

65+ Age Group

Outcomes in Newtopia

Book of Business Performance Comparison to Randomized Control Trial
Outcomes



newtopia



newtopia

Sustainable Habit Change

Preventing chronic disease and decreasing health care costs
with outcomes that grow over time.

About Newtopia

Newtopia is the gold standard for disease prevention through our sustainable habit change platform. We focus on plan members at risk of developing type 2 diabetes, heart disease, stroke, and NASH (fatty liver disease). Each personalized experience aims to reduce the metabolic risk factors of chronic disease, including waist circumference (BMI), blood pressure, blood glucose, triglycerides, and cholesterol [Metabolic Syndrome (MetS) components], and deliver meaningful medical cost savings resulting in a 2X ROI in the first year.¹ Evidence has demonstrated that body weight reduction through intensive lifestyle interventions reduces risk factors for chronic disease.²

Eligible at-risk plan members are offered an exclusive invitation to participate. Once enrolled, they complete a personal profile which helps us understand their personality type, level of motivation, eating habits, activity level and social determinants of health. Participants are then personality matched with a Newtopia “Inspirator” (personal health coach) who works with each participant to build confidence and develop new habits across nutrition, exercise, and behavioral well-being.

Participants are provided supporting tools for success in the program. These tools include a genetic test, smart scale, activity tracker, personalized mobile app, and measuring tape (for waist circumference). The genetic test allows Newtopia to further personalize lifestyle recommendations by understanding how genes impact their ability to lose weight. Our mobile platform gives participants access to their Inspirator, video lessons, goals, and their progress from anywhere. It also helps to increase accountability and engagement between coaching sessions.

This report contains:

1. Changing demographics in the USA and its implications on population health and Medicare spending
2. The clinical and healthcare cost findings of the Randomized Control Trial published in the peer-reviewed Journal of Occupational and Environmental Medicine
3. 12-month program weight outcome amongst the Book of Business 65+ population in Newtopia

¹ Steinberg, Scott, Honcz, Spettell, & Pradhan, 2015

² National Heart, Lung, and Blood Institute, 1998

65+ Population in the USA

The population of older Americans is growing and they are living longer than ever. The rising aging population, high prevalence of chronic disease within the elderly, and the swiftly soaring medical costs produce a sense of necessity and urgency in the development of innovative solutions to the healthcare system, such as health promotion and disease prevention schemes³.

10,000 people/day	Turn 65
80% of age 50+	Plan to work past 65
80% of older adults	Have at least 1 chronic disease

Demographic Shift in the Medicare Population

Americans, aged 65 and older, will make up a larger share of the total population (20%) as their numbers double over the next decade⁴. Consequently, aging baby boomers will markedly increase the size of the Medicare population⁵.

From 2011 until 2030, the baby boomer generation (born between mid-1946 and 1964) started and will continue to age into Medicare at a rate of 10,000 individuals per day⁵. In other words, according to the Medicare Payment Advisory Commission report, enrollment in Medicare is projected to increase by 50%, from 54 million beneficiaries in 2015, to over 80 million by 2030⁵.

