

DISEASE MANAGEMENT: A CASE FOR COST EFFECTIVENESS AND QUALITY CARE

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Agenda

- India's Chronic Disease Burden
- Overview of Disease Management (DM)
- Overview of DM in India
- Evolution and current state of DM globally
- Value Proposition and actuarial issues in estimating ROI
- The outlook for DM in India
- Discussion

Lalit Baveja

- India's Chronic Disease Burden
- Overview of Disease Management (DM)
- Overview of DM in India

India's Chronic Disease Burden

- Over 35 million people with diabetes, expected to increase around 80 million by 2030
- 50% of the world's cardiac cases will be from India by the year 2012
- Hypertension cases is expected to see a quantum leap from an estimated 118.2 million in 2000 to 213.5 million in 2025.

Key Healthcare Issues

- Rising medical trend
 - Focus is on the treatment of acute conditions rather than preventive care
- No incentives to treat all aspects of chronic conditions.
- Poor quality
 - Health care is uncoordinated, wasteful and lacks continuity
- Declining health Status & poor patient-compliance
 - More than 50% of the medicines prescribed are not taken at all
 - Only 4% patients followed dietary advice and
 - 55% had uncontrolled clinical outcomes

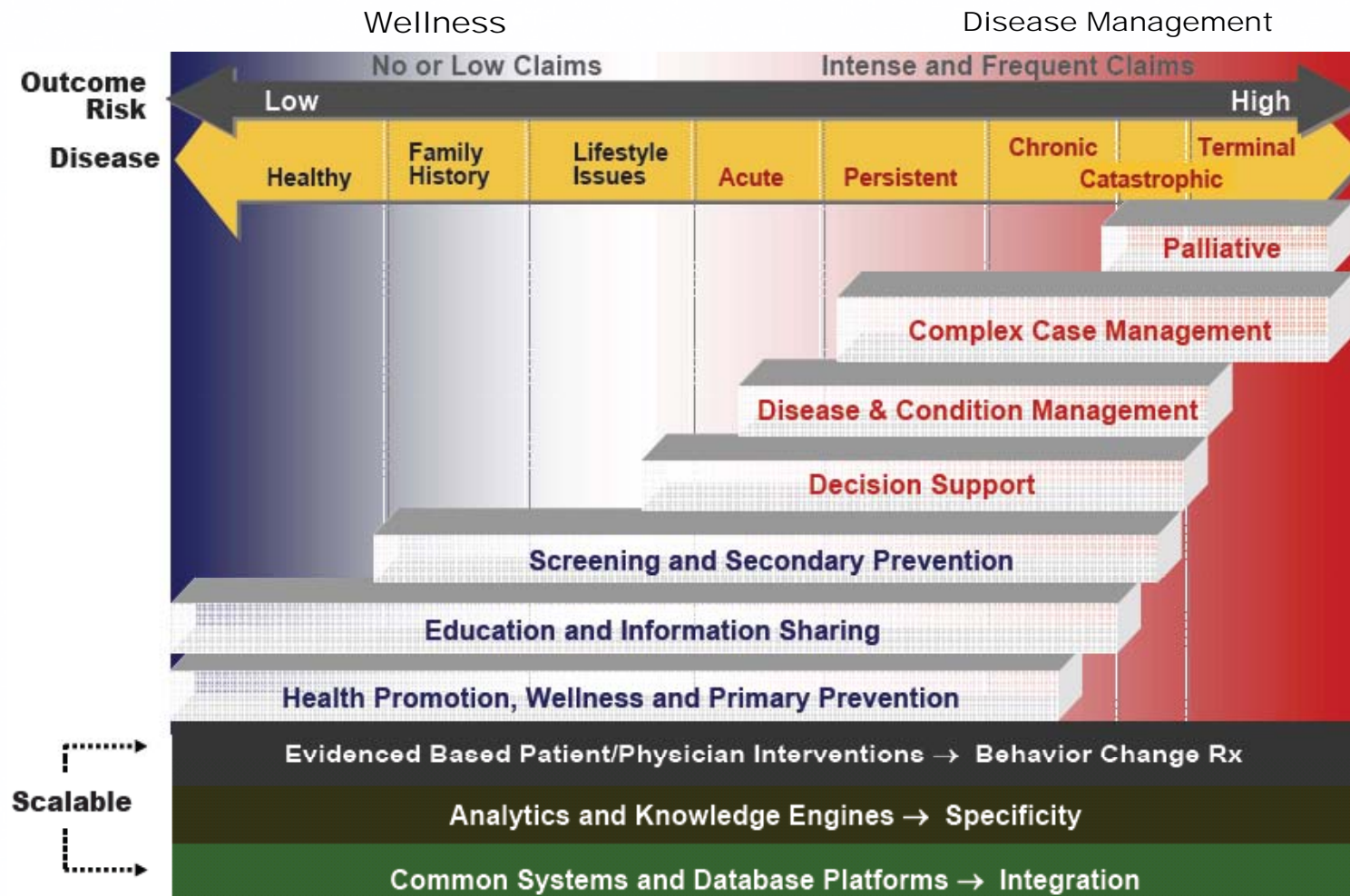
- Need to trounce India's growing chronic disease burden

