

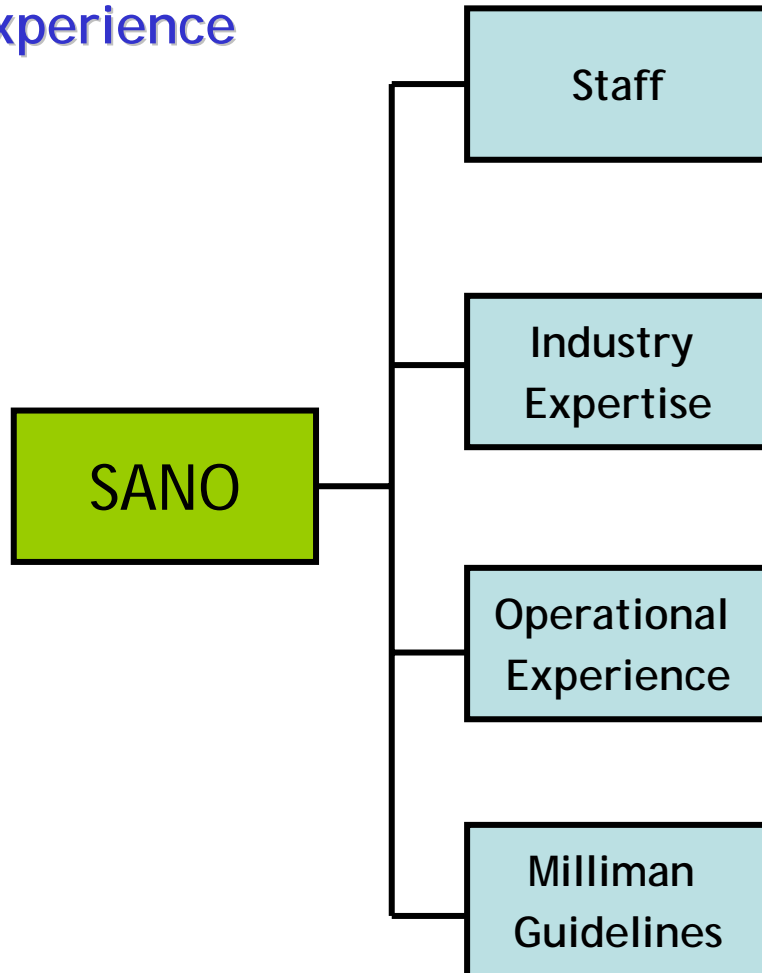
## Utilising international evidence based best practice guidelines to reduce demand for outpatient services

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## SANO Experience



- Multi-disciplinary teams including doctors, nurses, physiotherapists
- Broad based commercial management and management consultancy expertise

- Private and Public Hospitals
- Health Funds
- Workers Compensation
- Health Services & HITH
- Chronic disease management

- Clinical efficiency reviews
- Implementation of evidence based clinical pathways
- Development of integrated delivery systems
- Hospital Efficiency Benchmarking
- Hospital resource allocation reviews

- Australia and New Zealand distributor for Milliman Care guidelines©

- ❑ Our approach focuses primarily on improving clinical efficiency. We use best practice evidence to standardise care focusing primarily on the achievement of clinical milestones and improvements in clinical processes
  - ❑ We have been successful in implementing change programs using extensive high level medical evidence to support our recommendations, the Milliman Care Guidelines©
  - ❑ Our approach has yielded significant improvements in clinical care and enabled hospitals to reduce length of stay, reduce avoidable admissions, improve quality of care, improve nursing productivity while reducing medico-legal risk, in both public and private hospitals. This has been achieved without significant investment in new clinical systems or infrastructure
  - ❑ How could this be implemented in outpatients?
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# 5 strategies for reducing demand in OPD

**Shift service focus**  
To primary care

**Provide joint care**  
Nursing & other care providers

**Shift treatment**  
Recruit GPs with special interests

**Change behaviour**  
Structured referral

**Transfer care**  
GP chronic disease management

Using the guidelines, our Consultants have worked with over 30 hospitals\* in both the private and public health systems, typically finding on average around 35% avoidable days and admissions

