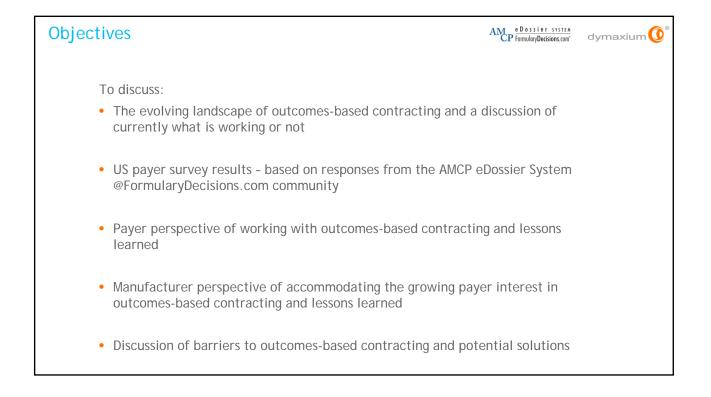


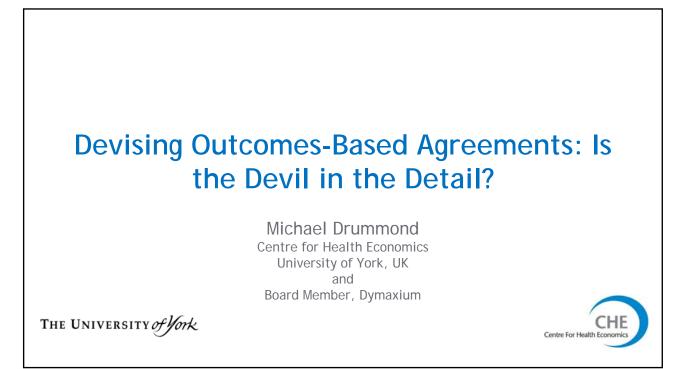
AMCP EDossier SYSTEM FormularyDecisions.com

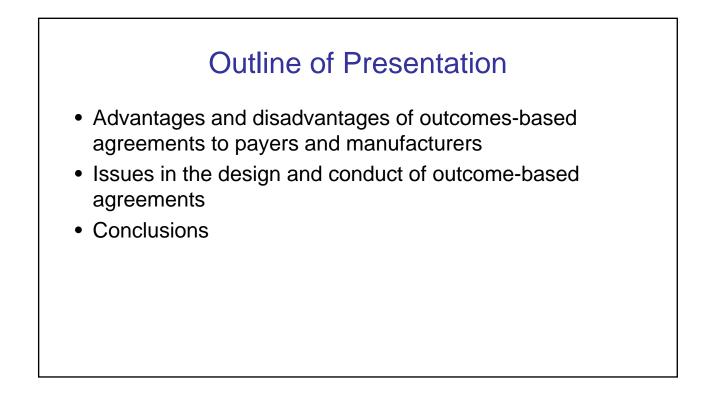
dymaxium 🚺

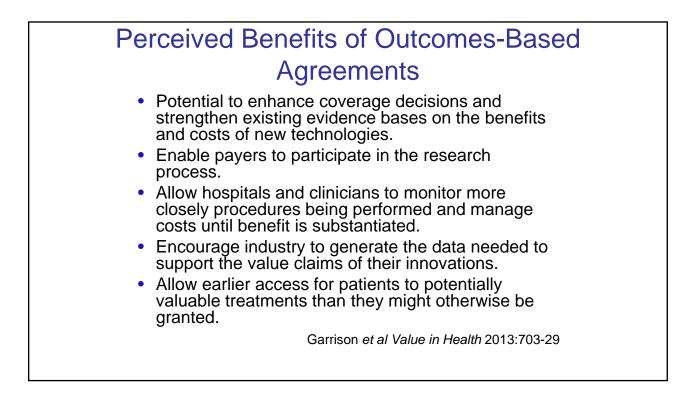
May 2, 2018

Mike Drummond, PhD, Professor of Health Economics, University of York Elizabeth Sampsel, PharmD, MBA, BCPS, Vice President, Payer Strategy and Relations, Dymaxium, Inc. James T. Kenney, RPh, MBA, Manager, Specialty and Pharmacy Contracts, Harvard Pilgrim Health Care Tom Rice, Vice President, Market Access & Payer Strategy, Amgen Inc.







