

Addressing High-Cost Claims Panel Session: Part One



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The Impact of High-Cost Claims

CHRIS SYVERSON

NEVADA BUSINESS GROUP
ON HEALTH

MODERATOR



Rethinking How We Mitigate *HIGH-COST CLAIMS*

The Problem: Few (if any) employers have the size, resources or focus to address rapidly escalating high-cost claims. *Since 2016, the number of health plan members with claims \$3M+ has doubled*, heightening sustainability concerns. Elimination of annual and lifetime maximums through the Affordable Care Act and the dysfunction of the reinsurance market has made this a top priority for every employer, purchaser and market.

High-Cost Claims Defined:

- Unpredictable/infrequent for individual employers
- Claims costing \$50,000 or more per year
- Cost outliers that are frequently lasered (i.e., stop-loss insurance covers only the first year of claims, then will cover everything except that claim)
- Often for severe, debilitating disease conditions

Facts about high-cost claimants

JUST **1.2%**

OF ALL HEALTH PLAN MEMBERS ARE HIGH-COST CLAIMANTS
...but they make up 1/3 of total health care spending



29x

Average member cost

\$122,382

Average annual cost

53% CHRONIC CONDITIONS

47% ACUTE CONDITIONS

Wellmark Blue@Work

“High-cost claims are the biggest threat to employer-sponsored healthcare coverage today. Only through collective employer action can these risks be mitigated.”

Michael Thompson
National Alliance President & CEO



Strategies will vary based on duration of expenditures and quality or quantity of options

Long-duration Treatment

Multiple Effective Options

Hemophilia
Multiple sclerosis
Multiple myeloma
Autoimmune
Cystic fibrosis
End-stage renal disease (ESRD)
Hereditary angioedema

Limited Options

Spinal muscular atrophy
Metastatic cancers
Duchenne muscular dystrophy
Immune globulin (palliative)
Congenital anomalies (lifelong)

Short-duration Treatment

Lymphoma
Premature birth
Spine surgeries
Immune globulin (therapeutic)
Inherited retinal dystrophy (RPE65)

Spinal muscular atrophy
Neurotrophic keratitis
Transplant
Congenital anomalies
Idiopathic pulmonary fibrosis
Sepsis
Trauma and burns



National Alliance Offers Tools to Build the Bridge to Sustainability

- [Mitigating High-cost Claims: A Closer Look at Hemophilia](#)
- [Employer Rx Value Report and Value Framework Infographic](#)
- [Hospital Payment Strategies: Setting Price & Quality Expectations](#)



National Alliance
of Healthcare Purchaser Coalitions
Driving Health, Equity and Value

Be Proactive, not Reactive

Specific Saving Strategies for High-Cost Medical Drugs

Learn more: [Achieving Accountability & Predictability on the Medical Side of Drug Benefits](#)

CLINICAL RIGOR

- Separation of dispensing/rebates from clinical functions
- Independent, expert clinical management
- Cost-effective step therapy, when appropriate
- Elimination of waste
- Same level of clinical rigor applied to specialty drugs on medical side
- Longer term – increased specialization

COST-EFFECTIVE SOURCING

- Better align co-pay and patient assistance programs
- Unrestricted, competitive dispensing options and sources
- Site-of-care optimization for provider-administered drugs
- Longer term – collective management & stewardship

Contracting Strategies

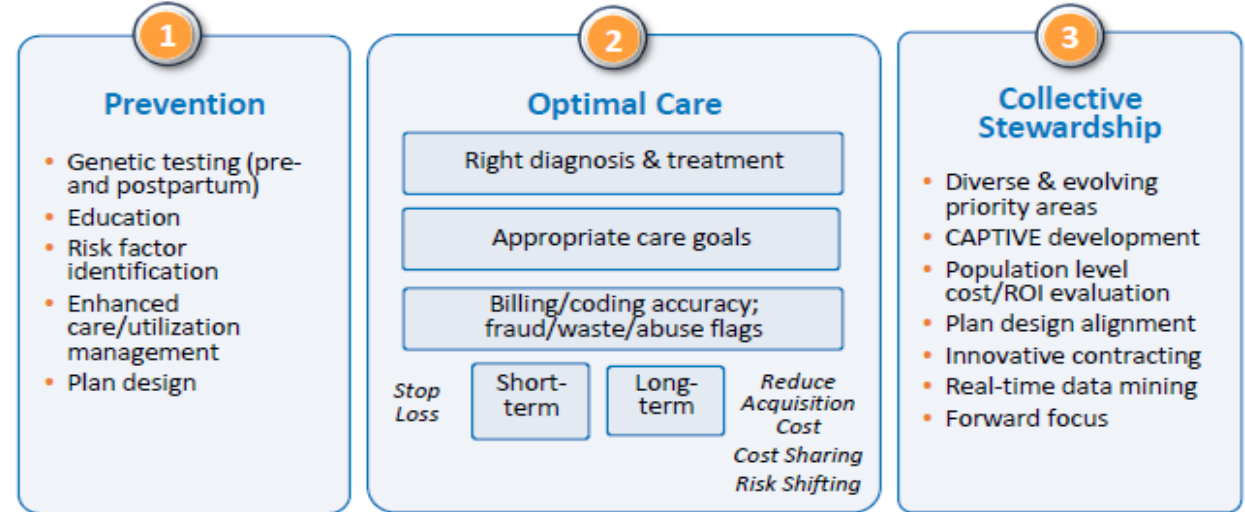
- Deconflict PBM and medical carrier relationships (fiduciary compliant)
- Reduced/fixed markups for provider buy/bill drugs
- Outcomes-based drug pricing
 - Specialty generics filled in retail, not at specialty pharmacy
 - Payment amortization (pay-over-time)
 - Hospital at home/telehealth
 - Narrow networks
 - More timely and transparent reporting
 - Bill review/negotiation
- Longer term – population-based hybrid contracts

Plan Design Strategies

- All drug management under the pharmacy benefit
- Dose rounding protocols (for injectables)
- More rigorous utilization management for high-cost drugs
 - PA/pre-certification functions
 - Preferred drug lists/formularies
 - Quantity limits
 - Step therapy
 - Specialty carve out
 - Exclusions/coverage limitations
- Aligned financial incentives with plan participants
- Leverage secondary coverage when available (e.g., spouse employer, Medicaid or Medicare)
- Longer term - Steerage to improve quality, appropriateness and reduce impact of middlemen

