lupus	Skin rash on face or body, Joint pain or swelling, Joints involved, Fatigue
Psoriatic Arthritis	Joints pain or swelling, Joints involved, Morning stiffness, Fatigue
Psoriasis	"Red, raised patches", Skin itching, Skin Cracking
Eczema	Skin rash or redness present, Dry skin, Skin itching, Skin oozing or crusting
Acne	Small pimples, Large red bumps, Any white or yellow pus in bumps
Chronic Urticaria	Skin itching, "Skin hives, wheals, or redness"
Rosacea	Red patches on the face, Flushing

Condition	Surveys
All conditions	SF-36 (Health Assessment), GAD-7 (Anxiety Assessment), PHQ-8 (Depression Assessment)
Crohn's Disease	IBD-Control-8 Questionnaire
Ulcerative Colitis	IBD-Control-8 Questionnaire
Irritable Bowel Syndrome (IBS)	Birmingham IBS Symptoms Questionnaire
Gastroesophageal Reflux Disease (GERD)	GerdQ questionnaire
Small Intestinal Bacterial Overgrowth (SIBO)	SIBO Questionnaire
Fibromyalgia	Modified Fibromyalgia Impact Questionnaire (FIQR)
Rheumatoid Arthritis	Patient Activity Scale II (PAS II) for RA
Ankylosing Spondylitis	BASDAI score (Bath Ankylosing Spondylitis Activity Index)
Chronic Back Pain	Oswestry Disability Index (ODI)
Lupus	Quick Systemic Lupus Activity Questionnaire (Q-SLAQ)
Psoriatic Arthritis	Psoriatic Arthritis Screening and Evaluation (PASE)
Psoriasis	Psoriasis Symptom Inventory (PSI)
Eczema	Patient-Oriented Eczema Measure (POEM) ^{1,2}
Acne	Acne-specific Quality of Life Questionnaire (Acne-QoL)
Chronic Urticaria	Chronic Urticaria Questionnaire
Rosacea	Rosacea Patient's Self-Assessment (PSA)

Safety

Revero's therapeutic approach prioritizes patient safety through structured protocols that govern dietary interventions, medication deprescription, and chronic disease management. The following safety measures are integral to maintaining clinical integrity and risk mitigation across the program:

Rigorous Patient Screening and Eligibility Controls

The Revero program employs a comprehensive inclusion and exclusion criteria for all prospective patients, who are generally adults aged 18–79. Absolute contraindications such as Type 1 diabetes, current pregnancy, advanced kidney or heart disease, recent organ transplant, or use of high-risk medications (e.g., Warfarin, lithium, certain chemotherapies) result in mandatory exclusion, while cautionary conditions (e.g., older age, psychiatric history, or select comorbidities) are reviewed case by case. In addition, the program is not designed as a substitute for specialty care in areas such as complex psychiatric care, or neurological disease management. All enrollment decisions are reviewed and approved by a licensed Revero provider to ensure both safety and clinical appropriateness.

Structured Pre-Program Clinical Assessment

Baseline laboratory evaluation is required prior to enrollment. At that time, patients undergo a full medical history review, including current medications, comorbidities, surgical history, and technology literacy. An initial history and physical with a licensed provider also is conducted via a secure video platform.

Safe and Supervised Medication De-prescription

When needed and desired, a structured, stepwise de-prescription protocol personalized to the individual patient is used for diabetes, hypertension, and autoimmune medications. High-risk medications (e.g., insulin, sulfonylureas, SGLT-2 inhibitors) are closely monitored with daily glucose logging. Medication changes are made conservatively and only with provider oversight and patient consent.

Continuous Monitoring and Emergency Escalation

Patients track daily or weekly biomarkers, including glucose, weight, blood pressure, and other condition-specific metrics—using the Revero app. Coaches review these biomarkers on a weekly basis, reaching out to patients with personalized insights and support. Medical providers also monitor patient progress regularly, making care plan adjustments as needed to optimize outcomes.

Emergency escalation protocols guide coaches and providers to respond rapidly in cases of hypoglycemia, hyperglycemia, very low or very high blood pressure, chest pain, or altered mental status. If urgent symptoms arise, patients are instructed to seek emergency medical care immediately, while the provider is notified in parallel to follow up with additional support.

