Society of Actuaries in Ireland

Managing medical cost inflation: global successes & failures

2012

Agenda

- Healthcare economic fundamentals
- Is healthcare inflation ever welcome?
- Case studies

Economic Fundamentals

- Healthcare spending is more closely correlated with income/education & supply side issues, than underlying health status.
  - The more educated you are and the higher your income level, the greater the returns to investing in health (being sick means lost income)
  - Roemer's law dictates "a bed built is a bed filled" – aka supplier-induced demand.

Total spending on health as % of GDP for countries grouped by income level*

	Total expenditure on health as a percentage of gross domestic product			
World Bank Income Group	2009		2000	
Low income	4.9		4.2	
Lower middle income	4.4		4.2	
Upper middle income	6.1		5.5	
High income	12.5		9.9	
Global	9.4		8.2	

*source: www.who.int

Economic Fundamentals

- Healthcare markets are unique in combining many types of economic market failures:
  - Lack of “perfect” information – information asymmetries.
  - Principal Agent issues
  - Third Party payers
  - Risk & Uncertainty
  - Role of non-profits
  - Restrictions on competition
  - Role of equity and tradeoffs with economic efficiency
  - Government subsidies
- All conditions for well-functioning economic markets fail in healthcare = absence of usual supply and demand and price equilibrium laws.

Economic Fundamentals

- Getzen proposed a framework for thinking about long-term medical inflation (devised for the US), which stated:

