What drives healthcare utilisation globally?

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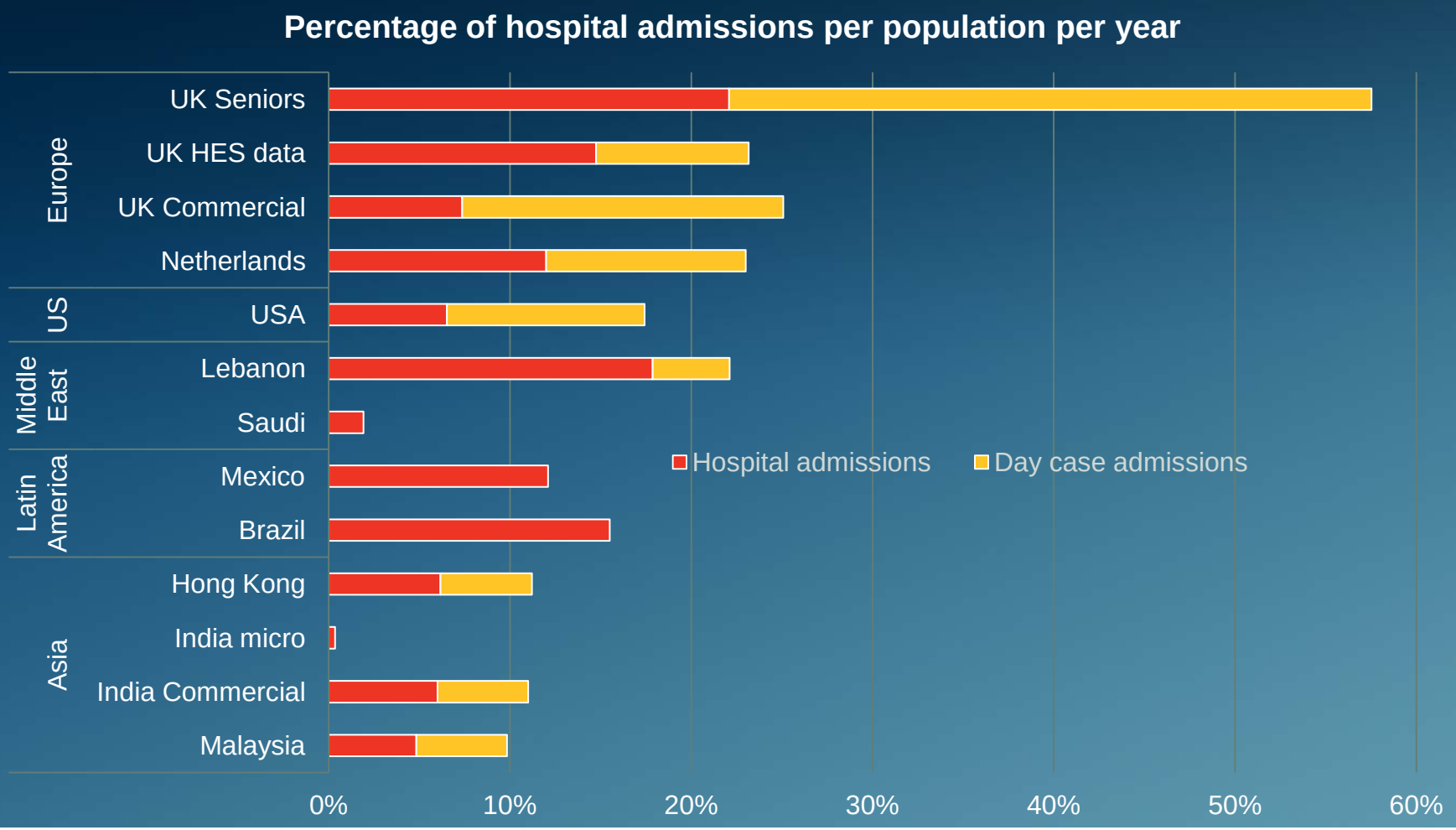
Agenda

- Introductions & Definitions:
  - Utilisation (we will not consider unit costs)
  - Private Medical Insurance (PMI)
- What drives utilisation trend at a micro/macro level?
- Focus on:
  - ….Europe (both webinars)
  - ….Asia (1st webinar)
  - ….Middle East (1st webinar)
  - ….Latin America (2nd webinar)
  - ….North America (2nd webinar)
- Conclusions
- Questions/Discussion

Global PMI utilisation patterns: one example



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Macroeconomic model of trend

- Economic regression model of healthcare utilisation at a macro level
  - Income
  - Education
    - Which are in themselves linked
  - Supply/infrastructure
  - Demographics/health status
- Long term trend in utilisation tends to depend on
  - GDP growth (higher propensity to utilise healthcare linked to income)
  - Technological advances

Micro factors affecting trend at portfolio level

- PMI utilisation patterns vary widely across (and within) countries
- Various factors/hypotheses
  - Structure of system/interaction with public system
  - Macroeconomic environment
  - Cultural issues
  - Supply & reimbursement of medical services
  - Benefit design
  - Political policy
  - Health status/demographics of underlying population
  - Voluntary versus compulsory – anti-selection issues
  - Medical management initiatives
  - Type of payer

Focus on Europe: A tale of two halves

- Those economies suffering in the recession have seen:
  - Deep public sector austerity = cost shifting to the private sector and higher utilisation for PMI insurers
  - Selective lapsing as healthier (and usually younger) decide they cannot afford health insurance = higher average utilisation among people left behind
  - Little new business to offset risk of shrinking portfolio
- And then there is Germany!
  - Stable utilisation trends of 3-4% inpatient and 1-2% outpatient
  - Lack of austerity programmes and low unemployment means no cut back in state benefits and no spikes in private utilisation
  - No evidence of private utilisation being used more intensively than in the past.

Focus on Europe: UK

- Annual utilisation trend averages 1-2%pa for inpatient admissions, but 7-8%pa for day cases and outpatient
- Macro economic environment closely linked to subscriber numbers, as “luxury” purchase. Job losses = shrinking portfolio
- Annual trend masks spikes in certain data sets
  - Due to selective lapsing, particularly in large financial services portfolios, leading to spikes in experience
- Significant amount of down-trading in products among healthier lives = more selective lapsing
  - Widening of experience between budget and comprehensive products, as healthier people trade down

Focus on Europe: UK

- Stronger focus on claims management and prior-authorisation
- Starting to see medical pre-auth, not just benefit pre-auth (eg BUPA arthroscopy)
- Higher copays and coinsurance (short term fix, but long term problem due to deductible leveraging)
- Have not yet seen effect of NHS austerity measures and longer waiting lists.

