

Healthcare Intervention Programs



CURRENT STATE AND MEASURING RESULTS

Introductions

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Healthcare Intervention Programs

Agenda

- Background / Definitions
- Current State / Examples
- Success Metrics
- Actuarial Role

Background and Definitions

- Programs designed to target and manage events within the employer's population that drive costs
- May be comprehensive or narrow in focus

Typical Health Care Intervention Aspects

- *Wellness*
- *Patient Advocacy and Navigation*
- *Pre-authorization*
- *Concurrent Review*
- *Case Management*
- *Demand management*
- *Disease management*
- *Pharmacy Management*
- *Population Health Management*
- *Telehealth*
- *On-site clinics*

Current State

Example A

QUANTUM HEALTH*

A COMPREHENSIVE HEALTHCARE ADVOCACY AND NAVIGATION

** Disclosure: Quantum Health is a client of McCarthy Actuarial Consulting*

Example A: Quantum Health

*Personalized Human
Connection*

Provider Connection

*Supported by
state-of-the-art
technology*



*Expert Support in Benefits,
Clinical, Life Needs and
Care Coordination*

***A GUIDED EXPERIENCE THROUGH
THE HEALTHCARE JOURNEY***

SIMPLIFIED EXPERIENCE

Quantum Health is the single point of entry to employees' healthcare journey



MEMBER/PROVIDER SERVICES (MEDICAL & RX)

