Well360 Connect: An integrated clinical care management advocacy model with demonstrated lower costs and better health care utilization.

EXECUTIVE SUMMARY

Highmark offers the Well360 Connect clinical care management and advocacy model within its Well360 portfolio of products and services. Outcomes for members in this enhanced care management and member service model were compared to members in Highmark's standard model, known as Well360 Core, using a retrospective propensity-matched controls method over the year 2019.

Members in Well360 Connect had an average Total Cost of Care that was $30 lower per member per month (PMPM) than a matched control group of Well360 Core members. The difference was statistically significant and represents an 8% savings on care costs.

Members in Well360 Connect also had statistically significant lower rates of inpatient admission and emergency department (ED) visits and were more likely to receive the recommended preventive care.

INTRODUCTION

Highmark's Well360 portfolio includes a progressive suite of clinical, wellness, and member services offerings. This includes the Well360 enhanced care management models: Well360 Connect, Well360 Focus, and Well360 Lifestyle. The Well360 suite was enhanced in 2019, evolving from the most effective features of Highmark's previous population health and advocacy solutions, and adding new innovative features, such as next generation risk identification, expansion of the multidisciplinary care team, and embedded digital/virtual solutions for chronic conditions, wellness, and second medical opinion consultation.

This evaluation concentrates on Well360 Connect, for which self-funded commercial clients pay an additional per contract per month (PCPM) fee for an enhanced level of care management and member advocacy service. It explores whether members participating in Well360 Connect demonstrate a lower medical-only PMPM compared to members who are in the standard clinical model, Well360 Core.

Commitment to evidence-based evaluation:

Highmark is an industry leader in advanced analytics in health care and operates a successful clinical intervention evaluation program, which was adapted to evaluate Well360 Connect. The program is built around two guiding principles:

1. Every intervention Highmark provides for members will be subject to a robust, objective evaluation to determine impact, which in turn should influence future decisions for intervention.
2. Negative results are just as valuable as positive ones. We scale what works and use the evaluation findings to improve upon or replace what does not work.

The program uses an academic standard methodology, known as retrospective matched controls, and reports the statistical significance of each result. By applying this level of rigor, Highmark has a clear understanding of the value its programs deliver, which is used to influence activity. This capability and commitment to do so differentiates Highmark in the marketplace.

In this study, the approaches used to evaluate specific care management interventions are adapted to study outcomes from one whole year of care in the Well360 Connect clinical care and advocacy model.

METHODOLOGY

Members from selected Well360 Connect clients were compared to a propensity-matched sample of members from clients in the standard model. The outcomes of the two groups were compared across several cost and utilization metrics over the following year.

For the Intervention Group, Well360 Connect clients were selected to have as consistent an experience as possible from the matching year (2018) and the evaluation year (2019) to avoid introducing bias into the evaluation. This includes the enhanced model itself and performance guarantees (PGs). Ten clients were in Well360 Connect in both years, and six clients had the same model and consistent PGs in both years, ensuring the contractual arrangements and clinical and wellness outreach/activity would be consistent.

Clients in the control group were required to have the same basic standards apply in both years. Any clients with nonstandard performance guarantees, fewer than 1,000+ subscribers (an entry requirement for Well360 Connect), or who did not have their case management/disease management provided by Highmark, were excluded from the control group.

Members in both groups were required to be active members (excluding COBRA and retiree groups), have 24 months continuous enrollment with a complete set of data, be between the ages of 18 and 64, not have received hospice care or benefited from Highmark's Integrated Care Team, and not have changed employers during the study period.

A propensity-matching method (Rosenbaum and Rubin, 1983) was used to select control members, who have as similar as possible characteristics to the intervention members in the base year (2018). A logistic regression model was used to deliver 1-to-1 matching without replacement of the intervention members to their most similar control group member, training on member utilization in the base year, presence of chronic conditions, age, and location. A range of more than 30 separate metrics, including those in the regression model and others, were inspected for standardized difference between the two groups. The match was considered good when all differences were less than 0.1.

The groups were compared across the following metrics in the study year:

- Total cost of medical care
- Rate of inpatient admissions
- Rate of inpatient admissions for conditions which should be manageable in primary care, such as ambulatory care sensitive conditions, or ACSCs (Billings et al, 1993)
- Rate of ED visits
- Rate of ED visits for avoidable causes (Billings, Parikh and Mijanovich, 2000)
- Primary care provider (PCP) visits
- Care Gap Index (Cotiviti, 2019)

Individual members in both groups who were more than three standard deviations away from the outcome metric mean in the study period were removed from the assessment of that metric, on the basis that they were outliers. Typically, this excludes members who develop rare and costly conditions such as complex cancers or transplants.