Focus on Europe: Spain, Italy, Ireland

- Utilisation trends of 1-3% on inpatient admissions, but again, much higher on outpatient and day case
- Expected to increase as austerity measures take hold and more cost shifting from public to private sector
- But also opportunity - increased charges in the public sector may increase attractiveness of private insurance and improve pool.

Focus on Europe: Italy

- Measures to reduce utilisation have included:
  - Networks of doctors and hospitals (1/3 of insurers)
  - Higher deductibles (approx 30% of insurers)
  - Lower maximum benefits (14% of funds)
- Going forward, health funds expect to use:
  - Redesign of benefits to manage utilisation
  - Claims management/utilisation management

Focus on Europe: Ireland

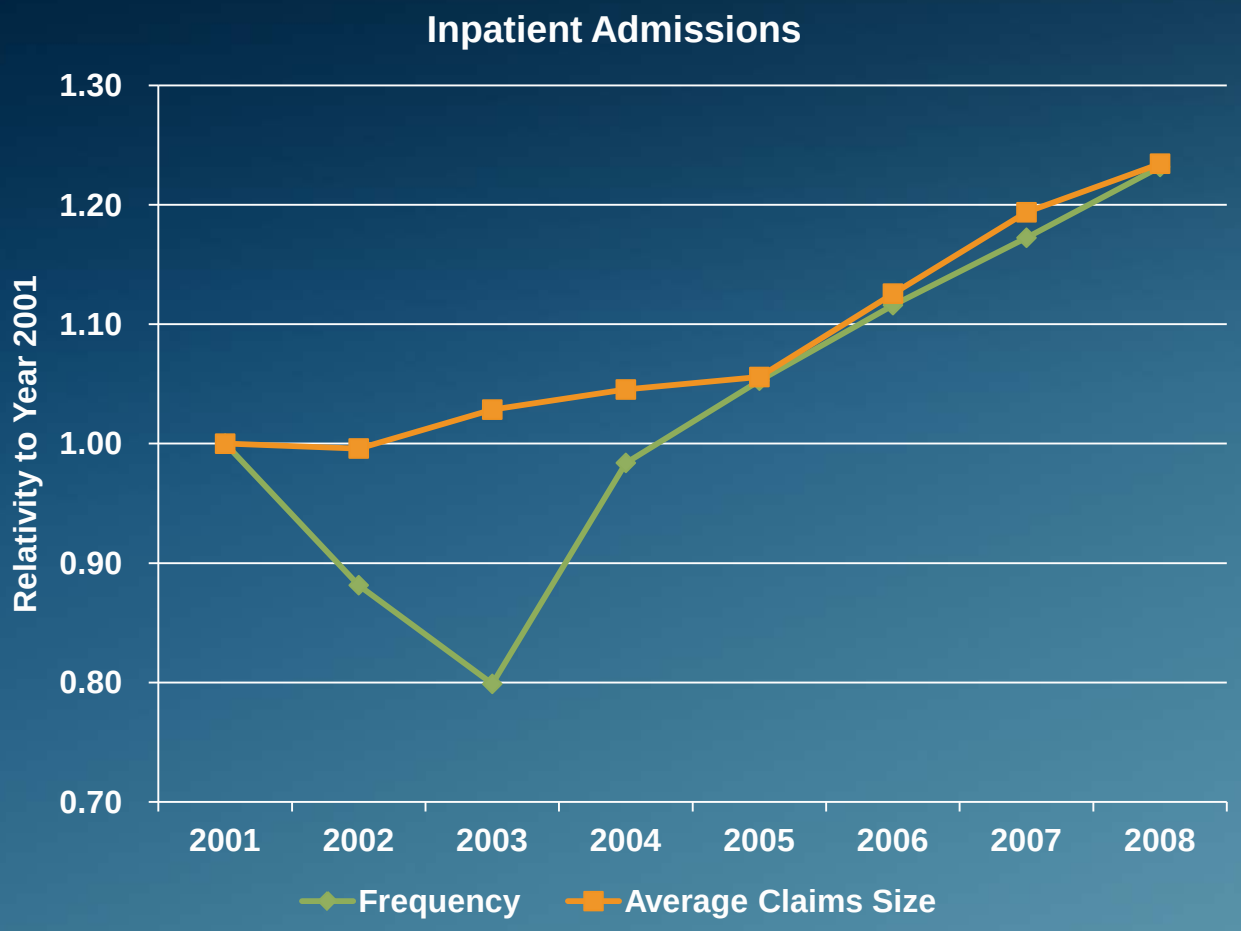
- Measures to reduce utilisation have included:
  - Tiered hospital networks with different levels of reimbursement
  - Higher cost sharing & lower limits
  - Extremely limited utilisation management, although some use of evidence-based guidelines to review inappropriate admissions and average length of stay
    - = ahead of some European markets
    - But not enough to control utilisation trend

Asia: Hong Kong
Background

- Public and private systems operate in isolation
- Hospital inpatient care dominated by public hospitals, 90% funded by an allocation of government budgets
- Outpatient primary and specialist care dominated by private providers
- Private Medical Insurance (“PMI”) still plays a niche role
  - Finances around 10%-12% of private health expenditure

Asia: Hong Kong

PMI Utilisation Trends



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Asia: Hong Kong
Mitigations

- Insurers have limited ability to control utilisation and costs
- “Itemised” benefit limits to control cost
- Retrospective claims adjudication
- Cost sharing on outpatient visits
- Prior authorisation
- Manage agency sales forces