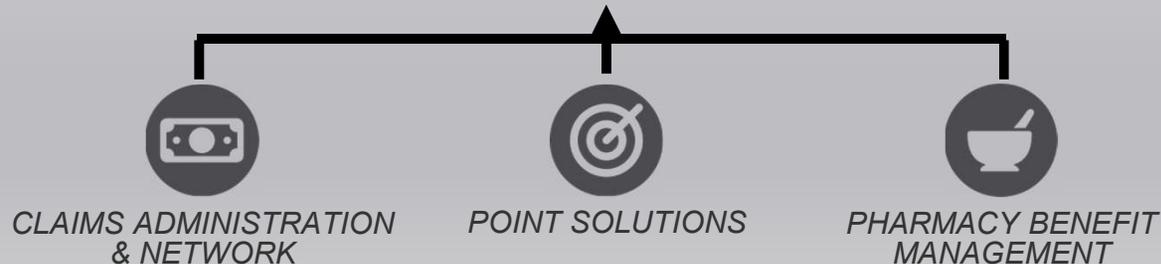
*BENEFITS AND CLAIMS
ELIGIBILITY
PROVIDER SELECTION AND COST/QUALITY
ADVOCACY*

CLINICAL/CARE COORDINATION SERVICES

*PRE-NOTIFICATION
CONCURRENT/UTILIZATION REVIEW
PRE-ADMISSION/POST-DISCHARGE
EPISODIC CARE COORDINATION*

*CASE MANAGEMENT
CHRONIC CONDITION MANAGEMENT
MATERNITY MANAGEMENT
INCENTIVE MANAGEMENT*

REAL-TIME INTERCEPT™



REAL-TIME INTERCEPT

TM

PRIMARY SOURCES OF IDENTIFICATION

MEMBER AND
CAREGIVER CALLS
PROVIDER CALLS
PRE-CERTIFICATION
NURSE OUTREACH
CALLS FOR PAC/PDC

REFERRALS
BIOMETRICS
HEALTH RISK
ASSESSMENT

SECONDARY SOURCES OF IDENTIFICATION

MEDICAL CLAIMS
Rx CLAIMS
GAPS IN CARE
PREDICTIVE RISK

QH DATA

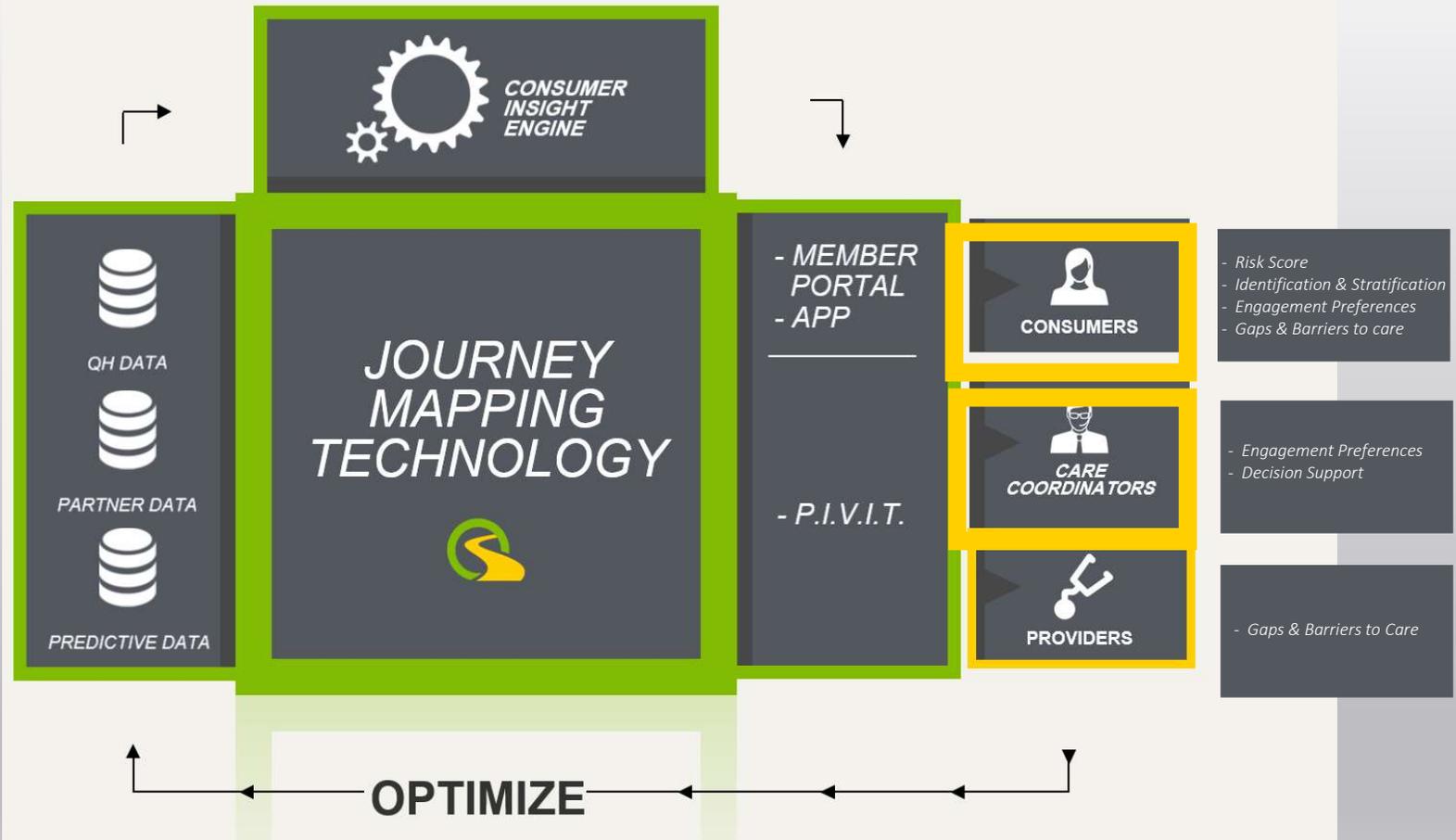
- Interventions
- Conversations / Activities (Including Digital)
- Pre-Certs / Authorization
- Provider Referrals
- Benefits Quoted Patient Reported Data
- Provider Searches
- Depression Screen

