



A Framework and Working Model for Integration of Care : Bridging gaps between tertiary, secondary and primary care settings

Global Health Leadership Forum

17th – 21st September 2012

Dr Jason Cheah, CEO

Agency for Integrated Care (AIC)

Singapore

www.aic.sg

- Introduction – the impetus for system change and transformation
- Healthcare Models & Frameworks
- Overseas Models of Care Integration
- Singapore's Healthcare System
- Care Integration as a Solution
- Singapore's Care Integration Efforts
- Challenges and Moving Forward

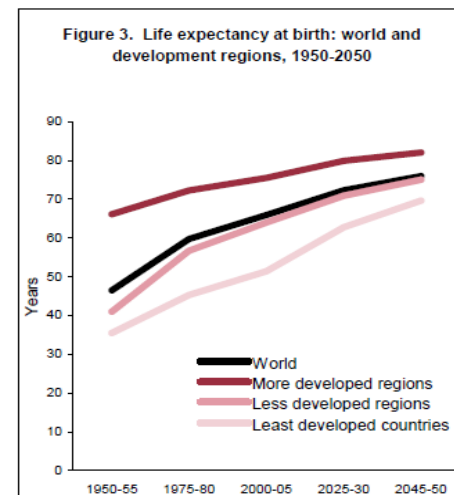
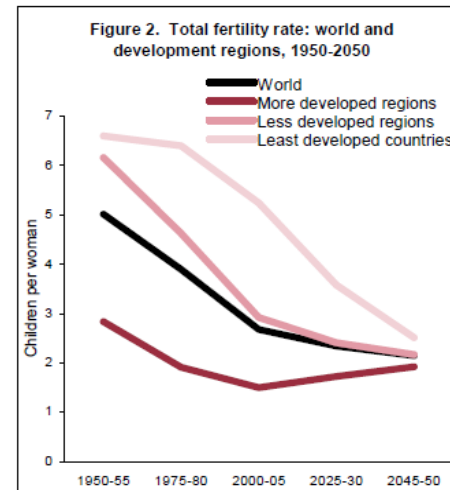
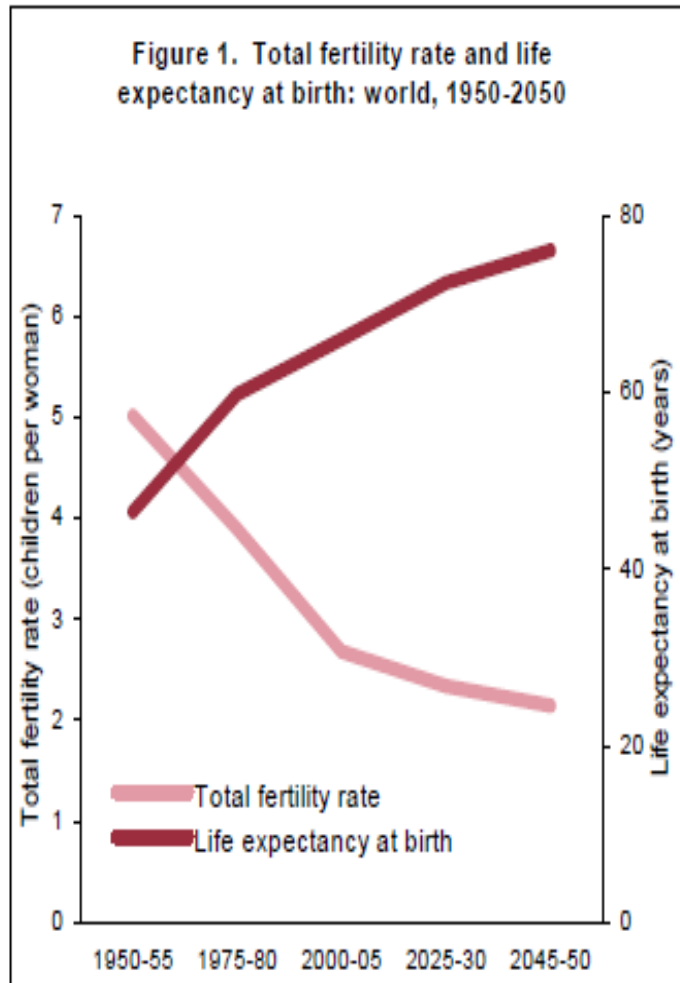
A Greying World

- ❖ Medical advancement and higher standard of living have led to an increase in average lifespan
- ❖ The incidence of chronic disease increases in tandem



Greying Population – a Worldwide Phenomenon

Decreasing Fertility Rate + Increasing Life Expectancy = Ageing Population



**In Singapore, we are not
spared...**



Coping with a rapidly ageing population

Mr Jason Cheah, says doctors and policymakers have a singular focus on "curative care" to rid patients of illness, leading to an "over-reliance" on hospitals and a relative neglect of institutions focusing on long-term care.

The population ageing rapidly, more people are remaining sick longer. In acute care hospitals, a bed around \$900 a day, is becoming expensive.

"We can't keep them in acute care forever, the pressure is on to move them to the long-term care sector," says Dr Cheah.

The 190-strong AIC team's key role is to streamline referrals for those needing long-term care. Although short-term care and bodies, the agency is valued for helping families care for the frail elderly at home, with community home help and respite services.

With a team of 60 "care coordinators" to follow up on long-term care needs, a patient is discharged from hospital, care coordinators refer patients who



430 to 480 a month; those for nursing services have jumped from 400 a month in 2008 to nearly 400 a month now.

Referrals to nursing homes, while, have dropped, with more patients being referred to community services.

Ms Kan Hong Qing, an AIC care coordinator from National University, has been helping organise care for patient Mohd Juana Nan, 44, who has been left mute and paralysed on one side.

Three months after the stroke, the 44-year-old officer was discharged from hospital in February this year, but his wife, Laila Samsiah Saifi, 50, frantically sought a nursing home for him.

As she did so, she left him alone at home. He has problems on their living room floor. It was easier to turn him around, but he got bed-sores. But things improved after he was moved to the nursing home. Kan visited the couple's three-room flat in late April.

Ms Kan suggested that the family wait helplessly for a nursing home. Samsiah should look for a hospital-style bed that she could use at home. Fortunately, a relative had a bed which she gave to them.

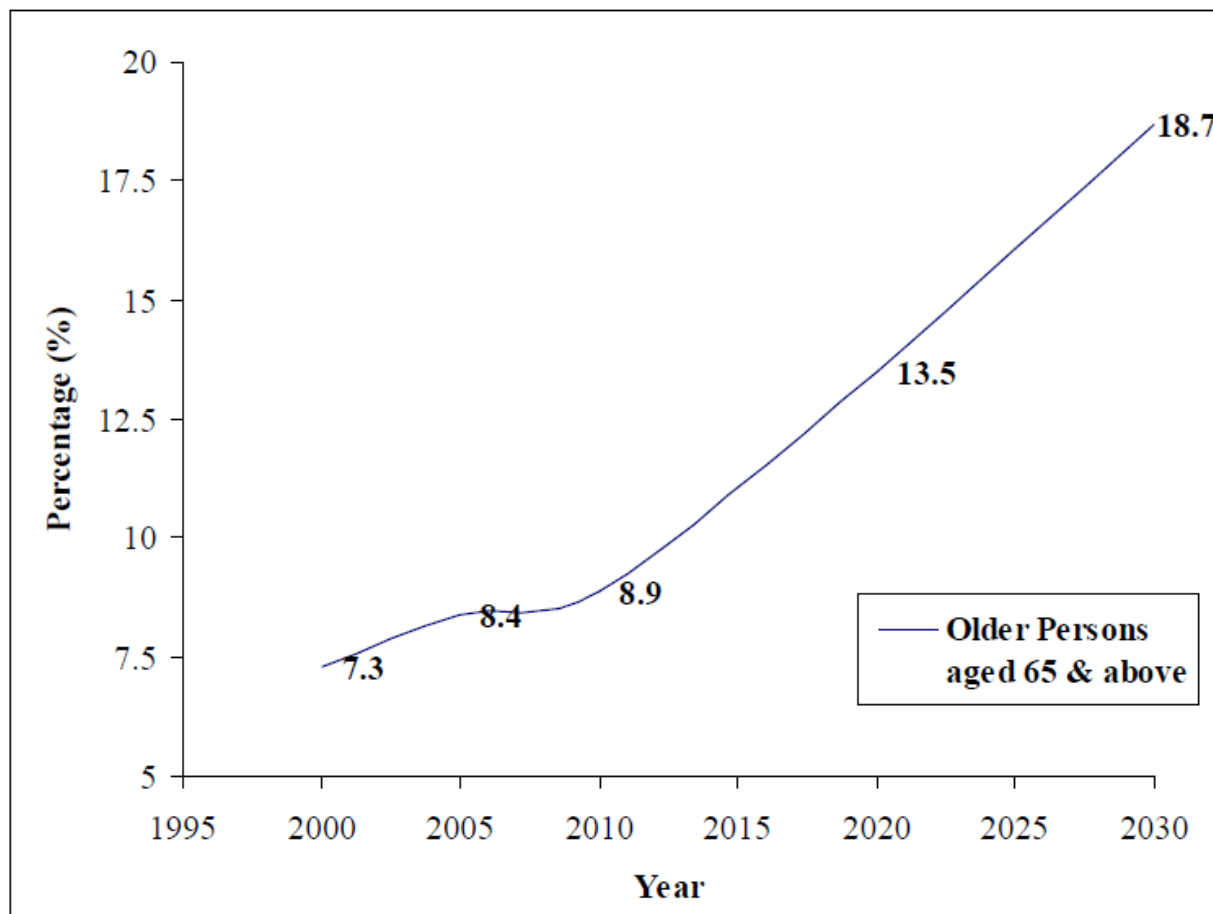
"It has made turning him

“...with the population ageing rapidly, more people are remaining sick longer. Keeping them in acute care hospitals, which can cost around \$900 a day, is becoming too expensive.”