Our smart alerting system automatically notifies providers when a biomarker reaches a critical threshold. In addition, patients can initiate escalation by contacting their coach through the app; in these cases, the coach alerts the provider, who then reaches out directly. This combination of automated alerts, proactive coaching, and patient-initiated reporting ensures timely intervention and continuous support.

Ongoing Biomarker and Lab Monitoring

Ongoing lab surveillance is conducted at months 3, 6, 12, and adjusted as needed with earlier assessments occurring if results are found to be abnormal. Clinical decisions are guided by dynamic biomarker trends, ensuring early detection of potential complications. Automatic alerts go out to providers and coaches when a metric response falls within a parameter that requires immediate attention (e.g., alerts for low and high glucose or blood pressure). Timed alerts also occur for coaches and providers to periodically check in on patients. This monitoring is in addition to the monthly medical provider review of patient biomarkers, questionnaire responses, and charts as well as coach biweekly check-ins to monitor biomarker trends and assess patient progress.

Patient Education and Informed Consent

Patients are guided through structured learning modules that prepare them for success and support lasting behavior change. These modules combine practical onboarding steps such as setting up health-tracking tools with educational lessons on low-carbohydrate nutrition, safe dietary transitions, and the science of metabolic health. Patients also take part in reflective exercises to define personal goals, explore the ancestral principles behind our nutrition therapy, and practice applying key concepts in daily life. By combining clear actions, foundational knowledge, and personal reflection, the modules create a supportive and well-organized path for patients to begin and sustain their health journey.

Patients also receive pre-program education on potential risks of the program, including hypotension, hypoglycemia, electrolyte imbalance, and medication interactions. Informed consent is documented for dietary and medication changes.

Integrated Team Communication

Health data, lab results, progress notes, and patient task assignments are shared through a centralized digital platform (Healthie) as Revero's Electronic Medical Record (EMR). This platform enables various patient check ins, including smart alerts that notifies providers and coaches of important biomarker changes and other care-related tasks. Providers, coaches, and patients maintain open communication with structured escalation via Slack, email, and calls. Additionally, primary care providers may be updated through templated faxes upon patient request.

Findings

Acceptability, Satisfaction, Preliminary Effectiveness, and Safety

Accessibility metrics

Patients have had easy accessibility to the program, with Revero enrolling 818 patients from launch through July 31, 2025. A typical patient enters the program and immediately starts engaging by filling out health history forms, coordinating with Revero's enrollment team, completing their first set of labs, and meeting their Revero medical provider for their first appointment to review laboratory results, obtain a full medical history, and discuss their upcoming care plan. Patients then gain access to the Revero app within a mean of 9 days to fully enroll in the program and experience all of its benefits. After logging into the app for the first time, patients have a call with their assigned coach and go over their goals and care plans. They then gain access to a library of educational and lifestyle articles and recipes, start to complete video learning modules and set a date to start their low-carbohydrate diet, begin inputting biomarker information daily, and stay in contact with their medical provider regarding medication adjustments and care plan. Coaches keep in touch daily, with particular attention given to the diet transition period.

Engagement metrics

Among Revero current users, about half actively engage with the Revero platform daily. A typical user sends about 10.7 chat messages per month.

Satisfaction metrics

Patients report high levels of satisfaction as evidenced by the most recent month's ratings (July, 2025):

1. A Net Promoter Score (how likely to recommend the Revero program to a friend) of 65.
2. On a 5 point agreement scale, a mean of 4.8 to the statement, "my Revero coach and I are working well together and I have no questions or complaints"
3. On a 5 point agreement scale, a mean of 4.6 to the statement, "my Revero medical provider is accomplishing these goals, keeping me safe and answering any medical questions I have."