Integrate Core Pillars of Overall Risk and Cost Reduction

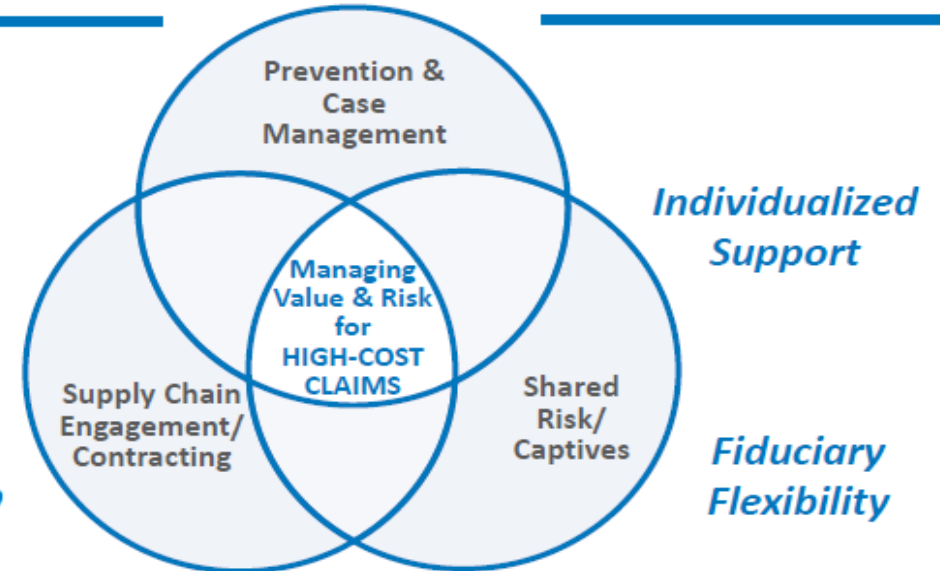
There is *no one-size-fits-all approach* to tackle the *broad spectrum of high-cost claims*; a combination of options is needed for each case