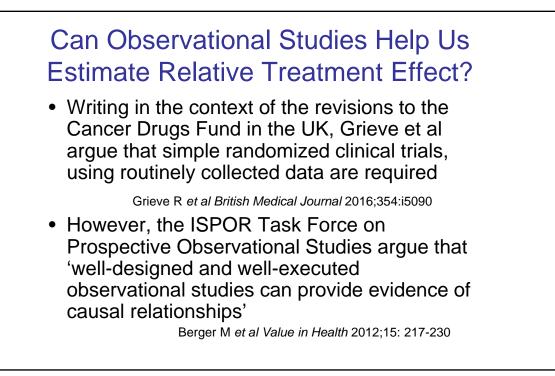


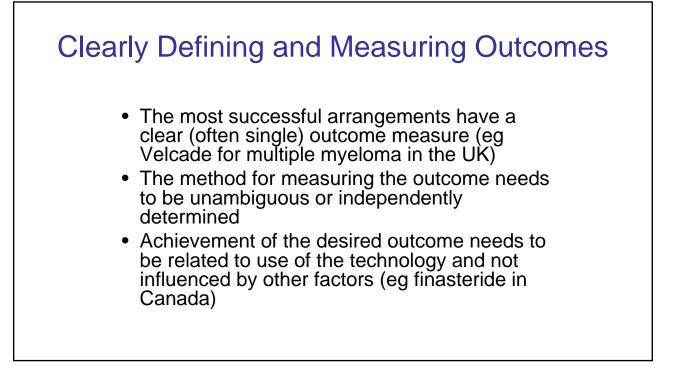


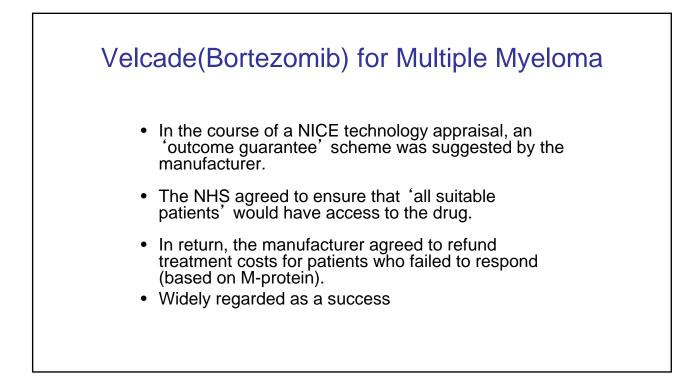
When Should we Consider Outcomes-Based Agreements?

- Outcomes-based schemes are most useful when there is uncertainty in clinical or economic outcomes
- Sources of uncertainty include:
 - long term clinical outcomes (eg maintenance of clinical effect or to validate a surrogate endpoint)
 - performance of the technology in different patient sub-groups
 - clinical or organizational response to the new technology

Note: If the main issue concerns the cost or affordability of a technology, outcome-based schemes are a wasteful way of addressing this issue







Complexity and Cost of Arrangements

- Complexity and cost is a common reason for outcomes-based agreements not being pursued
- In most jurisdictions the manufacturer is expected to bear the cost of data collection and monitoring (although this is up for discussion)
- More complex schemes may result in less transparency about the price being paid for the drug or other health technology