RESULTS

Six Well360 Connect clients, with a total of 110,448 members, met the study inclusion criteria, as did 47 Well360 Core clients, with a total of 288,359 members. After member level exclusions, 52,377 intervention members and 145,791 control members remained in the study.

The most similar 53,282 members from both groups were selected by propensity-matching, meaning 95 intervention members did not have a well-matched equivalent in the control group and were therefore excluded.

The various exclusions did not notably alter the distribution of contracts and members within clients, which remained well-matched between intervention and control. The ratio of members to contracts for the Well360 Connect intervention group was 1.65 and 1.75 for the Well360 Core control group.

Figure A1 found in the appendix shows the standardized differences of matching and descriptive variables in the base year (2018), before and after matching. After matching, all differences were well under the recommended 0.1 threshold.

The comparison between matched intervention and control groups in the study period (2019) is shown in **Table 1**. The mean medical allowed costs for members in Well360 Connect was $4,212 in 2019 ($351 PMPM), whereas the matched control members had mean costs of $4,571 ($381 PMPM), a net savings of $30 PMPM for members in Well360 Connect. The savings were statistically significant, with a p-value < 0.0001. All hospital utilization metrics were significantly lower in the Well360 Connect members, with a reduction of 10 inpatient admissions per 1,000 members and 40 ED visits per 1,000 members. Standard model members had more PCP office visits during 2019, a difference of 70 per 1,000 members. However, the Care Gap Index, which measures how many members do not have the full set of recommended preventive/compliance activity for any diagnosed conditions, was significantly lower for Well360 Connect members than those in the standard model.

Table 1. The comparison between matched intervention and control group in the study period (2019)

Outcome Metric*	Connect (n=52,282)	Core (n=52,282)	Difference (PMPM)	p-value	Conclusion
Allowed Amount – Med Only	$4,212	$4,571	-$359 [-$30]	<0.0001	Core significantly greater
Admissions**	30	40	-10	<0.0001	Core significantly greater
ACSC Admissions**	0.5	0.9	-0.4	<0.0001	Core significantly greater
ER Visits**	170	210	-40	<0.0001	Core significantly greater
Avoidable ER Visits**	30	40	-10	<0.0001	Core significantly greater
PCP Visits**	1,730	1,800	-70	<0.0001	Core significantly greater
Care Gap Index	1.82	1.91	-0.09	<0.0001	Core significantly greater

* Difference in 12-month post-period outcomes
** Per 1,000 members

DISCUSSION

Overall, members in Well360 Connect had a lower average PMPM and utilization in 2019 compared to members in the Well360 Core model. Well360 Connect members had a statistically significant lower average difference of $30 PMPM on total allowed medical costs, which represents an 8% savings.

Well360 Connect members had a significantly lower average number of inpatient admissions and ED visits, which is a positive outcome suggesting less need for, or reliance on, hospital care. While higher rates of PCP visits are generally seen as positive (as these services are more cost effective and include strong preventive elements), the better performance of Well360 Connect members on the Care Gap Index suggests they are not missing out on preventive care and the increased utilization in the Well360 Core control group may be driven by acute or reactive visits (i.e. sick visits).

CONCLUSIONS

Well360 Connect demonstrates a significant reduction in the Total Cost of Care for members, driven mainly by lower utilization of hospital services. The reduction in care cost greatly exceeds the additional fee for the enhanced service.