  Medical inflation =

  RPI / CPI

  +

  GDP Real growth * Income multiplier

  +

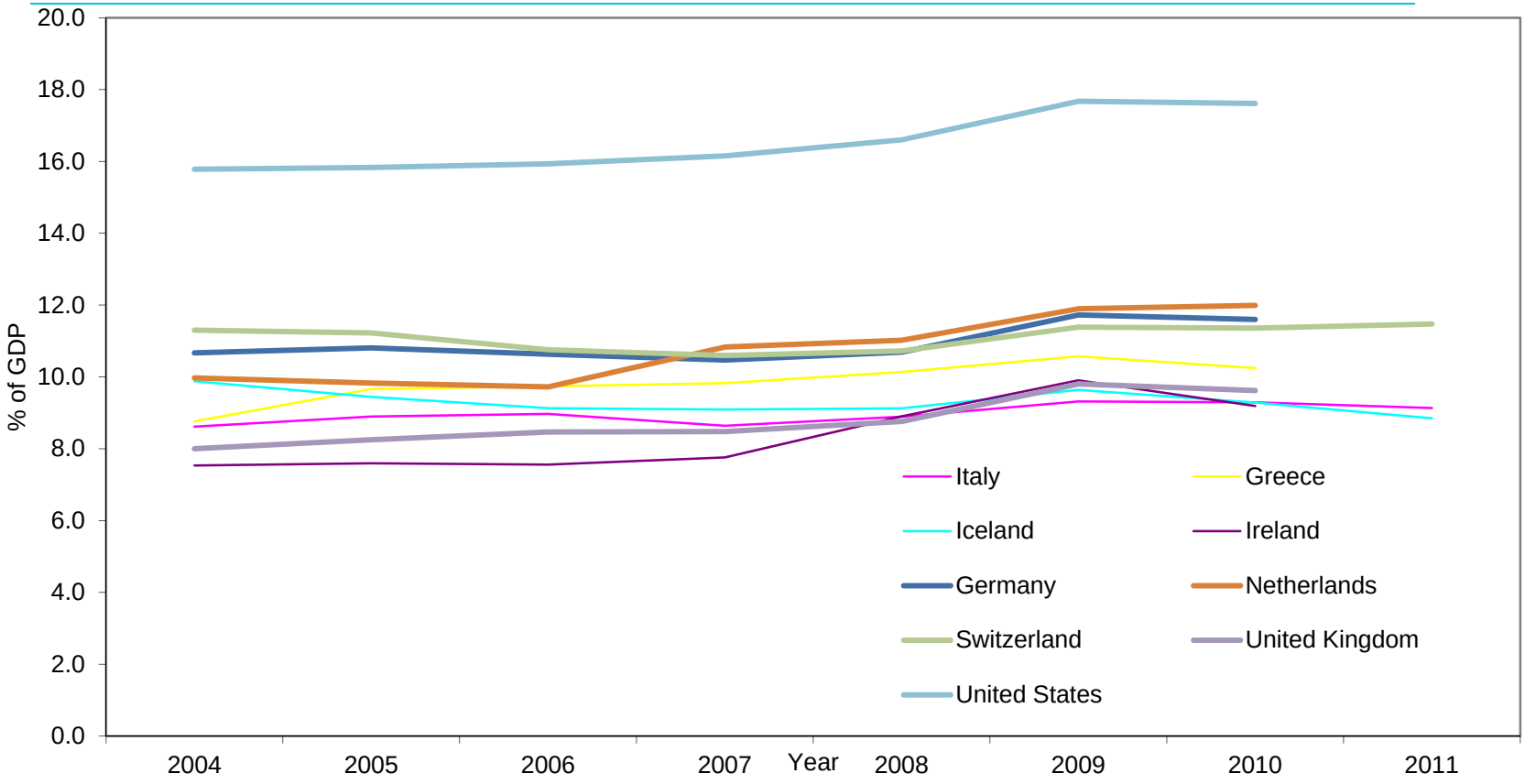
  technology trend

- Getzen suggested values of 1.4 for the income multiplier (in the US) and 1% to 2% for technology.

  So, when RPI = 3% and GDP Growth = 2%, you would expect medical inflation of:

  3% + 2% * 1.4 + 1.5% = 7.3%.

Economic Fundamentals: Health spending as % of GDP



Is healthcare inflation ever welcome?

- Higher spending on health as a % of GDP can be justified as valid social policy with good return on investment.
- Investment in population health = healthier workforce
- Driver of economic growth and creates jobs.
- Meets population desires to invest in health versus other social goods such as transport, energy.
- Can give significant improvements in quality of life.
- BUT:
  - Recognise the diminishing returns
  - Resource allocation should be based on evidence
  - Should measure outcomes and quality NOT activity!

When is healthcare inflation bad?

- Depends on who's asking!
- Generically:
  - When increases in utilisation are driven by increases in activity, rather than better outcomes or higher quality.
  - When increases in unit costs are driven by fundamental economic inefficiencies, e.g. monopolies extracting economic rent.