Asia: Hong Kong
Healthcare Reform

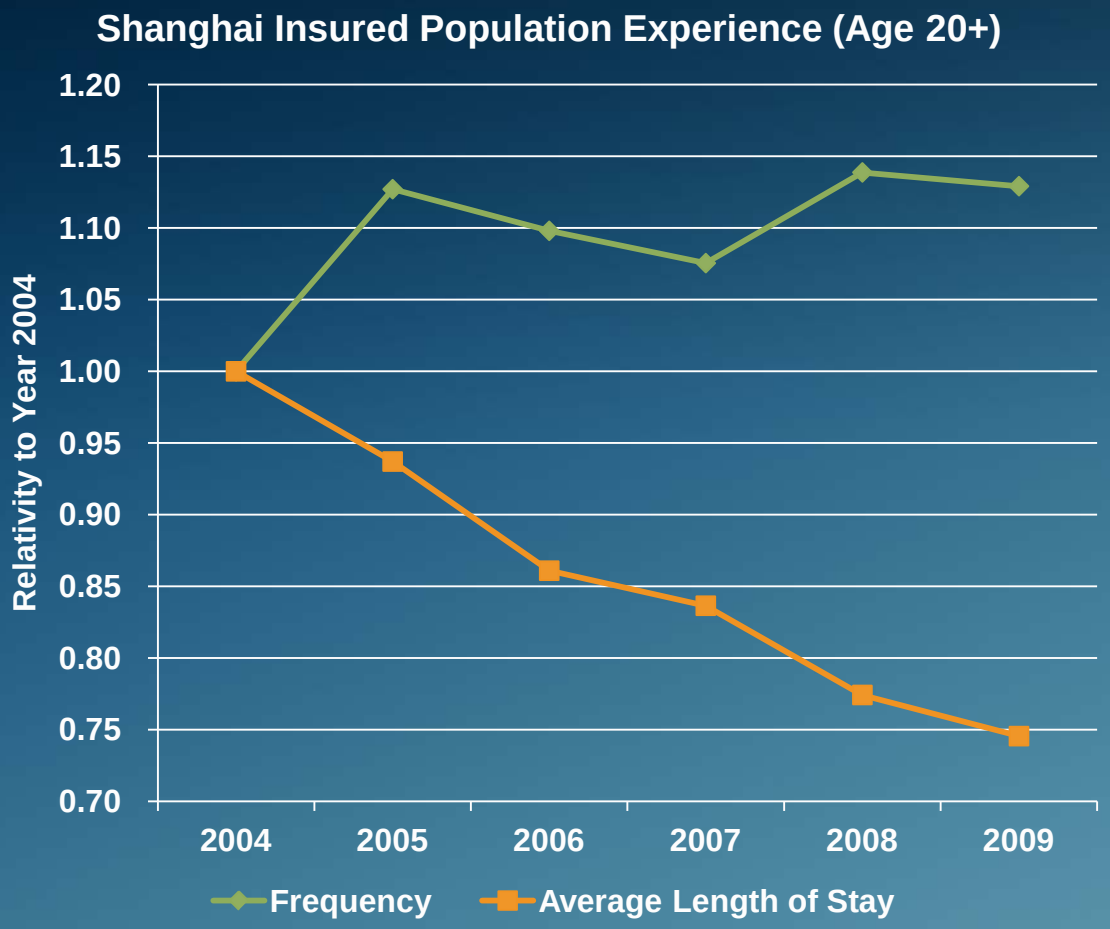
- Introduction of a standardised medical insurance product with incentives to encourage voluntary purchase of PMI
- Introduction of packaged prices for common procedures
- Mediation/arbitration mechanisms
- Transparency and benchmarking of the performance of insurers and providers
- Increase supply of private hospitals and specialists

Asia: China
Background

- Financing and delivery of care dominated by the public sector
- Financing is via the Social Health Insurance ("SHI") programme
- SHI provides comprehensive coverage subject to deductibles and coinsurance
- Two most common PMI products
  - SHI Supplementary: covers member cost-share for SHI covered services
  - SHI Supplementary Plus ("SHI Plus"): like SHI Supplementary, but also covers non-SHI covered items and services within limits

Asia: China

PMI Utilisation Trend



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Asia: China
Key Drivers

- Increasing affluence
- Scope of SHI covered services
- Cost sharing under SHI
- SHI provider reimbursement policies
- Government policy on the pricing of SHI non-covered services
- Collusion/fraud in lower tier cities

Asia: China
Mitigations

- Overall, insurers have limited ability to control utilisation and costs
- Retrospective claims adjudication
- Provider profiling
- Specific efforts to detect fraud and abuse at providers
- Agency sales force profiling

Focus on Middle East: Saudi Arabia

- Health insurance mandatory for non-Saudis since 2005. Extended to Saudi nationals in private sector in 2008.
- Health insurance is the biggest line of insurance business.
  - GWP increased from 27% of total insurance GWP in 2005 to 53% in 2010.
  - Accounted for SR 1.37 billion GWP in 2005. Increased to SR 8.69 billion in 2010.
- Now 26 qualified companies selling health insurance and 5 TPAs.

