

# Mission based budgeting of an Academic Medical Centre within Singapore's Healthcare Financing Framework

Research  
Clinical Care  
Education

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# Principles of Singapore Health Funding

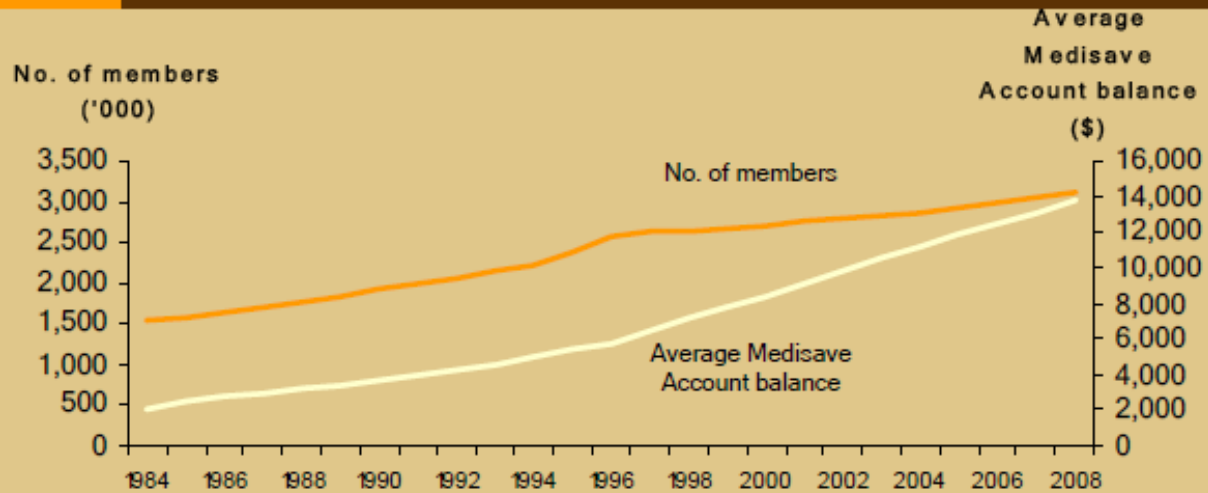
- Co-payment for healthcare
- Choice
- Sustainability & affordability
- Subsidies targeted at segments of population with greatest needs

# Pillars of Healthcare Funding

- Medisave
  - Every employee contributes 6.5-9% (depending on age group) of monthly salary to personal Medisave account
  - Introduced 1984
- Medishield
- Medifund

**Chart 1**

**Medisave Scheme**



**Table 1**

**Medisave Minimum Sum and Medisave Contribution Ceiling Schedule**

Period	Medisave Minimum Sum	Medisave Contribution Ceiling	Period	Medisave Minimum Sum	Medisave Contribution Ceiling
From 1 Apr 1984	\$5,000	-	From 1 Apr 1997	\$15,000	\$20,000
From 1 Apr 1985	\$5,500	-	From 1 Jul 1998	\$16,000	\$21,000
From 1 Apr 1986	\$6,000	\$15,000	From 1 Jul 1999	\$17,000	\$22,000
From 1 Apr 1987	\$6,500	\$15,000	From 1 Jul 2000	\$19,000	\$24,000
From 1 Apr 1988	\$7,000	\$15,000	From 1 Jul 2001	\$21,000	\$26,000
From 1 Apr 1989	\$7,500	\$15,000	From 1 Jul 2002	\$23,000	\$28,000
From 1 Apr 1990	\$8,000	\$15,000	From 1 Jul 2003	\$25,000	\$30,000
From 1 Apr 1991	\$9,000	\$15,000	From 1 Jul 2004	\$25,500	\$30,500
From 1 Apr 1992	\$10,000	\$15,000	From 1 Jul 2005	\$27,500	\$32,500
From 1 Apr 1993	\$11,000	\$16,000	From 1 Jul 2006	\$28,000	\$33,000
From 1 Apr 1994	\$12,000	\$17,000	From 1 Jul 2007	\$28,500	\$33,500
From 1 Apr 1995	\$13,000	\$18,000	From 1 Jul 2008	\$29,500	\$34,500
From 1 Apr 1996	\$14,000	\$19,000			

# Pillars of Healthcare Funding

- Medisave
- Medishield
  - Low cost catastrophic medical insurance
  - Risk-pooled financial risks of major illnesses
  - Individual responsibility through deductibles and co-payment
  - Eldershield (severe disability insurance)
    - Available for subscription to risk-pool against suffering a severe disability.
- Medifund

# Pillars of Healthcare Funding

- Medisave
- Medishield
- Medifund
  - Medical endowment funded by government\*\*
  - Ultimate safety net for needy Singaporean patients who cannot afford to pay their medical bills

# Funding for Patient Care

- Outpatient care
  - Volume based with funding caps
- Inpatient care
  - Casemix for acute hospital care and day surgery

# Funding for Acute Care Hospitals' Inpatient Care

- Prior to 1999
  - Volume based
- 1999
  - Started to study Casemix as model
- Post 1999
  - Casemix for most DRGs (one-line adjusted yearly)
  - Balance DRGs semi-block and piece rate