## Clinical Efficiency Reviews

DRG	Hospital Type	# Hospital Reviews	Ave. Avoidable Days (%)
Hip Arthroplasty	Private/Public	15	35%
Knee Arthroplasty	Private/Public	14	32%
Coronary Bypass	Private	3	33%
Abdominal Hysterectomy	Private/Public	4	31%
Vaginal Hysterectomy	Private	4	35%
Cholecystectomy	Private/Public	3	40%
Mastectomy	Private	3	39%
Radical Prostatectomy	Private	4	32%
Pneumonia	Private / Public	4	49%
TIA	Public	3	70%
General Medical	Private / Public	5	48%
TURP	Private / Public	6	29%
Chest pain	Private / Public	3	48%
Colorectal surgery	Private	3	38%
Congestive Heart Failure	Private / Public	5	42%

Note: \*82% of the hospitals observed in these examples had clinical pathways for each DRG listed

## Best Practice Implementation of Clinical Pathways

### Observed use of Clinical Pathways

- Promote variation in care due to VMO preferences - Eminence based
- Describe average practice - a practice which promotes avoidable days
- Lead to the need to replicate documentation
- Increase medico-legal risk (inconsistencies develop due to multiple locations to record)
- Inclusion based
- Provide no feedback on clinical efficiency to hospital management
- Provide no basis for promoting change for health professionals

### Optimal Clinical Pathways

- Reduce variation in care due to evidenced based standardisation of care
- Describe best practice - optimal achievement of clinical milestones leads to identification of avoidable days
- Replace progress notes, improving productivity
- Decrease medico-legal risk (one location for record keeping)
- Exception based
- Provide real-time feedback on clinical efficiency to hospital management
- Provide evidence basis for promoting change to existing practices for health professionals

## Quantifying the Impact of Efficiency Gains II

### Additional Procedure Potential (Perfect Management)

DRG Description	3 Month Separations	Total Bed Days	% Avoidable Days	Total Avoidable Days	Goal LOS (Identified in review)	Potential Additional Procedures/ Admissions
# NOF's	139	1682	41%	690	4.70	147
Hip Replacement - cc	106	783	30%	235	4.90	48
TIA	137	228	49%	112	1.40	80
<b>Total</b>	<b>382</b>	<b>2693</b>		<b>925</b>		<b>277</b>


### Additional Procedure Potential (Achieving 20% Avoidable Days/Admissions)

DRG Description	3 Month Separations	Total Bed Days	% Avoidable Days	Total Avoidable Days	Goal LOS (Identified in review)	Potential Additional Procedures/ Admissions
# NOF's	139	1682	21%	353	4.70	75
Hip Replacement - cc	106	783	10%	78	4.90	16
TIA	137	228	29%	66	1.40	47
<b>Total</b>	<b>382</b>	<b>2693</b>		<b>498</b>		<b>138</b>