Source: Saudi Arabian Monetary Agency Insurance Report – 2009 & 2010

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Focus on Middle East: UAE

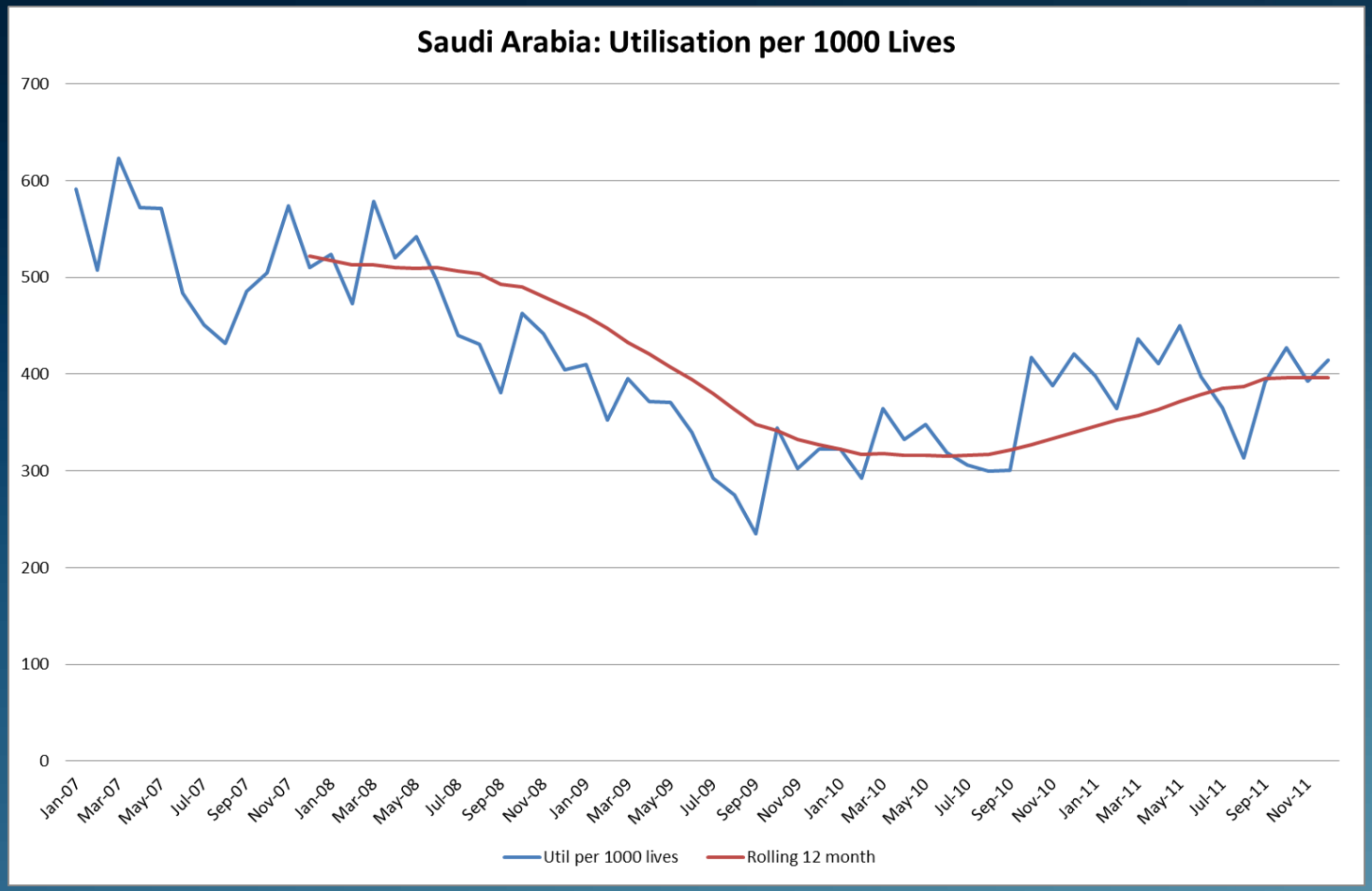
- Compulsory medical insurance for all expatriate workers resident in Abu Dhabi was introduced in 2006. >1m members of the scheme by 2009.
- Implementation of compulsory medical insurance for residents has been delayed.
- In 2006 healthcare spending was 72.9% public: 27.1% private
- Health insurance accounted for AED 4.1 Billion in 2009 compared to AED 3.1 Billion in 2008 and AED 2.2 Billion in 2007*.

*Source: UAE Insurance Regulator Reports – 2009 & 2010

Common Themes that Impact Utilisation

- Medical service providers are typically unorganised and unregulated
- Limited or non-existent medical protocols, care pathways, and cost protocols
- No universal billing codes
- Varying levels of quality of infrastructure and care delivery
- Insurance may be perceived as a means of making additional money, by manipulating hospital records and bills

Saudi Arabia: Utilisation



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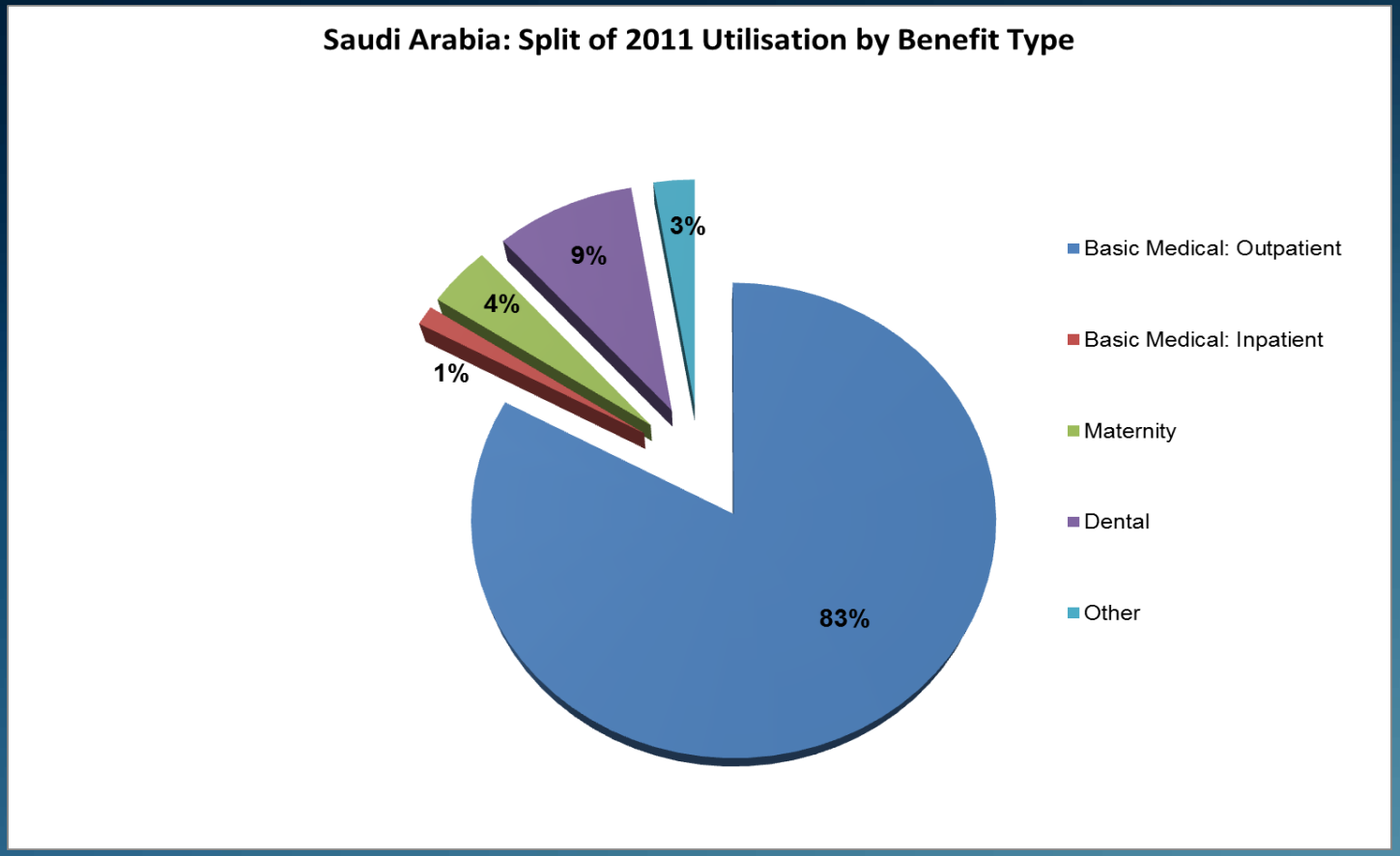
Saudi Arabia: Utilisation