**Special Reports –
Silver Crunch
Straits Times 13
Nov 2010**

Ageing Population → Increasing Healthcare Demand

Chart 1.1: Proportion of Resident Population⁶ Aged 65 & Over From 2000 – 2030



“

What does it mean when we say our population will be older? It means there will be more demand on healthcare because older people are sick more often... this also means it is a different pattern of healthcare

*PM Lee Hsien Loong,
National Day Rally
2009*

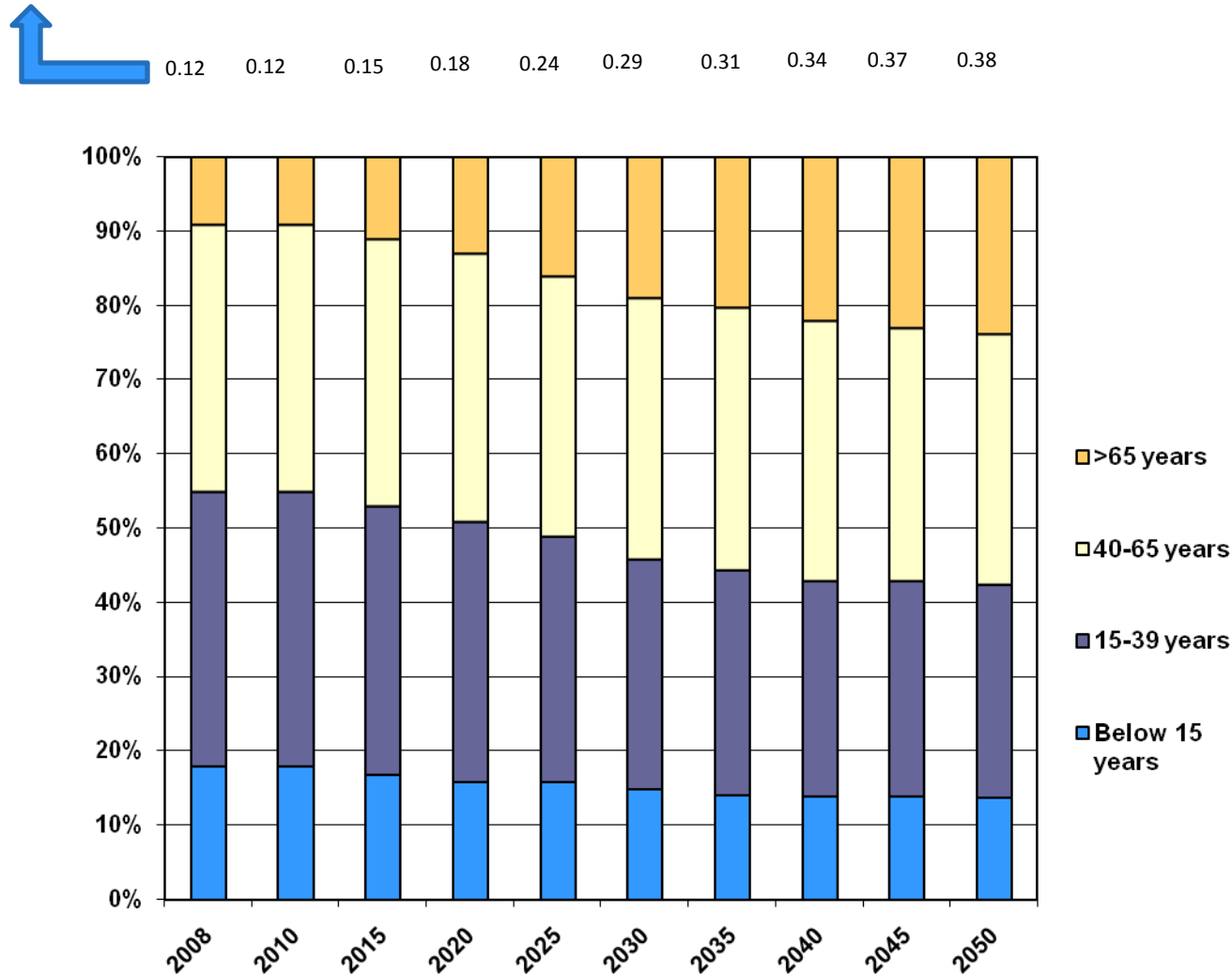
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Source: Singapore Department of Statistics (DOS), 2005

Source: Ministry of Health

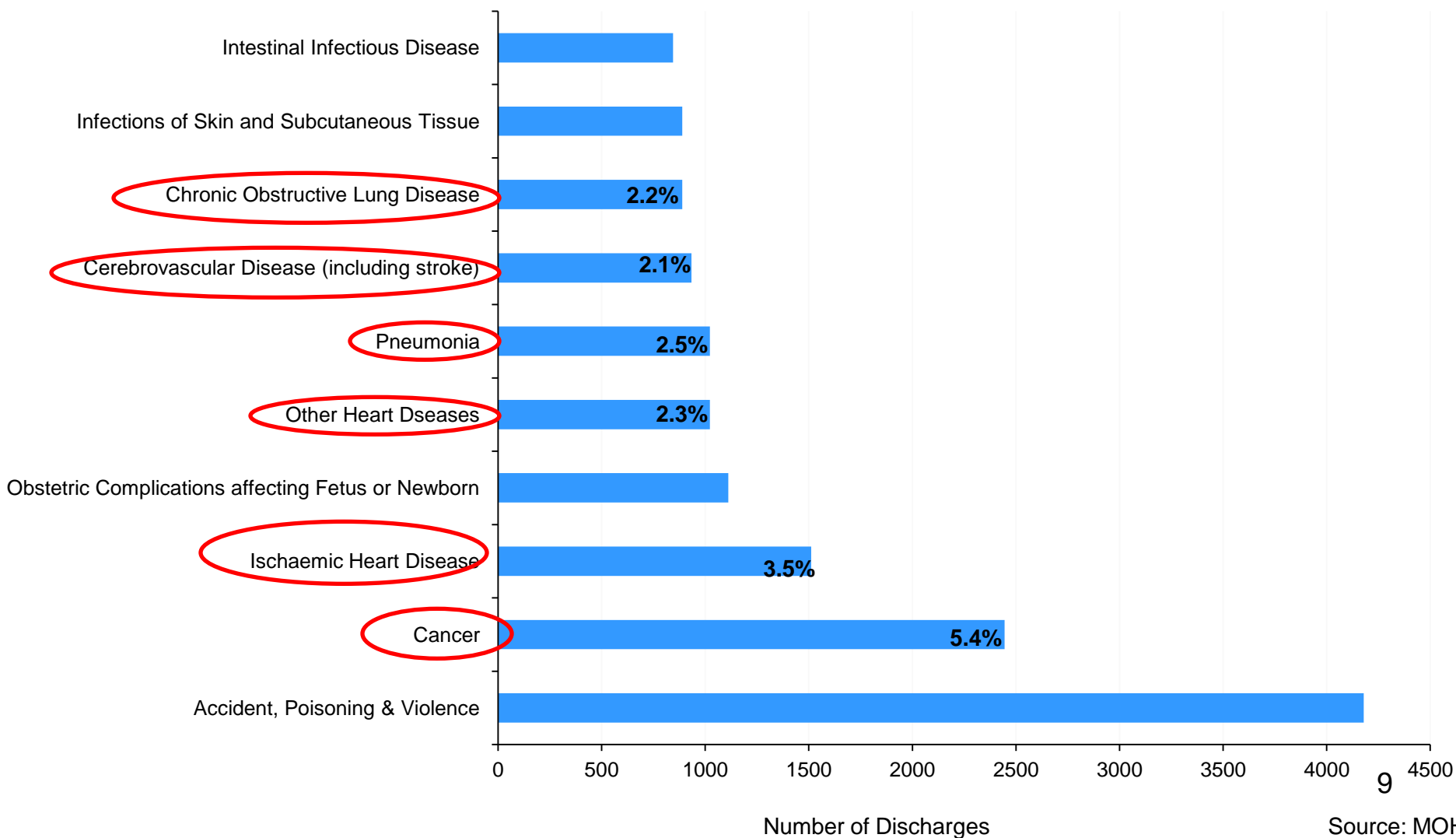
Increasing Reliance on Institutional Support

