

A MILLIMAN GLOBAL FIRM



Milliman Asia

Consultants and Actuaries

Finding the Balance in Healthcare

Joint HKU-HKTDC Conference on
Exporting Hong Kong's Medical and Health Services

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Overview

- About Milliman
- Overview of a holistic approach to healthcare consulting
 - Clinical
 - Management / operations
 - Financial



About Milliman

- Milliman Asia is a wholly owned subsidiary of Milliman USA
- Milliman USA is acknowledged as the leading healthcare consulting firm of its kind in the USA
- Combine clinical, financial, and actuarial knowledge in providing solutions to financiers and providers of care
- Over 50 years in the business

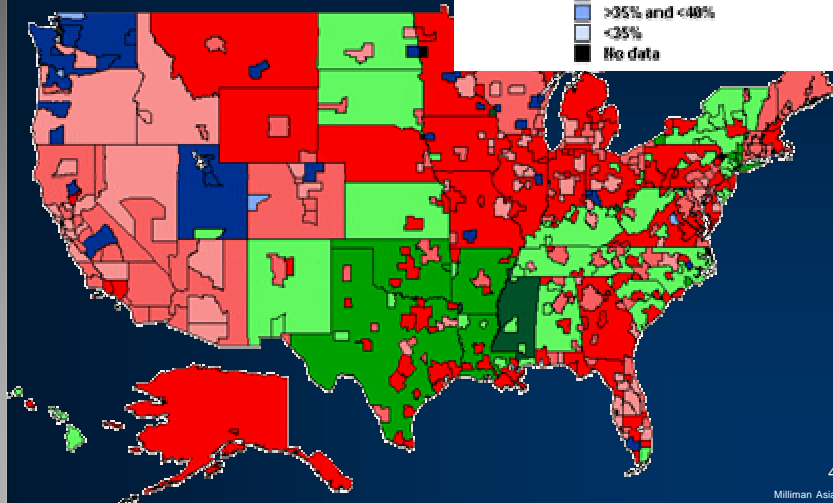
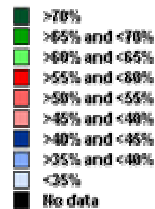


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Milliman constructed this map using hospital discharge data

Medicare Hospital Efficiency Index™
1998 Percent of Potentially Avoidable Days



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Average Experience of Well and Loosely Managed US Health Plans – Commercial and Medicare Private Plans

	Inpatient Days/1000		No. of cases / 1000		Avg. Length of Stay	
	Well	Loose	Well	Loose	Well	Loose
Inpatient						
Medical	84.2	223.5	26.4	45.9	3.1	4.3
Surgical	58.3	131.3	14.4	22.5	3.6	5.1
Psychiatric	6.6	25.7	1.5	3.4	4.3	7.5
Alcohol & Drug Abuse	3.1	15.5	0.8	1.9	3.9	8.4
Maternity Deliveries	16.7	26.4	10.7	10.7	1.4	2.3
Maternity Non-Deliveries	1.1	2.7	0.6	1.1	1.6	2.3
Total	170.0	425.2	54.5	85.5	3.1	5.0
Skilled Nursing Facility	72.2	116.5				
Home Care	165.9	276.5				
Grand Total	408.2	818.2				



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ALOS by Diagnoses

Condition	ORG	Optimal LOS	DRG	Well Managed ALOS	Loosely Managed ALOS
Simple Pneumonia	M-272	2	89	3.57	4.95
Total Hip Arthroplasty	S-560	3 (post-op)	209	3.55	5.08
All Admissions			All	2.70	3.98

ORG = Organ Related Group
ALOS = average length of stay



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Measuring Efficiency Through Chart Reviews

- Milliman doctors and nurses have reviewed over 50,000 inpatient and outpatient medical charts in USA, Australia, and New Zealand
- Review how care could have been more efficiently delivered
 - Use Milliman Care Guidelines as reference where appropriate



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Example of Care Guidelines

Hip: Arthroplasty (Total)

HSIM: 01-09-10-01

ORG: S-560

CPT-4: 27130, 27132, 27134, 27137, 27138

ICD-9: 81.51, 81.53

ICD-9: 711.05, 714.0, 715.15, 715.25, 715.35, 716.15, 733.42

Care Management: Coordinate Care & Anticipate Needs

1. *Preoperative:* Conduct patient education, assessment of home care capabilities and needs, Home safety assessment, medical evaluation of surgical risk factors, upper body strengthening, walker or crutch training, and collection of autologous blood. Encourage patient to establish good oral hygiene before surgery. Assess potential need for recovery facility stay following surgery and begin planning process.