Similar split in UAE too. Outpatient activity drives utilisation and cost.

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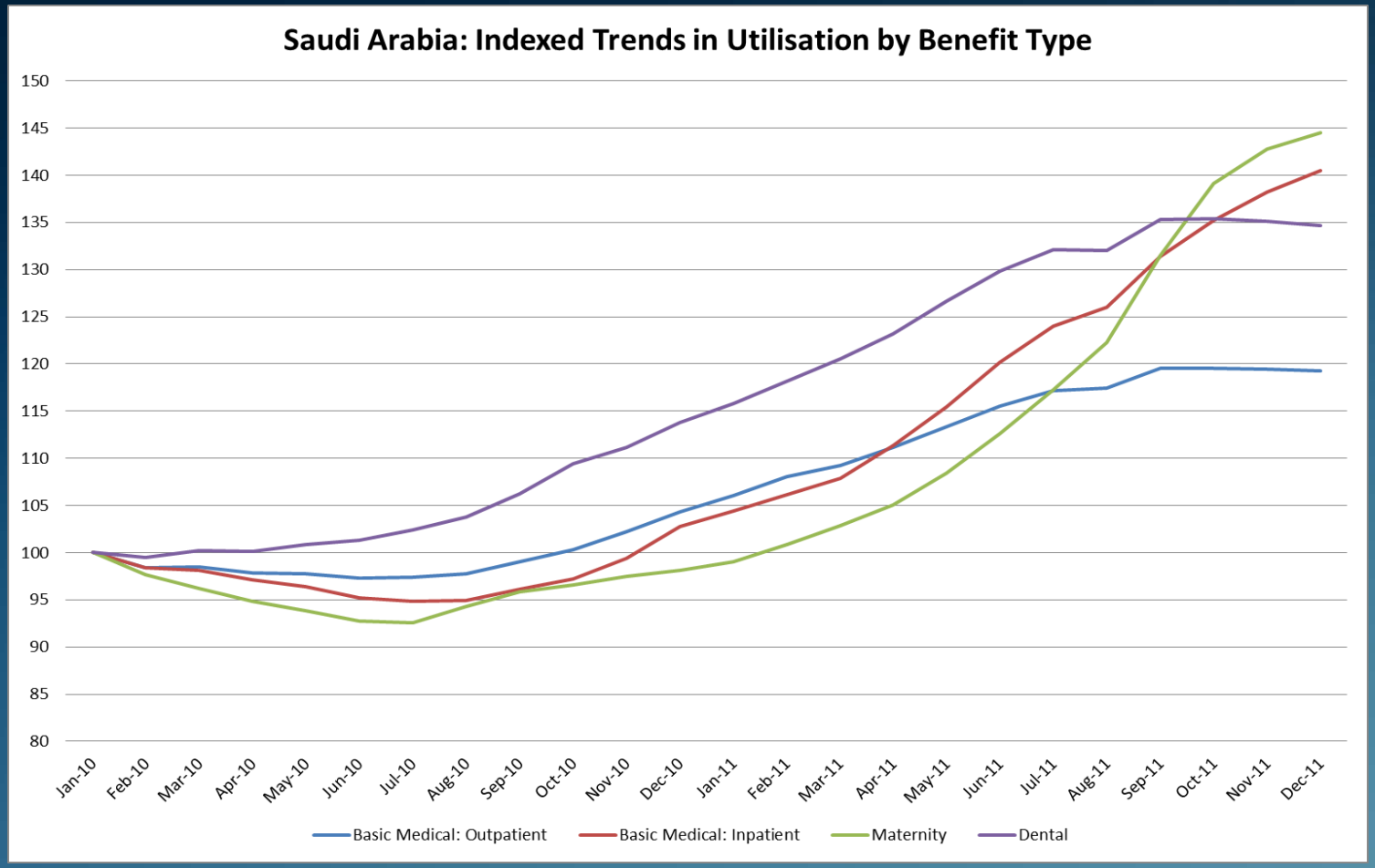
Saudi Arabia: Utilisation



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UAE: Utilisation

Utilisation rate increases (source: data published by Daman)

- Outpatient utilisation +160% (i.e. more than doubled) Jan-07 thru May-11
- Inpatient utilisation +20% Jan-07 thru May-11

Main causes:

- Low responsibility on member
- Active promotion of providers => supplier induced demand
- Implicit promotion of providers by regulators funded through insurance
- Lack of unified guidelines (clinical pathways) for treatments
- Lack of pharmaceutical benefit management
- Lack of incentives for TPA to control utilisation

Utilisation Management Initiatives

- Introduction of e-claims (and hence efficient monitoring of trends).
- Introduction of standardised coding – ICD9, CPT.
- Introduction of DRG's for inpatient conditions.
- Gate-keeping approach by some companies in KSA.
- Some sign of active participation of major Insurers and TPA's in applying claims adjudication tools & evidence based guidelines.
- Early detection of fraud and abuse embedded by 'red' and 'green' flags within IT platforms.
- Increasing trends towards disease management and wellness programmes.
- Major companies operating 'self-funded' schemes including owning in-house clinics (e.g. Emirates Group) and educating employees.

