

4 STEPS

To Control Health Care Costs with Predictive Analytics

Learn how self-funded employers use predictive analytics to save on their healthcare costs.



While employee benefit advisers work to help self-funded employers contain their expenses, health care costs in the U.S. continue to spread like a raging forest fire.

Consider these facts reported by the Altarum Institute in a recently-released Health Sector Economic Indicators brief:

- Over the past six months, health care has added 226,000 jobs — the largest increase in 25 years.
- Health-related job growth now exceeds non-health job growth (2.7% vs. 2.1% annually).
- National health spending in March 2015 was 6.8% higher than in March 2014.
- At \$3.2 trillion, health spending now represents 18.1% (almost 1/5) of gross domestic product

Many advisers respond to cost containment challenges by focusing on the cost side of the employer's plan, and their recommended actions often amount to cost-shifting, generally from the plan sponsor to covered members:

- Higher deductibles
- Coinsurance
- Co-payments
- Eligibility modifications
- Early retirement options
- Voluntary coverage options
- Comparison shopping of coverage
- Reference-based or cost-plus pricing



HEALTH SPENDING NOW
REPRESENTS ALMOST

18.1%

OF GROSS DOMESTIC
PRODUCT



All of the above actions result in lowering expenses, although many of the gains come at the expense of covered members who see the “watering down” of benefits as a cut in pay. The recent emergence of reference-based and cost-plus pricing services deserve applause for locating other sources of savings (i.e. eliminating excessive charges for many clinical services and supplies), but these services do not purport to improve health or reduce the frequency or gravity of disease and clinical procedures. Moreover, plan quality requirements set forth in the Affordable Care Act are further constraining benefit advisers and leaving them with fewer and fewer options. Sooner or later, the painful truth becomes clear; a cost-side approach can accomplish only so much.

In search of added savings, employers and advisers have increasingly turned to risk management for answers. They reason that if illness can be reduced, the total cost of procedures and supplies will follow. In recent years risk management measures have proliferated:

- Wellness programs
- On-site clinics
- Staff case managers
- Financial incentives
- Fitness or gym subsidies
- Bicycle pathways, convenient racks, etc.
- Vending machines stocked with nutritious foods
- Health screening, other risk assessments

Such well-intended measures may contribute to a cost reduction in the long run. The drawback, however, is that their effects won't be felt financially for years. The health care cost crisis needs to be addressed now. Enter applied predictive analytics.

Research shows that about 50% of an employer's annual spend results from 1-5% of the covered members, according to ThinkDataSmart.com. Employers stand to save substantially by correctly identifying and addressing these prospective high-cost claimants before diseases or conditions reach advanced stages.

Did You Know?

50%

OF AN EMPLOYER'S ANNUAL SPEND RESULTS FROM

1-5%

OF THE COVERED MEMBERS.

Look to the Data

The challenge is how to identify them. DataSmart Solutions estimates that only 40% of the high cost claimants in a given year are repeats from among those who submitted claims in the prior year. This is generally consistent with findings published by The National Institute for Health Care Management Research and Educational Foundation. In other words, a thorough study of historical claims data leads to a detection of only 40% of the high-cost claimants in the forthcoming year.

We must turn to non-claims data to supplement claims information in search of prospective risk. Predictive analytics providers such as DataSmart Solutions have observed that statistically-proven non-claims data and historical claims information can be combined to produce powerful tools to detect near-term high-risk claimants.

To get started, proactive employers and their advisers communicate incentives to encourage participation and procure the essential non-claims information from covered members. Once the information is gathered and aggregated, the predictive analytics vendor produces a risk ranking that enables the prioritization of high-risk covered members for assignment to case/disease managers. DataSmart Solutions has observed that the annual health care spend for high cost claimants can be conservatively reduced by about 15% through predictive analytics and immediate intervention. In comparison to total costs, the cost of case/disease managers is very affordable, and the cost of reliable predictive analytical services can be even less.



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Employee benefit advisers and self-funded plan managers can realize substantial savings and improve the health of their covered members by adhering to four important guidelines:

- 1 Locate a predictive-analytics provider with substantial experience in integrating claims history and non-claims information with a track record of producing measurable savings.
- 2 Communicate to employees how the plan will work, what additional data will be collected, and what incentives will accompany participation; employees need a clear explanation and accurate expectations about what will happen both at implementation (e.g. blood testing, HRAs, vision tests, et al) and later on, when reports and results are delivered.
- 3 Remember that the follow-through is just as important as the analytics. A follow-through plan includes skilled case/disease managers and a corresponding budget. Design that plan.
- 4 Utilize supportive, informed reinsurers who are willing to monitor the savings and reflect them in refunds as well as future premium adjustments.

The careful integration of a good predictive analytical service can greatly assist employers to reduce their annual health care expenses. Unlike most wellness plans, a properly implemented predictive analytics program will make its value felt immediately. Most importantly, a good predictive analytics program may save not only money, but also employee and member lives.



IMPLEMENTING A
PREDICTIVE ANALYTICS
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CASE STUDY

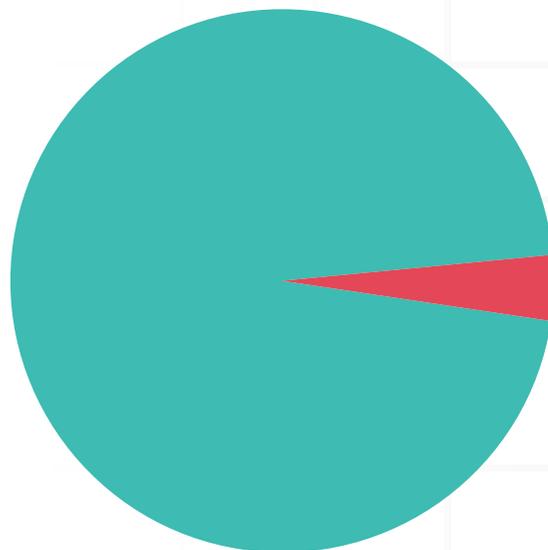
Predictive Analytics Applied to a 100-Employee Company

DataSmart Solutions observes a cost reduction of approximately 9% on annual member healthcare expenses provided that prompt disease management resources and plan refinements are implemented as recommended. We expect that about 3% of large populations will be identified as prospective high risk claimants (ordinarily accounting for 50% of the annual spend), and early intervention will result in savings of 20% for this risk-band. The following example assumes a covered population of 210 covered members and 100 employees. We assume predictive analytical services can be provided to this client for \$4 PEPM and that the analytics provider is already receiving data from the source of claims history and non-claims data (i.e. no additional connection charges).

Illustrative Customer Employee Count	100
Total Covered Members:	210
Cost of Predictive Analytics: \$4.00 PEPMx12	\$4,800
High Cost Claimants (3% of population)	6
All Other Claimants (97% of population)	204
Assumed Monthly Healthcare Cost/Person	\$500
Total Approximate Annual Spend	\$1,260,000
Spend on High Cost Claimants (50%)	\$630,000
Spend on All Other Claimants (50%)	\$630,000
Gross Savings on High Cost Claimants (20%)	\$126,000
Less: Disease Mgmt Costs (\$1200/yr/case)	\$(7,560)
Net Savings on Annual Healthcare Spend	\$118,440

Net Savings on Annual Healthcare Spend	\$118,440
Cost of Predictive Analytics Service	\$4,800
Return:	\$113,640
ROI:	24:1

24:1 RETURN ON INVESTMENT



*In this example, a net sum of **\$113,400** in annual savings is realized by the employer, versus a cost of **\$4,800** for the predictive analytics.*