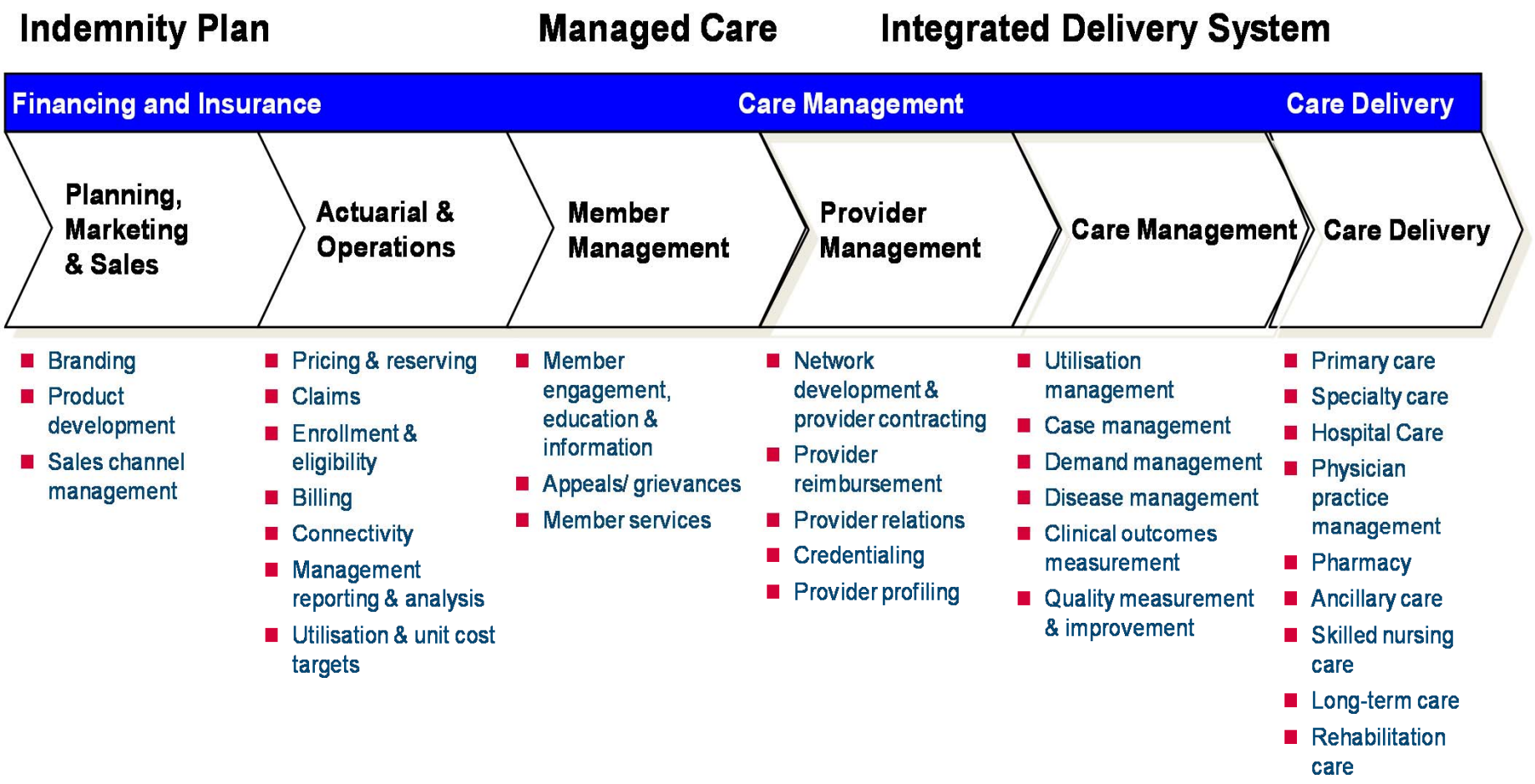
Tackling unwanted healthcare inflation

- Most successful solutions:
  - Identify the problem: utilisation or unit costs?
    - Specific to one type of service?
  - Identify the underlying issue/economic market failure which drives inflation:
    - Misaligned incentives – principal/agent issues. The person being paid to do your surgery is the one deciding whether you need it.
    - Over-supply
    - Moral hazard/anti selection
    - Monopoly supply
  - Understand that quality is the key to cost control

Range of possible solutions

DEMAND SIDE – member focused	SUPPLY SIDE – provider focused
• Benefit Design - Cost sharing, limits, benefit exclusions • Underwriting/Pre-employment Medicals & Questionnaires • Disease Management • Ambulatory Case Management • Wellness and Screening • Pre-authorisation benefit checking at point of claim	• Medical Necessity Pre-Authorisation • Referral Management • Network Management • Contracting/risk sharing • Utilisation Management, eg inpatient concurrent review • Catastrophic Case Management • Bill Audit Review