Focus on Latin America: Current Situation

México, Panama, DR, Peru, Colombia

- Two Main Types of National Healthcare Systems:
  - Supplemental/Complimentary
  - Double Payment (public & private divorced)
- Annual trends on utilization between 1% - 3%
- Facing demographic and epidemiological challenges
  - Increase of population of 65 years and more!
  - Increase in Life Expectancy!
  - Increase of urban populations!
  - Increase in Education Levels!
  - Increase in Pathologies Related to Environment!

Focus on Latin America: Current Situation
México, Panama, DR, Peru, Colombia

- Payors and Providers Incentives not Aligned
- Provider Monopolies
  - Hospitals, Pharmacies
- Grow of “International Coverage”
  - USA
- Growing Middle and Upper Classes Demanding Fancy “Hotel” Facilities
- Medical Technology Overutilization
- Lack of Industries Common
  - Coding
  - Statistics / Performance Indicators

Focus on Latin America: Actions

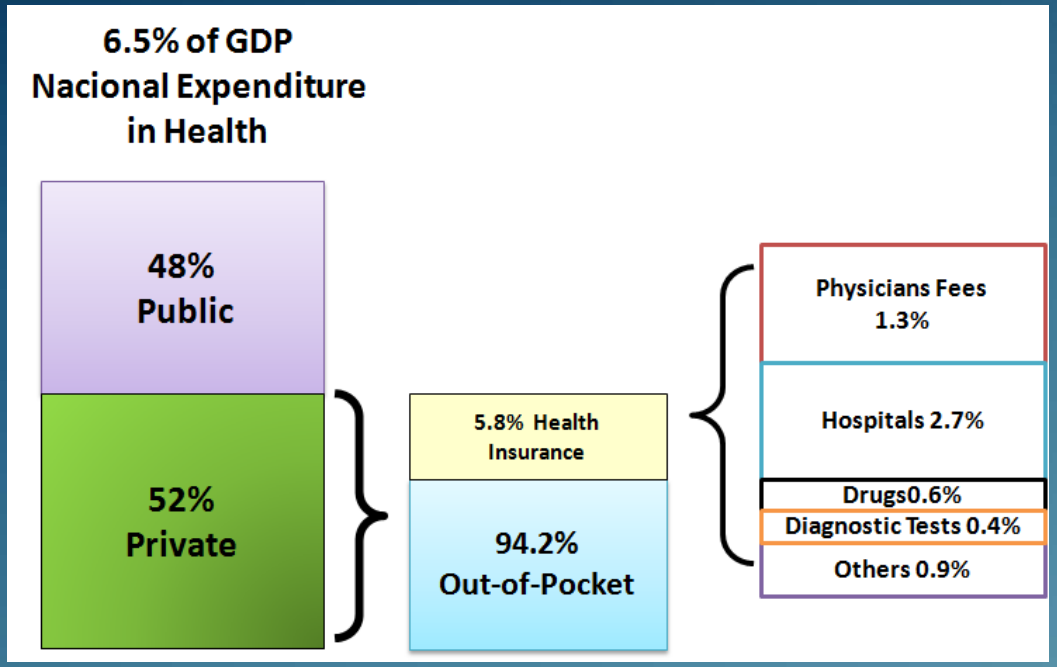
- Provider Networks Strategies:
  - Tiered Networks
  - Fees Schedules
- Differentiated Rating Systems
  - (Preferred, Normal, Subnormal, Rejected)
- Introduction of Cost Containment Strategies:
  - Pre-authorization
  - Concurrent Review
  - Case Management
  - Wellness Programs
  - Provider Arrangements: Discounts .... Per Diem
  - Drugs Formularies
- Reinsurance Contracts and Support

Focus on Latin America: Actions

- Payors / Providers
  - Alliances
  - Joint Ventures
  - Investments
- Grow of Self-insurance Programs
- Increase Insured Cost-sharing
  - Coinsurance/Copayment
  - Deductible
- Product Limitations
  - Maximum Benefit by Coverage
  - Exclusions
  - Waiting Periods

Focus on LA: Mexico - Situation

- National Healthcare System
  - Double Payment (public & private divorced)
- From 6.5% in Health Expenditure from GDP, Private represents 3.38% & PMI represents 0.20%



Source: Ministry of Health/AMIS

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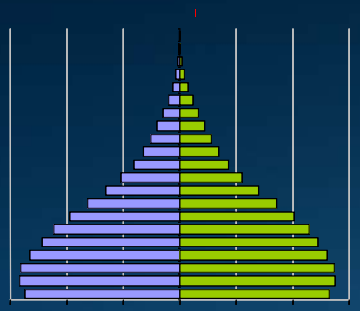
Focus on LA: Mexico - Situation

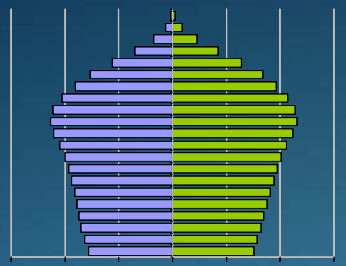
- Mexico Demographic Transition 2000-2050 - Elderly population growing faster ...



2000

Annual Growth Rate

65 years & more: 3.8%
Younger than 5 years: -1.3%



2050

Decrease of Population
0 - 15 years

33.5 million → Decrease of 35 % → 21.7 million

Growth of Population
> 65 years

4.7 millon → Increase of 591 % → 27.8 millon

Source: INEGI, CONAPO

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Focus on LA: Mexico - Situation

