

CASUALTY · LOSS · RESERVE · SEMINAR

CLRS

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Evolution of Health Insurance – Including Application of
Lessons Learned from Healthcare to P&C Lines of Business



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Introductions



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- Ryan Cichy is a Senior Associate in the KPMG Health Actuarial practice based in Radnor, PA with over ten years of experience in the health insurance industry.
- He frequently serves as an Actuarial Subject Matter Professional for health insurance companies in support of actuarial analysis, strategic financial and operational risk assessments, and process optimization reviews.
- His clients include a wide-array of stakeholders across the insurance industry – including Medicaid, Medicare, and commercial health issuers and governmental entities.

Agenda for our discussion today

- ✓ Healthcare’s “Triple Aim” and alignment of incentives
- ✓ Changes in payments, and how this shaped health insurance operations
- ✓ Healthcare “tools” and how they can apply to other lines of business (i.e., Workers Compensation)
- ✓ New data sources to help improve predictive analytics
- ✓ Predictive analytics approaches under consideration

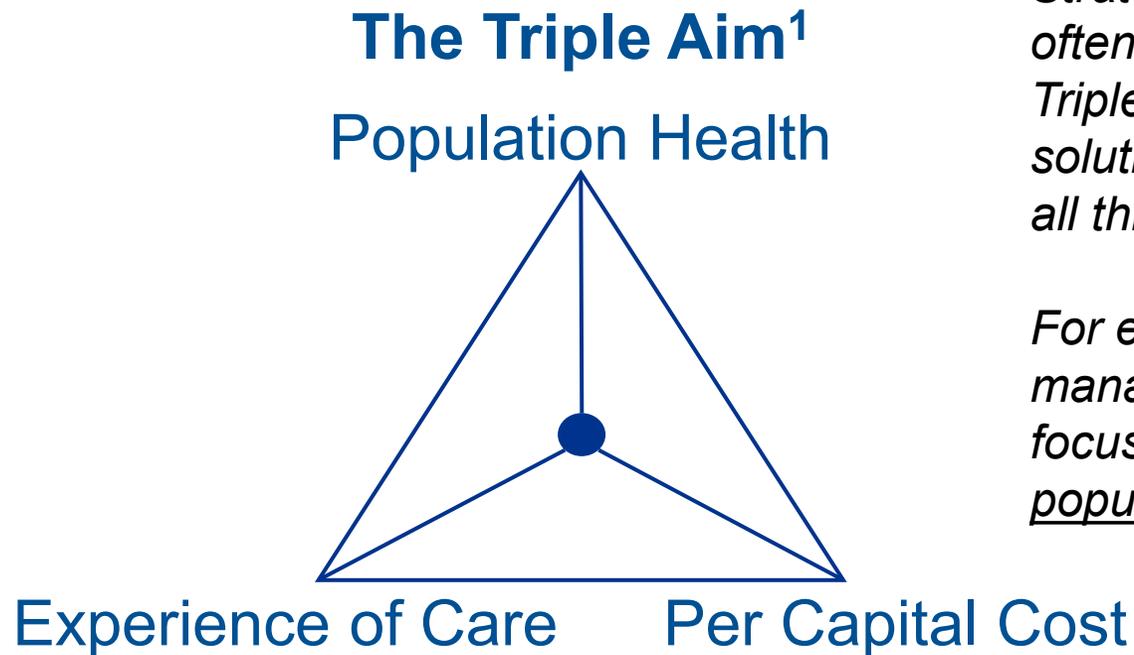
Learning objectives for the session

1. Describe the Triple Aim and how aligning incentives can help to further improve flexibility of actuarial pricing and reserving
2. Explain how traditional health insurance operating models are shifting from fee-for-service to value-based care and the impact on actuaries
3. Recite potential opportunities to utilize healthcare “tools” in Property & Casualty lines of business
4. Identify potential new data sources (structured/unstructured) to apply to predictive analytics – building on claims-based reserving approaches