Increasing Aged Dependency Ratio due to smaller family sizes



Increasing Prevalence of Chronic Diseases

Top 10 Conditions of Hospitalization



Caring for the Elderly – A Complex Task

Financial Issues

Caregiver Issues

Ageism

Multiple providers



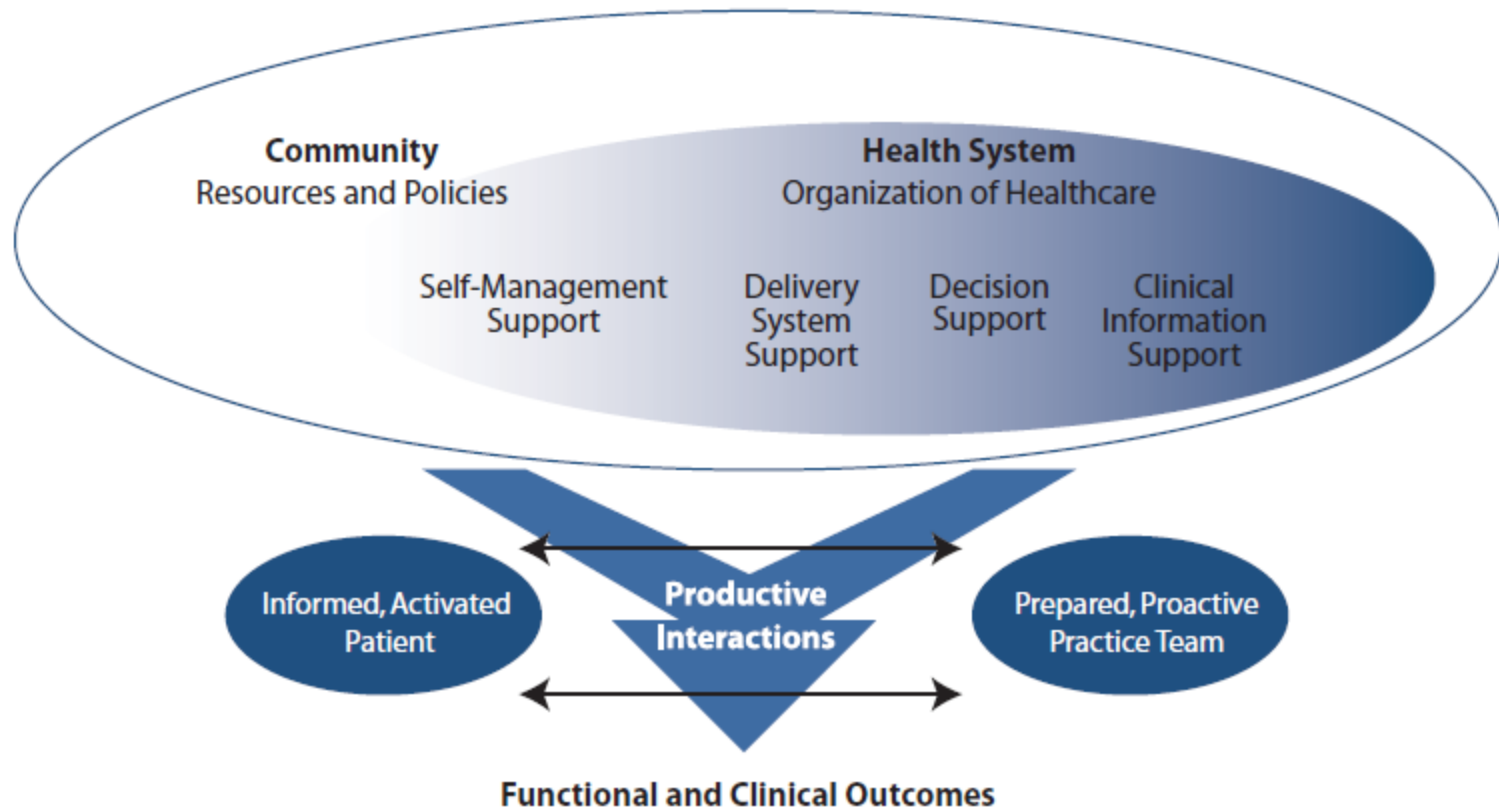
Multiple Chronic Diseases

Polypharmacy

Handicaps/Disabilities

Multiple Social Issues

Chronic Care Model (Wagner)



Chronic Care Model (Wagner)



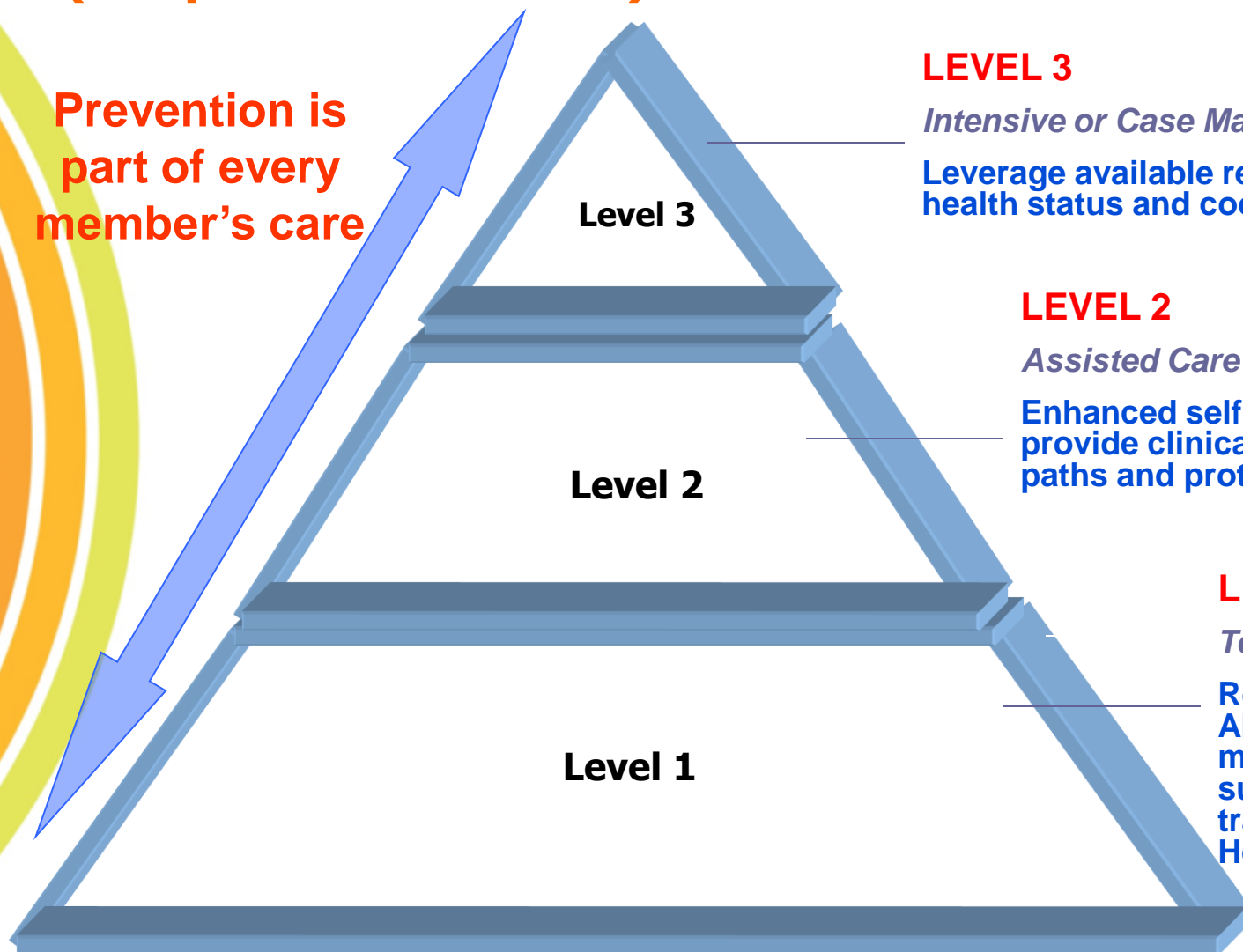
MODEL COMPONENTS		EXAMPLES
Health System - Organization of Healthcare	Program planning that includes measurable goals for better care of chronic illness	<ul style="list-style-type: none">• Visible support of improvements provided by senior leadership• Incentives for care providers
Self-Management Support	Emphasis on the importance of the central role that patients have in managing their own care	<ul style="list-style-type: none">• Educational resources, skills training and psychosocial support provided to patients to assist them in managing their care
Decision Support	Integration of evidence based guidelines into daily clinical practice	<ul style="list-style-type: none">• Wide dissemination of practice guidelines• Education and specialist support provided to healthcare team
Delivery System Design	Focus on teamwork and an expanded scope of practice for team members to support chronic care	<ul style="list-style-type: none">• Planned visits and sustained follow-up• Clearly define roles of healthcare team
Clinical Information Systems	Developing information systems based on patient populations to provide relevant client data	<ul style="list-style-type: none">• Surveillance system that provides alerts recall and follow-up information• Identification of relevant patient subgroups requiring proactive care
Community Resources and Policies	Developing partnerships with community organizations that support and meet patients' needs	<ul style="list-style-type: none">• Identify effective programs and encourage appropriate participation• Referral to relevant community-based services

Population Management

(adapted from Kaiser)



Prevention is
part of every
member's care



LEVEL 3

Intensive or Case Management

Leverage available resources to optimize health status and coordination of care.