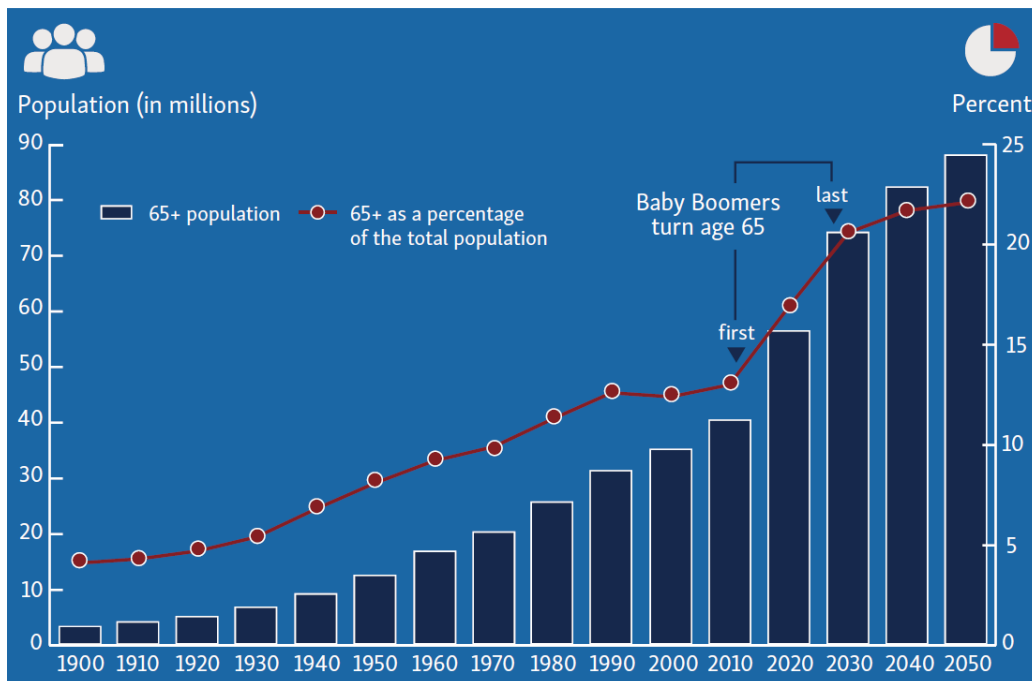


Image from Federal Interagency Forum on Aging Related Statistics Infographic. Data from U.S. Census Bureau, International Data Base, decennial censuses, and 2014 National Population Projections.

³ Goetzel, et al., 2007

⁴ Centers for Disease Control and Prevention, 2013; Gaudette, Tysinger, Cassil, & Goldman, 2015

⁵ Medicare Payment Advisory Commission, 2015

Who is the future typical Medicare beneficiary?

Schaeffer Center researchers predict that the typical elderly Medicare beneficiary in 2030 will be female, slightly younger, more educated and more likely to have never smoked. However, the average recipient will more likely be obese, have more chronic conditions (e.g. hypertension and type 2 diabetes), and despite the longer life expectancy, these years will be marked with increased disability⁶.

Acceleration in Medicare Spending

The older population accounts for a disproportionate demand and use of healthcare resources⁷, and their growing number will most likely have the largest impact on Medicare spending, according to predictions calculated from the Future Elderly Model (FEM), a microsimulation model of health and economic outcomes for older Americans⁸. In 2010, a 65 year old beneficiary accumulated, on average, \$131,000 of total Medicare spending over the course of their lifetime⁷. This average is projected to increase 72% to \$223,000 by 2030 due to a combination of increasing medical costs, longer life expectancy, and higher prevalence of chronic diseases⁸. In fact, the largest healthcare spending in the past 2 decades has been linked to modifiable (lifestyle) risk factors, with cardiovascular disease (CVD) being a significant contributor to healthcare expenditures and utilization, especially among older adults⁷.

\$223,000/person total lifetime Medicare spending by 2030

Potential Economic Benefits of Improving CVD health in Older Adults

A recent study by Aaron et al. published in the Journal of the American Heart Association evaluated the association between CVD health and healthcare utilization and expenditures in 6,262 participants from across the US aged ≥65 years with Medicare fee-for-service. CVD health was assessed using the American Heart Association's Life's Simple 7 (LS7) metric, which includes 7 factors: smoking, physical activity, diet, body mass index, blood pressure, cholesterol, and glucose. Healthcare utilization and expenditures were measured using Medicare claims.

The authors found that better CVD health (having 5-7 ideal LS7 factors vs 0-1 factors) was associated with lower risk for inpatient encounters and lower total inpatient and outpatient healthcare expenditures: \$2,551 savings. The study highlights that even with similar insurance and access to health services amongst participants, there are still considerable differences in healthcare expenditures that seem to be related to behavioral and behavior related factors such as those that compose LS7. They estimated that achieving ideal levels of 5 to 7 of the LS7 factors for the entire Medicare population could result in at least 41.2 billion USD in total potential annualized cost reduction.



These health behaviors and metrics represent 7 out of the top 10 most costly risk factors for employers¹⁰

“Given the substantially higher healthcare utilization and costs among participants with worse cardiovascular health, the benefits of these interventions may extend to reduced healthcare utilization and costs. These results have broader implications for stakeholders to focus on population behaviors for improving health and reducing costs rather than changes in access to health services and insurance plan design.”