Preliminary Effectiveness

Overall, patients in the Revero program experienced reductions in their conditions' symptoms, as well as meaningful and significant reductions in markers of inflammation and metabolic disturbances, such as insulin resistance, within only three months of program enrollment. Among patients in the program for at least 3 months and at least one follow-up assessment after baseline, the following mean levels were reported:

1. Fasting insulin level for patients with elevated insulin level (>10) at baseline: 18.7 to 15.1 uIU/mL (19.3% improvement) and (>20) at baseline: 28.5 to 19.7 uIU/mL (30.9% improvement)
2. Fasting triglyceride level for patients with elevated triglycerides level at baseline: 222 to 164 mg/dL (26.1% improvement)
3. Inflammatory marker hs-CRP: 10.3 to 7.8 mg/L (25.0% improvement)
4. Liver enzymes AST and ALT for patients who had elevated liver enzymes at baseline: 35.9 to 30.8 IU/L for a 14.2% improvement and 49.3 to 41.9 IU/L (15.0% improvement), respectively
5. HbA1C for patients with type 2 diabetes: 7.65% to 6.57% (14% improvement)
6. Fasting blood glucose levels over time for patients with type 2 diabetes: 158.5 to 140 mg/dL (11.7% improvement)
7. Blood pressure reading for patients with hypertension: 141.6|84.2 mm Hg at baseline to 126.1|76.0 mm Hg (10.9% improvement in Systolic, 9.7% improvement in diastolic)
8. Lowered rates of obesity with an improved BMI from 37.5 to 35.4 (5.4% improvement)
9. Self-reports symptoms of their condition,
 - a. Ulcerative Colitis (IBD-8 questionnaire score): Patients with Ulcerative Colitis showed even greater improvements in self-reported symptoms (6.7 to 15.3, 128.4% improvement).
 - b. Crohn's disease (IBD-8 questionnaire score): Patients with Crohn's Disease showed large improvements in self-reported symptoms (10.0 to 16.0, 60.0% improvement).
 - c. Rheumatoid arthritis (Patient Activity Scale II (PAS II) for RA score): 3.7 to 2.2 (40.5% improvement)
 - d. Psoriasis (Psoriasis Symptom Inventory (PSI) score): 8.6 to 7.8 (9.3% improvement)
10. Quality of Life Improvements (SF-36): Patients entering the Revero program with low baseline SF-36 scores — a validated and widely used survey for assessing health-related quality of life in chronic disease research — experienced substantial and clinically meaningful improvements across nearly every domain. Importantly, these gains consistently exceeded the half a standard deviation (~3–5 point) threshold often times considered a minimum clinically important difference (MCID) in the SF-36 ([Ware & Sherbourne, 1992](#); [Norman et al., 2003](#)), indicating not just statistical but real-world relevance for patients living with chronic disease. Moreover, they appear to be greater than the modest improvements typically reported in comparable digital health interventions involving other patient populations ([Jodar et al., 2020](#); [MacDonald et al., 2021](#)).

After three or more months on the Revero program (n=57), the mean change was +1.2 points in the Physical Component Summary (PCS) and +1.4 points in the Mental Component Summary (MCS). While these averages are modest at the population level, a more meaningful pattern emerges when stratifying by baseline quartiles:

Among patients in the lowest quartile at baseline, PCS scores improved by +8.1 points and MCS scores by +8.0 points — well above the MCID and clinically significant for patients with the greatest health burden.

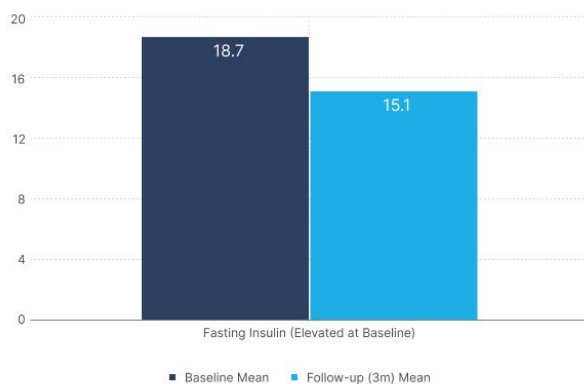
At the domain level, patients in this group showed robust, improvements over the previously described clinically meaningful threshold:

- Physical Functioning: +8.7 points (48.7 → 57.4)
- Role Functioning (Physical): +15.8 points (42.1 → 57.9)
- Energy & Fatigue: +11.3 points (46.6 → 57.9)
- Emotional Well-being: +10.2 points (68.0 → 78.2)
- Social Functioning: +10.2 points (60.5 → 70.7)
- Pain: +5.4 points (49.7 → 55.1)
- General Health: +9.0 points (40.3 → 49.2)
- Health Change (Perceived): +15.1 points (34.9 → 50.0)