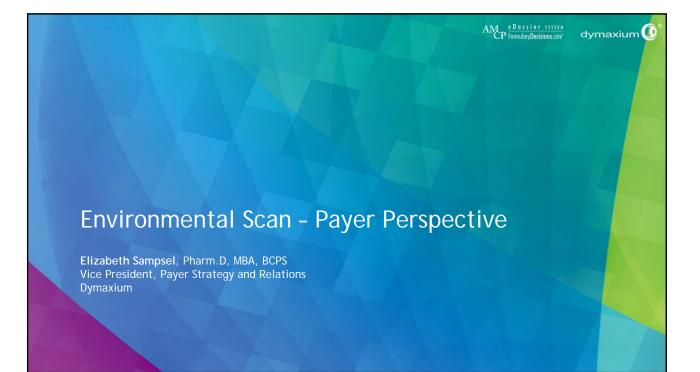
Timelines for Outcomes-Based Agreements Many arrangements fail due to the time required to get alignment among all the stakeholders (eg attempts by CMS in the US to establish 'coverage with evidence development' schemes for procedures) In Italy, a common consistent process was established to facilitate outcomes based schemes • Once agreed, arrangements with data collection lasting longer than 2-3 years tend not to be successful (eq MS Monitoring Scheme in the UK) • The longer the timespan of an agreement, the greater the likelhood that other factors could change, such as the launch of a rival product (eg bosentan agreement in Australia)

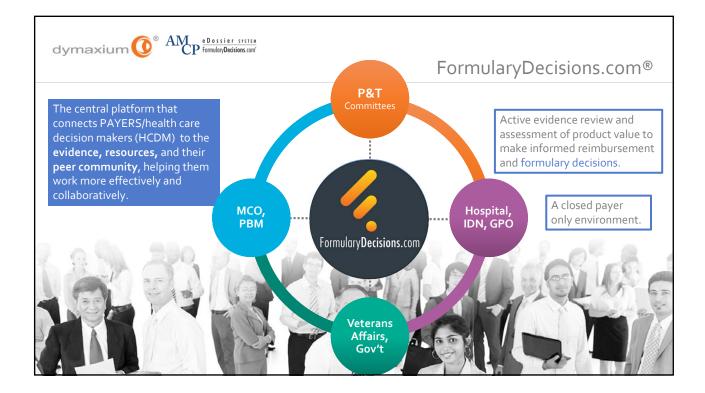
Connecting Decisions to the Outcomes Obtained

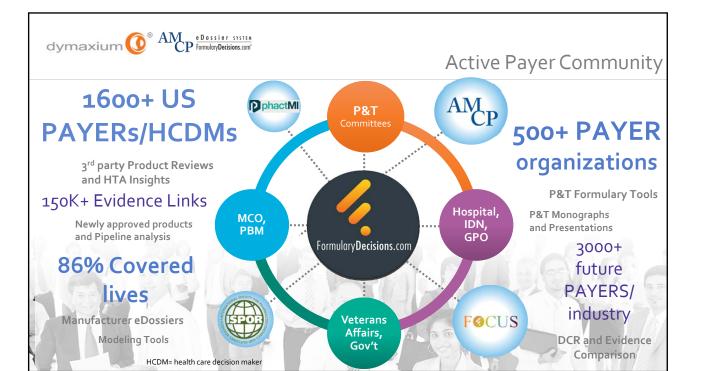
- A common concern of manufacturers is that there is often uncertainty regarding the policy decisions following outcomes-based schemes
- Agreements are more likely to succeed if the consequences for pricing and reimbursement are set out clearly in advance, preferably in a written agreement

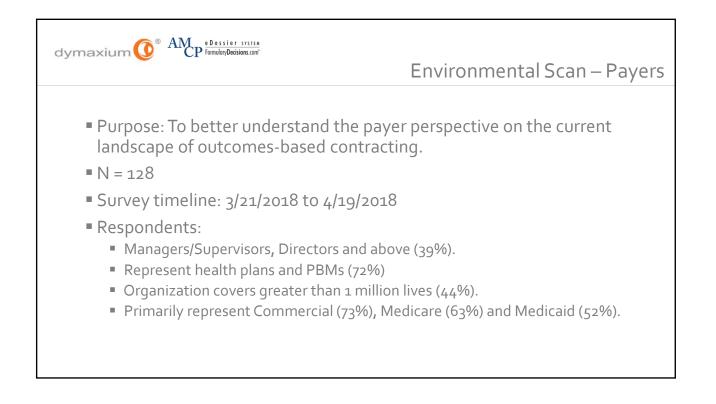
Conclusions on Outcomes-Based Agreements