LEVEL 2

Assisted Care or Care Management

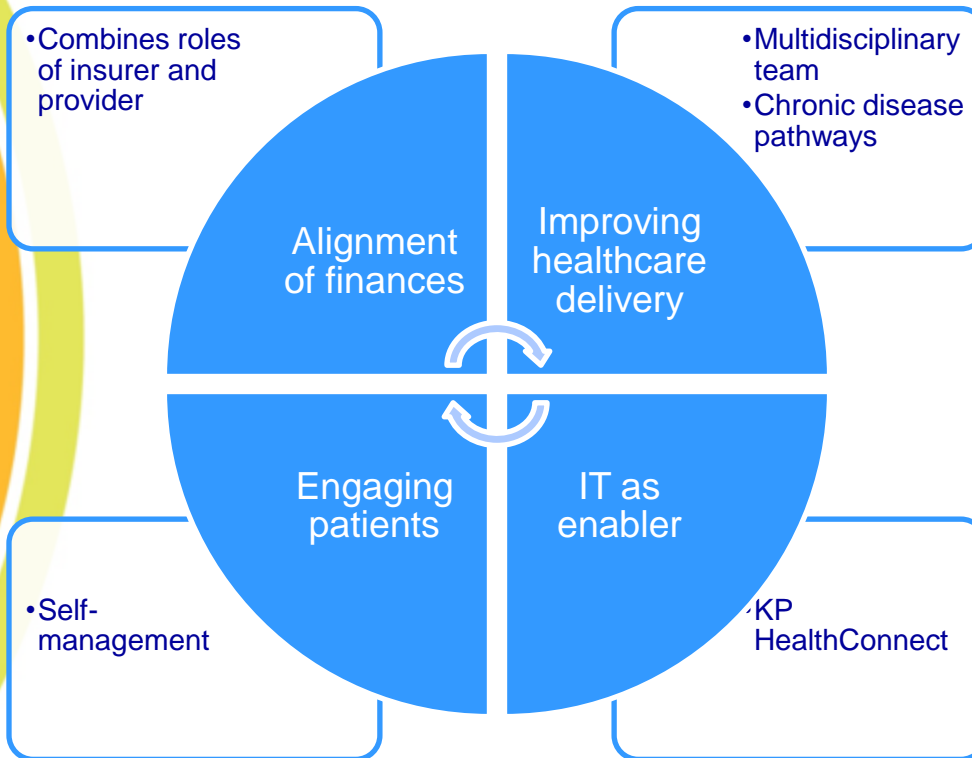
Enhanced self-care skills and abilities, provide clinical management using care paths and protocols.

LEVEL 1

Today's discussion

Routine care delivered by APC team, as well as self-management education, support for coping needs, training in the use of Healthwise Handbook, etc.

How does Kaiser Permanente Achieve Integrated Care?



- Focuses on patient
- Team that synthesizes data to allow creation and implementation of care plans as well as ongoing evaluation
- Spread successful care models throughout network
- Extensive use of IT system to support information flow and coordinated care

Overseas Models for Care Integration

Geisinger Health System (Pennsylvania, US)

- Serves mainly rural population – poorer, older, sicker population (~2.6 million)
- Pay for performance vs fee for service
- 1995 – adopted and deployed system-wide electronic health records (EHR)
- Key innovations: LIFE Geisinger (PACE) and The Advanced Medical Home



US Medical Home

- The concept was first introduced in 1967 by the American Academy of Pediatrics (AAP).
- Further developed by the American College of Family Physicians (ACP) and American Academy of Family Physicians (AAFP) to an enhanced model referred to as “Advance Medical homes (AMH)”.



US Medical Home



1. Broad spectrum of coordinated patient care (acute to complex chronic conditions)
2. Provide accessible, continuous and integrated care
3. Fee-for-service payments and care coordination
4. Patient-centered care, guided by family personal physicians-patient relationships
5. A primary care physician plays a gate-keeping role and work with a team of allied healthcare professionals and case managers
6. If the patient requires specialized care, the family physician continues to work with the specialist in areas where necessary and design the best coordinated care treatment for the patient.

Other “Models” of Care Integration



- Sweden (eg Jonkoping)
- Denmark and Netherlands (main focus is on primary care)
- Italy and Canada and parts of the UK (focus on health + social care integration, with some aspects on mental health)
- HK SAR (HK Hospital Authority “cluster model”)
- Various small scale pilots in Latin America, Spain, New Zealand, Australia, US, Canada, Germany, France and Eastern Europe

Singapore's Healthcare System



OVERVIEW OF HEALTHCARE SERVICES IN SINGAPORE

Healthcare delivery is provided by the **public, private and people** sectors.