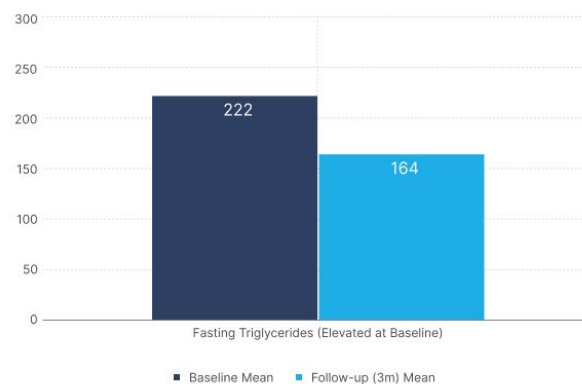
Together, these results underscore Revero's ability to deliver clinically meaningful quality-of-life improvements, with particularly large benefits for patients most burdened at baseline. Unlike many digital health programs that report only modest or narrowly focused changes, Revero demonstrates broad, significant gains across both physical and psychological domains, reinforcing its potential to set a new benchmark in digital chronic disease management.

Domain	Baseline Score	Follow-up Score	Mean Change
Physical Component Summary (PCS)	30.86	38.99	+8.1*
Mental Component Summary (MCS)	40.68	48.72	+8.0*
Physical Functioning	48.68	57.36	8.7
Role Functioning (Physical)	42.11	57.89	15.8
Energy & Fatigue	46.58	57.89	11.3
Emotional Well-being	68	78.2	10.2
Social Functioning	60.53	70.73	10.2
Pain	49.74	55.13	5.4
General Health	40.26	49.21	9
Health Change (Perceived)	34.87	50	15.1

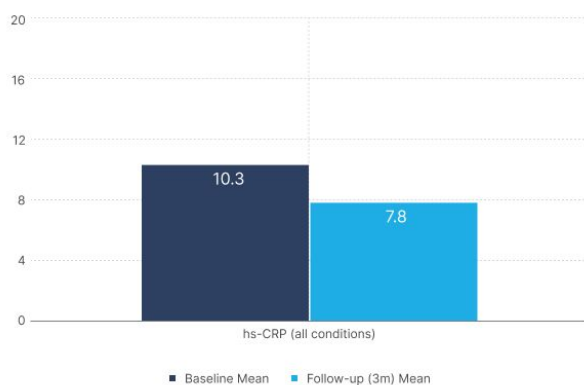
19.3% improvement in Fasting Insulin



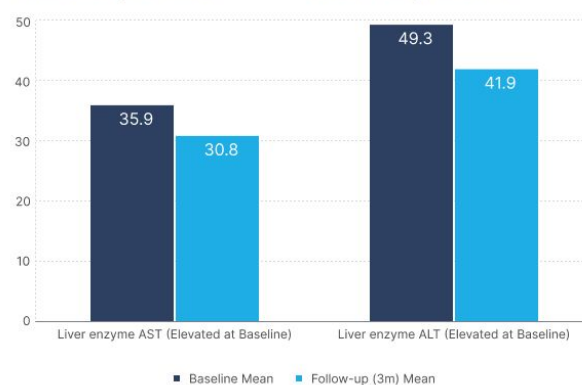
26.1% improvement in Fasting Triglycerides



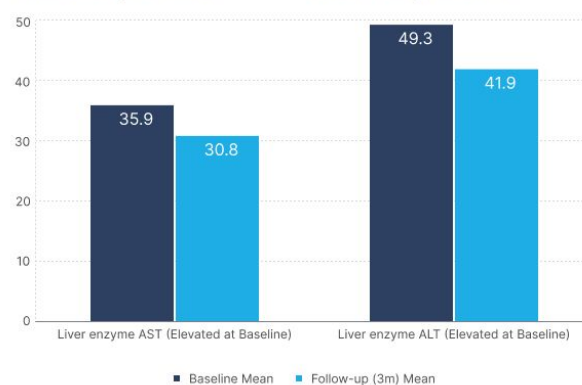
25% improvement in hs-CRP (all conditions)