Longer-term Approach

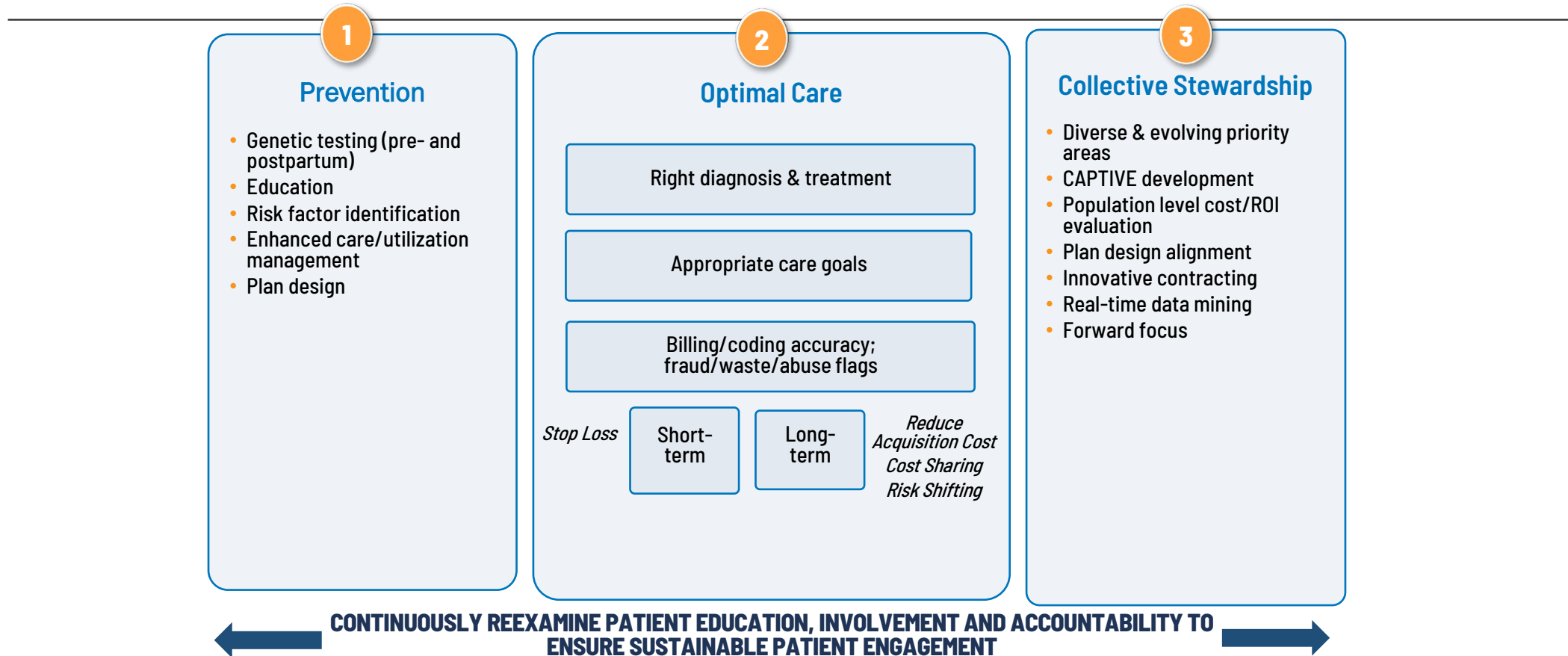
Population Focus

Collective Stewardship

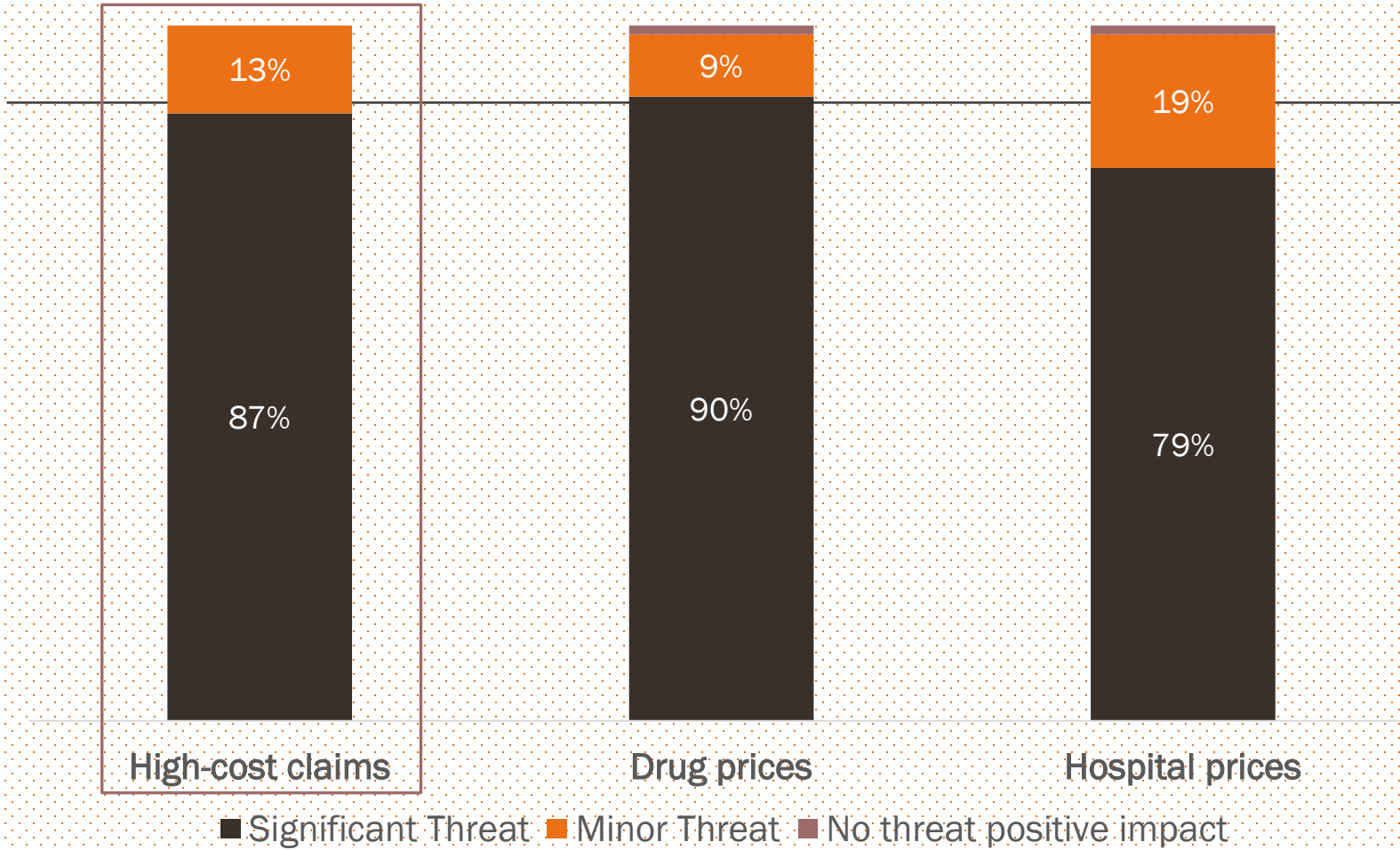
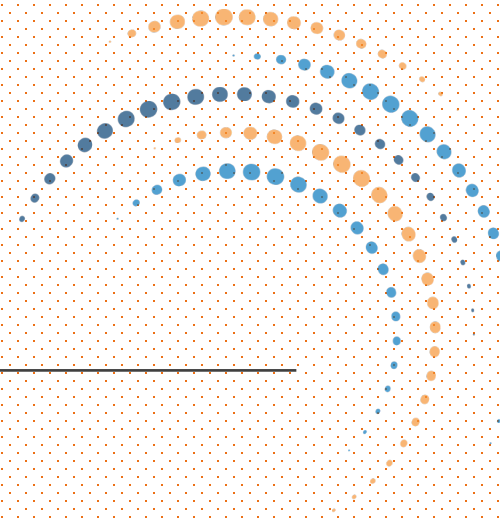


Integrate Core Pillars of Overall Risk and Cost Reduction

There is *no one-size-fits-all approach* to tackle the *broad spectrum of high-cost claims*; a combination of options is needed for each case



Three biggest threats to affordability are drug prices, high-cost claims, and hospital prices



Nearly 8 out of 10 employers consider drug prices, high-cost claims, and hospital prices a significant threat to affordability of employer-provided health coverage for employees and their families

What's Really Driving Employer Health Plan Costs?

0.6%
of a population
drives 35%
of employers'
spend



Health care
inflation is driven
by price increases,
not utilization, think
new medical and Rx
technologies.



High-cost claims
are different

High-cost claimants
are made up of
cancers, complex
newborns, COVID/
sepsis, specialty
drugs and implants



Specialty Medicines,
especially injectables,
are the fastest-growing
driver of high-cost claimants



High-Cost Claimant
Predictive Analytics
can *sometimes* identify
these individuals and target
early interventions



Chronic conditions are the direct cause of less than a
quarter of medical and pharmacy claims over \$50,000
(high-cost claims)

Stop Loss Market Overview 2022

Severity and frequency of catastrophic claims continue to increase. The market is hardening as a result

Cancer remains the **most costly** condition since 2010

COVID and Sepsis claims had significant **increases**. An increase in *Mental/ Behavioral Health* claims was also observed

Decreases continued in *Transplant and Renal*, likely due to better contracting and clinical management

Note: Due to a change in the methodology used to group conditions in this year's report, catastrophic cases in categories like cardiovascular, musculoskeletal, and neurological now appear in the top 10