Overview of Disease Management (DM)

- DM is a process of reducing healthcare costs and/or improving quality of life for individuals by preventing / minimizing the effects of a disease, usually a chronic condition, through integrative care.

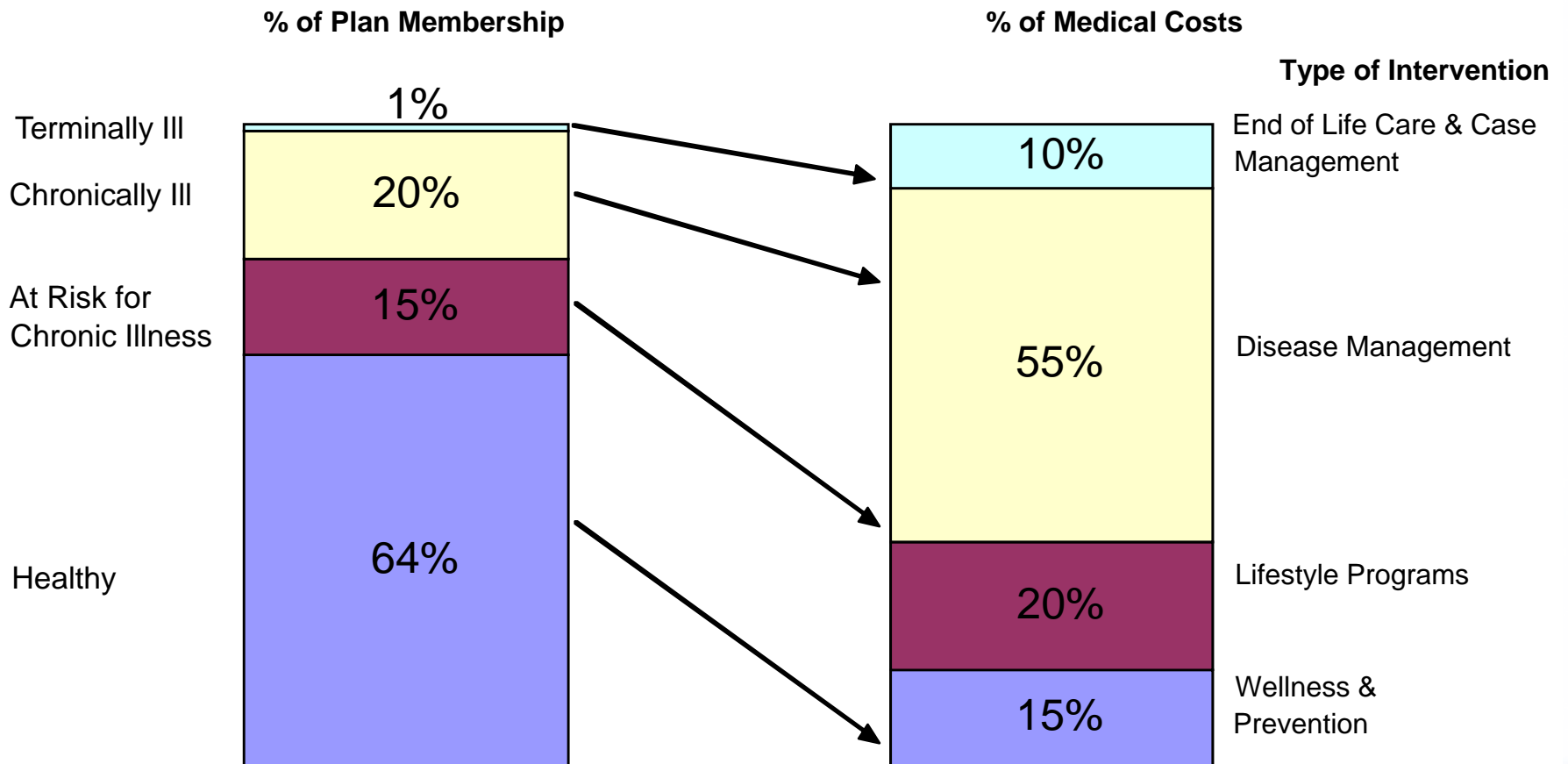
- DM brings two stream together
 - Managing clinical activities
 - Interventions for financial outcomes