PARTNER DATA

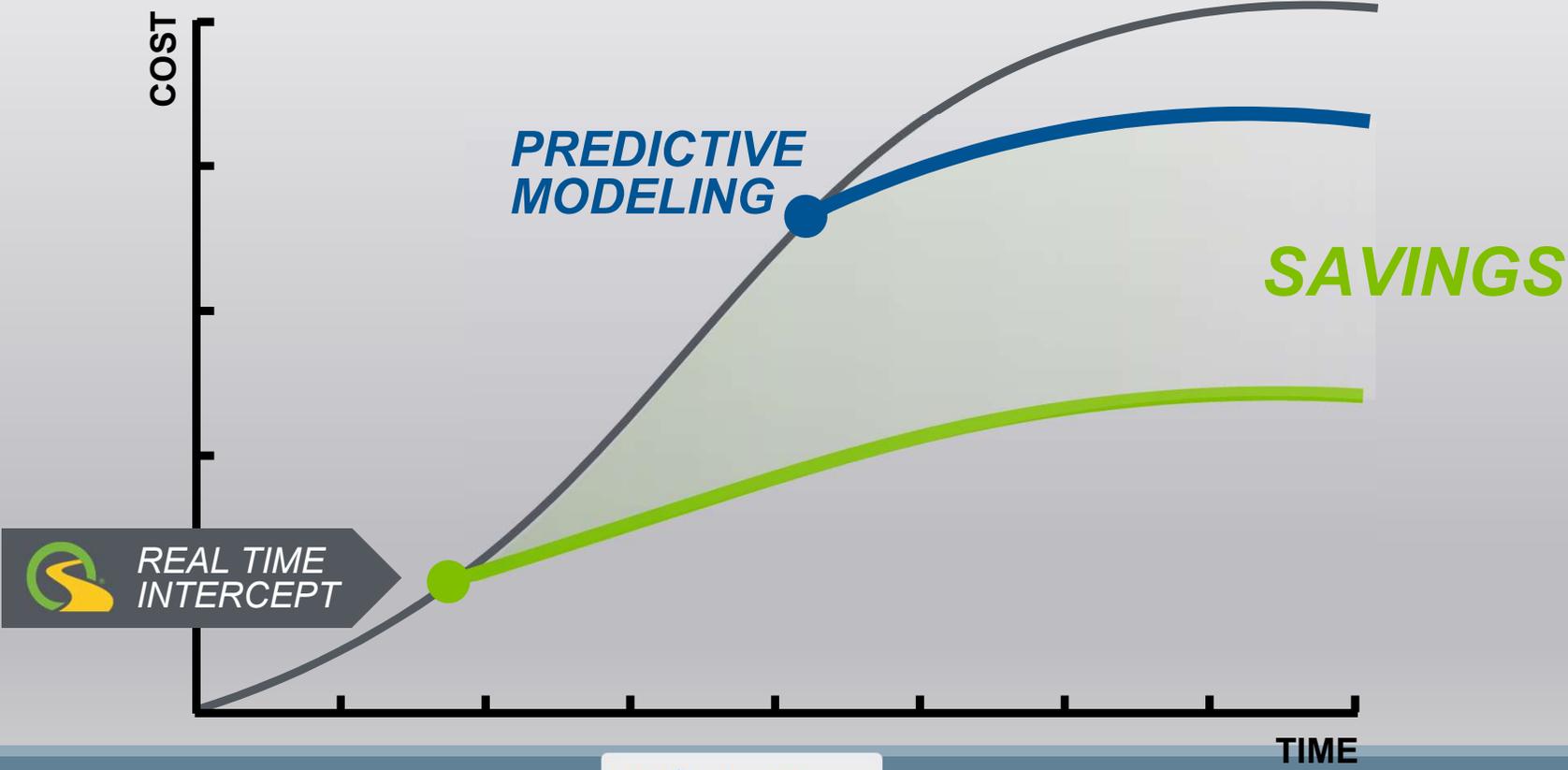
- Claims (Medical & Rx)
- Eligibility
- Networks
- Point Solutions
- Biometrics
- Wellness Activities
- Provider Care Plans

PREDICTIVE DATA

- Risk Score
- Care Paths



REAL-TIME INTERCEPT™



IMPACT OF REAL-TIME INTERCEPT™

	Population Distribution			Real-Time Intercept™ pre \$1K Claims Month				
	Members	% of Membership	% of Total Cost	% of Members	Average Days Before Claim Processed	Contacts per Member	% Contacts with Provider	% First Contact with Provider
Members with Claims >= \$10,000	41,249	8.7%	73.8%	87.7%	56	9.5	64.1%	58.0%

- + **87.7%** of members identified through Real-Time Intercept™
- + Identification taking place on average, **56 days prior** to claim processing
- + Early identification and engagement provides opportunity to positively impact member journey and save money



UTILIZATION CATEGORY	YEAR 1	YEAR 2
Primary Care Visits	+ 7.1%	+ 7.8%
Utilizing Primary Care	+11.3%	+12.3%
Preventative Services	+14.2%	+18.0%