Aspiring towards the triple aim of healthcare

The Triple Aim initiative aims to:

1. Improve the overall well-being of insured populations
2. Improve patient experiences (including both quality and satisfaction)
3. Reduce health care costs

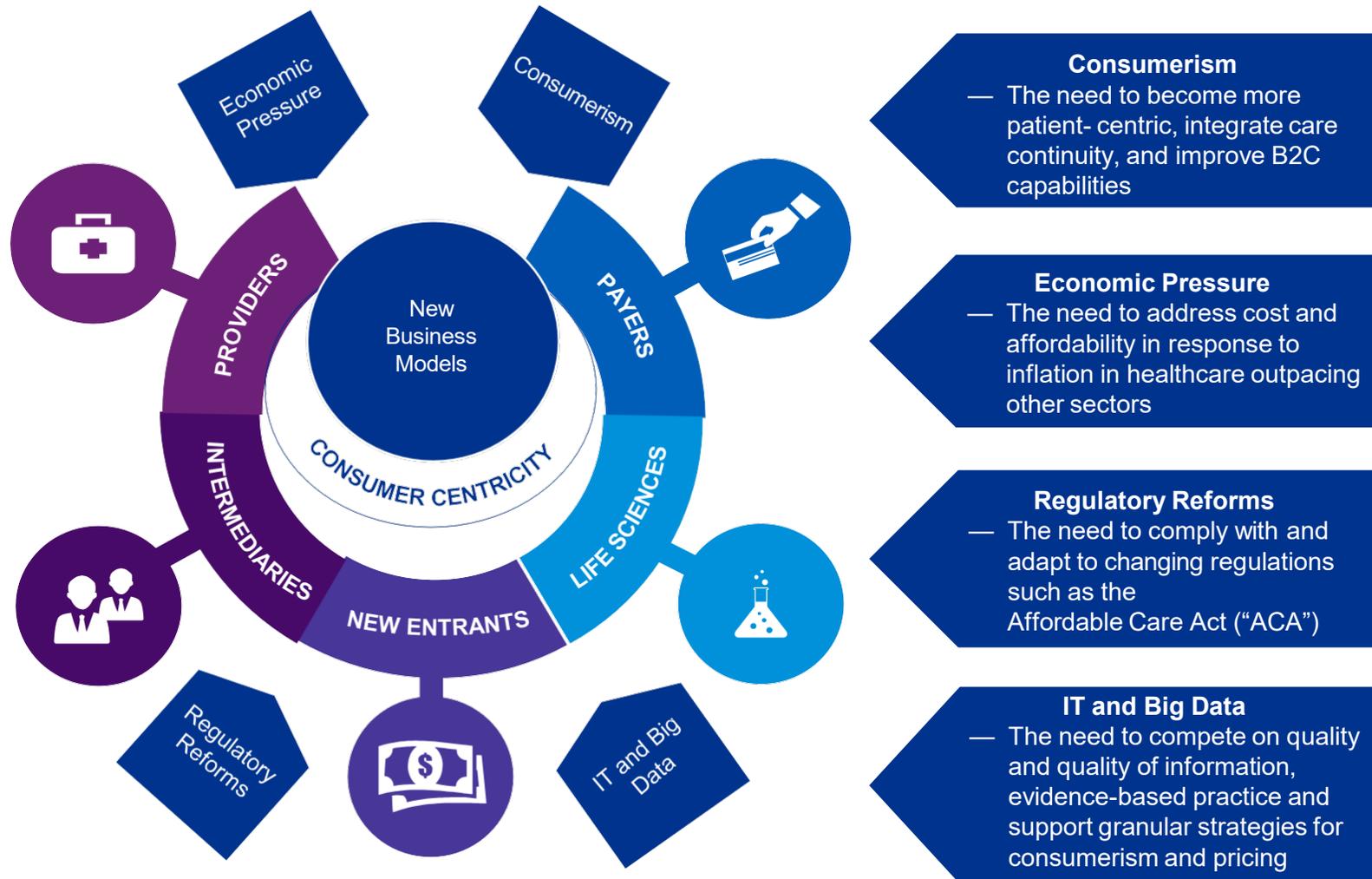


Strategic healthcare initiatives are often focused on one aspect of the Triple Aim, as opposed to creating a solution that maximizes the benefits of all three aspects.