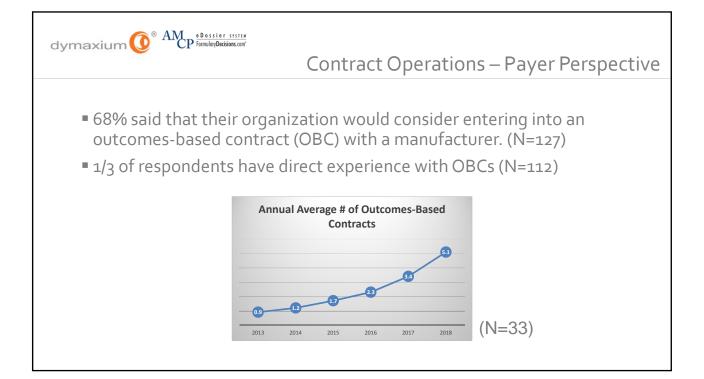
- They are clearly worth considering when the conditions are right
- However, the devil is in the detail, so payers and manufacturers need to consider carefully whether an outcomes-based agreement is the best way forward

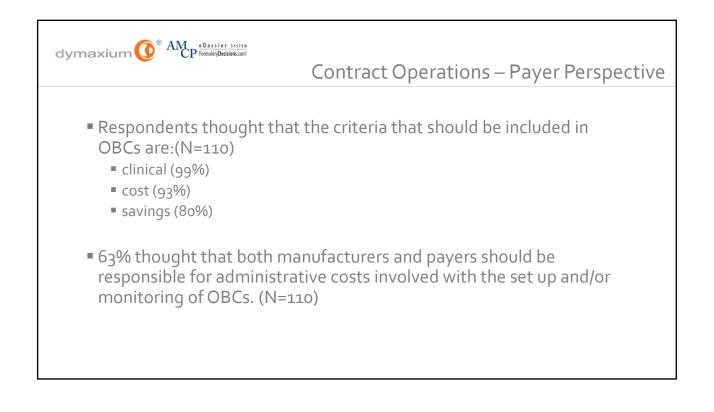


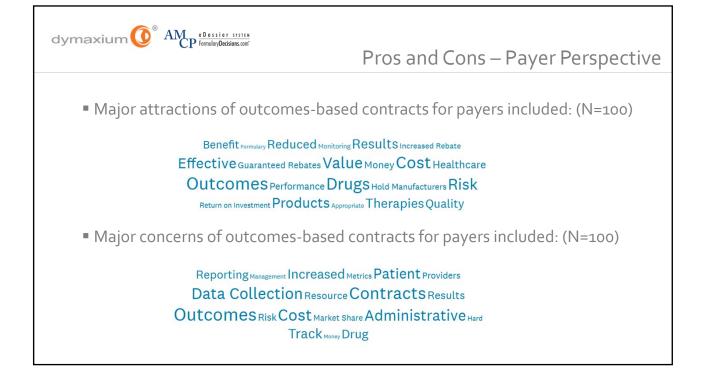


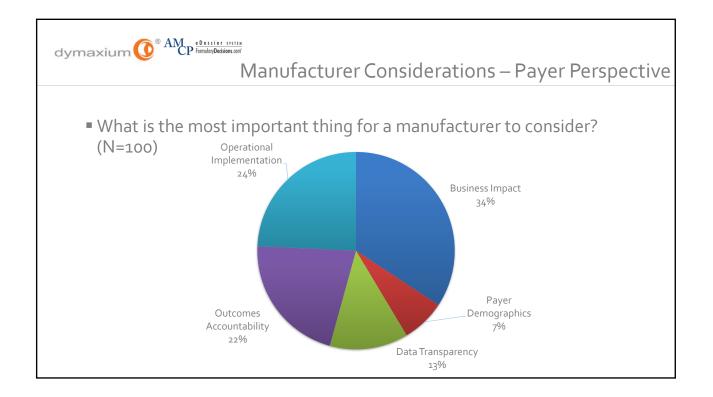


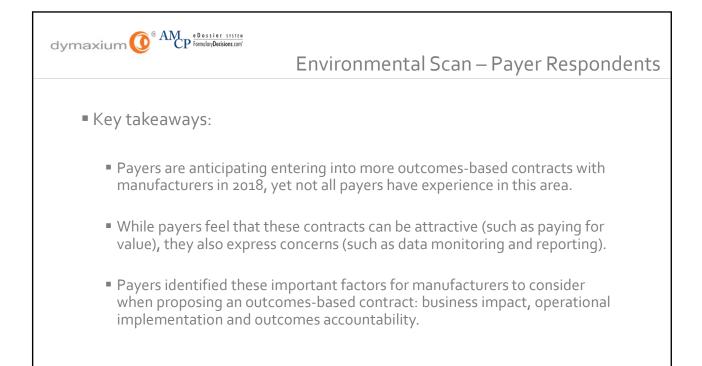


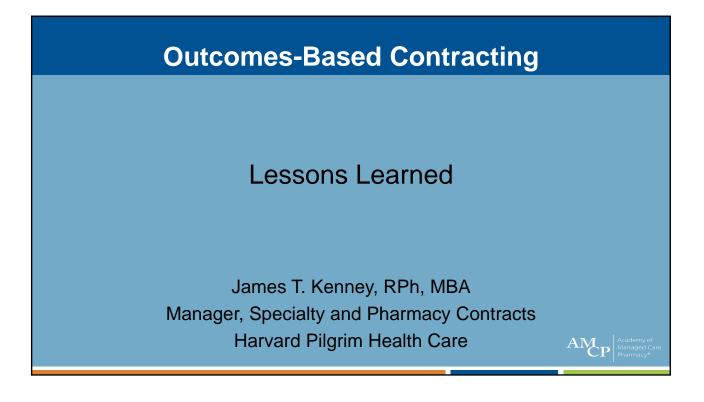












Key Drivers for Health Plans

- Proof of Efficacy with Outcomes Performance
- Appropriate Product Access
 - Limit Products to a Specific Population
 - Reduce Financial Risk
- Increase Rebates/Savings
- Reduce Overall Costs
- Achieve Desired Outcomes



AMCR

Measurement Challenges

- Metrics Medical and Pharmacy Claims
- Realistic Timelines 3 months 2 years
- Data Collection Method
 - Plan to Manufacturer
 - Third Party Vendor
- Validation Options/Analytics
 - Density of Data