DRAMATIC IMPACT ON KEY DRIVERS OF HEALTHCARE COSTS

INCREASED UTILIZATION

DECREASED WASTEFUL SPENDING

UTILIZATION CATEGORY	YEAR 1	YEAR 2
Inpatient Admissions	- 4.8%	- 8.9%
Inpatient Length of Stay	- 8.1%	- 6.1%
Inpatient Days	- 12.5%	- 14.5%

UTILIZATION CATEGORY	YEAR 1	YEAR 2
Specialist Visits	+ 0.1%	+ 6%
Cost of Cases >\$25K	- 5.7%	- 12%



CONSISTENT TREND RESULTS

HEALTHCARE TREND – CLIENTS IMPLEMENTED BETWEEN 2012 - 2016



QUANTUM HEALTH 3-YEAR CAGR*:

1.6% vs 6.0%**

AonHewitt	5.2%
Mercer	7.5%
WillisTowersWatson	5.8%
Segal	7.2%
S&P	4.4%

COST AT YEAR 3:

11.9% LOWER
THAN OTHERWISE PROJECTED

AVERAGE YEAR ONE GROSS SAVINGS: \$756 PEPPY



*CAGR: Compound Annual Growth Rate

Example B

FOCUSED SURGERY BENEFIT MANAGER

Surgery Benefit Management

- Surgical costs represent the largest component of US health care spending, at approximately \$700 billion or 31% of annual health care spend
- Surgical complications can drive up the costs of care by 93% on average
- Up to 30% of surgical procedures are medically unnecessary

Eight Categories of Surgery Benefits Covered

- General
- Cardiac
- Bariatric
- Ortho
- Women's Health
- Spine & Neuro
- Vascular
- Cancer

How the Program Works...

- Vendor has contracts with select providers to cover the 8 categories of surgeries for a fixed bundled case rate
- Program includes:
 - Member engagement outreach
 - Surgery decision support tools
 - Second opinion support
 - Surgery scheduling
 - Travel assistance (if necessary)
- Surgeries are moved from coverage under the health plan and covered under the vendors program via the negotiated bundled case rate
- Employer option to make the service voluntary or mandatory
- Program has a PEPM fee and a “Service and Access” fee

Vendor Claims

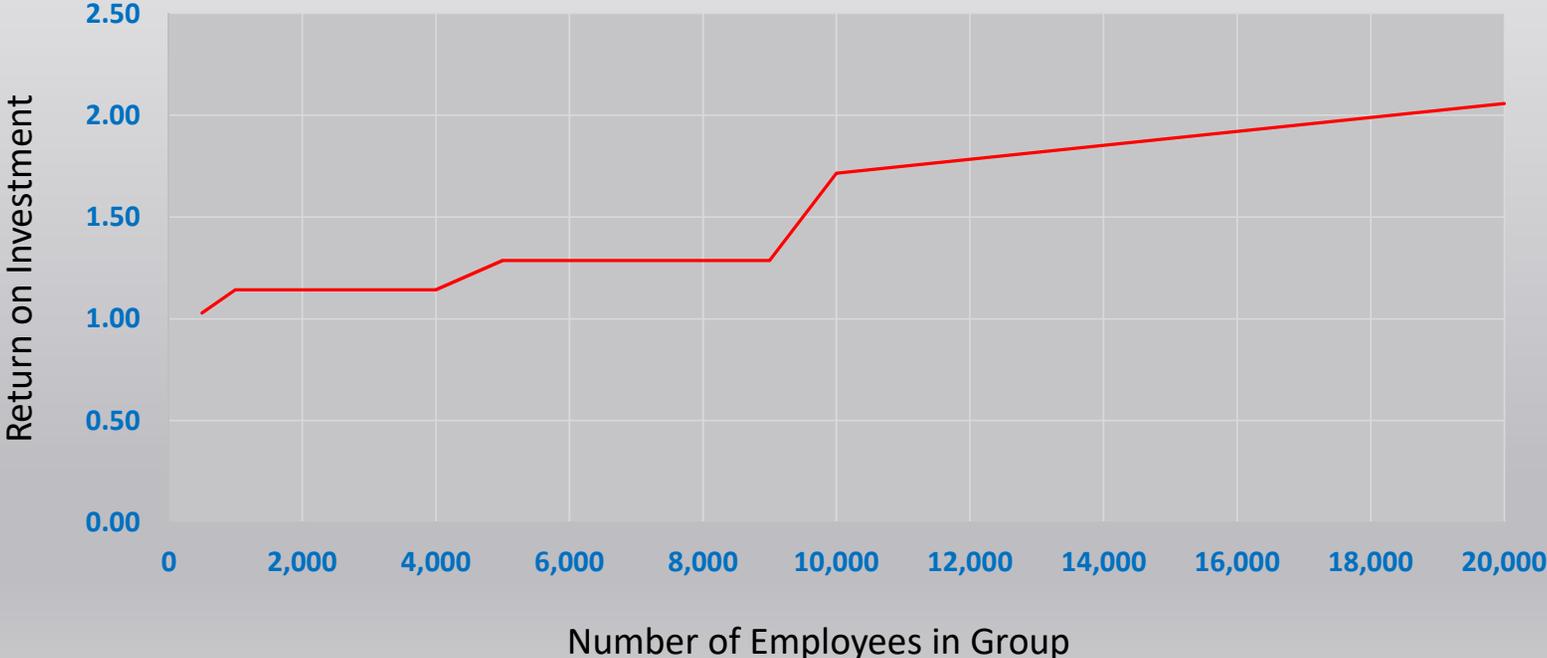
- Saving of 20% to 40% versus traditional network cost per surgery
- A high-quality global network of US and overseas providers
- Reduced complications and infection rates due to high-performing provider quality
- Providers will receive increased case volume and avoid collection costs
- Employers benefits from lower costs and simplified billing
- Plan members benefit from lower cost and certainty of quality outcomes
- 20% participation rate in first year, expect to grow in subsequent years