For example, discrete care management initiatives may be focused on the experience of care or population health,

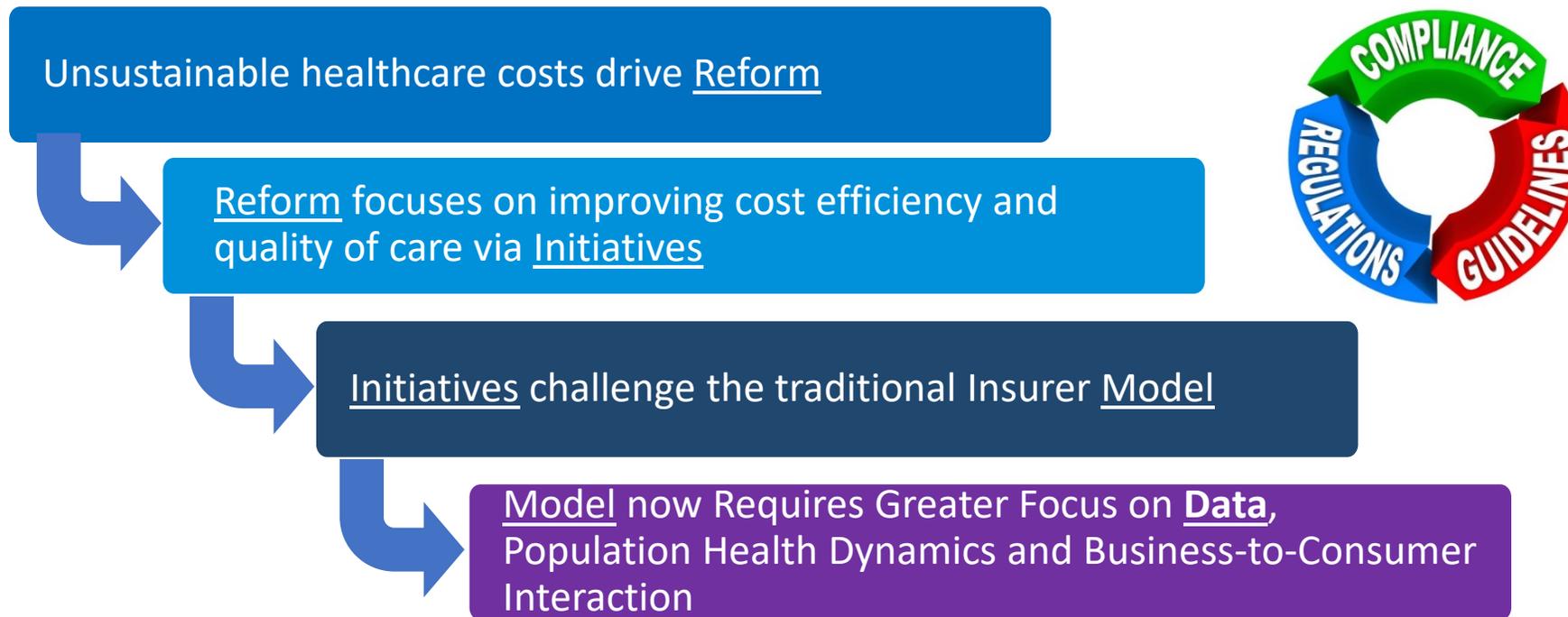
1. The Institute for Healthcare Improvement Web site. Initiatives. IHI Triple Aim Initiative.