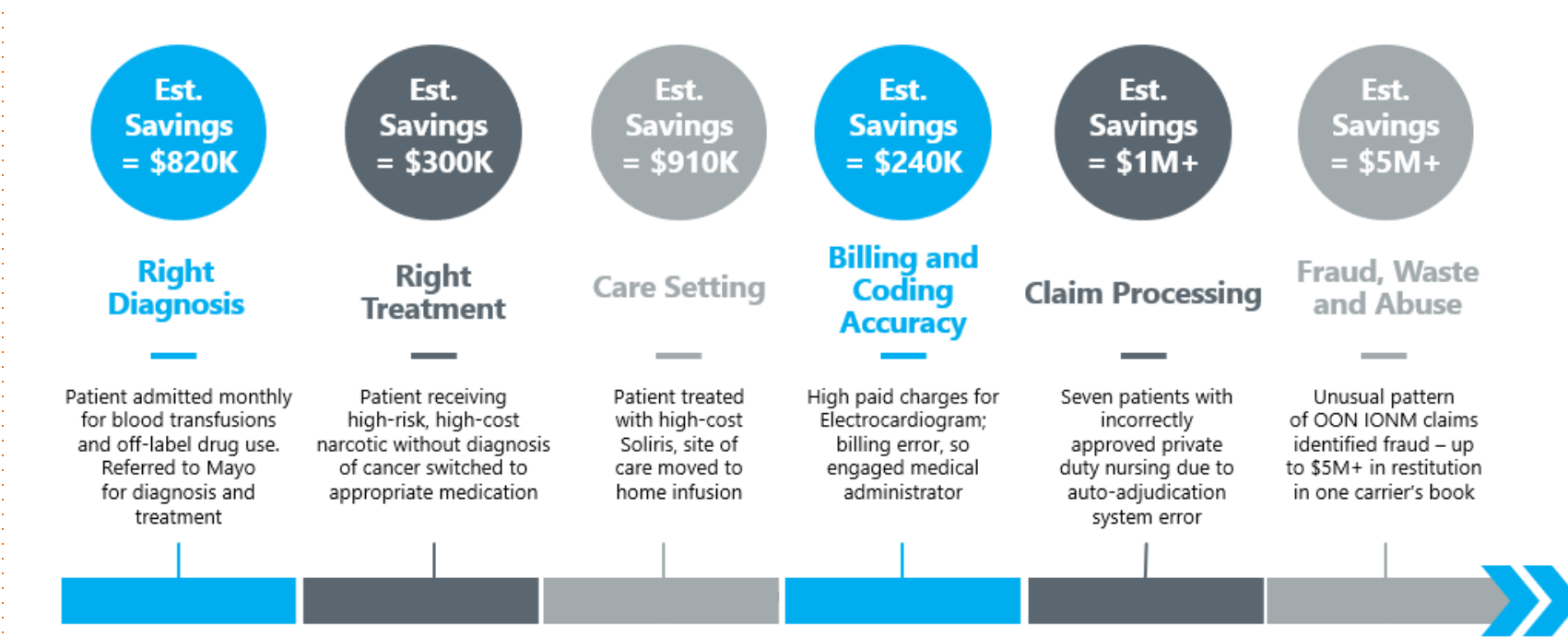
TOP 20 HIGH-COST CLAIM CONDITIONS

Stop-loss claim reimbursements

2021 Rank	4 Year Rank	Condition/Disease/Disorder	2021 Single Year Reimbursements	2018-2021 Reimbursements	Total payments
1	1	Malignant Neoplasm	\$294.9M	\$1.03B	38% Top 3 conditions
2	2	Leukemia, Lymphoma, Multiple Myeloma	\$117.0M	\$443.1M	
3	3	Cardiovascular	\$102.3M	\$389.4M	
4	4	Orthopedics/Musculoskeletal	\$89.6M	\$297.5M	70% Top 10 conditions
5	5	Newborn/Infant Care	\$82.3M	\$287.0M	
6	6	Respiratory	\$65.0M	\$234.1M	
11	7	Urinary/Renal	\$57.5M	\$222.6M	
9	8	Neurological	\$61.2M	\$210.7M	
10	9	Gastrointestinal/Abdominal	\$59.3M	\$200.9M	
7	10	Sepsis	\$64.2M	\$182.4M	
13	11	Congenital Anomaly (structural)	\$41.9M	\$172.0M	
12	12	Physician Treatment	\$47.1M	\$143.1M	
17	13	Transplant	\$26.7M	\$127.8M	
14	14	Cerebrovascular	\$29.8M	\$98.7M	
16	15	Hemophilia/Bleeding	\$28.4M	\$96.3M	
19	16	Immune System	\$21.2M	\$87.5M	
15	17	Mental and Behavioral Health	\$28.5M	\$87.1M	
18	18	Malnutrition	\$23.1M	\$79.8M	
8	19	COVID-19	\$61.5M	\$75.4M	
21	20	Blood and Blood Forming Organs	\$18.6M	\$72.0M	

Source: Sun Life 2022 High-cost claims and injectable drug trends analysis

Case Examples



The factors, and therefor solutions, for complex claims are numerous and varied

Data Discussion



What Data Does

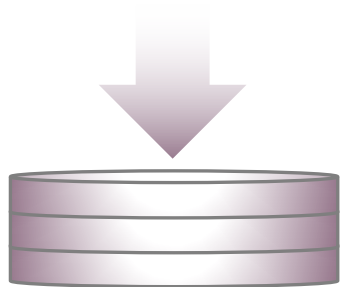


- ✓ Identify Healthcare Waste
- ✓ Quantify & Target Savings
- ✓ Measure Results




Innovu Data Management Solutions

Create Unified Record



-  Medical
-  Pharmacy
-  Plan Design
-  HRIS
-  Biometric
-  Workers' Comp
-  Retirement
-  Other Data

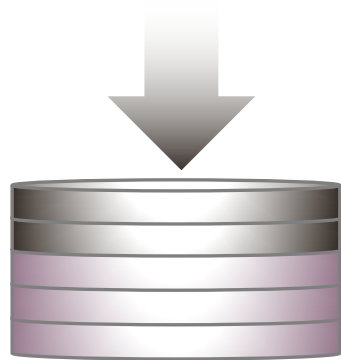


Enrichment Data

-  Medispan
-  AMA
-  NPI

Benchmark Data





-  Innovu Data
(3.8M lives)
-  MarketScan
(43.6M lives)

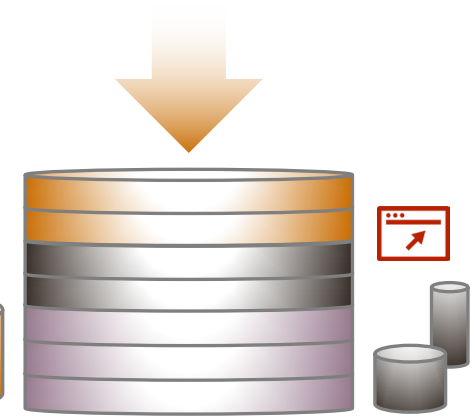


Lens Capabilities



Enhancement Modules

-  Quantros Quality
-  Truven Grouper
-  Hospital & Payer Data
-  Additional / Custom

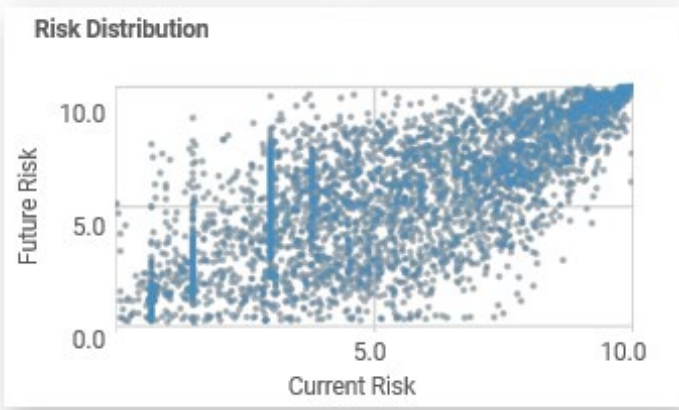
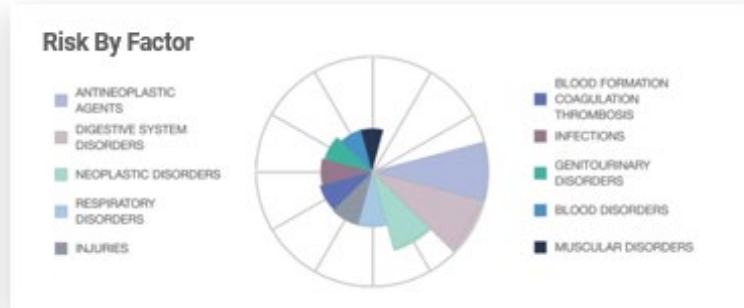