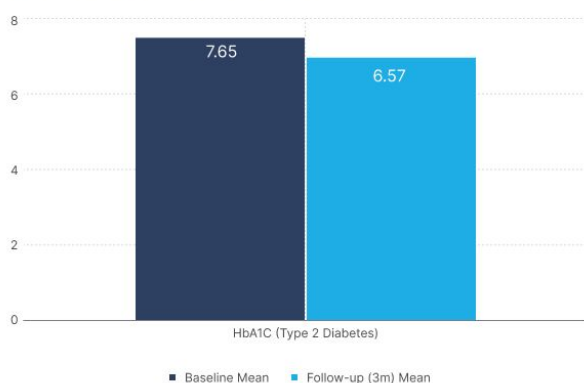
14.2% improvement in Liver enzyme AST



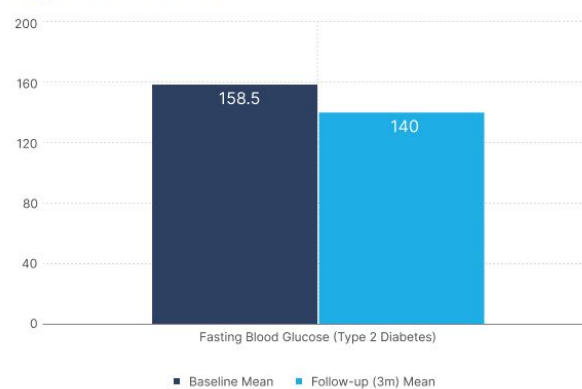
15% improvement in Liver enzyme ALT



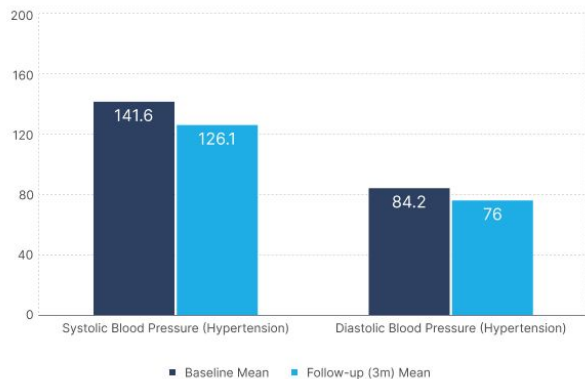
14% improvement in HbA1C



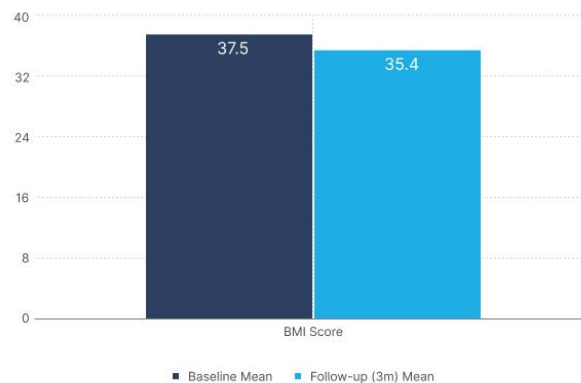
11.7% improvement in Fasting Blood Glucose (Type 2 Diabetes)



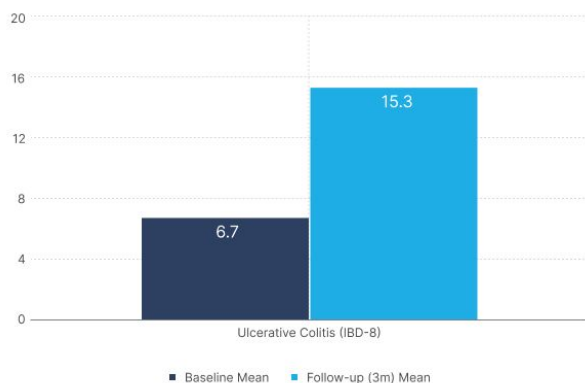
10.9% improvement in Systolic Blood Pressure **9.7% improvement in Diastolic Blood Pressure**