- “Semi-block” Funded group
  - 62 DRGs
- Work-load funded conditions (9)
  - Lens Procedures W/O Vitrectomy & W/O CC
  - Anal & Stomal Procedures W/O CC
  - Inguinal & Femoral Hernia Procedures Age>9
  - Cholecystectomy W/O C.D.E.
  - Hip Replacement W/O CC
  - Other Major Joint & Limb Reattachment Procs W/O CC
  - Caesarean Delivery W/O Complicating Diagnosis
  - Vaginal Delivery W/O Complicating Diagnosis

# Examples in Semi-Block Funding

- DRG 38
  - Encephalopathy
  - Other non specified brain conditions
  - Other CNS disorders
  - SAH
  - ICH
  - SDH
  - Cerebral thrombosis with or without infarct
  - Cerebral embolism with or without infarct
  - Cerebral artery occlusion with or without infarct
  - Non-ruptured cerebral aneurysm
  - Transient global amnesia
  - Aphasia

# Actual vs Allocated for “Semi-Block”

- A block funding amount allocated for these 62 DRGs
- Actual workload based amount on pure piece rates for the 62 DRGs is then computed (Actual).
- If actual > allocated, RHs get to keep the block funding plus 10% of excess. [Allocated + 10%(Actual-Allocated)]
- If actual < allocated, hospitals return 20% of the difference i.e. funding amount [Actual – 20%(Allocated-Actual)]

# Some Principles

- Subsidy Piece Rate is based on the patient class
  - Rate differs from Class B1 to C to differentiate the different level of subsidy for the various patient classes
- Subsidy piece rates adjusted for inflation year on year (% determined by MOH)
- Cost Weight differs for each DRG
  - To account for the acuity and complexity of each DRG

# Casemix Impact

- Funding tool
- Hospitals much more cost conscious\*\*
  - “Certainty” for component of OPEX
- Allows inter hospital comparisons of cost-efficiency (input/output)
- Better defines cost of care across multiple departments

# Comment

- Without outcome data and proper performance metrics, Casemix funding has advantages in resource allocation and cost efficiency
- It does allow for higher funding to institutions with greater acuity (or complexity) caseloads

# Issues

- Inter hospital comparisons of cost-efficiency (input/output)
  - Hospitals not always homogenous
- Cost consciousness
  - Avoidance of higher cost, higher acuity conditions
  - Shortened stays – deferring care to other sectors

# Funding for Education

- Principal computation based on student intake numbers
- Monies paid as a block to Universities
- Faculties receive flow down one-line budget
  - Manpower component
  - Other operating expenditure
  - Overheads managed centrally before flow down



# Tripartite Mission of an Academic Medical Centre

- Patient care excellence
  - Usually tertiary and quaternary
- Education of future and current health professionals
- Research that is patient centred and translational

**Our success will be determined by the achievement of strategic alignment across the 3 missions**

- Interdependent components
- Education and research serve as links

# Start State

## Hospital Funding

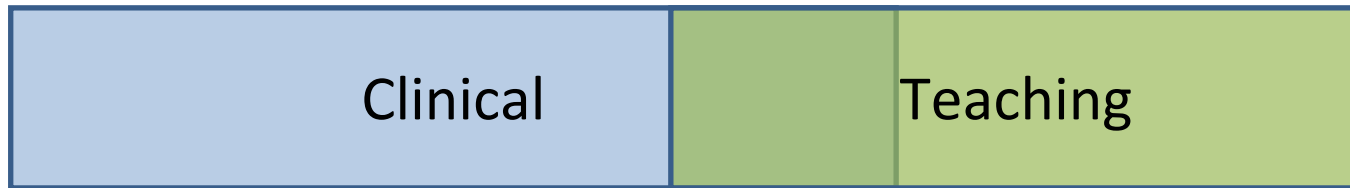
- Government subsidy based on efficient expected workload
- Patient co-payment for care
  - Including Medishield
- Subsidies for healthcare training
- Smaller scale 3<sup>rd</sup> party research funding

## Faculty Funding

- Mission based funding for education
- Central control for overheads
- Seed funding for research
- Competitive 3<sup>rd</sup> party funding of significant research
- Endowments

# Integration for Planning

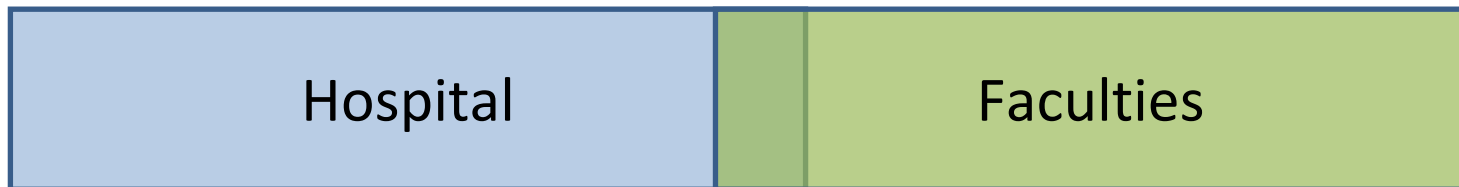
Manpower Funding



Research Funding



Infrastructure



- First step
- But this is not yet strategic budgeting

# Strategic Budgeting

- Beyond funding silos
- Beyond visibility of funds
- Not about “control” over funds
  - Utilising funds for strategic opportunities across mission silos

