The Changing Face of Healthcare
The Asia Pacific (Singapore) Story

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Wave #1: Rapid Growth In Population
Wave #2: Rapid Ageing of The Population
Wave #3: Increasing Burden Of Chronic Diseases
Vulnerable Groups e.g. “Legacy Old”

Challenges
Changing Demographics and Impact on Demand for Healthcare Services

- Elderly patients generally require longer stays and seek acute care services more frequently
- Account for 9% of population but 40.5% of total inpatient-days
- Compounded by falling birth rates, leading to an increasing dependency ratio

(1980) Population 2.4 million
(2010) Population 5.1 million

Youth base narrows as fertility rate declines

From Mortality to Morbidity

Death Rates Per 100,000 Among Residents Aged 35 to 64

Source: Ministry of Health

> 50% of total Disability-Adjusted Life-Years (DALYs) due to living with ill health or disability (YLD)
Healthcare Cost

Medical Advances

New Drugs
New Technologies

Ageing Population

Increased Incidence of Chronic Illnesses

Better Detection

Serious Illness
Better Survival Rates

Pressure on Healthcare Costs

Triple Aim – Singapore version

Better Health
Wellness Centric
Aim is health not healthcare

To Live Long, Live Well and with Peace of Mind

Better Care
From Episodic ('snapshot') to Longitudinal, “Whole System” approach to measuring and managing quality

Better Value
From Cost to Cost-effectiveness
Life-Cycle Approach

Asymptomatic Stage
- Before Onset of Disease
- General health promotion
- Educational interventions
- Health Screening

Symptomatic Stage
- Screening for Hypertension and cardiovascular disease
- Treatment
- Other prevention of Stroke

Adjustment Phase
- Care by Family Physician
- Home care and rehab
- Stabilising functional condition
- Intervention to mitigate further disability
- Prevention of recurrent stroke
- Improve quality of life

Functional Recovery
- Multidisciplinary rehab
- Starts in acute care
- Continues in CH

Functional Decline
- Acute care
- Treat co-morbidities

Prevention | Disease Stage | Recovery

Measurement at the Macro, Meso and Micro Level to support change management
Person Based Outcomes

Outcomes should be measured along multiple dimensions, including survival, ability to function, duration of care, discomfort and complications and the sustainability of recovery.

Phases of Rehabilitation

- **Acute Care**: Lasts days to weeks
- **Active Rehabilitation**: Lasts weeks to months
- **Maintenance Activities**: Lasts months to years

Creating a health promoting ecosystem

- **Community Development Councils**
- **Citizens’ Consultative Committees**
- **Other Grassroots Organisations**

Community Ecosystem

- **Residents within the Community**
- **Healthcare Amenities** (e.g., polyclinics, GPs, hospitals)
- **Community Amenities** (e.g., Community Clubs, faith-based orgs)
- **Sports/Recreational Amenities** (e.g., sports halls, parks)
- **Consumer Amenities** (e.g., shopping malls, food courts)
- **Educational/Child Care Amenities** (e.g., schools, child care centres)
- **Other Amenities** (e.g., workplaces)

Enablers used to influence members of the ecosystem and impact the health of the community

- **Capacity Building**
- **Empowerment & Education**
- **Supportive Environments**
- **Policies & Guidelines**

Enablers to influence members of the ecosystem by proactively engaging members of the ecosystem

- **Champion, own and drive health promoting activities**
Health Promoting Ecosystem

40 Years & Older

Recommended Screening Tests
- Diabetes
- High blood pressure
- Lipid disorders
- Obesity
- Breast cancer
- Cervical cancer
- Colorectal cancer

Settings
- Community
  - Screening Providers
  - Primary Care (GPs) / Polyclinics
- Workplace
  - Company Doctors
  - Screening Providers

Supportive Environment for Follow-Up
- Medical Follow-Up
- Community interventions
- Workplace Targeted Intervention

Follow-up
- Screening Database
- CDMP Database

1. Subsidised screening & Follow-up
2. Data collection - central system
3. Quality Assurance & Capacity Building
4. Monitoring & Evaluation

* Reference: Screening Tests Review Committee’s Recommendations, 2011

Creating Social Movements

From Bystander to Activists

Creating a Critical Mass
Army of 10,000 Health Ambassadors
Not only physical health.....Mental health too

Network of care and support systems to improve access, reduce stigmatisation and enable integrated community living for patients

General community-based mental health services
- Specialist-Led Assessment & Shared Care Team (ASCAT)
- Allied Health-Led Community Mental Health Intervention Team (COMIT)

Dementia services

Patient & Caregiver

Develop psychiatric long term care facilities

New Care Model Needed to for Better Quality Care

Hospital centric model is not sustainable

- Need to integrate care for patients to be cared for in the most appropriate setting and move seamlessly across care settings
Redefining Role of the Hospital

Transforming Care: From Silos to Systems

From Institution to Population Based Care

Patient education & empowerment
IT Infrastructure
Manpower capability and capacity
Well Frail elderly
Invest for greatest impact

Value Based Service Planning

| EVIDENCE MATRIX OF INTERVENTIONS FOR MANAGEMENT OF STROKE (Focus on Acute Care) |
|---------------------------------|------------------|-----------------|----------------|----------------|----------------|----------------|----------------|
| **Intervention**                | **Decreased Mortality at 1 yr. of follow-up** | **Improved Functional Outcome** | **Decreased Recurrent Stroke** | **Decreased Complications** | **Decreased Length of Stay** | **Decreased Stroke Mortality** | **Decreased Depression** | **Cost Effectiveness** |
| Acute Stroke Service            | 1                | 2               | N/A            | N/A            | N/A            | N/A            | N/A            | 3, 4           |
| Stroke Unit* vs Alternative Service* | 2               | 1               | N/A            | N/A            | N/A            | N/A            | N/A            | 28 weeks: 55 3 years: 5 |
| Early Specialist Assessment for TIA | N/A             | N/A            | N/A            | N/A            | N/A            | N/A            | N/A            | 5              |

**Legend:**
- CR: Cost Ratio
- **GPR**: Greater than 3.0
- **Difference**: $< 1.0$
- **Cost Effective**: $< 1.0$
- **No Cost Effective**

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Enabling Key Sectors

* A multi-pronged approach to transform primary care to enhance chronic disease management in the community

- **Better support**
  - Team-based care for better outcomes

- **Better linkages**
  - Closer collaboration between GPs and other providers
  - National IT system that includes GPs

- **Transforming Primary Care**
  - Enabling infrastructure to support chronic disease management

- **Increase delivery options**
  - Portable Subsidies
  - Start up support
Enabled by Dynamic Information Management System - Provider

- Enable adherence with best practice
- Reduce duplication
- Enhance safety
- Evaluation and outcome measurement

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Enabled by Dynamic Information Management System - Patients

- NEHR
- EMR

Health Management Unit

Personal Health Manager

Telehealth

IT strategy

- Improve tracking of patient issues
- Reduce frequency of visitation

Enable better patient self health management

Better Outcomes

Better Integration

Optimise Resource Utilisation

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THANK YOU