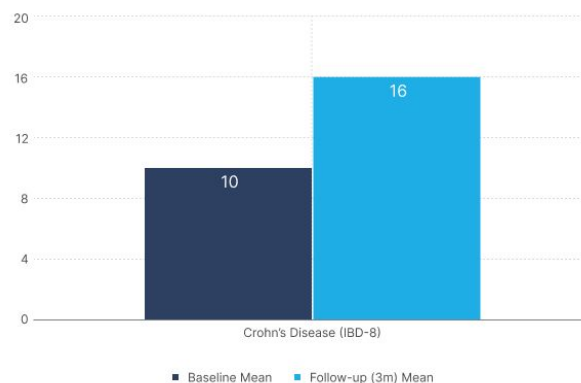
5.4% improvement in Obesity



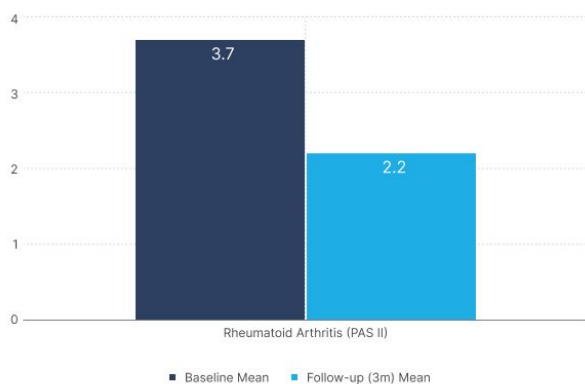
128.4% improvement in Ulcerative Colitis



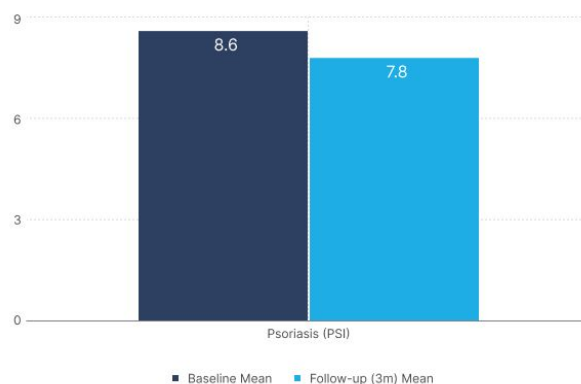
60% improvement in Crohn's Disease



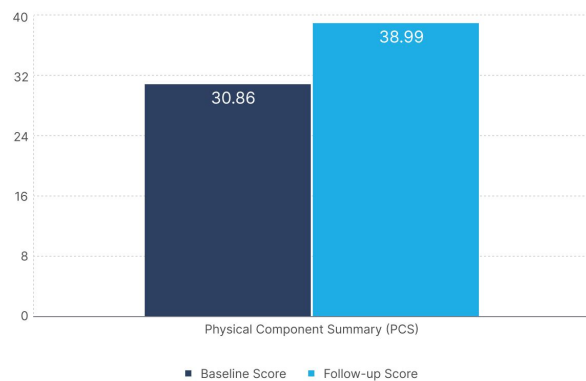
40.5% improvement in Rheumatoid Arthritis



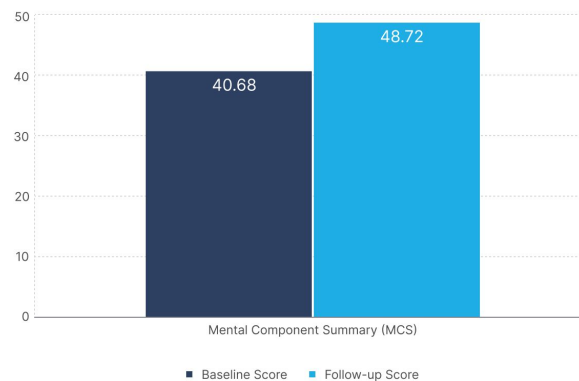
9.3% improvement in Psoriasis



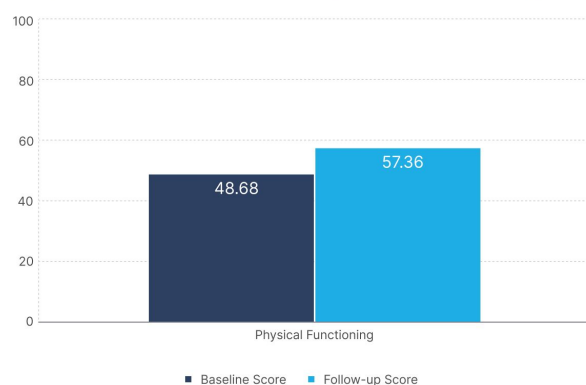
8.1 point improvement in Physical Component Summary (PCS)