The Care Continuum – where it all fits



Source: Adapted from Healthways Investor report.

Do DM/Wellness Make Sense?



Source: Boston Consulting Group and Banc of America Securities LLC estimates.

Course of action of DM

- Identify chronically ill populations
- Stratify chronics into risk levels
- Nurses call high risk chronics to encourage compliance/adherence with health management protocols
- Mailings and other outreach activities to low risk chronics
- 5 core disease states “common chronic”
 - CAD, CHF, COPD, asthma, diabetes
- Other programs
 - cancer, depression, obesity, ESRD, rare diseases

Course of action of Wellness

- Identify at risk populations (HRAs and biometric testing)
- Assist at risk populations voluntarily change behaviors associated with modifiable risk factors
- On-line, telephonic and worksite coaching, mailings and other outreach activities

Common Wellness Programs

- Smoking cessation
- Cholesterol management
- Hypertension management
- Exercise/Physical fitness
- Nutrition
- Weight control
- Cancer detection/prevention
- Back care
- Substance abuse prevention
- Stress management
- Jobs hazards/injury prevention
- Flu shots

Benefits to Stakeholders

Individual	Government	Health Plans and Payers	Providers	Pharma Companies
<ul style="list-style-type: none">• Improved quality of life• Convenience e.g. services at home• Reduced costs from unwarranted use of acute services	<ul style="list-style-type: none">• Healthier more productive population• Reduced spending on healthcare	<ul style="list-style-type: none">• Competitive differentiator• Reduced costs	<ul style="list-style-type: none">• Improved compliance with best practice	<ul style="list-style-type: none">• Increased sales• Public relations

Status of DM in India

- DM at a nascent stage
- Less than 10% of population covered by some form of health insurance
- Products to cover chronic conditions are yet to fully develop
- National Programs by the government

Status of DM in Indiacontinued

- Pharma Sponsored DM
- Specialist Diabetes Centers
- Insurance Company Diabetes Care
- Stand alone DMO
- Guidelines and treatment protocols
- Disease Management Association of India

Rob Parke

- Evolution and current state of DM globally
- Trends Driving the demand for DM/Wellness
- Major Threats to DMOs