 - Timing for Claims Adjudication
- Health Insurance Portability and Accountability Act (HIPAA)

Barriers to Success

- Information Technology Limitations
- Transaction/Administrative Costs
- Agreement on the Outcomes Measure
- Poor Adherence Rates
- Lack of Sufficient Outcome Results
 - Lab Value Limitations
 - Number of Valid Patients
- Realization of Financial Savings/Benefits

Success Metrics

- Event Avoidance
 - ER Visits/Hospitalizations
 - Office Visits
 - Ancillary Resource Utilization
- Reduction in Medical or Pharmacy Expenses Long Term

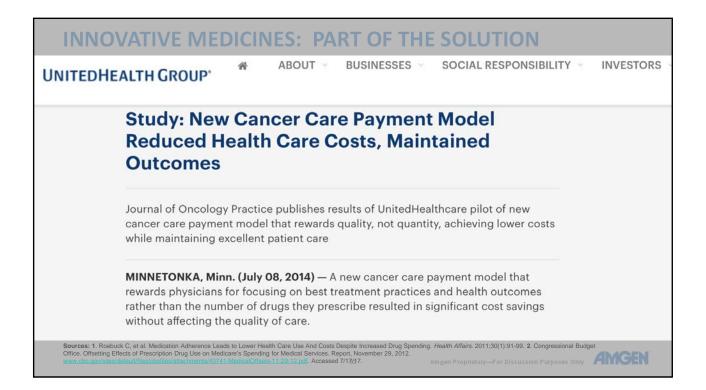
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- Reduced Disability Claims
- Decreased Absenteeism









BALANCING SCIENTIFIC INNOVATION & AFFORDABILITY

By engaging in value-based programs with stakeholders across healthcare systems, we can identify mutually beneficial opportunities to reduce costs, improve care and enhance patient experiences worldwide.