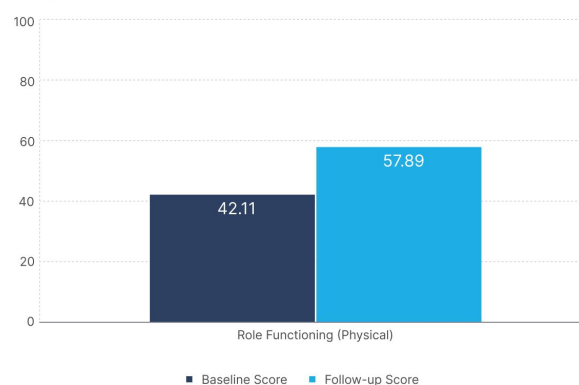
8 point improvement in Mental Component Summary (MCS)



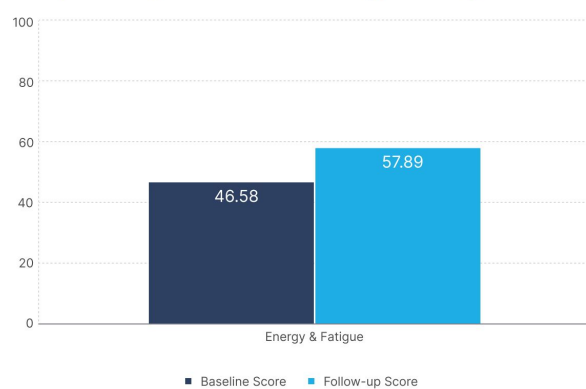
8.7 point improvement in Physical Functioning



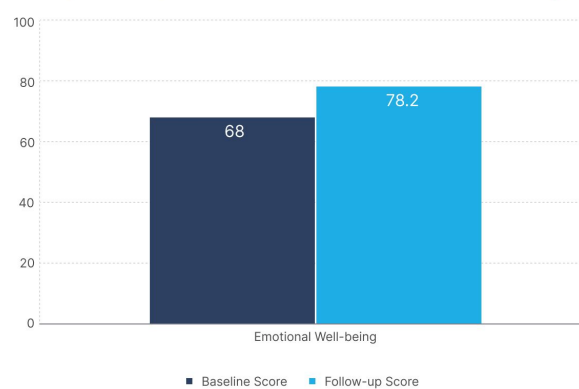
15.8 point improvement in Role Functioning (Physical)



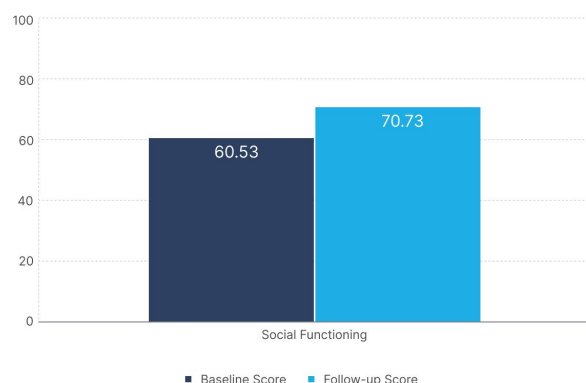
11.3 point improvement in Energy & Fatigue



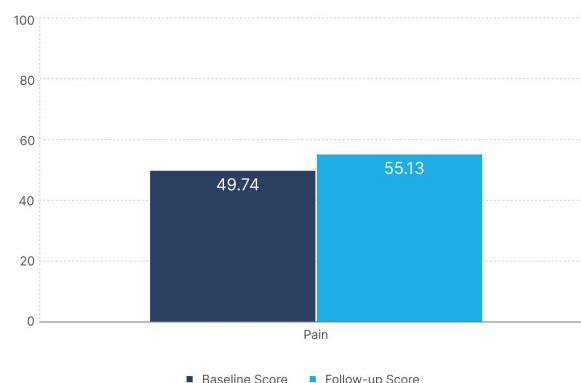
10.2 point improvement in Emotional Well-being