Population Risk Assessment

PDB Demo Client

Risk Overview

Current Period: Jan 22 - Nov 22
Previous Period: Jan 21 - Dec 21



High Risk Members

Age	Gender	Relation	Risk	HCC Prev/Curr	Current Cost	Future Cost
51	Female	Spouse	10.0 ▲	○ ●	\$176.7K	\$50K-100K
57	Male	Self	10.0 ▲	○ ○	\$42.7K	\$10K-25K
25	Male	Child	10.0 ▲	● ●	\$568K	\$100K-175K
17	Male	Child	10.0 ▲	○ ○	\$95K	\$50K-100K
48	Female	Spouse	10.0 ▲	● ●	\$159.7K	\$100K-175K
60	Female	Self	10.0 ▲	● ○	\$71.6K	\$50K-100K
54	Male	Self	10.0 ▲	○ ●	\$102K	\$100K-175K
57	Female	Spouse	10.0 ▲	● ●	\$194.6K	\$175K-250K
65	Male	Self	10.0 ▲	● ●	\$204.4K	\$175-250K

Risk Scores

The reconciled Member model has two measures of risk:

- **Current Risk:** The expected risk during the current 12-month period
- **Future Risk:** The expected risk in the following 12 months

What is risk?
The risk models describe expenditures as a function of clinical and demographic variables. This allows us to predict the expected amount of expenditures for each member given their current health.

How is it scaled?
These expenditures are scaled into percentiles within an organization. For example, a member with a risk score of 8.5 is in the 85th percentile of predicted health expenditures for their organization.

What drives risk?
Thousands of Innovu-derived
• Demographic variables
• Chronic condition exposure
• Diagnoses (CCS categories)
• Prescription claims history

How is this different?
We took a data-driven approach to risk estimation that allows our scores to vary in more dimensions and in a non-linear fashion.

What do they compare to?

- The current risk score is similar to other 'Diagnosis-and-Pharmacy' risk scores.
- The future risk score is similar to other 'Prior-Cost' risk scores.

What data is used?
We utilize a member's entire medical history to estimate their risk. This is in contrast to many competitors that only use data from the most recent 12-month period.



The motivation for risk adjustment

Self-insured companies struggle to understand their employee's health as clearly as the expenditures they are liable for paying. Innovu's solution leverages machine learning to accurately translate these expenditures as a function of their population's underlying health. This allows our advisors to distinguish anticipated from unpredictable health expenditures and direct additional resources to the most vulnerable members.

Data-driven instead of hypothesis-driven features

Risk scores are used in a variety of contexts in the healthcare sector; most notably to transfer risk-adjusted payments between insurance pools under the Patient Protection and Affordable Care Act. Innovu's risk scores expand upon the hierarchical condition category model from the U.S. Department of Health and Human Services (HCC-HSS) by leveraging thousands of additional features from our canonical data model. For example, both the HSS-HCC model and traditional actuarial risk adjustments will fit a single coefficient in a generalized linear model in the presence of a chronic condition. This obscures variation that we would expect within a chronic condition over a patient's disease progression. Our approach novel in this field because we relaxed the assumption that diseases should be treated equally over their progression. Instead, we rely on years of healthcare claims to estimate the non-linear impact of disease exposure to future expenditures.

Ensembles over single models

The HCC-HSS model and traditional actuarial risk adjustments both describe variation in expenditures as a function of a member's health in the context of a single regression model. This is problematic because regressions optimize for average outcomes, not exceptional ones. Healthcare expenditures are notoriously skewed, and we find that around half of our client's healthcare expenditures can be attributed to the top 5% of claimants. Therefore we adopted an ensemble approach where we build separate models to describe the top and bottom half of the distribution of expenditures. This allows our risk adjustment to estimate different mechanisms that drive risk for the high-cost claimants.

Competitive risk adjustments

We compared our model's performance in a prospective validation region representing 30% of our data with the MARA model from Milliman as well as the MEG+CCM model from Truven Health Analytics. These metrics are largely equivalent across our optimized and prospective models with the exception of the area under the ROC curve. We optimized our model specifically to address the risks of high-cost claimants and consequently identify the top 1% of members more reliably than other commercial risk adjusters.

Current Risk Scores¹

	Innovu	MARA	Truven
R ²	0.543	0.550	0.526
MAE	0.624	0.570	0.627
ROC	0.991	0.984	0.981

Future Risk Scores²

	Innovu	MARA	Truven
R ²	0.239	0.202	0.207
MAE	1.05	0.933	0.964
ROC	0.951	0.879	0.877

Localized explanations

The HCC-HSS model and traditional actuarial risk adjustments both provide global explanations of the drivers of risk in a population. This is a useful context, but we have gone a step further to provide local explanations. This enables advisors to understand why a given member is at high risk. They can then refer them to an appropriate partner intervention program that addresses the individual's predicted needs.

^{1,2} Equivalent to tables 4.2.1 and 4.2.2 in 'Accuracy of Claims Based Scoring Models', Society of Actuaries 2016

R², or the coefficient of determination, is a performance measure that describes the amount of variance in expenditures explained by a risk score. It ranges from 0 (no variance explained) to 1 (all variance explained).

MAE, or mean absolute error, is a performance measure that describes the average amount of error in a risk score. It ranges from 0 (no error) to infinity.

ROC, or the receiver operator characteristic, is a performance measure that describes how well a risk score identifies the top 1% of members health expenditures. It ranges between 0.5 (random guess) to 1 (perfect identification).