Primary care provision

- 80% private GPs
- 20% Polyclinics in NHG and SingHealth

Secondary/Tertiary care

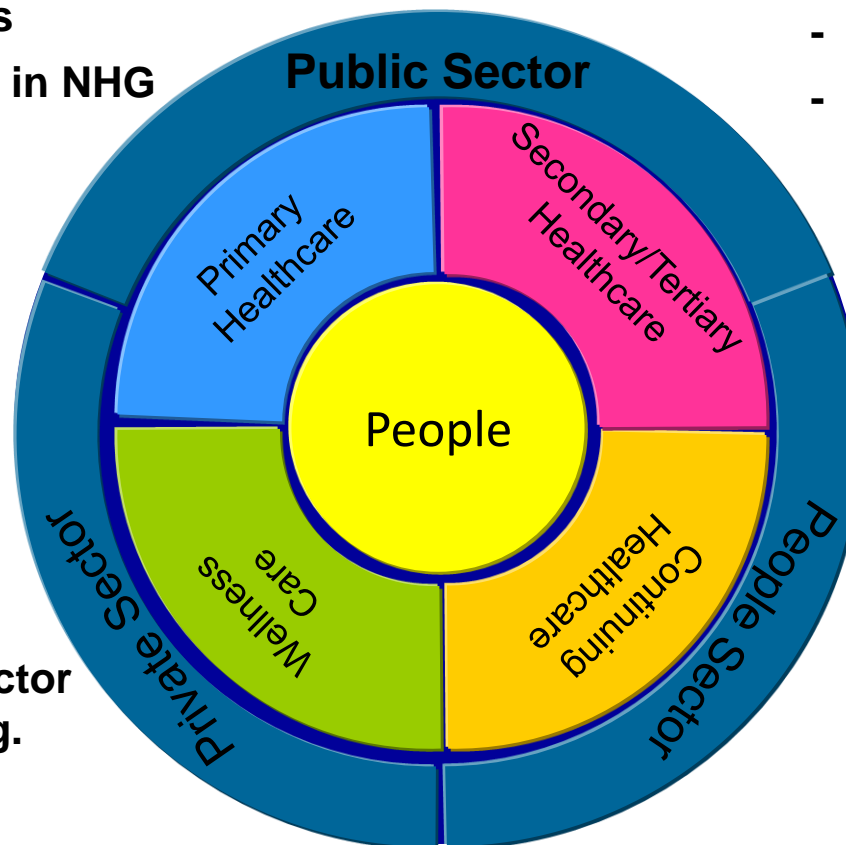
- 20% Private
- 80% Public

Wellness Care

- Mainly private sector
- Some public sector involvement e.g. HPB

Continuing care

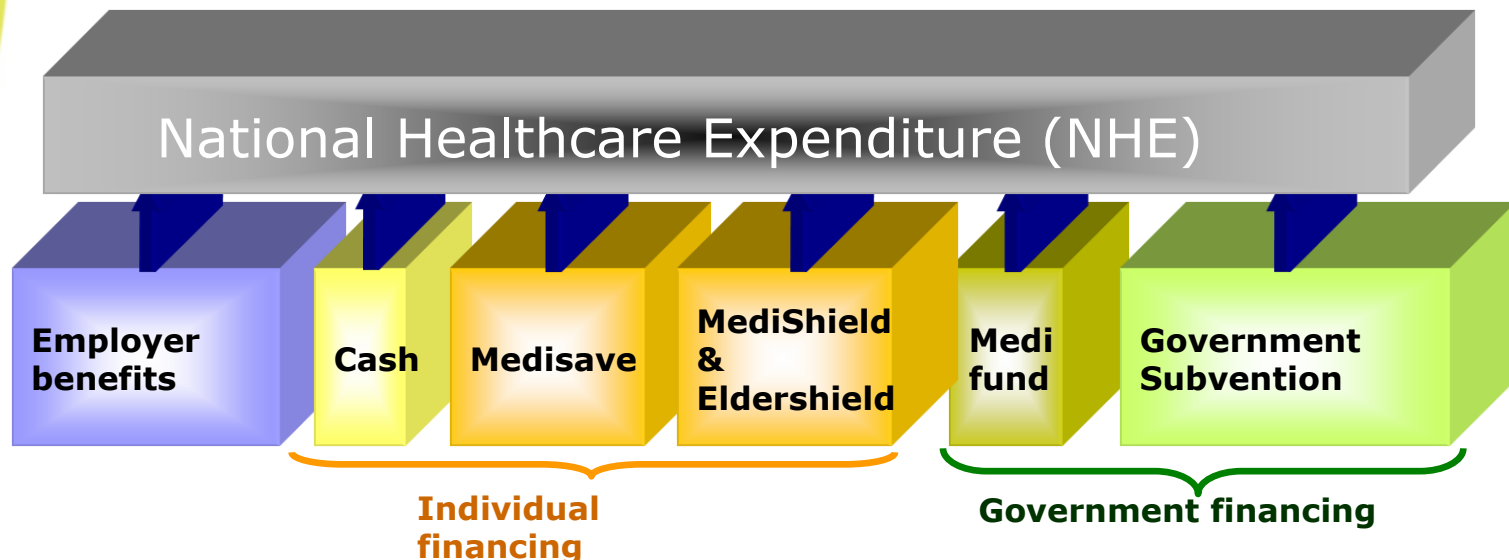
- approx 70% by people sector, 30% by private sector
- community hospitals, nursing homes, hospices, day care centres, renal dialysis centre



Singapore's Healthcare Financing Philosophy



- **Ensure affordability of basic healthcare**
 - Heavy subvention, universal coverage for basic services, with access to higher levels of services based on willingness to pay
- **Instill individual responsibility**
 - Patients expected to co-pay part of medical expenses
 - Risk-pool for catastrophic illnesses, without undermining the need for individual responsibility and patients' desire for choice.



3M System + Subsidies

Medisave

- National Medical Savings Plan
- Compulsory contribution from employee and employer

Medishield

- Catastrophic Insurance
- Low cost
- Built in deductibles and co-payments
- Risk pooling

Medifund

- Endowment Fund
- Safety net for needy who cannot afford healthcare despite Medisave and Medishield

Subsidies

- 4 classes of wards with the same level of care but different level of creature comforts
- Government subsidies inverse to comfort level
- Means tested subsidies

Singapore's Healthcare Structure

Designed to meet the acute episode healthcare needs of the population when Singapore was still a young nation



Primary Care

- Mainly Private
- Fee for service



Acute Hospital Care

- Mainly Government
- Per Episode Charging



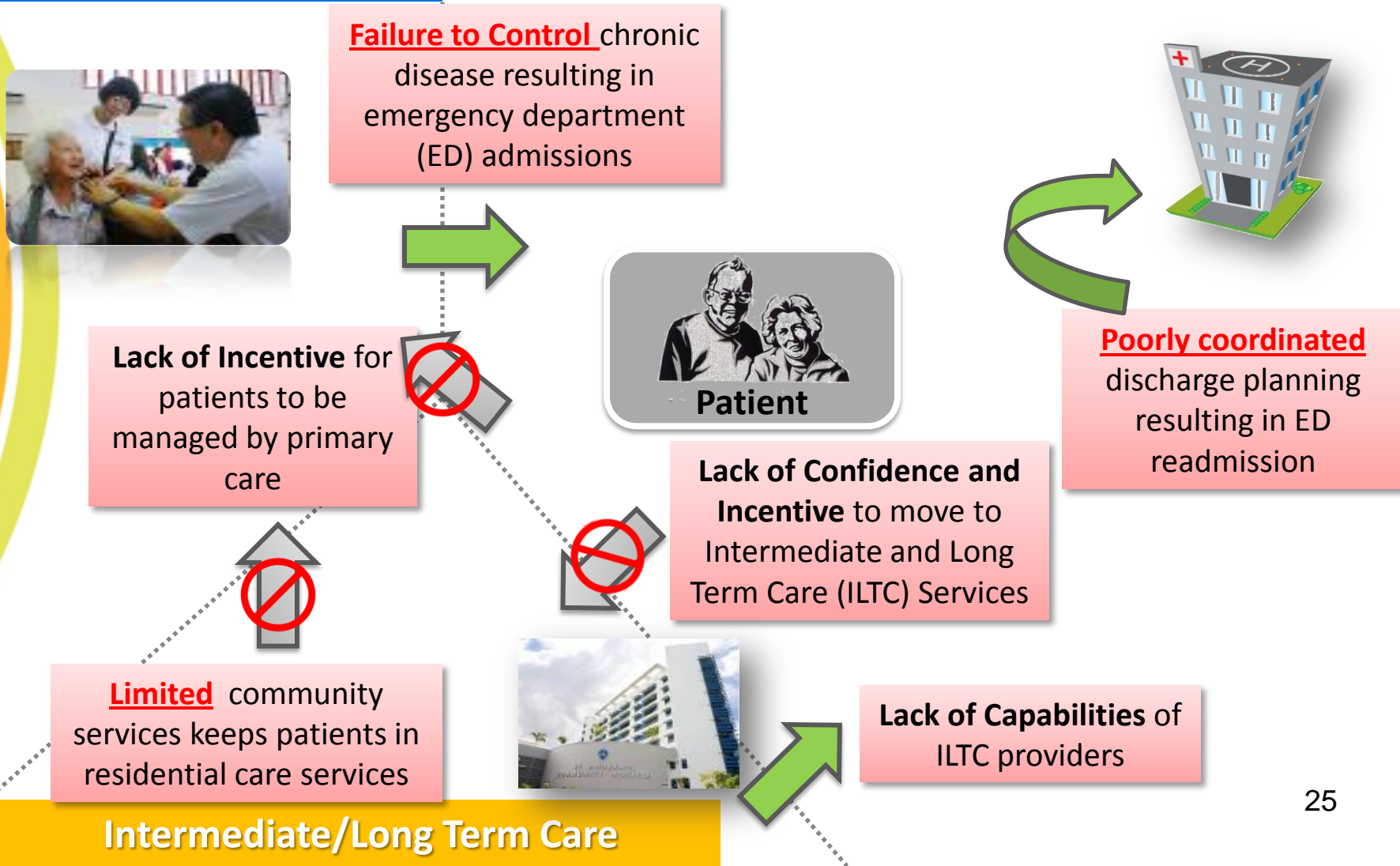
Intermediate Long Term Care

- Mainly Voluntary Welfare Organisations
- Per Diem Charging

A Need to Transform the Current Episodic Patient Journey...

Primary Care

Acute Care



... Into a Well Integrated Patient Journey

Primary Care

Acute Care

Disease Management preventing
exacerbation/ complications of
chronic disease



Primary Care **well supported** by
allied health



**Integrated Care Pathways
& Care Coordination** enable
patients to return home
safely



**Strong Home Care
Services**

Upgraded ILTC
providers providing
care in the community



**National Care
Assessment** tool to right-
site patients to ILTC
Providers

Intermediate/Long Term Care

How Care Integration could be the Solution....



Concept of Integrated Care

What is integrated care?

Patient centred

- More personal and responsive care

Better health outcomes

- Delivers improved health outcomes including quality and patient experience

Joint provision

- Partnership of providers

Across boundaries

- Primary, community, secondary, mental health, social care, local government, NHS, third and private sectors

Systems not structures

- Partnerships, systems and models, not only organisations



Many Definitions of Integrated Care

- ❖ “...a coherent set of methods and models on the funding, administrative, organizational, service delivery and clinical levels designed to create connectivity, alignment and collaboration within and between the cure and care sectors...[to]...enhance quality of care and quality of life, consumer satisfaction and system efficiency for patients with complex problems cutting across multiple services, providers and settings.” (*Kodner & Spreeuwenberg, 2002*)
- ❖ “...a concept bringing together inputs, delivery, management and organization of services related to diagnosis, treatment, care, rehabilitation and health promotion...[as]...a means to improve the services in relation to access, quality, user satisfaction and efficiency.” (*Gröne & Garcia-Barbero, 2001*)

Many Definitions of Integrated Care



- ❖ “...the search to connect the healthcare system (acute, primary medical, and skilled) with other human service systems (e.g., long-term care, education, and vocational and housing services) to improve clinical outcomes (clinical, satisfaction, and efficiency).” (*Leutz, 1999*)
- ❖ “...the methods and type of organisation which will provide the most cost-effective preventative and caring services to those with the greatest health needs and which will ensure continuity of care and co-ordination between different services.” (*Ovretveit, 1998*)

9 Laws of Integration

(Leutz W, 1999 and 2005)



1. You can integrate some of the services for all of the people or all of the services for some of the people, but you can't integrate all the services for all the people.
2. Integration costs before it pays.
3. Your integration is my fragmentation.
4. You can't integrate a square peg and a round hole.
5. The one who integrates calls the tune.
6. All integration is local.
7. Keep it simple, stupid.
8. Don't try to integrate everything.
9. Integration isn't built in a day.