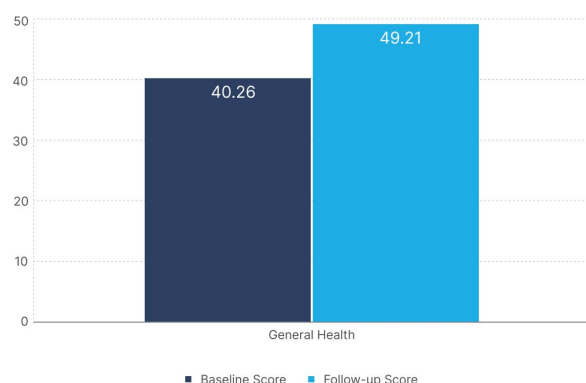
10.2 point improvement in Social Functioning



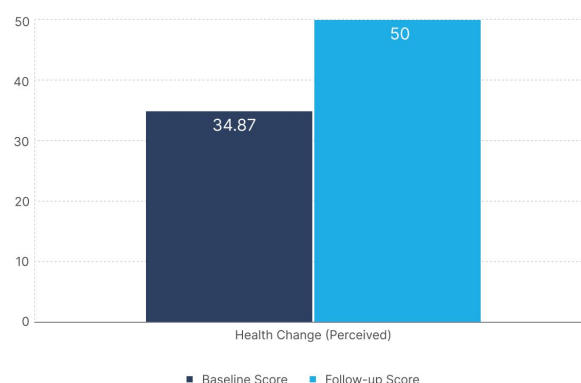
5.4 point improvement in Pain



9 point improvement in General Health



15.1 point improvement in Health Change (Perceived)



Safety

No serious adverse events were reported; the only potential harms experienced by our users were those monitored by the Revero program (e.g., typical symptoms of temporary GI upsets, occasional mild headaches and muscle cramps during the body's period of transition to a low-carbohydrate diet) and addressed by the provision of electrolytes, supplements, smart device-monitoring of blood glucose, and continuous coaching.

Conclusion

In sum, inflammatory and metabolic conditions are associated with high healthcare costs, such as expensive medications like biologics and GLP-1s, hospitalizations, surgeries, and the management of comorbidities. The rates of these chronic conditions are rising and put an increasingly high economic burden on patients, employers, and health plans above and beyond the burdens imposed by increased suffering, reduced quality of life, and negative experiences, including medication side effects. As such, it is urgent to find safe, effective, accessible, and engaging solutions to treat the root-cause and address some of the inherent issues with traditional types of care. Revero is an online medical provider that delivers holistic evidence-based care via a structured program accessed entirely remotely through a smartphone and supported by licensed medical providers. The treatment is designed to help patients with inflammatory and/or metabolic conditions reverse these conditions at the root-cause and have measurable improvements in clinical outcomes and symptoms. Several analyses presented here have demonstrated that enrolling in the Revero treatment program results in significant improvements in clinical outcomes of several chronic diseases that should have tremendous health benefits as well as potentially lead to significant cost savings.

These results underscore Revero's ability to drive meaningful transformation, especially for individuals most burdened by chronic disease. Together, the outcomes presented herein highlight the program's impact across a variety of domains studied. Our findings demonstrate that the Revero program provides an accessible, engaging, safe, and preliminarily effective form of comprehensive care for those suffering from these chronic conditions that may be a preferable option over the appointment-based care provided by traditional programs, some of which are associated with adverse side effects.

About Revero

Company Overview

Description

Revero is an online medical clinic for treating chronic conditions with a root-cause approach. We provide personalized nutrition therapy, biomarker tracking, ongoing medical care, and coaching.

Mission

Revero is on a mission to reverse chronic disease in millions of people with root cause treatments for autoimmune and metabolic conditions. Revero offers personalized nutrition and medical care, aimed to treat inflammation and insulin resistance, and providing ongoing medical supervision and medication reduction.

Revero's vision is to be the infrastructure of chronic disease reversal, embedded in health plans and benefits for easy access to care for every American.

Leadership's expertise

CEO, Mahsa Rostami is an AI leader in Silicon Valley, expert in building AI solutions for healthcare. She has led enterprise projects at CMS.gov, KPMG, developing AI models that improved healthcare services for millions of people. Chief Medical Officer, Dr. Shawn Baker MD is an orthopedic surgeon, international speaker, world champion athlete, and a globally recognized leader in medical nutrition therapy for treating chronic diseases.

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