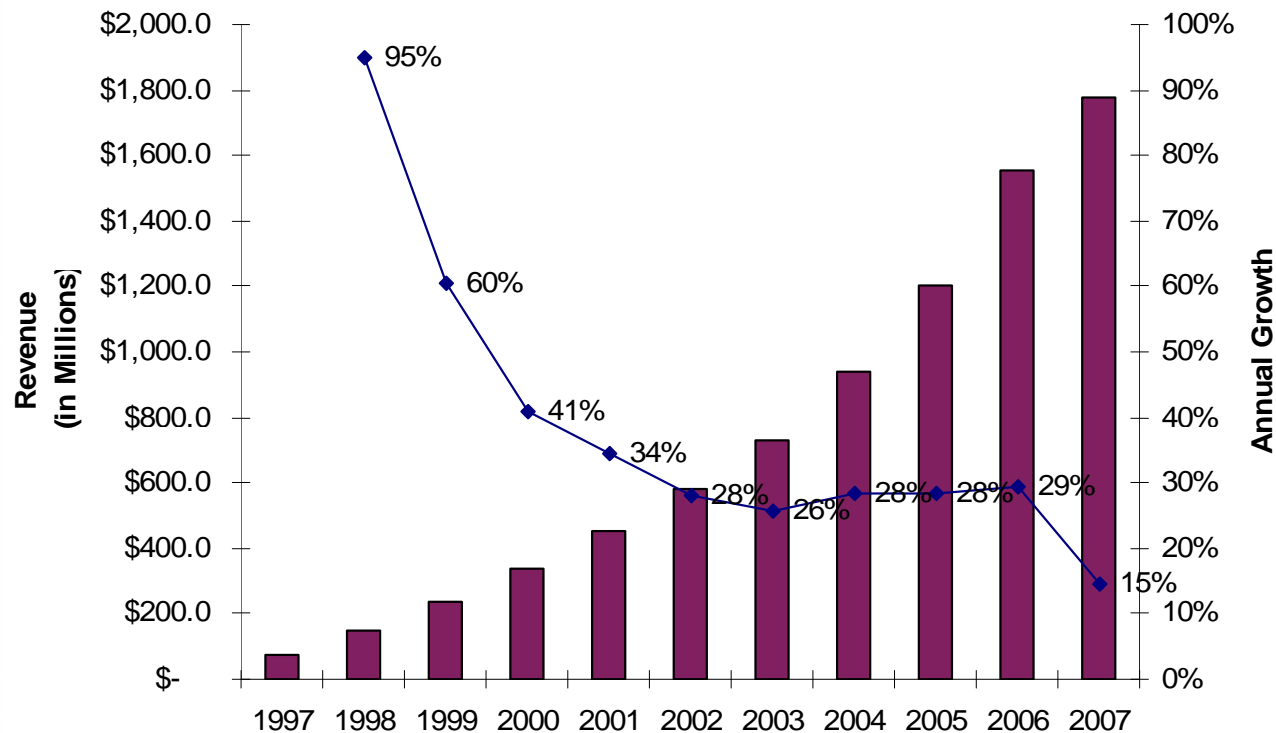
Evolution and current state of DM globally

- DM began in the USA in the early 1980s
- Soon after HMO staff/ group model embraced the concept
- Pharmaceutical companies identified it as a way to promote and sell drugs.
- Several entrepreneurs stepped in the mid-1990s to develop independent Disease Management Organizations (DMOs)
- Industry has since grown to \$2 billion a year.

- The evolution started from targeting single disease transformed to cover numerous diseases and co-morbidities and most recently wellness programs.

The Market for DM

- Estimated Annual Disease Management Revenues (Estimates for 2007)



Trends Driving the demand for DM/Wellness

- Consumerism
- Preventive care/wellness
- Information technology
- Quality initiatives

Major Threats to DMOs

- **DM/Wellness Value Proposition**
 - Lack of empirical support
 - Financial ROI methodological flaws
 - Purchasers expectations
- **Health Plan In-sourcing**
 - Easily replicated in house
 - Care Management
- **Alternative Model of DM/Wellness like services**
 - Online
 - Patient centered medical home by Physicians

Jaiwardhan Vij

- Value Proposition and actuarial issues in estimating ROI
- The outlook for DM in India