Additional Information

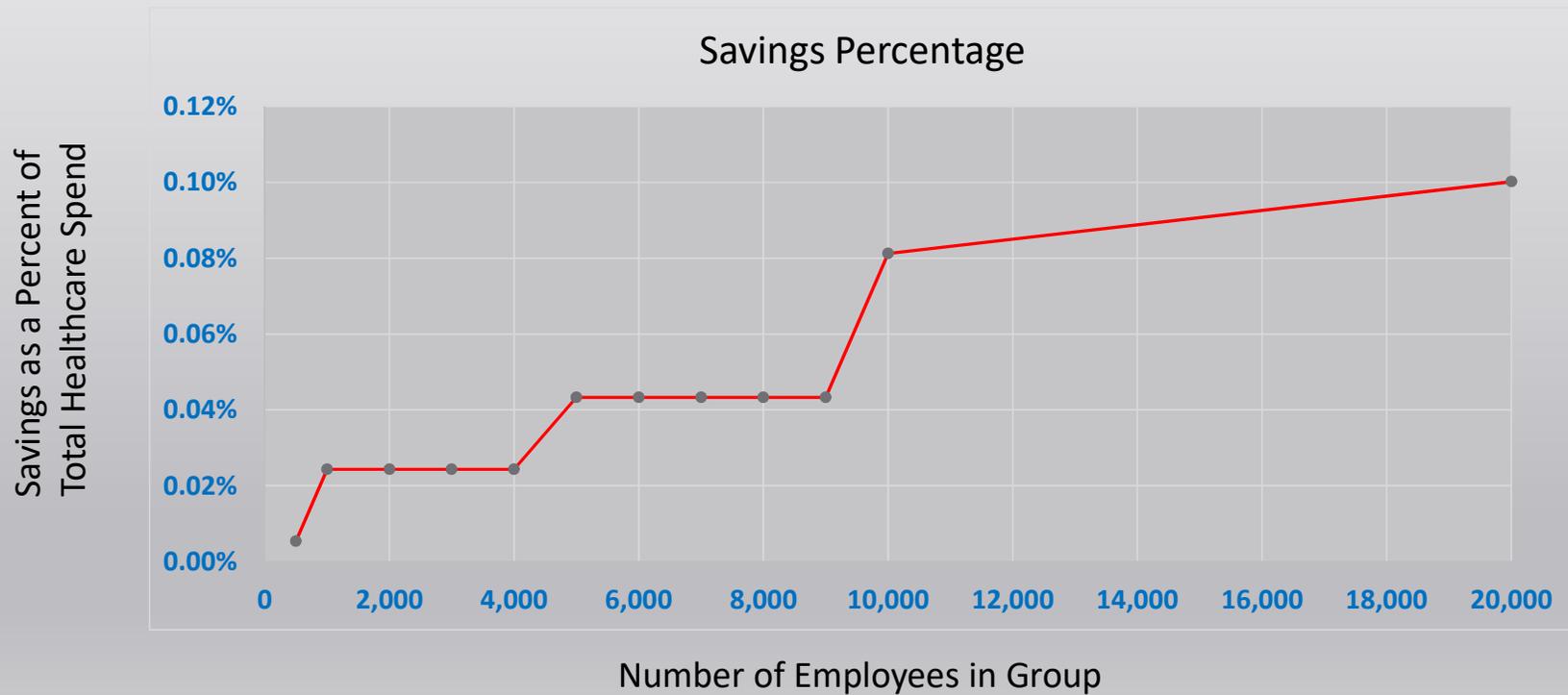
- Average cost per surgery under traditional pricing is \$30,000
- On average, there are 257 surgeries per 10,000 employees that can be impacted each year
- Return in Investment (ROI) guarantees offered if over 1,000 employees.
- Estimated Savings calculation:
Employer Size x Estimated Surgeries That Can Be Impacted x Assumed Participation Rate x
(Average Cost per Surgery – Bundled Case Rate)
Ex: 1,000 x .0257 x 20% x (\$30,000 - \$24,000) = \$30,840