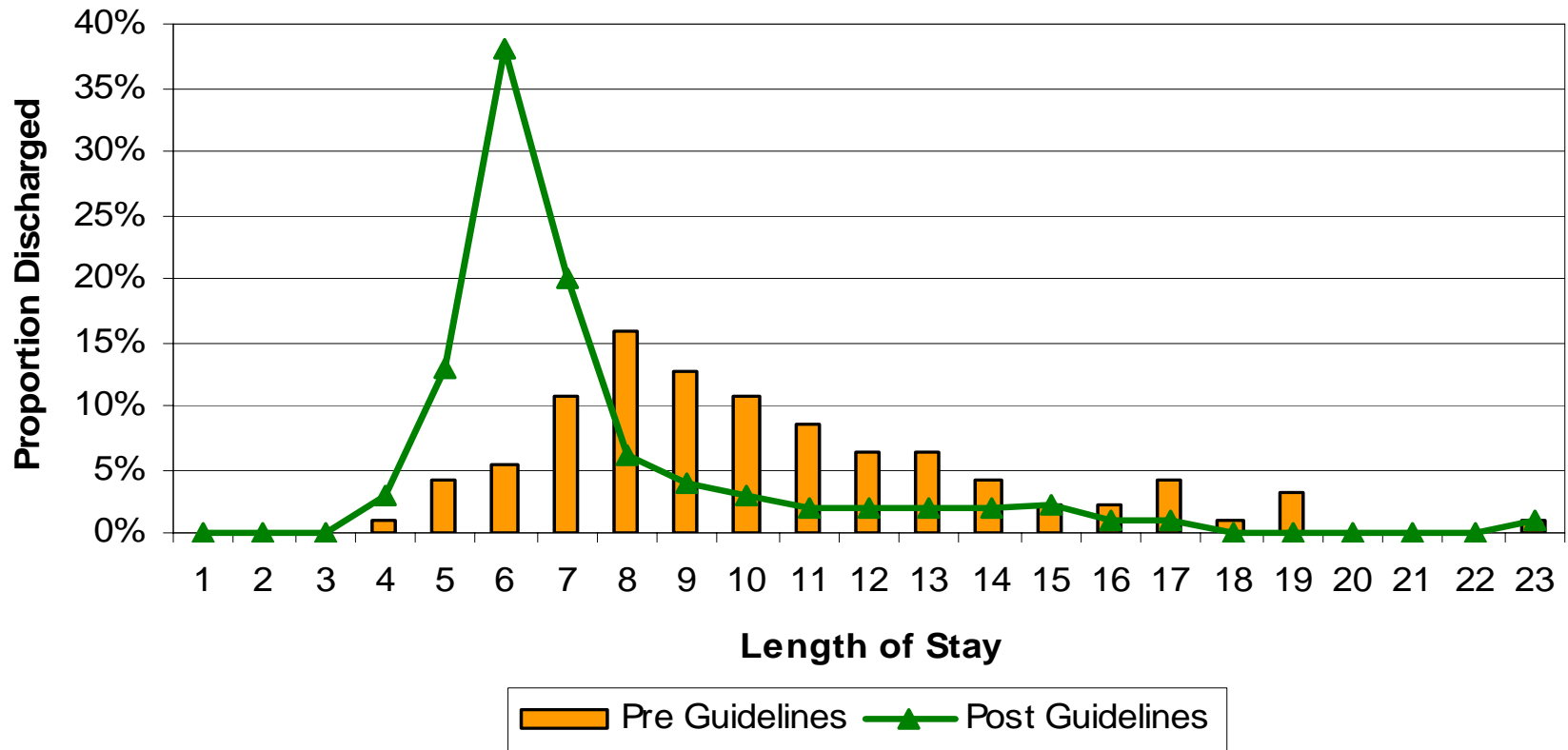
36%



## Mater Health Services Results

- ❑ First hospital to pioneer Milliman Care Guidelines (evidence based) in Australia as a model of care
  - ❑ The primary goal was to ascertain whether a model of care based on evidence and best practice guidelines would improve both the efficiency and effectiveness of clinical outcomes
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- ❑ Improved patient outcomes / satisfaction
  - ❑ 90% of patients contacted at pre admission
  - ❑ Nursing documentation decreased 44 %
  - ❑ Variance recording increased to 100%
  - ❑ Reduction in ALOS:
    - ❑ TKR decreased 17%
    - ❑ THR decreased 27%
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## Reduction in Length of Stay



\*NB: QLD THR ALOS = 13.95 days MHS THR ALOS = 6.2 days

## Patient Pathway to Care

### Knee Arthritis Example



- Milliman guidelines describe optimum management of Knee OA

- Diagnosis
- Physical findings
- **Diagnostic testing**
- **Imaging**
- **Treatment**
  - Prevention and lifestyle
  - Medical and Pharma
  - Medical / non-pharma
  - Behavioural