2. *Hospital:* Monitor daily progress; coordinate multiple professional caregivers as appropriate; facilitate collaborative decision-making about home care or recovery facility. Ensure appropriate pain management, rest, and cognitive orientation to reduce the risk of postoperative delirium and cognitive impairment. Home healthcare is preferred for the majority of patients if medical conditions have stabilized and patients are ambulatory with an assistive device. Recovery facility may be used for patients with complex acute or potentially unstable medical problems, a debilitated and/or deconditioned state, or lack of an adequate home caregiver. Acute and subacute rehabilitation are rarely indicated for this procedure.



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Example of Care Guidelines, Cont'd

Hospitalization

Day 1: Operating room. Parenteral fluid, medication, and antibiotics. Parenteral or oral analgesia. Anticoagulation.

Day 2: Parenteral fluid, medication, and antibiotics. Physical therapy for transfer training and gait training with crutches or walker. Diet as tolerated.

Day 3: Discontinue IV. Parenteral or oral medication. Physical therapy. Regular diet.

Day 4: Afebrile. Oral medication, regular diet. Physical therapy stand-by. Discharge with home health, as needed, and physical therapy for gait training with crutches or walker.

Goal Length-of-Stay: 3 days postoperative

Note: When a slower recovery is anticipated, patients may be transferred to a skilled nursing facility on day 3 to continue physical therapy for gait training with crutches or walker.



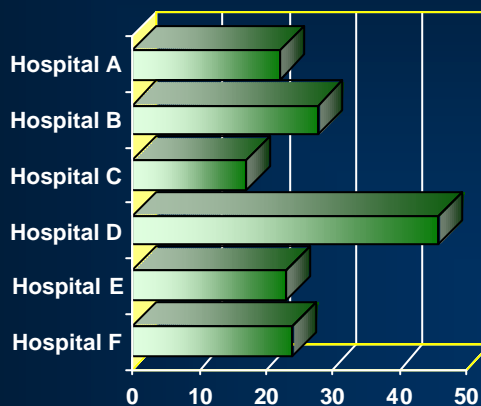
Details available at www.mnr.com

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Chart Review Results From a Specific Assignment

Potentially avoidable days (%)

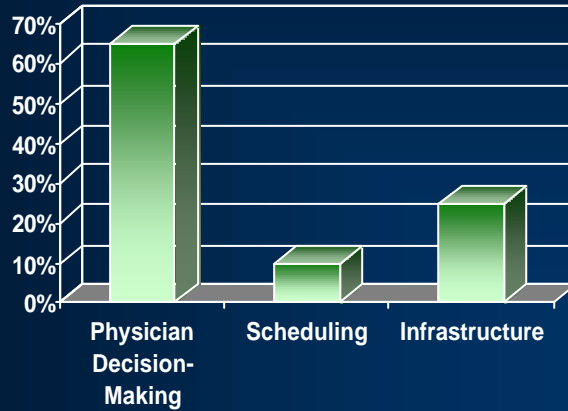


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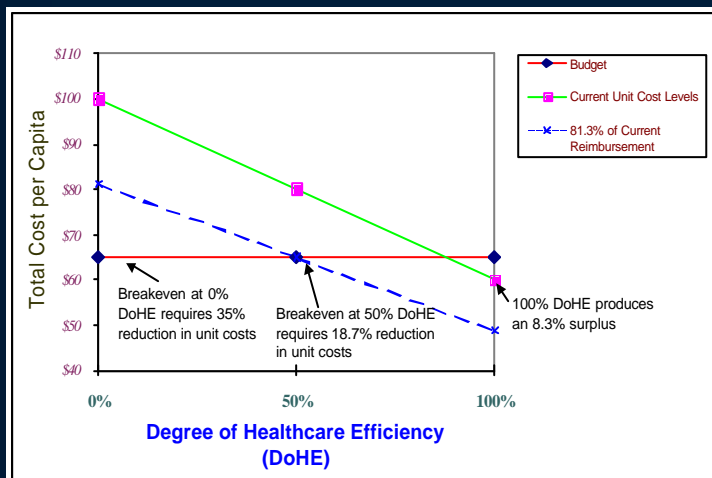
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Chart Review Results From a Specific Assignment

Reasons for delays in discharge



Budget, Efficiency, Unit Costs



Conclusion

- Hong Kong has an abundance of expertise in each of these areas:
 - Clinical
 - Management / operations
 - Financial
- Success in exporting services likely to increase if the right mix of skills are harnessed and packaged