Key Elements of Successful Integration



Stakeholder Collaboration

Shared Vision

Leadership

Shared Incentives

Engaging Patients

- Transparent system
- Patient Education
- Patient Responsibility

Improving Healthcare

Delivery

- IT Connectivity and Support
- Continuous Improvement
- Common Guidelines
- Case Management
- Provider Networks

Aligning Finance

- Payment promotes cost effectiveness
- Performance Incentives

Motivated, Prepared Providers

Empowered Patients

Supportive Financing

Transformed, Integrated Healthcare

Improved Health Outcomes & Reduced Costs

Evidence Showing Integrated Care Works



- ❖ Improved cost effectiveness shown in various integrated care studies (*Hammar et. al., 2009; Olsson et. al., 2009; McRae et. Al., 2008*)
- ❖ Reduced cost per patient visit to Community Health Care trusts (*Hurst et. al., 2002*)
- ❖ Reduced average length of hospital stay (*Nickel et. al., 2010; Casale et. al., 2007; Gabow et. al., 2003*)
- ❖ Reduced readmission rates (*Peikes et. al., 2009*)
- ❖ Decrease emergency presentations and admission in COPD and CHF patients (*Bird et. al., 2010*)
- ❖ Improved clinical indicators and cumulative death rates of COPD patients in China (*Zhou et. al., 2010*)

Singapore's Care Integration Efforts...



Vision: Integrated Community Living- Aging in Place



Singapore's Proposed Solution

Care Integration through the Regional Health System (RHS) – A patient-centric healthcare ecosystem comprising of partners from the primary, acute and step down care sectors working together to deliver integrated healthcare services to improve patient outcomes.



Healthcare Reform to Achieve Integrated Care



Source: Ministry of Health, Singapore

VISION: A NETWORK OF INTEGRATED REGIONAL HEALTH SYSTEMS

RHs partnering
CHs with MOU

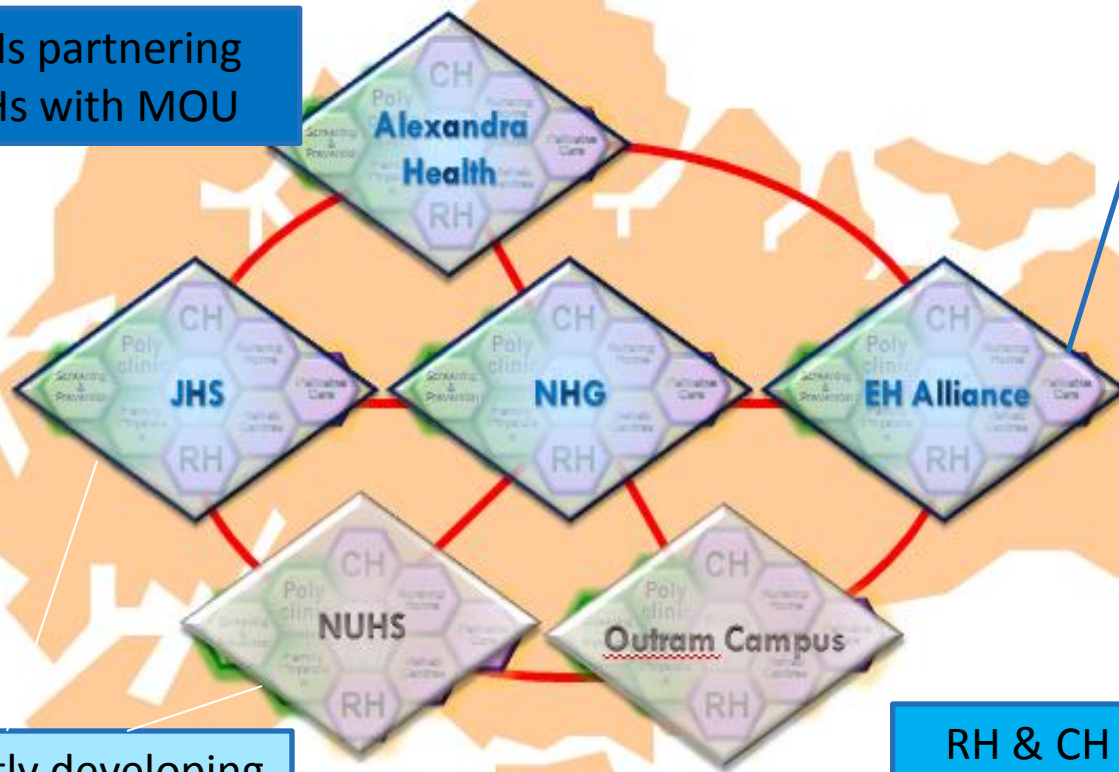
CGH spin out to be EH
Alliance in Apr 2011

“We have decided that we can achieve a better outcome if we reduce the size of each catchment and **organise the healthcare delivery systems at the regional level...**”

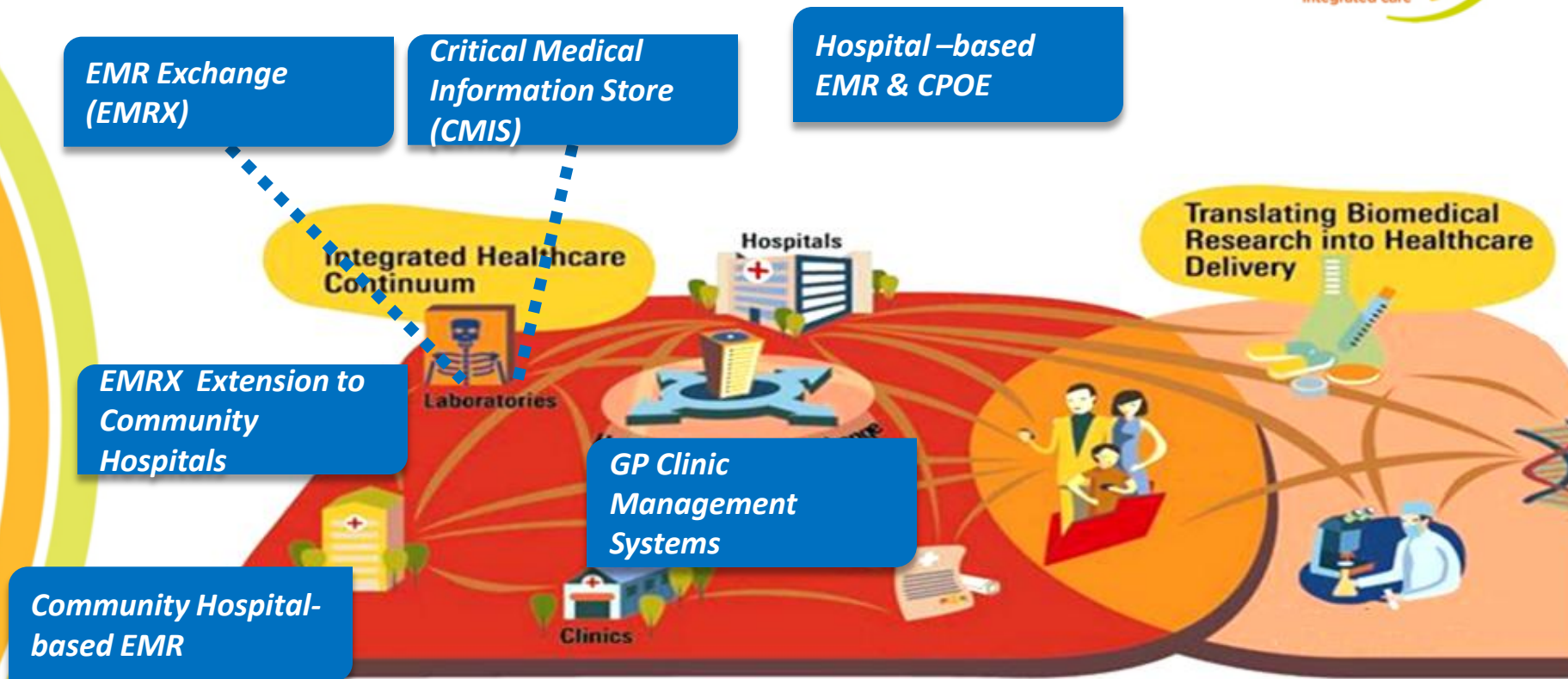
Jointly developing
COPD Pathway

RH & CH pair in
AHPL and JHS

“This transformation in healthcare delivery to create a **hassle-free healthcare system at the regional level**, is a major strategy that we are pushing. It will make healthcare more convenient, safer, better and at the lowest possible cost...” Minister for Health (Aug 2004 – May 2011)