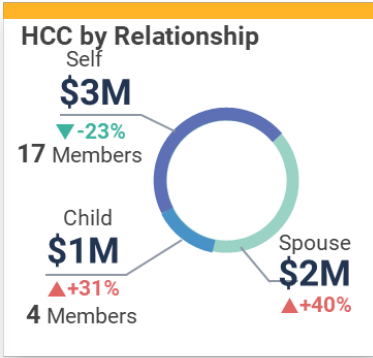
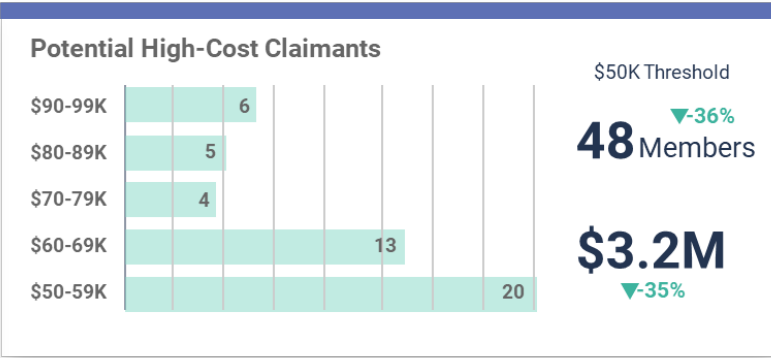
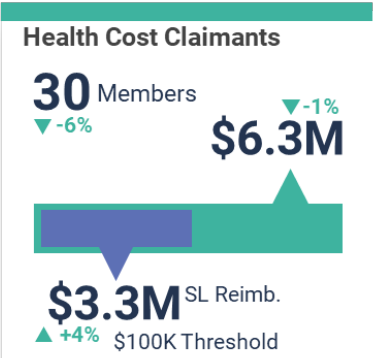
High-Cost Claimant Overview

PDB Demo Client

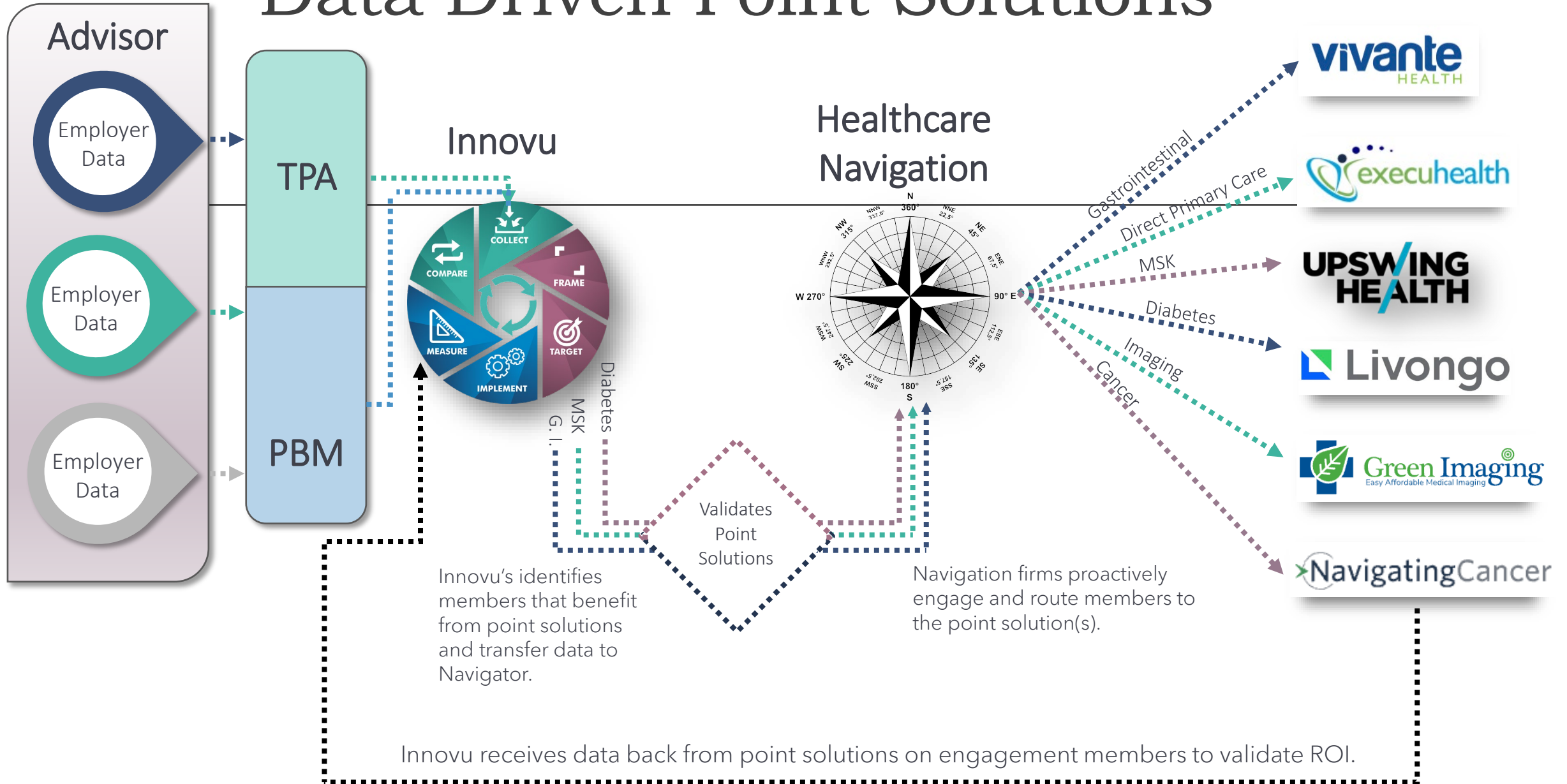
High-Cost Claimant Overview

Current Period: Jan 22 - Nov 22
 Previous Period: Jan 22 - Nov 22

Age	Gender	Relation	Primary Diagnosis	Enrolled	Risk	Medical	Pharmacy	Current Total	Previous Total
50	Female	Spouse	Encounter for antineoplastic chemotherapy...	yes	8.9	\$845,160	\$86,725	\$931,884	\$378,915
50	Female	Self	Other nontraumatic intracerebral hemorrhage...	yes	9	\$539,515	\$17,951	\$557,466	\$55,503
90	Male	Self	Squamous cell carcinoma of skin of scalp...	yes	10	\$528,742	\$8,948	\$537,690	\$390,681
25	Male	Child	Hyp chr kidney disease w stage 5 chr k...	yes	9.7	\$450,755	\$50,516	\$501,271	\$54,604
53	Female	Spouse	Malignant neoplasm of maxillary sinus	yes	9.9	\$247,025	\$6,464	\$253,489	\$262,459
22	Male	Child	Anxiety disorder, unspecified	yes	7.8	\$482	\$239,842	\$240,325	\$477
38	Female	Spouse	Other symptoms and signs concerning fo...	yes	9.9	\$170,549	\$12,553	\$183,101	\$49,124
58	Male	Self	Mantle cell lymphoma, unspecified site	yes	9.8	\$1,669	\$164,899	\$166,568	\$155,270
51	Female	Spouse	Benign intracranial hypertension	yes	10	\$152,713	\$11,354	\$164,068	\$73,023