What are value-based programs?



Partnerships & Projects Collaborations that evaluate data and science to gain insights to better inform, and potentially improve. patient outcomes and experiences



Contracts Product-specific financial arrangements that may lower the net price of the product based on specified performance, outcomes or risk-sharing

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Globally, Amgen is engaged in about 75+ distinct value-based programs.

These programs span disease state collaborations, risk-sharing, cost-cap guarantee, pay-for-performance and outcomes-based agreements. We're building a core capability in this area to use international and local experience to create more valuebased partnerships in the future.

Amgen Proprietary—For Discussion Purposes Only



REPATHA® OUTCOMES-BASED REBATE (OBR) CONTRACT PLATFORM Patient-focused Simple value proposition risk-based contracts for the plan · Contract requires both medical and · Offers employer groups and pharmacy inputs: downstream plans access to - Time on therapy innovative medicines and - Event for the patient potentially manage costs

AMGEN AND HARVARD PILGRIM AGREE TO FIRST **CARDIOVASCULAR OUTCOMES-BASED REBATE CONTRACT**





Harvard Pilgrim Refines the Utilization Management Criteria to Help High-Risk Cardiovascular Patients Access Repatha; First-of-its-Kind Contract Will Demonstrate Value to Harvard Pilgrim Plans for Cardiovascular Patients



"Repatha has been shown to have a significant outcome on reducing cardiovascular morbidity for high risk individuals with elevated LDL cholesterol...We hope to negotiate more contracts of this type, in which a pharmaceutical company truly has 'skin in the game' going forward. This agreement is the first we have signed in which there is a full refund of all costs related to the medication if the patient experiences a heart attack or stroke while taking it."1



"Given the urgency to reduce LDL cholesterol in patients at high risk of cardiovascular events, we value our relationship with leading health plans like Harvard Pilgrim who have worked with us to refine their utilization management criteria to accelerate access for their high-risk patients. We look forward to partnering with other payers to create similar outcomes-

based contracts for Repatha."2

Sources: 1. Harvard Piligrim Health Care. (2017). Harvard Pilgrim signs second groundbreaking contract with Amgen for Repatha [Press release]. Retrieved from https://www.harvardollgrim.org/public/ne detail?nt=HPH News. C&nid=1471912937206. 2. Amgen. (2017). Amgen and Harvard Pilgrim agree to first cardiovascular outcomes-based refund contract for Repatha® (Evolocumab) [Press release]. Retrieved from http: Amgen Proprietary—For Discussion Purposes Only 35

ADDRESSING CHALLENGES; DEPENDS ON SITUATION

Challenges	Solutions
Defining appropriate goals, objectives and performance benchmarks	Repatha endpoints are clear
Data insufficiency, challenging to capture timely, accurate and reliable clinical data on membership	Contract only requires measurable inputs: time on therapy and event for the patient
Shorter vs. longer time horizons	Repatha data supports a 1-2 year timeframe
Population dynamics	Clear patient target: diagnosis, LDL and treatment history
Account team's fear of false starts	Senior level engagement; timeframe
Getting comfortable with potentials risks and failure	Clear internal champion and financial impact profiled
Managing input and feedback across multiple internal workstreams and functional groups	Early identification of internal quarterback
Cost and resource to establish contracts	Recognize this is incremental work
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SUMMARY AMGEN OBJECTIVE: ENSURE ACCESS FOR PATIENTS TO OUR MEDICINE

- Align around advanced methods and approaches to value-balanced conversation
- Outcomes contracts can be part of the discussion, but early days
- Challenges are real, engage your functional partners early and often
- Choose your partner thoughtfully, be ready to solve problems together