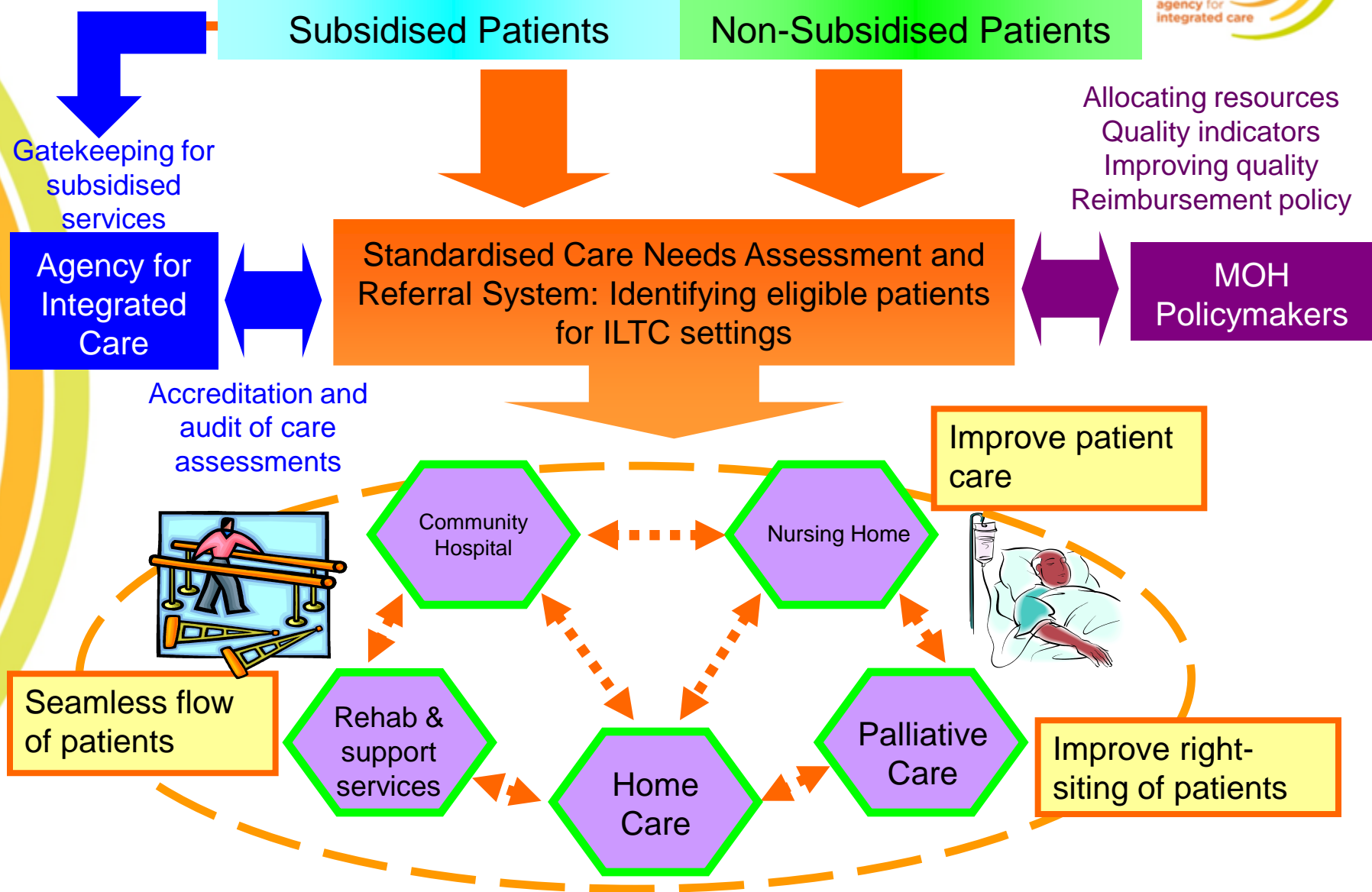
Enabling Integration: Linked by a National Electronic Health Record (NEHR) System



“Singapore is now developing an electronic health records system accessible to authorised medical practitioners at our hospitals and polyclinics, and eventually extending to the community care sector. It will allow for more effective treatment of patients who may receive a spectrum of healthcare services from different providers.”