⁶ Medicare Payment Advisory Commission, 2015; Aaron, et al., 2017

⁷ Aaron, et al., 2017

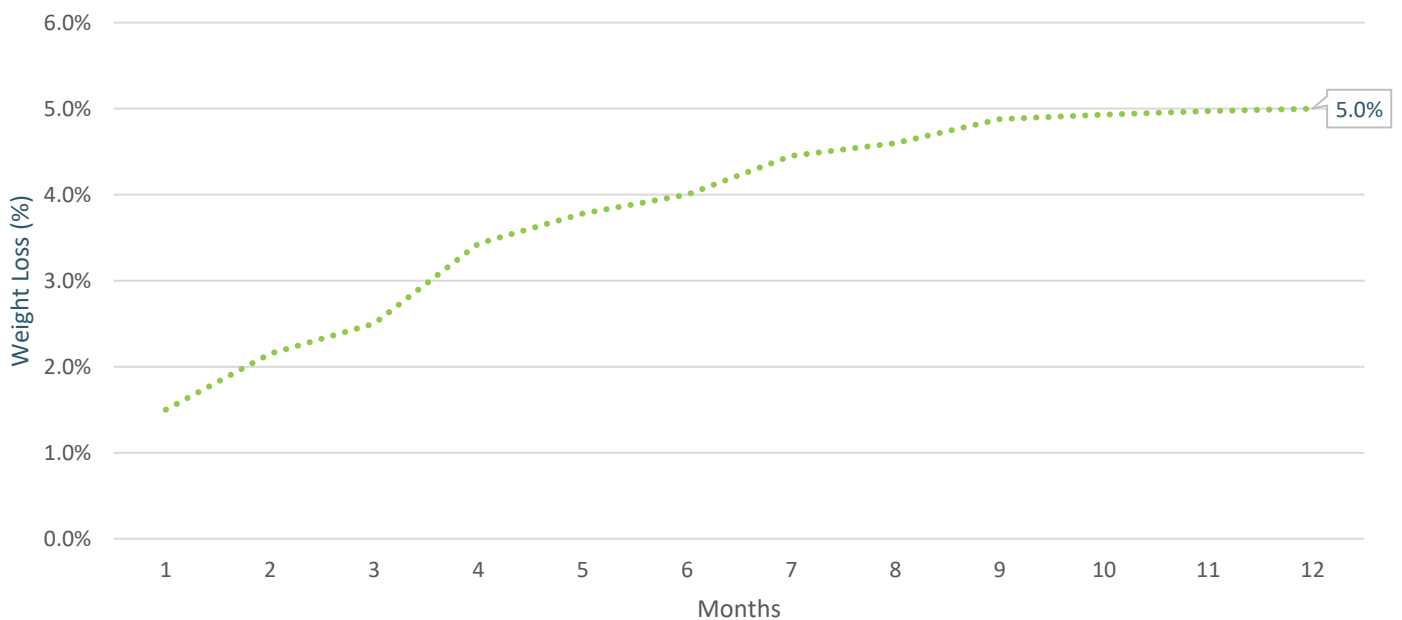
⁸ Gaudette, Tysinger, Cassil, & Goldman, 2015

Weight Reduction as a Clinically Significant Target

The American Heart Association/National Heart, Lung, and Blood Institute state that weight reduction should be a priority for individuals with MetS and obesity, in order to reduce the severity of the metabolic risk factors.⁹ Lifestyle therapies for weight loss should incorporate a reduced-calorie healthy meal plan, physical activity, and behavioral interventions.¹⁰ Current clinical guidelines for management of overweight and obesity states that a weight reduction of $\geq 5\%$ of initial body weight, based on evidence from several clinical trials, produces clinically meaningful improvements in health targets, such as reductions in blood glucose, hemoglobin A1c, blood pressure, triglycerides, and the risk of developing type 2 diabetes.¹¹ The resulting benefits in obesity-related medical conditions and cardiovascular risk factors are more pronounced with greater reduction of weight. Overall, achieving modest weight loss results in improved health outcomes, reduced healthcare costs, and enhanced workplace performance and attendance.¹²

As such, Newtopia utilizes ongoing weight reduction tracking as a proxy for measuring the successful reduction of MetS risk.