Data Driven Point Solutions

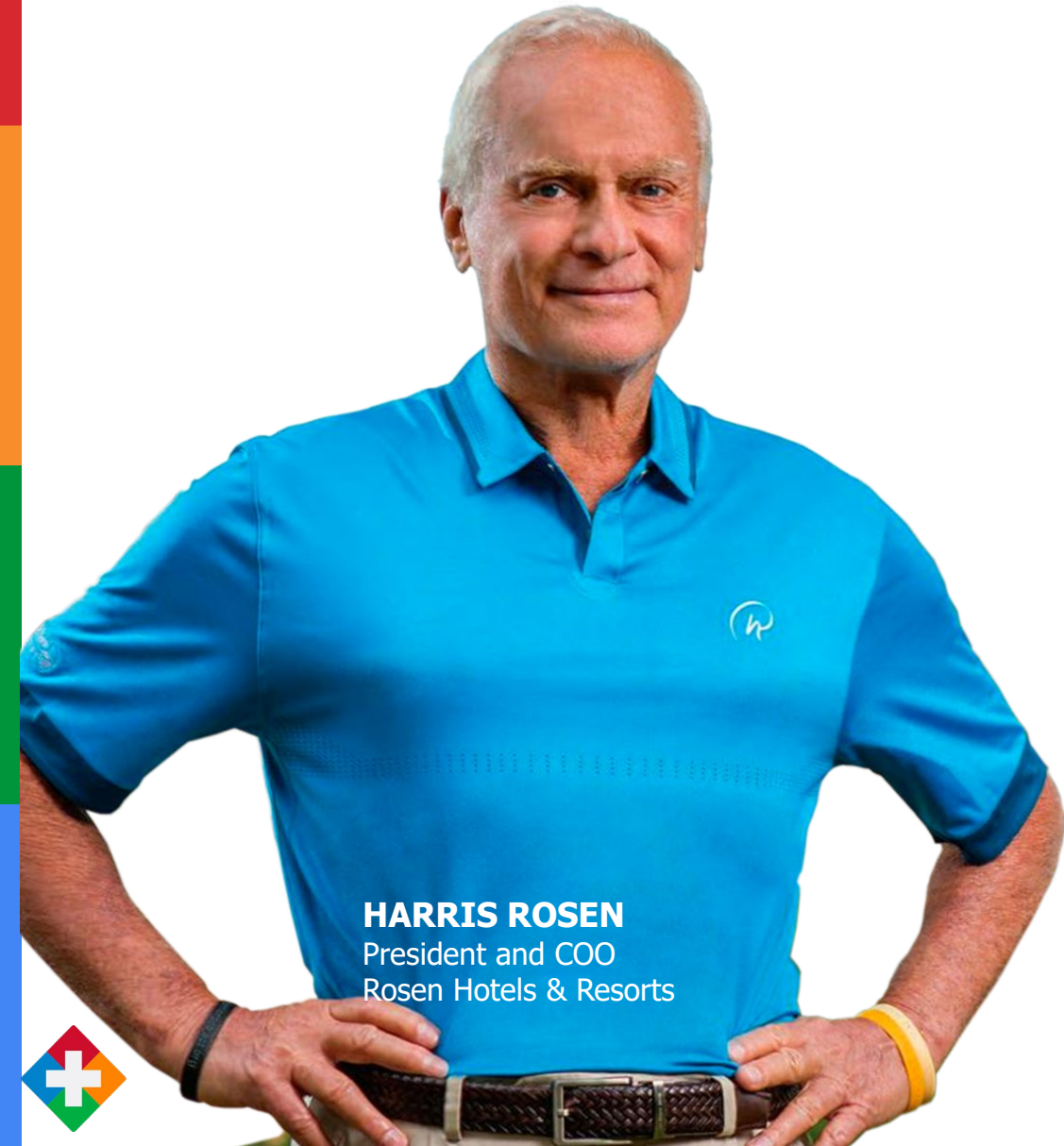


ENHANCED HEALTHCARE:

COMMON SENSE
AFFORDABLE
NO DEDUCTIBLES



A MOVEMENT BASED ON A MISSION



HARRIS ROSEN
President and COO
Rosen Hotels & Resorts



ZANE GATES, MD
Co-Founder of PeopleOne Health



DIRECT PRIMARY CARE

- Unlimited Utilization
- 30-60 minute appts
- 1 on 1 Relationship
- Improved Access
- Generic Rx (200+ Medications)
- Labs
- Care Coordination

INTEGRATED POPULATION HEALTH

- Registered Dietitian
- Health Coaches
- LCSW
- Clinical Pharmacist
- Specialty Consults
- Technology