Healthcare landscape continues to evolve



Healthcare reform has helped to drive innovation

Healthcare reform continues to evolve – emphasizing a need for an agile approach to monitor, predict, and react to changing regulations and guidance – requiring close integration of cross-disciplinary teams.



Plan design and Actuarial pricing continues to be impacted and challenged by evolving regulatory requirements – driving a need for enhanced scenario analyses and predictive analytics.

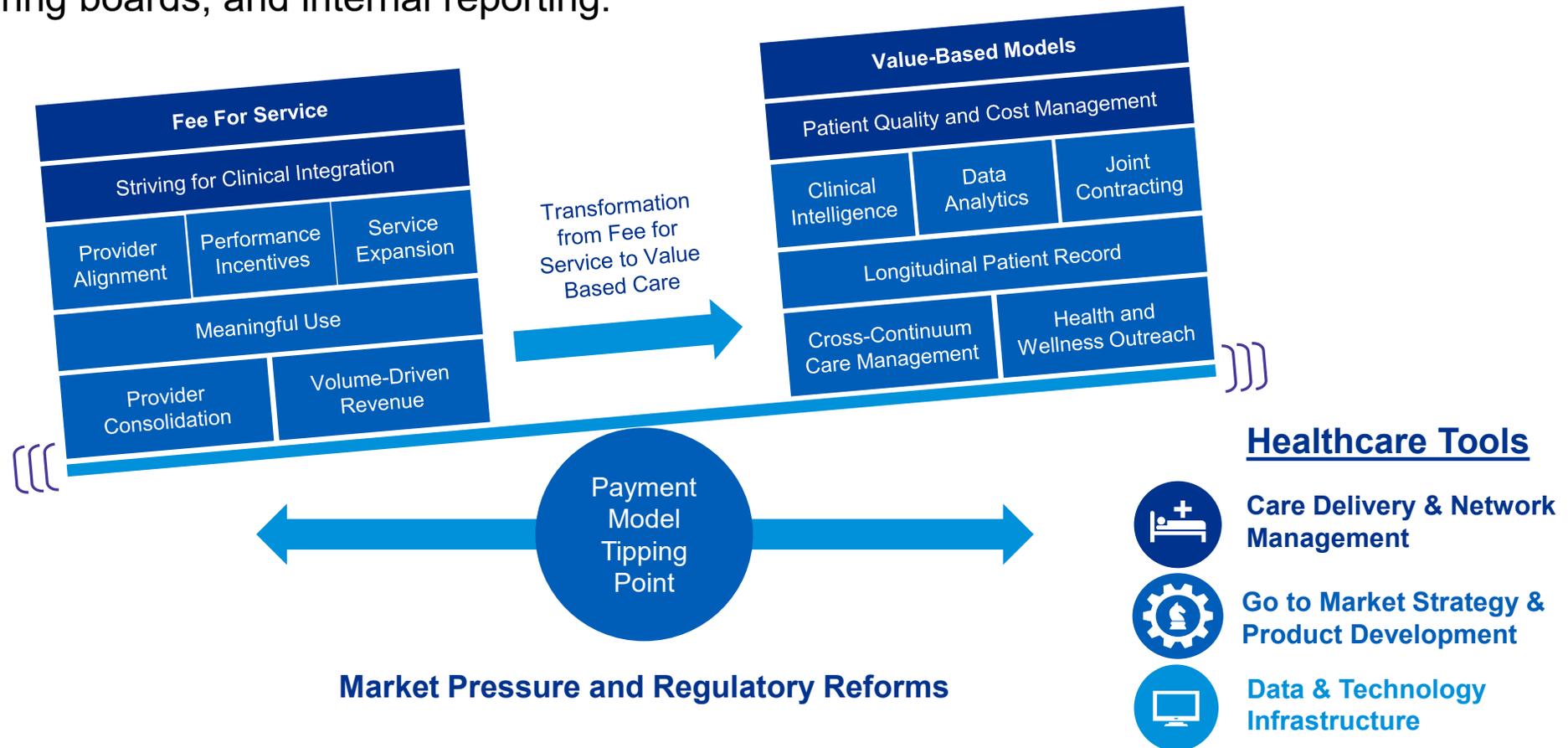
Open Discussion – Question #1

How have market changes (i.e., regulatory changes, demographics shifts) impacted your actuarial activities?