# Budget derived from Strategic Plan & Intent

- Strategic Planning sets the direction and priorities
- Budget the means to deliver
  - The Strategic Plan is implemented by linkage to the budget and determining priorities

Alignment across tripartite mission

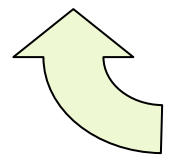
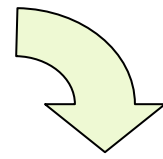
Strategic Planning

Desired AMC Outcome

Budget Development

Monitoring/  
Maintenance

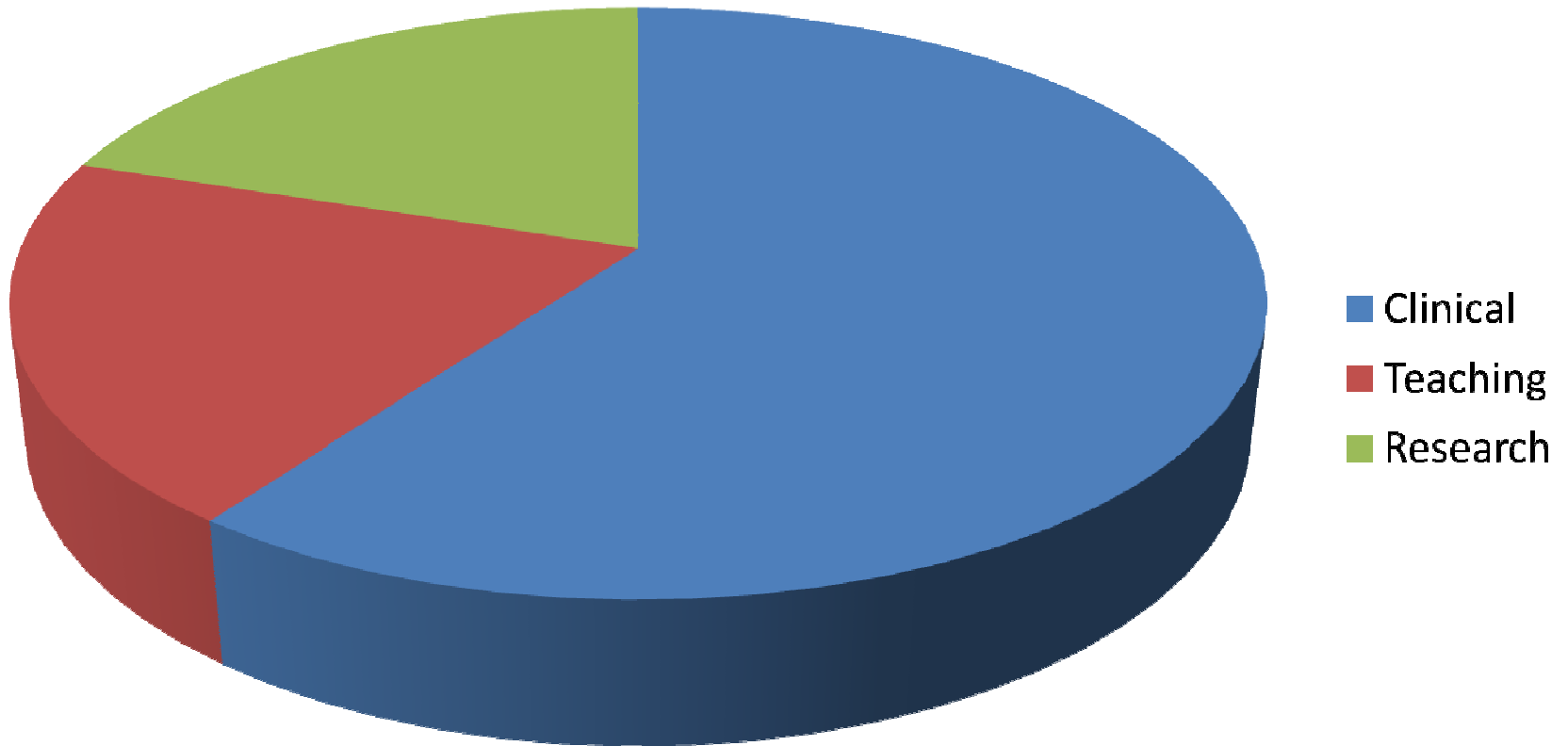
Performance measurement/metrics





# Budget to Strategy

**\$ Value**



# Conclusions

- Casemix needs to be adjusted for acuity as well as complexity
  - AMC mission will be at risk
  - Push to do more work with better margins
- Research funding needs to come with overheads costing
- Teaching impact needs to be costed (and properly funded)