ROI Analysis

Return on Investment by Employer Size



Savings versus Annual Healthcare Spend



Success?

Defining Success

Actuarial:

- Return on Investment
- Net Program Savings
- Health care trend
- PEPM / PMPM
- Change from control group

Clinical:

- Smoking quite rate
- Hospital readmission
- Emergency room visits
- LDL levels
- Blood pressure
- Etc.

Benefit:

- Participation Rate
- Eye / foot exams
- Employee Satisfaction
- Productivity
- Absenteeism / Presenteeism
- Disabilities

Measuring Success

- Is a valid methodology used?
- What assumptions and adjustments are made to prepare results?
- Are the result's arithmetically correct?
- How easy is it for a non-actuary to understand the methodology?

Direct Methods

Type	Description	Advantages	Disadvantages
Randomized	Equivalent samples drawn randomly from the same population	Greater assurance of the effect of the intervention	Not typically used in commercial settings
Geographic	Equivalent populations drawn from different locations	May make sense to introduce intervention in one location before expanding to others	Geographical differences in how medicine is practiced can confound true differences between the groups
Historical	Compares results from same population or an equivalent population over different time periods (before and after intervention)	Greater assurance of similarity in risk profile of population pre- and post-intervention	Requires a medical trend assumption to assess difference due to intervention. Regression to the mean a bigger factor with

Direct Methods

Type	Description	Advantages	Disadvantages
By Plan	Compares samples from populations defined by the plan elected (e.g., PPO vs HMO)	May make sense to introduce intervention in one plan before expanding to others	Differences in benefit design, networks, risk profile of those electing products, etc. could confound true differences between the groups
Participant versus Non-Participant	Experience of those who elect the intervention program are compared against those who choose not to participate	Easy to define comparison populations	Voluntary participants are likely to exhibit a different risk profile than non-participants confounding the comparison

Indirect Methods

Type	Description	Advantages	Disadvantages
Trend Comparison	Compare actual year over year per capita costs to industry trend benchmark	<ul style="list-style-type: none"> • Easily understood • Data readily available • No need to allocate savings to specific intervention aspects 	<ul style="list-style-type: none"> • Published trend benchmarks vary significantly • Does not identify which aspects are impactful • Must adjust for plan design, network & other changes
Utilization Impact	Reduction of key utilization measures times average unit cost	<ul style="list-style-type: none"> • Utilization stats generally tracked by programs • Savings are easily attributed by aspect 	<ul style="list-style-type: none"> • Difficult to confirm that change is due to interventions • Unit costs for avoided utilization may differ

Indirect Methods

Type	Description	Advantages	Disadvantages
Member Surveys	Satisfaction survey of total population, or a relevant subset	<ul style="list-style-type: none">• Measures non-financial success• Good supplement to savings calculations	<ul style="list-style-type: none">• Little / no insight into claim savings or ROI• Costly

Actuarial Roles



Actuaries can help employers make the right decision on the value of Healthcare Intervention Programs



Actuaries can help Healthcare Intervention Programs measure and demonstrate value to employers

Questions?

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