Healthcare Shift – Today & Tomorrow

The current healthcare landscape is shifting to a focus on “value over volume”, thereby creating the need for transparent quality reporting to federal and state agencies, insurance companies, monitoring boards, and internal reporting.



Building blocks in healthcare and actuarial impacts

Models of Care 

Improved care coordination can reduce duplicative or unnecessary services

Member Engagement 

Improved member engagement can help to improve member well-being

Community Impact 

Supporting members in their communities can drive improved care delivery

Provider Integration 

Coordination with providers can help members get to the right level of care

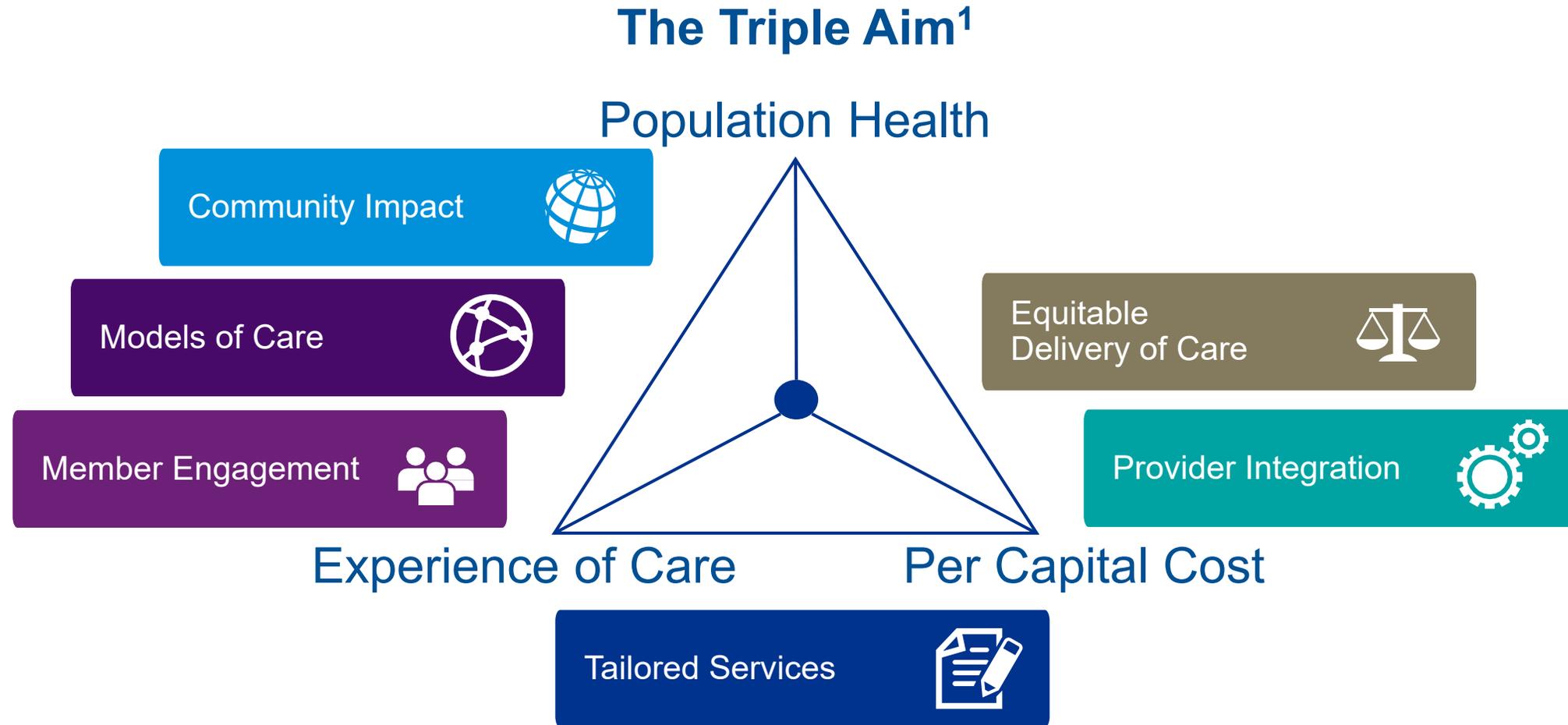
Tailored Services 

Better tailored services can help to improve member satisfaction and retention

Equitable Delivery of Care 

Coordinating care across the population may help to reduce overall loss ratios

Mapping these building blocks to the triple aim



1. The Institute for Healthcare Improvement Web site. Initiatives. IHI Triple Aim Initiative.

Open Discussion – Question #2

How has the shift from fee-for-service payment to Value-based Services impacted your actuarial analyses?
If not yet impacted, how do you plan to accommodate such a change?



A closer look – Targeted provider networks

- Coordinating with customized provider networks
- Discount below “standard” fee schedules
- Targeted networks for ancillary services (i.e., radiology, & physical therapy)
- Care coordination serves as a key tenet of provider delivery

Provider Integration