Moving up the value chain

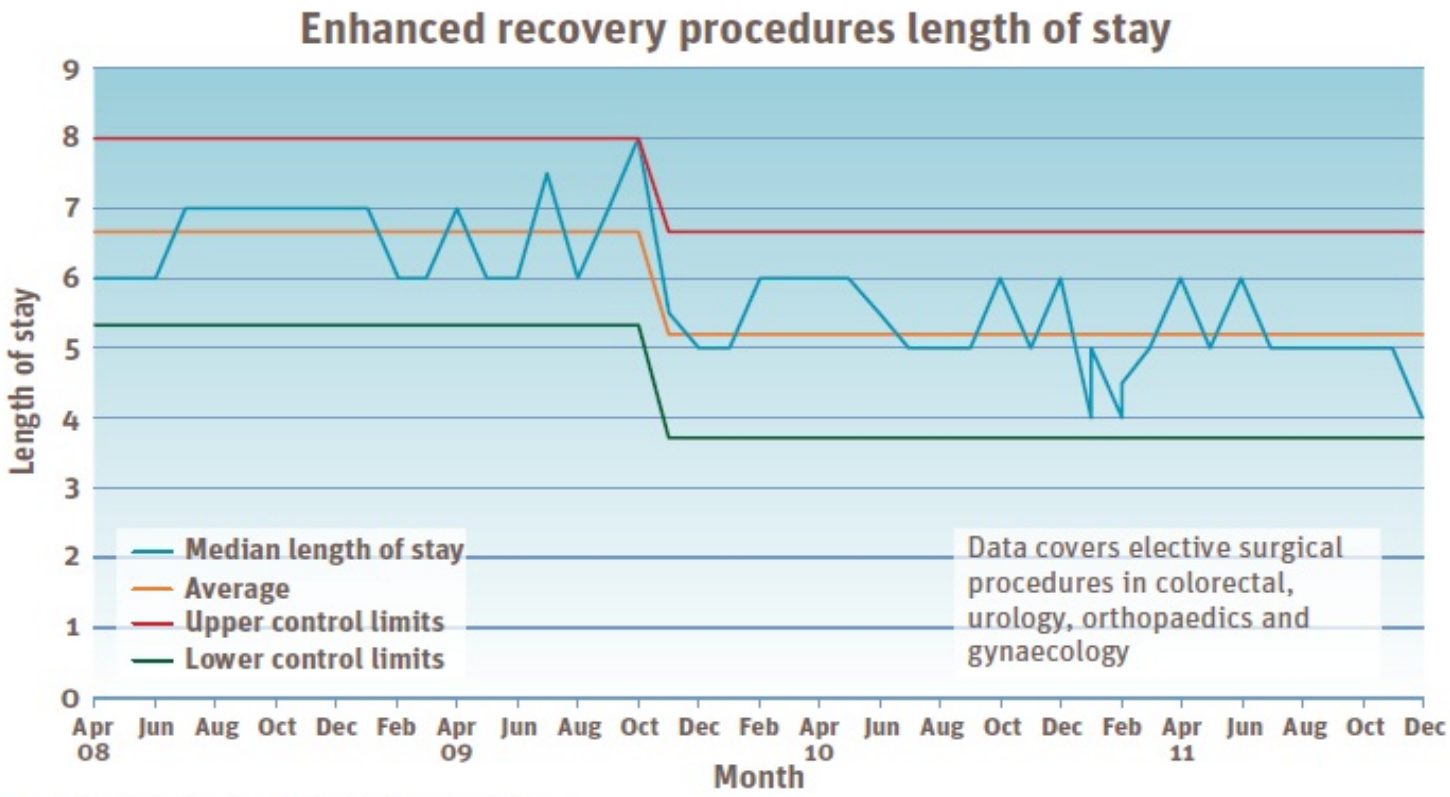


Case study 1: utilisation management

- Issue: NHS excessive ALOS and poor outcomes/quality for surgical procedures.
- “Enhanced recovery programme”. Focuses on:
  - pre-op assessment to identify issues and set discharge date
  - Evidence based guideline use for pre op, surgery itself and post op.
  - Post op early mobilisation and oral nutrition.
  - Clinical engagement to ensure use of evidence-based checklists.
  - Patient-specific care plans with milestones for each day.
- Case rate reimbursement encourages, rather than discourages ERP

Case study 1: utilisation management

ENHANCED RECOVERY HAS DRIVEN DOWN LENGTH OF STAY



Source: University College London Hospitals Foundation Trust

Case study 2: disease management

- Issue: High costs and inappropriate emergency admissions for chronic disease sufferers.
- Disease management focuses on:
  - Identifying people with specific chronic disease (usually from claims records).
  - Targetted outreach by nurses to ensure compliance with Rx regimes and routine check ups to manage complications.
  - Theoretically leads to fewer expensive emergency admissions/ unnecessary surgery.
- BUT:
  - Select effect seen in enrolment in DM programmes.
  - Needs careful segmentation/stratification to work.
  - The maths doesn’t lie: giving expensive interventions to large numbers of people to avoid low frequency events does not drive overall trend; very little evidence of bending cost inflation trend, absent a few, limited circumstances.

Case study 3: “lean” management

- Issue: The delivery of surgery is inefficient and hence too expensive
- “lean management” focuses on:
  - Using resources at the minimum skill level required to do the job “task shifting”
    - Driven in developing countries by lack of doctors.
  - Eliminating unnecessary delays due to infrastructure shortcomings.
  - Using IT to ensure efficient administrative processes.
  - Harnessing economies of scale.
- BUT:
  - Won’t reduce costs for payers if activity increases to compensate.
  - Requires tackling entrenched monopolies and legacy IT systems.

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Conclusions

- Natural propensity to increase healthcare spending as average incomes rise.
- Should be welcomed if meets social policy goals.
- But healthcare inflation can be bad news if driven by inefficiencies in supply and poor quality:
  - Solutions must start with understanding the underlying issues, rather than copying initiatives from elsewhere wholesale.
  - Rarely successful to tackle parts in isolation – clinical and financial incentives must be aligned.
  - Some successes exist, but be skeptical!

Conclusions

- Common themes for successful cost control.
  - Focus on quality outwardly and numbers internally.
    - Quality often aligned with lower cost because drives out variation and inefficiency, but not always.
  - Quality agenda appeals to stakeholders (especially clinicians)
  - Target mediocre majority rather than complex minority for surgery and medical inpatient cases.
  - Target complex minority rather than mediocre majority for more holistic disease management initiatives.
  - A cost focus simply alienates clinicians and has “balloon” effect

Famous Quotes in Healthcare

My doctor gave me six months to live, but when I couldn't pay the bill he gave me six months more.
Walter Matthau

A patient cured is a customer lost.
Unknown