Estimation of ROI

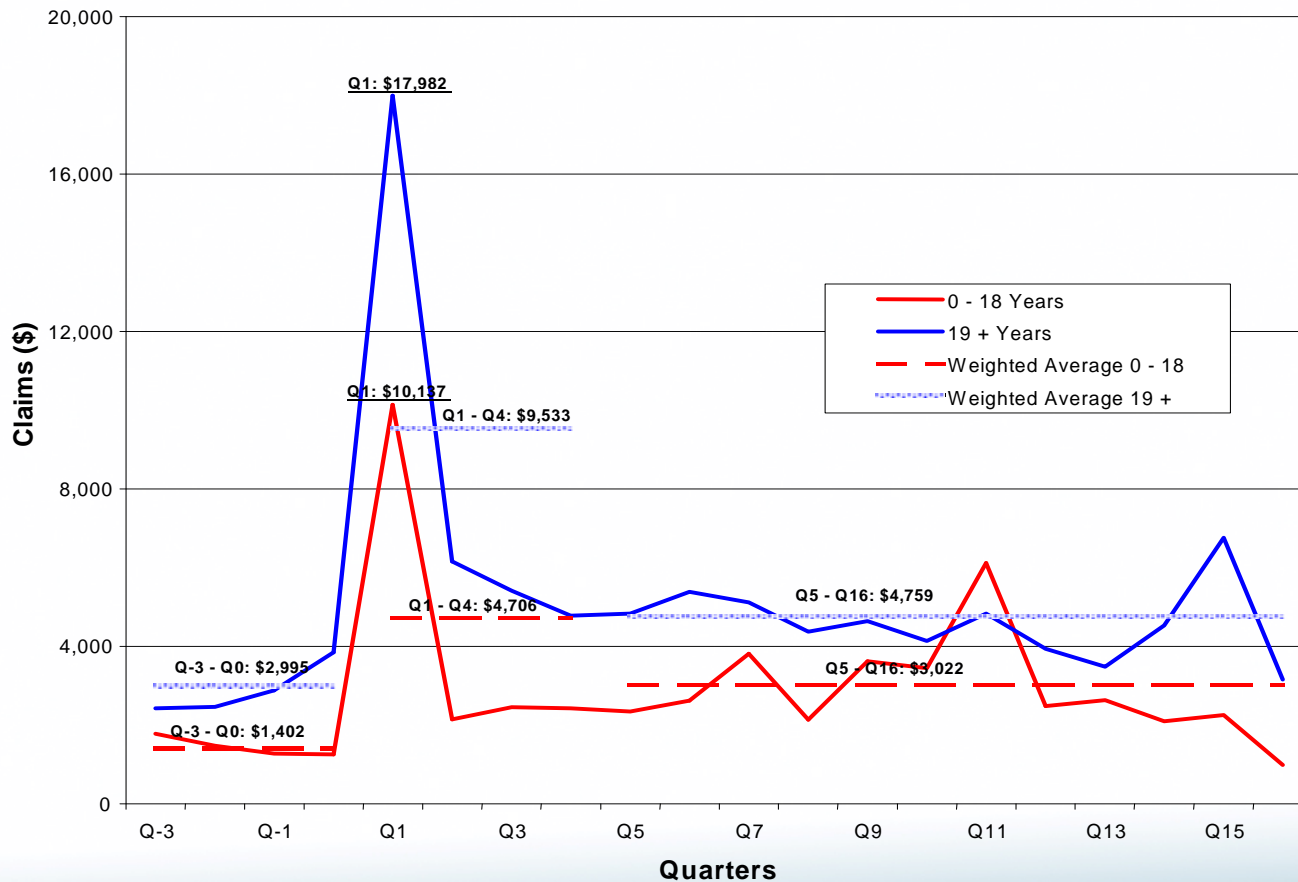
Three methods of calculations

- Comparison of requested to approved services
 - May Overstate savings
- Comparison of Medical expenses between control and intervention group
 - Theoretically desirable but hard to achieve in practice
- Comparison of pre-enrollment to post-enrollment medical expenses
 - Most often used

Issues in Estimating ROI

- Regression to the Mean

Commercial Diabetes Average Claim Cost



Issues in Estimating ROIcontinued

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www.CartoonStock.com



"What I like about hunting is you shoot only the males."

Issues in Estimating ROIcontinued

■ Data

- Inadequate to identify DM participant
- Faulty Coding in data records leads to false positives or negatives
- Difficulty getting data into decision support system

■ Statistical Credibility

- High-cost, high-variance population is small in number
- Further attempting to adjust for population differences

Issues in Estimating ROIcontinued

- Trend
- Benefit Design
- Claim Adjudication
- Incurred or Paid claims
- Severity
- Changes in health care delivery infrastructure