As a result, changes in the underlying funding mechanisms can have a significant impact on year-over-year actuarial pricing and reserving.

Case study – Workers Compensation

- Workers comp premiums vary significantly by state and by region
- Nationally, average cost per claim² is \$41,000 for a workers' comp in 2018 (45% indemnity / 55% medical), and has continued to rise faster than the average cost of similar healthcare claims
- Written premiums for workers compensation and other lines of business expected to decrease in light of the impact of COVID-19; however, personal travel insurance is on the rise
- With the reduction of written premiums, competition for remaining business may tighten

2. Workers' Compensation Costs (2017-2018). National Council on Compensation Insurance's (NCCI) Workers Compensation Statistical Plan database.

Potential impacts of applying lessons learned

- Enhanced provider data analysis → better outcomes in injury claims

Equitable
Delivery of Care



- Value-based payment analytics → improved care delivery by providers

Models of Care



In the long-term, potential benefits of applying insights may include:

- Reduced volatility of care pathways, thereby stabilizing financial loss ratios
- Improved care outcomes leading to a reduction of duplicative care services
- Reduced legal claims / settlements due to improved quality of care delivered
- Better management of at-risk cases through improved provider integration

Open Discussion – Question #3

Have provider contracting changes impacted your actuarial analyses?
If so, how did you account for these changes?