- Clinical indications for referral
  - Physiotherapy
  - Rheumatologist
  - Ortho surgeon
- Decision algorithms can be built to reduce unnecessary referral to OPD or to ensure appropriate investigations, tests and treatments have been prescribed prior to referral

- Patient presents having had optimum non surgical management of OA
- Patient presents with all appropriate investigations and tests
- Clinical indications for surgery or invasive treatments have been met
- Clinical indications for Alternatives to procedure are considered

- The Guidelines describe Clinical indications for knee joint procedures
- Decision algorithm for management by surgery or referral back to community for surgery alternatives

- Inpatient and surgical Guidelines for joint replacement describe:
  - Optimal hospitalisation course and expected LOS
  - Case management
  - Discharge destination
  - Referral to care in the community/HITH
  - Quality measures

## Patient Pathway to Care: Referral guideline

### Knee Arthritis Example

#### Physiotherapist

PT or other community resource for education and exercise training, such as supervised walking for **ANY ONE** of the following:

- Loss of joint mobility
- Muscle weakness
- Weight Loss

#### Rheumatologist

Rheumatologist for **ANY ONE** of the following:

- Failure of conservative treatment **AND ANY ONE** of the following
  - Increasing functional limitation
  - Decreasing ROM
- Evidence of inflammatory Arthritis

#### Orthopaedic surgeon

Orthopaedic surgeon when **ALL** of the following are present

- Failure of conservative treatment
- Increasing functional limitation
- Decreasing ROM

## The Milliman Care Guidelines

### Organisation

- Milliman Care Guidelines LLC
- Developer of evidence-based clinical guidelines
- First guidelines in 1984
- Eleven editions of the *Care Guidelines* have been released
- Over 60 employees

### U.S Market Penetration

- Guidelines support the care management of more than one in three Americans
- Clients include nine of eleven largest MCOs\*
- Over 600 healthcare organizations as clients, including
  - Over 100 physician groups or networks -- an increase of 250% in past 1.5 years
  - Over 250 hospitals -- increase of 90% in past 1.5 years
- The 2006 Milliman Care Guidelines license renewal rate was 98.5%

### Continuous Development

- Structured review of medical literature by in-house *Care Guidelines* faculty
  - >100,000 articles retrieved and reviewed per annum
- Analysis of large databases by epidemiologists
- Extensive input regarding best practices from clinicians, healthcare organisations, and consultants
- Internal editorial review
- External expert review
- Internal peer review

### Attributes

- Focus on major clinical decisions
- Qualitative and quantitative
- Describe best practice, not average or minimally acceptable
- Functionality
  - Concise, Actionable, Repeatable, Measurable
  - Accessible (Integrated into workflow)
- Updated frequently
- Evidence displayed
- Recently bought by BUPA in the UK and amended to "Queens English"
- Gaining increasing acceptance within the Australian Medical community

## Patient Pathway to Care: Inpatient admission pathway; Knee Arthroplasty

### Knee Arthritis Example

#### Clinical Indications for Procedure

Procedure may be indicated for **ANY ONE** of the following:

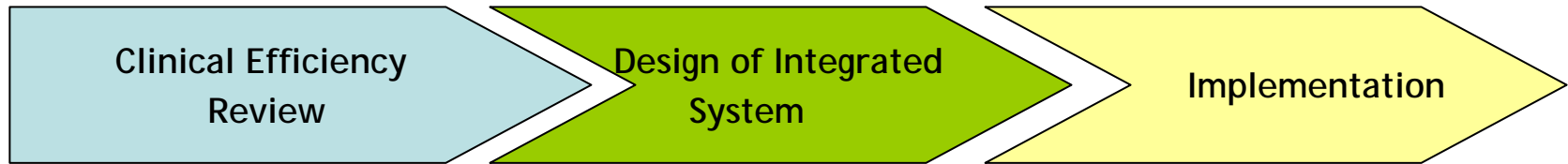
- Primary TKA may be indicated for **ANY ONE** of the following
  - Advanced joint disease **ALL** of the following being present:
    - Radiological evidence, including knee joint destruction, angular deformity or severe narrowing
    - Replacement need due to **ANY ONE** of: disabling pain or functional limitation
  - Failure of optimal medical management and more conservative procedures
- Failure of a previous proximal tibial or distal femoral osteotomy
- Post traumatic knee joint destruction
- Revision procedure for a failed prior reconstruction procedure