Weight Reduction Goal in Newtopia



⁹ Jensen, et al., 2014

¹⁰ Garvey, et al., 2016; Saklayen, 2018

¹¹ Williamson, Bray, & Ryan, 2015; Jensen, et al., 2014

¹² Wing, et al., 2011; Williamson, Bray, & Ryan, 2015

65+ Performance in Newtopia

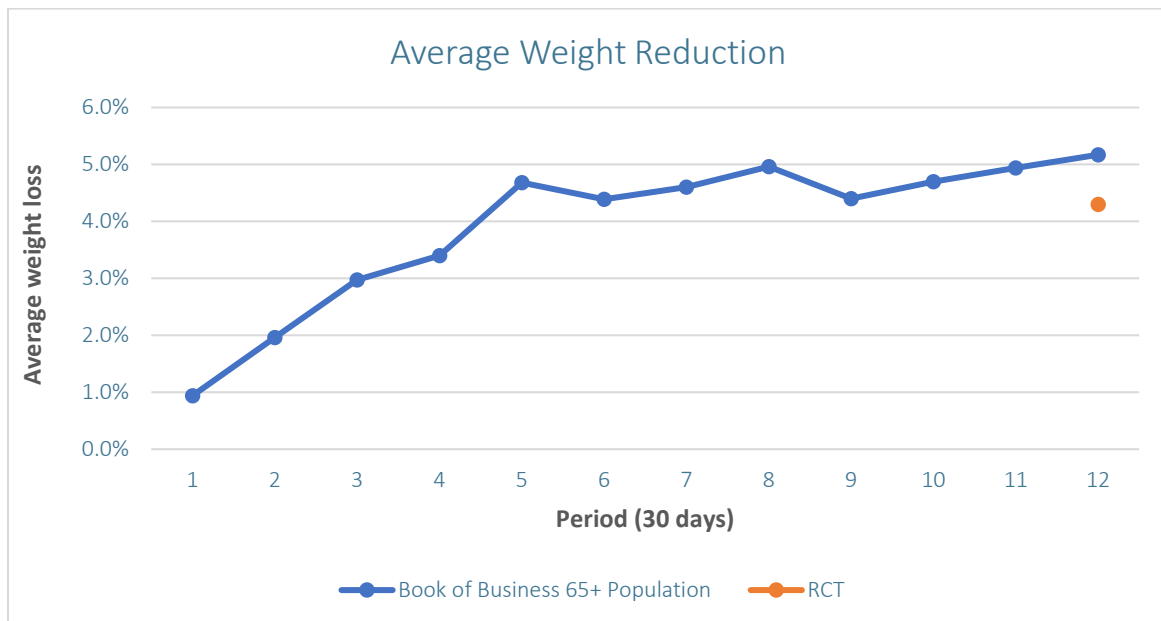
Newtopia Randomized Control Trial vs Book of Business 65+ Population

In November 2015, the results from a Newtopia Randomized Control Trial (RCT), sponsored and funded by Aetna – an independent third party, were published¹³. The goal of the RCT was to determine whether enrollment in a highly personalized wellness program would demonstrate reduced metabolic risk factors and healthcare costs compared to a control group not invited to the program. The RCT included 2,835 at-risk Aetna employees (2+ out of range MetS factors). The RCT included a program group of 1,890 employees (participants n=445) and an additional 945 in the control group. The 12-month RCT results are published in the peer-reviewed Journal of Occupational and Environmental Medicine. In addition to significant cost savings of \$1,464 per at risk participant, the study demonstrated:

- Participants lost an average of 10 pounds (4.3% body weight reduction)
- Meaningful clinical improvements and risk reduction in:
 - waist circumference
 - triglycerides
 - HDL cholesterol

Newtopia’s Book of Business 65+ population’s results in terms of the weight outcome exceeded those seen in the published RCT results.

Outcome	RCT	65+ Population
Average % weight reduction for total population at end of Month 12	4.3%	5.2%



For comparison, Book of Business participants aged <65 achieved 4.6% weight reduction by month 12.

¹³Steinberg, Scott, Honcz, Spettell, & Pradhan, 2015

What we saw to an extent from the RCT and what research suggests is that weight loss of 5-10% total body weight has been demonstrated to reduce blood pressure, serum triglycerides, and increases high-density lipoprotein (HDL)-cholesterol, as well as generally produce some reduction in total serum cholesterol and low-density lipoprotein (LDL)-cholesterol. Weight loss reduces blood glucose levels in overweight and obese individuals without diabetes and reduces blood glucose levels and HbA1c in some patients with type 2 diabetes.

Lessons learned from doing a deeper dive into the 65+ population subgroup is that there is no one size fits all, or even one size fits one age group. The advantage of Newtopia lies in our personalized approach, whereby we are able to tailor recommendations and coaching frequency based on each individual participants' needs.

Take home message

The imminent drastic rise in the aging population emphasizes the need for solutions that contribute to the health goals of Americans and mitigate the steep rise in healthcare expenditures, particularly Medicare. As discussed above, lifestyle interventions have been shown to be effective in reducing chronic disease risk factors, and its associated healthcare costs. Thus, Newtopia's sustainable habit change platform is part of the solution, and one which payors, employers or the Medicare Advantage members should seriously consider to help manage member risk and cost. There is also the potential for plans to leverage Newtopia in order to improve Star Ratings for plan quality and performance.

Contact Newtopia

Have any questions about this report or about the Newtopia?

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