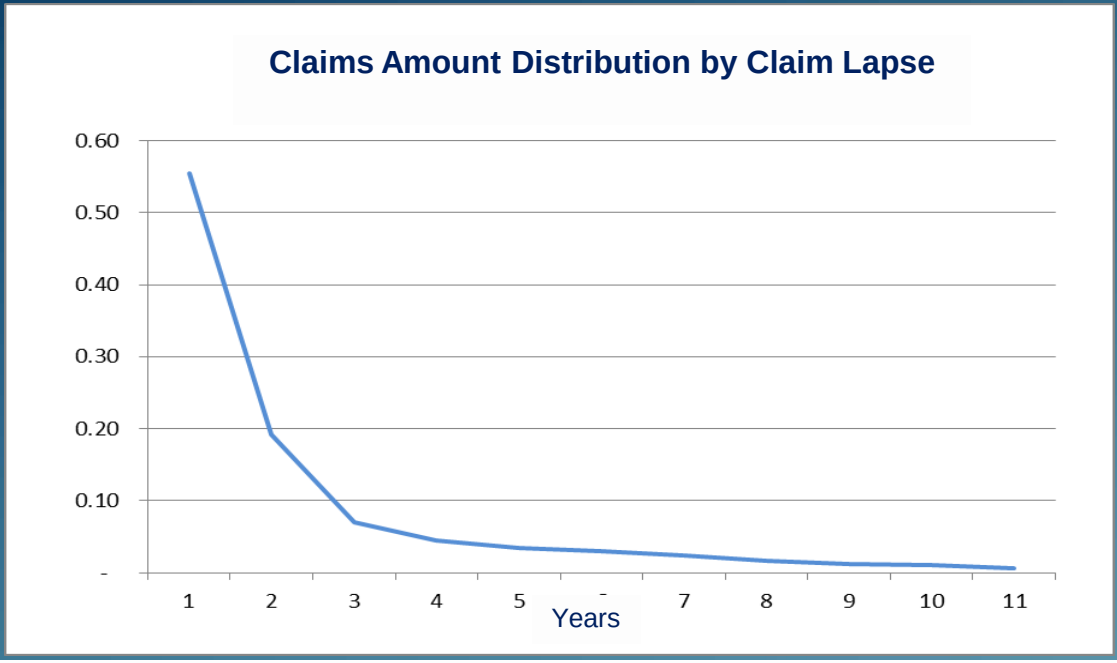
- Annual trends on utilization between 1% - 3%

Utilization Trend Factors 2010	
Concept	Utilización
Inpatient	1.75 - 2.75%
Out-Patient	2 - 3%
Drugs	2.5 - 3.5%
Physicians Fees	2 - 3%
Others	1 - 2%

Source: SSA/ AMIS / Milliman

Focus on LA: Mexico - Situation

- PMI 37% Individual; 63% Collective
- Individual PMI suffering long term claims tails (up to 17 years!)
- Up to 45% of claims came from previous years ...



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Focus on LA: Mexico - Actions

- Not good outcomes, but ...
- Industry Joint Efforts Towards:
  - Agreements with Providers – Hospitals
  - Uniform Coding/Formats
  - Performance Indicators: HCG / Hospital Guidelines
- Cost Control Strategies:
  - Preauthorization
  - Concurrent Review
  - Case Management
  - Provider contract arrangements

Focus on LA: Mexico - Actions

- 100% Indemnity Plans have emerged or been re-launched
  - Critical Illness / Critical Illness “Reloaded”
  - Hospital Cash
- Increasing Insured Cost-sharing
- Reinsurance
- Individual PMI in Deep Crisis ➡ some players have exited!

Focus on North America: What Drives Healthcare Costs?

Type of Service

(e.g., do surgery or treat with drugs?)

Frequency the Service Is Used

(e.g., number of days of hospital stays; follow-up office visits; lab tests)

Charge for Each Service

(negotiated between payor and provider)

The physician usually decides *type* and *frequency* of service.

Puerto Rico Estimated 2010 Healthcare market (premium equivalent)

Segment	Membership (In Thousands)	Dollars (In millions)
Medicaid	1,311	$1,687
Commercial	1,374	$2,662
Medicare Advantage	434	$4,157
Medicare	219	$905
Uninsured	387	$0
Total	3,725	$9,411

Puerto Rico Medicaid (Mi Salud)

- Publicly funded program to provide healthcare services to low income and other needy populations
- Government establishes requirements and subcontracts insurance companies
- Capitation based IPA model is used to provide basic services, including primary care and non catastrophic coverage
- Insurance company (or government) retains risk for catastrophic coverage
- Recent changes in the model aim to facilitate access to specialist services via preferred provider networks

Medicaid IPA Model

IPA / Physicians

IPA Capitation
Basic Services

Payors:

Government

Insurance
Companies

FFS
Catastrophic
Services

Hospitals

Pharmacies

Other Providers

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Mi Salud historical trends

	2001-2002	2004-2005	2010-2011
Premium PMPM	$66.16	$79.63	$112.06
Annualized Trend		6.37%	5.86%
Avg. Enrollment	1,650,282	1,527,142	1,286,446*
Estimated Annual Cost	$1.310b	$1.459b	$1.730b
Annualized Trend		3.66%	2.88%

*** Excludes enrollment in Platino program (Medicare Advantage progam)**

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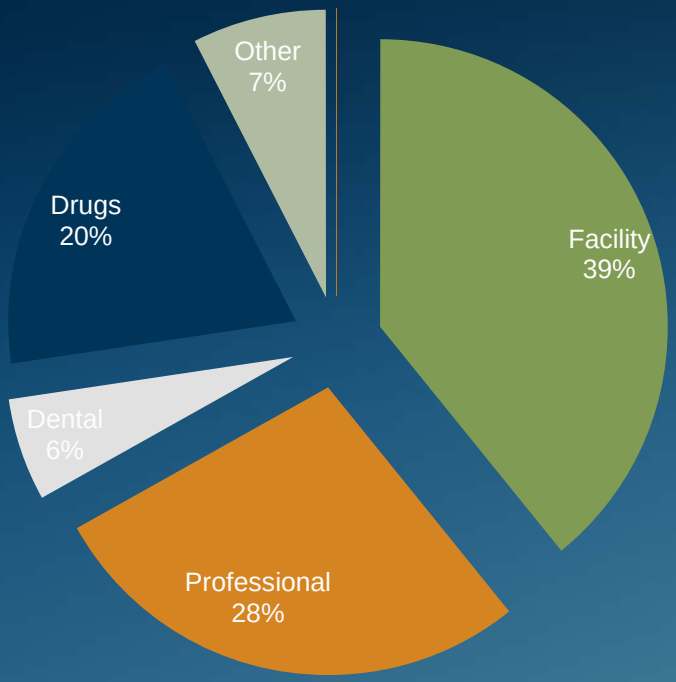
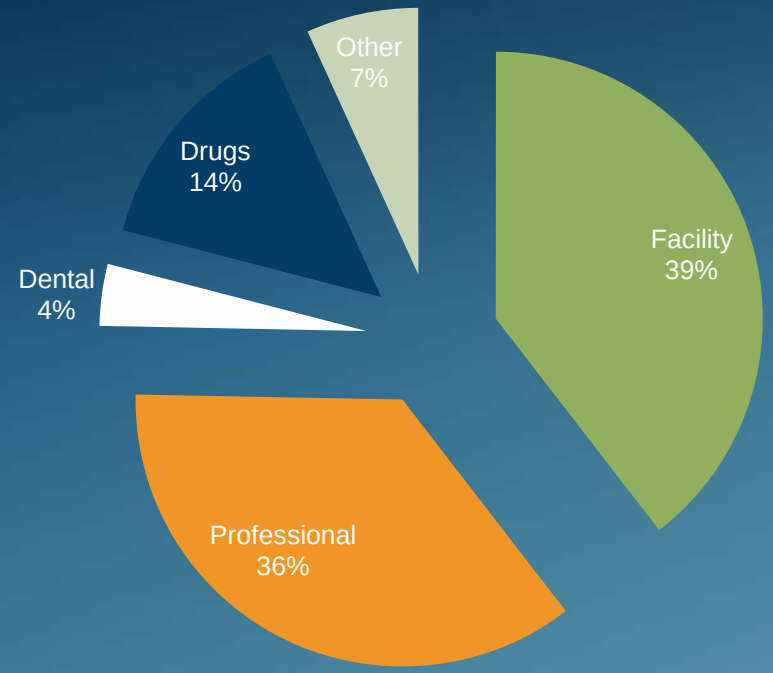
Mi Salud Medical Cost distribution