Outlook for DM in India

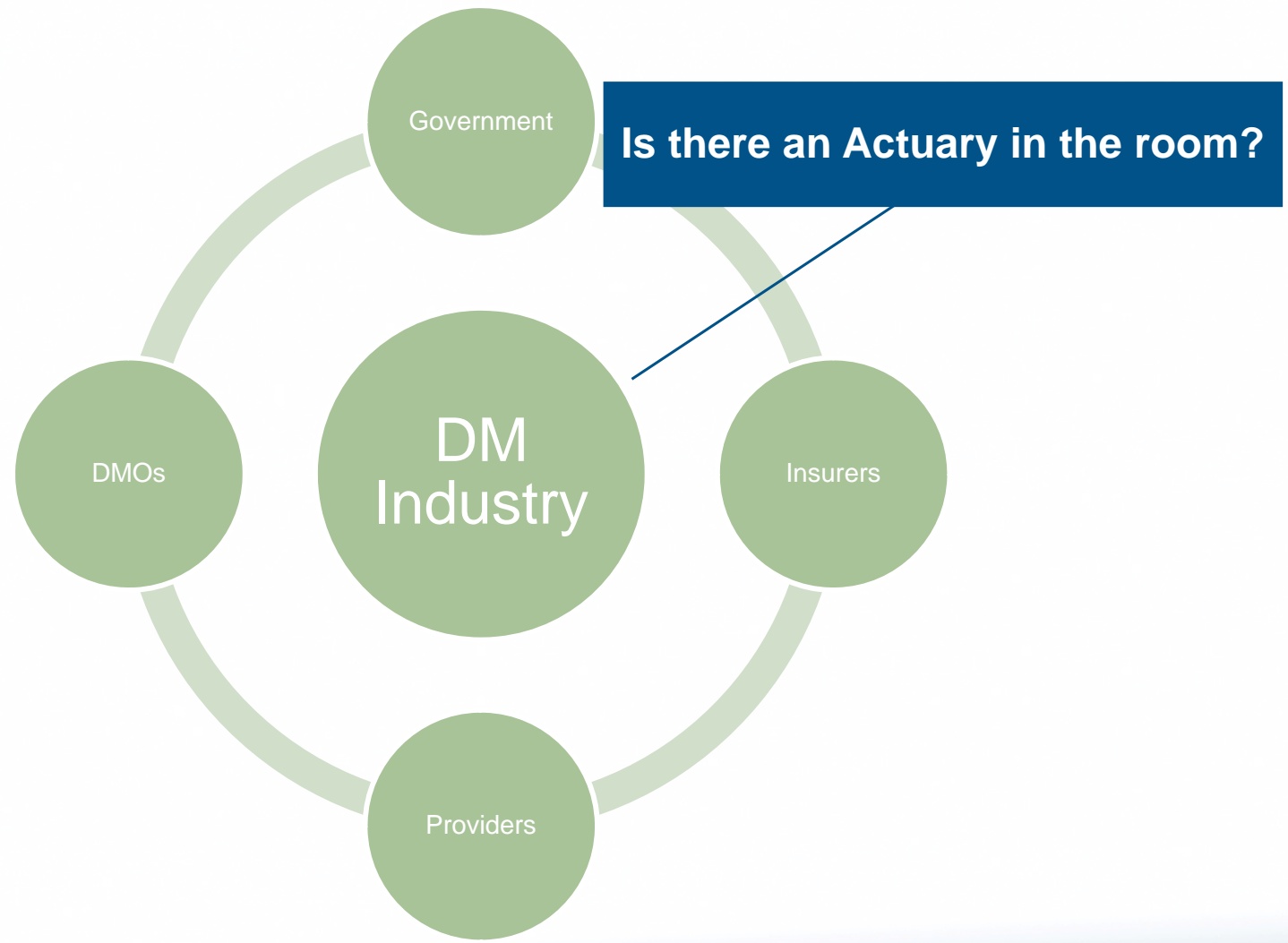
- The rising healthcare costs tied with a huge population
- Increasing incidence of Non Communicable Diseases
- Increased Healthcare spending by the government & private sector
- So, need for DM in India is apparent

Outlook for DM in Indiacontinued

- Alternative health insurance products covering
 - Chronic conditions
 - Outpatient care

- Data quality, completeness and consistency
- Encouraging collaboration among providers
- Behavior modification programs
- Appropriate use of Information Technology

DM Model



Role of the Government

- Policy maker, Provider and the Payer
- Selecting key clinicians champions as leaders
- Financial incentive for providers to support chronic DM
- Introducing appropriate clinical outcomes measures
- Develop disease registries and data collation to identify at risk population

Role of Insurers

- Increase promotion of stand alone products
- Include DM in generic products
- Support DM pilot programs
- Work in collaboration with DMOs and providers to evaluate the

Role Providers

- Collaborate in developing chronic DM protocols
- Advocate the benefits of DM programs

Role of DMOs

- Involve physicians and providers as key stakeholders.
- Establish strategic networks of providers, pharmaceuticals, diagnostics and informatics.
- Develop new delivery strategies
- Develop a viable value proposition that demonstrates both clinical improvements and financial benefits.



Discussion