#### Alternatives to procedure

Alternatives include:

- Optimal medical management which may include:
  - Anti inflammatory medication
  - Analgesics
  - Flexibility and muscle strengthen
  - Physical therapy
  - Reasonable restriction of activities
  - Cane or crutch use
  - Weigh reduction
- Arthroscopy with or without debridement
- Osteotomy
- Uni condylar arthroplasty
- Arthrodesis
- Intraarticular steroids

## General Approach



### Methodology

- Select Medical conditions for review
- Identify & quantify avoidable presentations and avoidable admissions by comparing current practice with guidelines
- Identify causes for inefficiencies and system bottlenecks across the Pathway to Care
- Determine methodology to realise opportunities identified

- Identify enablers and constraints to implementing guidelines
- Customise guidelines according to human and capital resource constraints across the Pathway to Care including GP protocols, admission protocols and system change
- Design components on the integrated delivery system

- Identify 'quick wins'
- Consult with key stakeholders and assign tasks and responsibilities
- Develop materials and conduct training with stakeholders across the pathway to care utilising guidelines and management reporting protocols
- Launch pilot project
- Refine processes iteratively to suit each unique environment
- Expand integrated delivery capability

### Outputs

- Quantified opportunity including cost benefit analysis
- Determine methodology and recommendations to realise opportunities

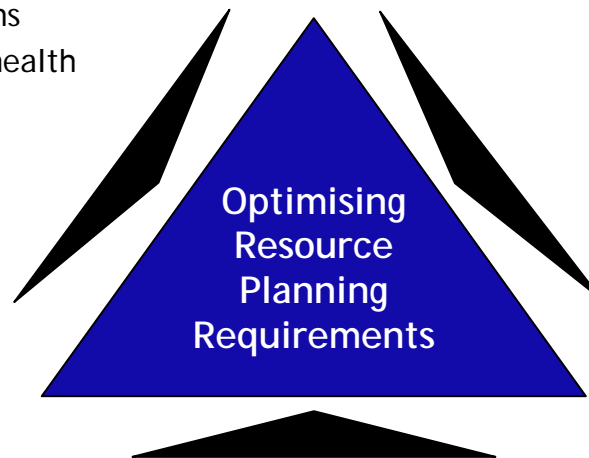
- Identification of resource requirements
- Completed pilot 'roll out' plan

- Complete implementation
- Identified KPI's for on-going review process (variance analysis and balanced scorecarding)

## Hospital Planning Process

### SUPPLY DRIVERS

- Number of surgeons/physicians
- Number of nurses and allied health
- Access to technology
- Access to post acute services
- Access to theatre
- Access to wards through ED
- # Beds available
- Specialist preferences
- Clinical Processes
- Supporting Infrastructure



### DEMAND DRIVERS

- Population Demographics
  - Ageing population
  - Incidence of diseases
- Types of procedures required
- Impact of preventative/substitutive health programs
- Advances in technology
- Access to beds

### OUTPATIENT EFFICIENCY DRIVERS

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Appropriateness of care in the community</li> <li>• Appropriateness of referrals to OPD</li> <li>• Use of technology</li> <li>• Access to care in the community</li> <li>• Discharge protocols</li> </ul> | <ul style="list-style-type: none"> <li>• Clinical Processes                             <ul style="list-style-type: none"> <li>- Pre-Admission risk streaming</li> <li>- Discharge Planning in line with clinical outcomes</li> <li>- Hospital in the home</li> <li>- 23 hour ward</li> </ul> </li> </ul> |
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## Questions

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