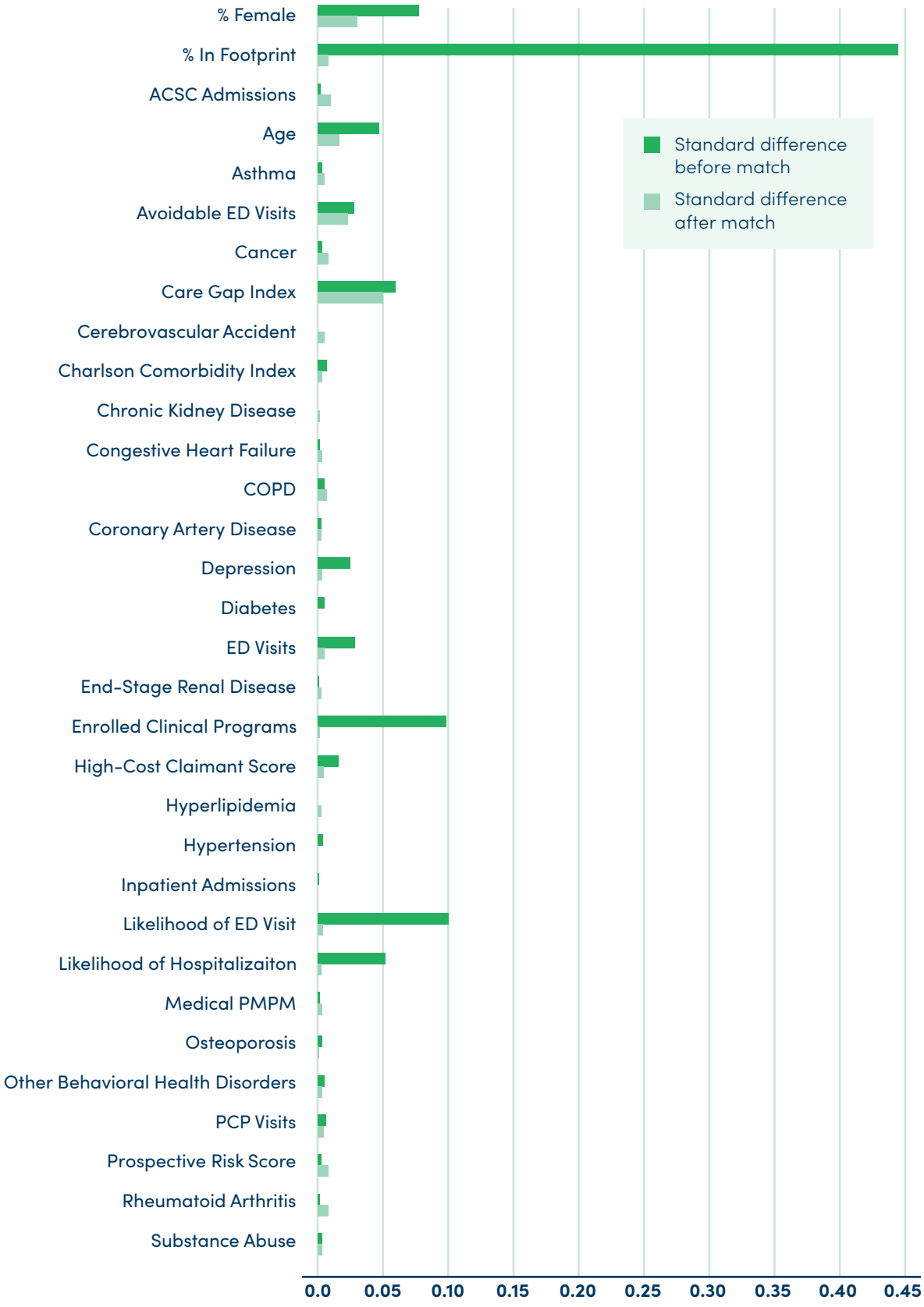
STRENGTHS AND LIMITATIONS

Retrospective propensity-matched control groups is a commonly used method to deliver evaluations with minimized selection bias. Clients and members in both groups were rigorously selected to ensure the only difference between them was the level of clinical intervention. Groups were matched in the year before the study period, meaning that the matching was not influenced by the outcomes under investigation. Standard differences across matching and descriptive metrics were all within the recommended threshold (Austin, 2009). The sample sizes provided more than adequate statistical power to observe differences between the outcomes.

As with any matched control study, the influence of characteristics unobserved in the data cannot be completely discounted. Given the large sample size, it is important to consider the magnitude of the differences when interpreting these results. In particular, the average difference for ACSC Admissions is extremely small. The results reflect the intervention as a whole and outcomes may vary for specific clients. While the groups were balanced on characteristics and outliers were capped, future analyses could explicitly exclude additional members with unavoidable high-cost events such as those with transplants or those with an allowed amount over a specified threshold. This may be difficult to impact due to inherent complexities or highly regulated standards of care.

APPENDIX

Figure 1A: Standard difference before and after matching



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