2004-2005



2010-2011



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Medicaid IPA Model

IPA/Physicians

IPA Capitation
Basic Services

Payors:

Government

Insurance
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FFS
Catastrophic
Services

Hospitals

Pharmacies

Other Providers

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Mi Salud program provisions

Provision	Description	Increase Cost?	Decrease Cost?
Preferred Provider Network	Direct access to specialist (and Rx prescriptions), laboratory and radiology services	PCP's ability to coordinate care is reduced; Utilization and average service charge increase	Appropriate level of care and timely access to services
Emergency Room utilization	Higher cost share for ER visits, extended PCP hours, Telephone triage system and IPA/Insurer risk sharing	Additional cost for triage and PCP extended hours	Insurer and IPA strong incentive to control overutilization
Quality and Prevention Incentives	5% of total premium tied to HEDIS (quality) measures, medical management programs and emergency room targets	Administrative expenses to comply with measures, reporting and reconciling	Mid to long term impact of savings due to timely interventions

Federal reform impact on Mi Salud

- Additional funding of $5.477 billion for 2011-2019
- Expansion of coverage due to changes in eligibility rules
- New program Mi Salud effective October 1, 2010
- Medicare Advantage indirect impact
- Federal requirements related to quality, benefits and infrastructure

US Outlook

- Utilization drivers
- Federal Health Reform

Total Visits to physicians by place of service

	1995	2000	2007	2008
Office Visits	697,082	823,542	994,321	955,969
Annualized trend		3.4%	3.8%	-0.8%
ER Visits	96,545	108,017	116,802	123,761
Annualized trend		2.3%	1.1%	0.8%
Hospital Outpatient	67,232	83,289	88,894	109,889
Annualized trend		4.4%	0.9%	3.1%

Table 93 from National Center for Health Statistics. US Department of Health, 2010

US Inpatient and Prescription utilization

Non Federal Short Stay Hospital Days of Care

	1980	1990	1995	2000	2005	2006	2007
Days of care (per 10,000)	10,018	8,189	6,386	5,577	5,542	5,475	5,404
LOS	7.5	6.4	5.4	4.9	4.8	4.8	n/a
Annualized trend		-2.0%	-4.9%	-2.7%	-0.1%	-1.2%	-1.3%

Prescription Drugs

% of use in the past month	1988-1994	2005-2008
One prescription drug	39.1%	47.2%
three or more drugs	11.8%	20.8%

Table 99 & from National Center for Health Statistics. US Department of Health, 2010

US Healthcare Reform Major Components

- Expands coverage to 32 million additional people* (95% insured)
- Insurance market reforms & State insurance exchanges
- Individual mandate and employer requirements
- Medicare Advantage payment based on fee-for-service rates
- Medicare Part D coverage improvements
- Improving quality and health system performance
- Wellness and prevention

➢ Cost of $940 billion over 10 years*

➢ Reduce deficit by $124 billion over 10 years*

* Summary of Health Reform Law (http://www.kff.org/healthreform/upload/8061.pdf)

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US: Main Provisions Affecting Providers[1]

- Key Delivery System Reform: Align provider incentives to improve care coordination and quality and reduce cost
  - Value-based purchasing for hospitals
  - Pilot projects for Medicare bundled payments
  - Pilot projects for Accountable Care Organizations (ACOs)
  - Financial penalties (e.g., for “excessive” readmissions)
  - Center for Medicare and Medicaid Innovation to test innovative payment and service delivery models

- Medicare and Medicaid Payment Changes
  - Additional payments to primary care physicians
  - Independent Payment Advisory Board
  - Reduced payment updates (hospitals $155b over 10 years)
  - Decrease in disproportionate share (DSH) hospital payments
  - Financial penalties

1. From American Hospital Association Legislative Advisory April 19, 2010

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Conclusions

- Inpatient admissions trends relatively low in most places compared with outpatient trends:
  - In absence of increased demand, would be negative
  - Was negative in lots of countries pre-recession, but selective lapsing had an impact in some markets
  - Outpatient and day case trends drive costs in most markets:
    - Insurers with UM programmes focus on moving things to DC or OP setting
      - Often better quality, but
      - Not always cheaper!
    - Insurer focus on IP unit costs has lead to hospital recouping income through OP/DC higher utilisation and charges

Conclusions

- Most parts of world still relying on high member cost-sharing to control utilisation rather than tackling quality/over-utilisation issue
- Much easier, but short term solution, which stores up problems for future
  - Reduces value of cover
  - Must increase each year to keep pace with trend
  - Does nothing to mitigate underlying utilisation trend
- Much bigger challenge is to tackle “disquality” and incentives for over-utilisation from providers
  - Smart risk-sharing agreements (must be appropriate split of risk)
  - Member & provider education
  - Information and analysis is critical

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Question & Answer Session

- We are happy to answer your questions.

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