DIRECT CONTRACT NETWORK

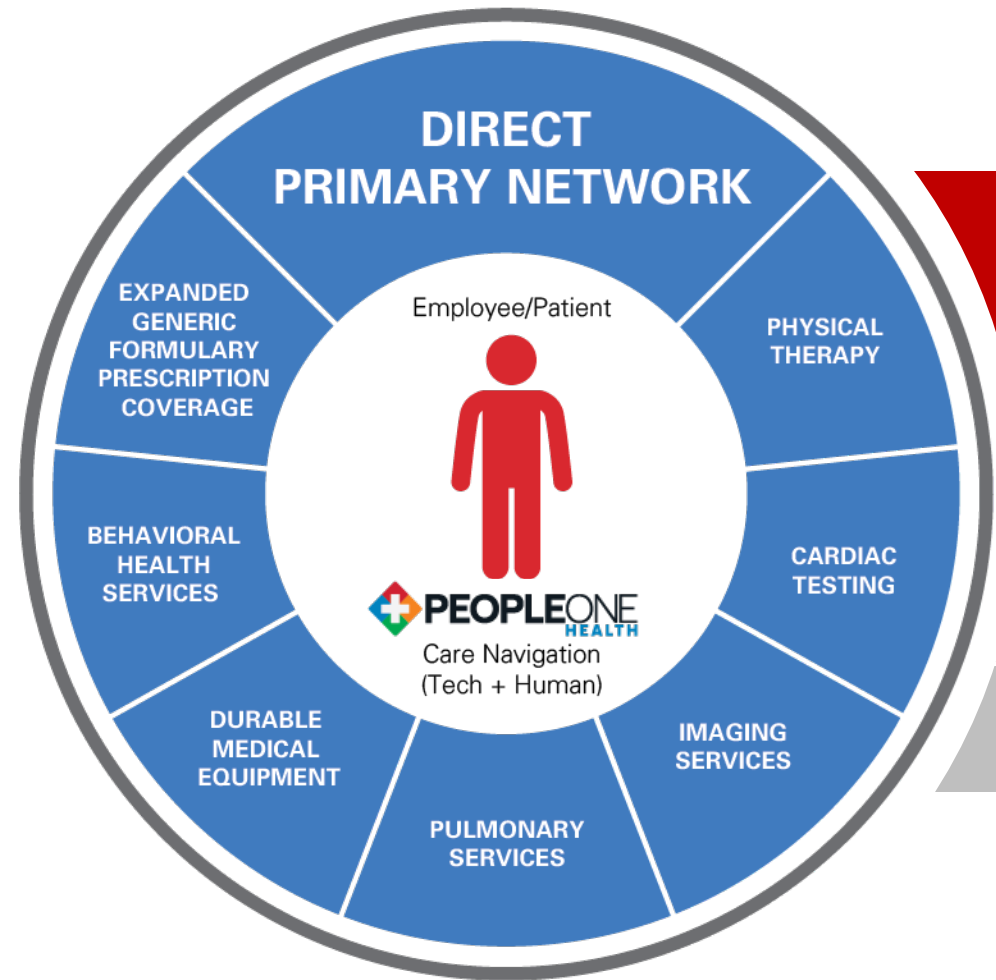
- Behavioral Health
- Physical Therapy
- Advanced Imaging
- Cardiology Testing
- Pulmonology Services
- Durable Medical Equipment

= 88%
OF HEALTH CLAIMS

ENHANCED+ HEALTHCARE

For our members:

- **No** Copayments, deductibles or coinsurance
- **No** Paperwork or bills
- Pre-negotiated one rate system



INSURANCE PLAN
(unpredictable risks outside of coverage)

Admissions

Brand Name RX

Emergency Room

Outpatient Surgery

Case Study 1

POPULATION

	2021	
	Other Insurance	PeopleOne Health
Number of Employees	184	55
Average Age	37.99	41.19
Health Risk Score	1.21	1.29
Members with one Chronic Condition	21.24%	27.85%
Members with multiple Chronic Conditions	40.20%	31.65%
Members with one or multiple Chronic Conditions	61.44%	59.49%
Number of ER Visits per 1000	189.54	151.9
Number of Urgent Care Visits per 1000	13.07	0

PeopleOne Health has

- An older population
 - A higher risk population
 - A higher percentage of people with one chronic condition
 - Almost the same percent of people with one or more chronic conditions
-
- PeopleOne Health better managed ER visits and Urgent Care visits
 - With same day appointments, PeopleOne Health members never went to an Urgent Care

PLAN SPONSOR IMPACT

	2020	2021
Number of Employees	228	239
Medical & Rx Claims Paid	\$2,192,623	\$1,846,530
Claims PEPY	\$9,617	\$7,726

	Details 2021	
	Other Insurance	PeopleOne Health
Number of Employees	184	55
Medical & Rx Claims Paid	\$1,521,700	\$324,831
Claims PEPY	\$8,270	\$5,906
Variance	\$2,364	
Total Claims Reduction	\$130,025	

Analysis of Claims Experience & Expenses

These are claims paid by the carrier

- Compared to 2020, the total PEPY has decreased from \$9,617 to \$7,726
- Evaluating further the impact of PeopleOne Health on claims experience
 - Members within the P1H program have a lower PEPY than those who are not using the P1H program
 - The variance is \$2,364 PEPY
 - The result is a claims reduction of **\$130,025**
 - This should be realized in the future renewals

HRA IMPACT

	Details 2021	
	Other Insurance	PeopleOne Health
Number of Employees	184	55
HRA Paid	\$207,536	\$43,814
HRA PEPY	\$1,128	\$797
Variance	\$331	
HRA Savings	\$18,221	

Analysis of HRA Impacts

These are direct Employer savings

- Those not in the P1H program are consuming their HRA savings at a higher rate compared to those who are in the P1H program
- The variance is \$331 PEPY
- The result is an average employer savings of about **\$18,221**

TOTAL SAVINGS

	Total Savings	PEPY Savings
Claims Reduction	\$130,025	\$2,364
HRA Savings	\$18,221	\$331
Employee Out of Pocket	\$24,376	\$443
Total Savings for PIH	\$172,622	\$3,138
PeopleOne Health Fees	\$118,263	\$2,150
Total Net Savings	\$54,359	\$988

Total Savings for Implementing PIH

The Out of Pocket savings is how much members saved. On average each **Employee saved \$443 per year**. Cash in their pocket.

- Claims reduction with increased care
- Lower utilization of HRA funds is Employer direct savings
- **Total Savings \$172,622**
- Total Net Savings removing the PIH fee is **\$54,359** or **\$988 per Employee**

Case Study 2

PeopleOne Health Independent Evaluation

- Client had the PeopleOne Health program assessed by an independent third-party
- Findings shared with us after they completed their assessment
- PeopleOne Health had higher risk population
- Due to this risk, they expected to see a \$6,005 PMPY
- Including all fees, P1H produced a \$4,195 PMPY
- Beating all other groups which averaged \$4,742 PMPY

	Regular Insurance	PeopleOne Health
Prospective Risk	1.100	1.380
Concurrent Risk	1.027	1.422
Expected PMPY	\$4,272	\$6,005
P1H Premium PMPY	N/A	\$1,464
P1H Outside Insurance Claims PMPY	N/A	\$2,731
Actual Total Cost PMPY	\$4,742	\$4,195

MORE CARE.



2022 Book Of Business Engagement Rate



* only clients enrolled in Prime for entire 2022 year

Additional Stats

According to the Society of Actuaries, how much impact does a DPC model have on **ER Utilization**?

- **Decrease by 40.5%**

According to the Society of Actuaries, how much impact does a DPC model have on **Inpatient Admissions**?

- **Decrease by 19.9%**

According to the Society of Actuaries, an average DPC visit is 40 minutes with the patient. In a traditional fee for service model, how much time is spent per patient including the physician coding (non-face to face time)?

- **13 Minutes**

According to the Society of Actuaries, how much impact does a DPC model have on **the Out of Pocket amount for a patient**?

- **Decrease by 80%**

Summary:

Know the threats

Know your numbers

Look for new opportunities

Take control of the future

Thank You

And

Questions?