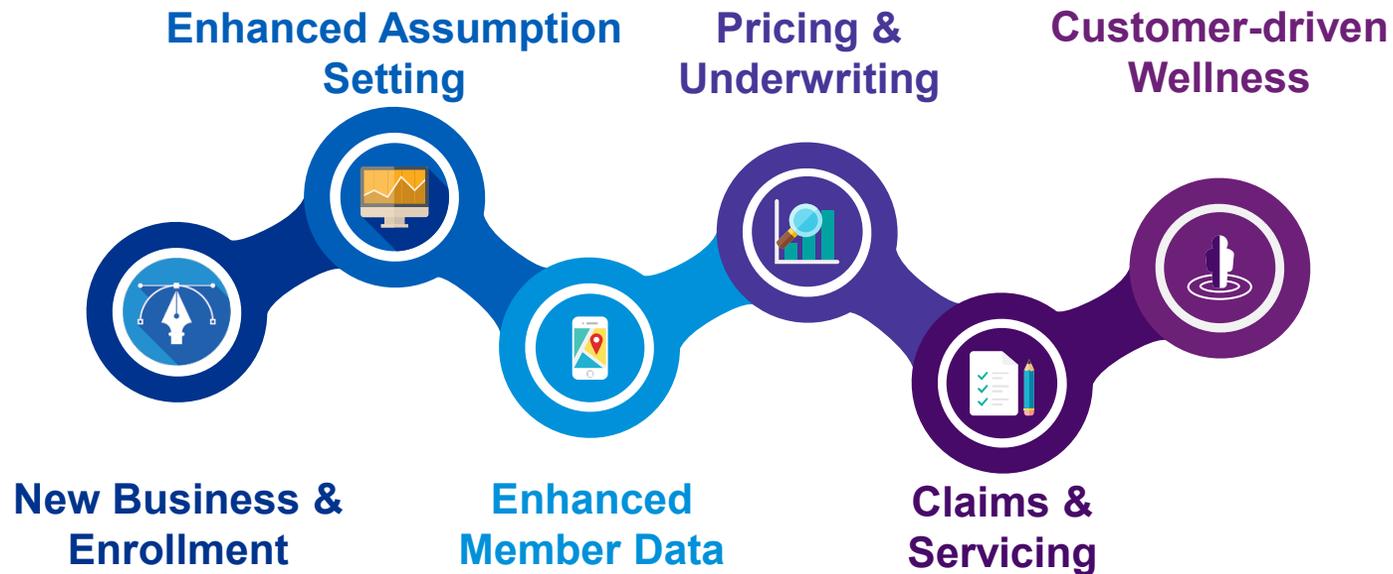


Considering “net-new” data sources as inputs

Over 60% of health outcomes³ are influenced by behavioral and environmental factors

Non-traditional health data sources span a wide spectrum, from position-based activity patterns collected by smartphone accelerometers and e-health apps to aggregated metadata from social media platforms that reveals sophisticated insights into accelerating quote-to-claims for insurers.

Application of “net-new” data sources may include:



Net New Data Source Example

Trackers/Wearables



By offering incentives to consumers for wearable technologies to monitor their health, companies are better able to understand the risk levels of their clients and help provide them with programs suited to their needs.

3. Statement from the BCBS Institute Chief Medical Officer. BCBS Targets Medical Transportation, Social Determinants of Health. Patient Engagement IT. March 2018.

What's next? Continuing to build a foundation for a successful data & analytics ecosystem



Data Storage and Ingestion

Data retrieval and ETL, unstructured data processing

Stable data ecosystem for analytics



Reporting

Health plan operational monitoring

Provider reports (authorization, ER admission, productivity)

Benchmarking reports



Data Visualization

Platforms to view data

Variance alerts and notifications

Filterable

Dynamic/real time



Predictive Analytics

Tool driven predictive analytics (CM, claims analytics)

Ability to identify total cost of care

High-risk, readmission rates,



Intelligent Automation (Future State)

AI, cognitive, machine learning

Enhanced analytics

Reduced IT programming cost

Process efficiencies

Interoperability

Open Discussion – Question #4

What are some of the data limitations that impact your ability to conduct actuarial analyses, and what additional data sources are you considering to enhance your analyses?



Common health actuarial challenges faced

- De-centralized data sources impact accuracy / timeliness of data
- Ad-hoc “per request” pricing / rating support
- Limited accountability and integration with core insurance functions
- Limited profitability and forecasting analysis due to data inconsistencies
- Stand-alone data analytics capabilities reduce overarching insights gained from company-wide analytical views

Key considerations in a changing environment

**Reducing admin
cost and
improving quality**



**Growing the
business
organically and
inorganically**



**Optimizing
digital and data**



**Managing risk
and regulatory
reforms**



Open Discussion – Question #5

Reflecting on the discussion today,
what additional data points are you
considering to review for actuarial
analyses?



Thank you for your participation!



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