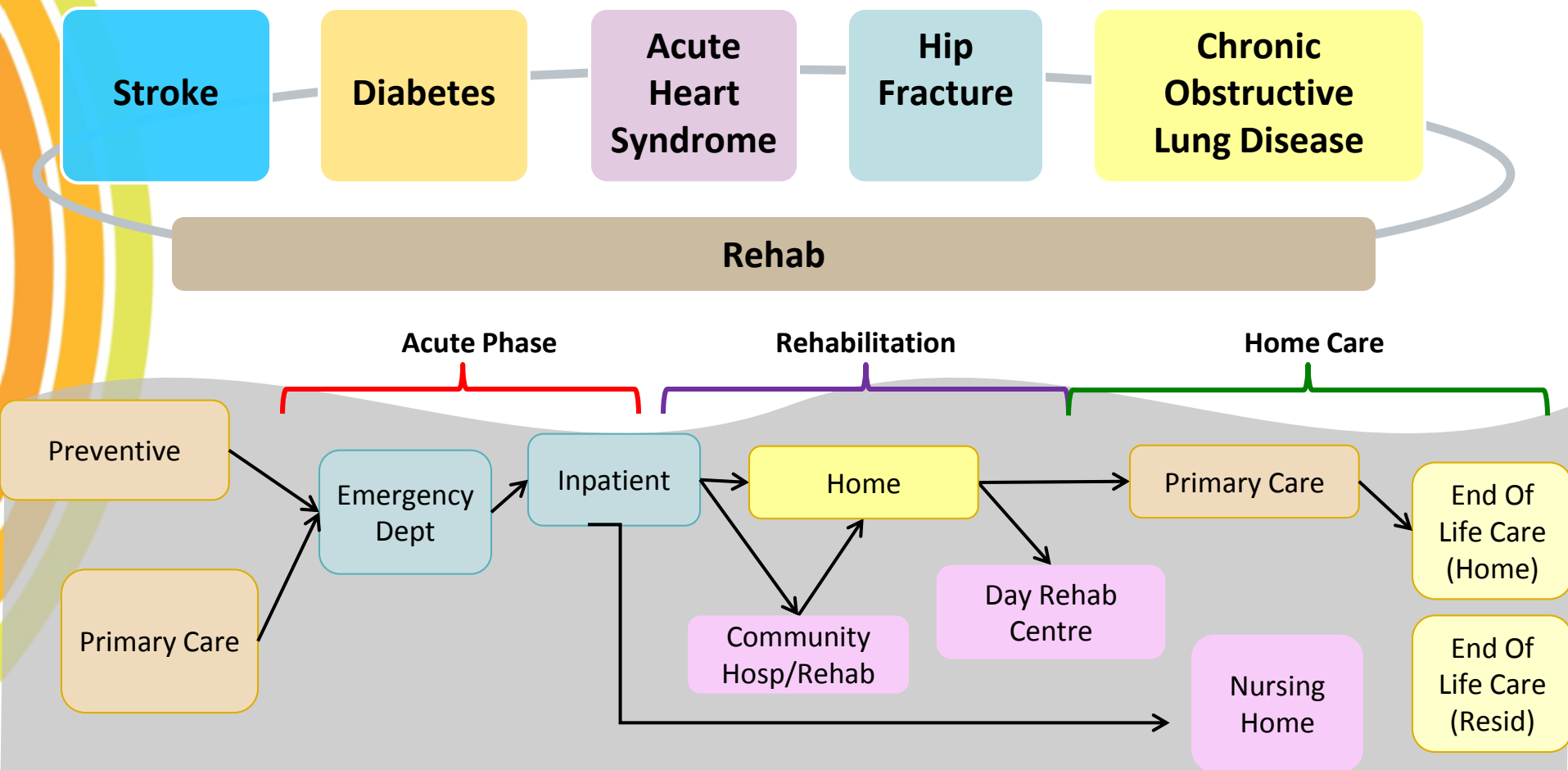
– Budget Speech 2009

Enabling Integration: National Care Assessment Framework



Integrated Care Pathways for Chronic Disease Management Today

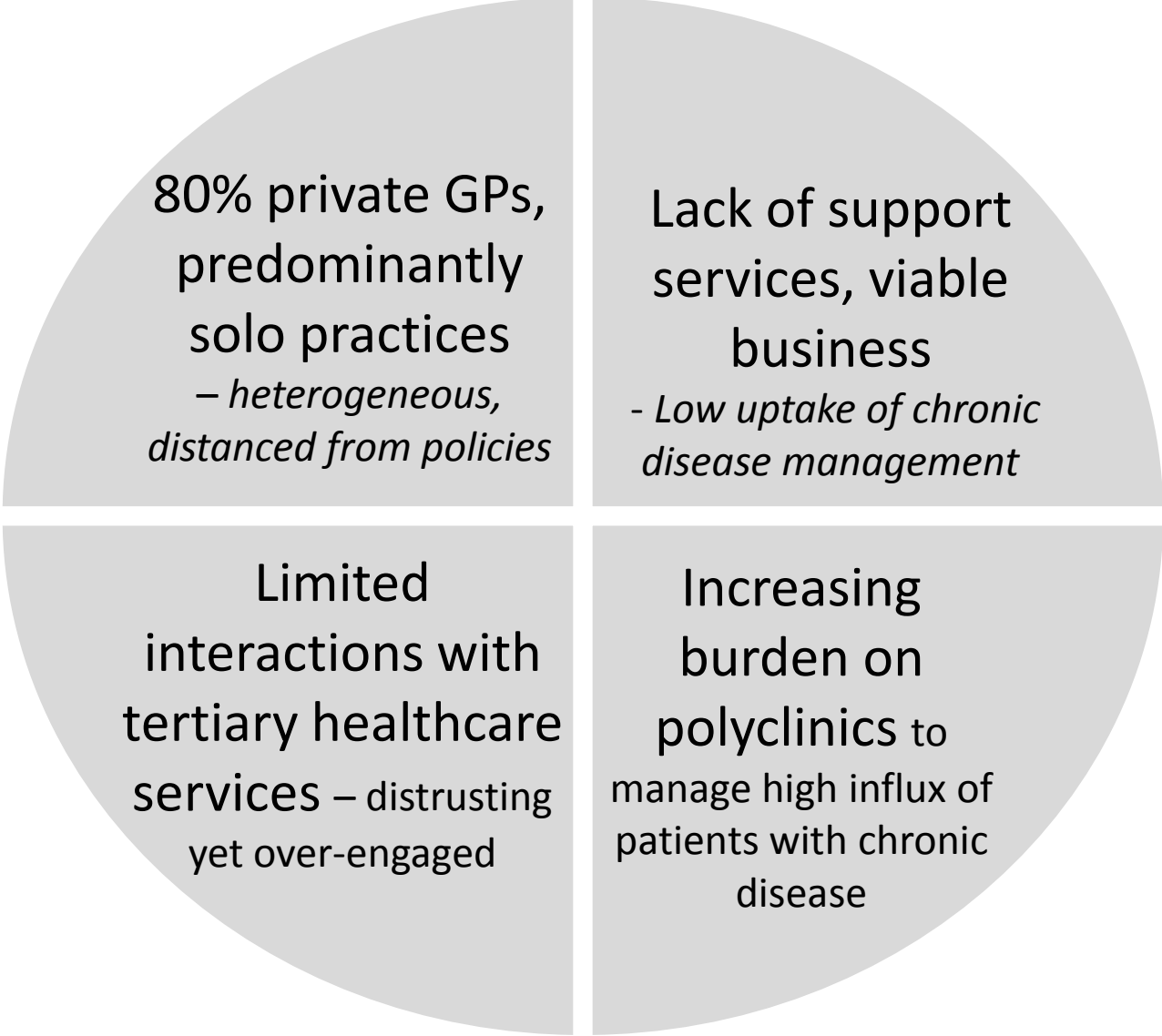
5 Integrated Care Pathways:



Integration Efforts in Primary Care



The Current Primary Care Sector



80% private GPs,
predominantly
solo practices
– *heterogeneous,
distanced from policies*

Lack of support
services, viable
business
- *Low uptake of chronic
disease management*

Limited
interactions with
tertiary healthcare
services – *distrusting
yet over-engaged*

Increasing
burden on
polyclinics to
manage high influx of
patients with chronic
disease

A holistic approach to delivering care for chronic diseases
The Nation-wide CDMP in Singapore



- **Chronic Disease Management Programme (CDMP)**
 - Coverage & Organisation
 - Holistic care through treatment protocols
 - Improving access through innovative financing
- **Health Promotion & Disease Prevention (for NCD)**
- **Clinical quality improvement efforts in CDMP**
- **Continuum of care (Integrating care)**
 - Screening for chronic diseases
 - Right-siting care

Making Chronic Care Affordable



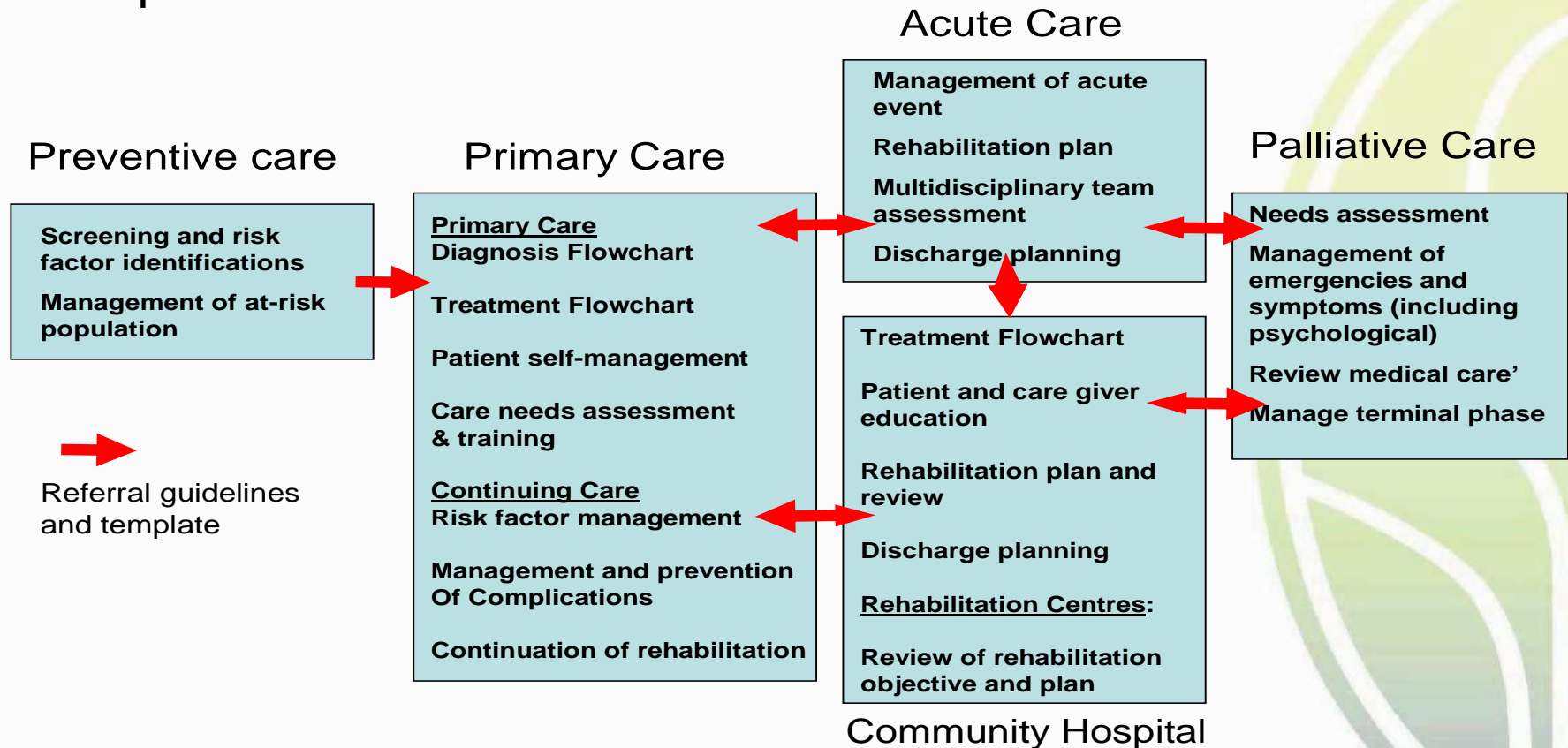
Medisave Use for Outpatient Care

- Since Oct 2006, MOH allows the use of Medisave for payment of outpatient care of 10 common chronic diseases:
 - Diabetes / Hypertension / Dyslipidaemia / Stroke
 - Asthma / COPD
 - Depression / Schizophrenia/Dementia/Bipolar Disorders
- Patients who participate in CDM programme can use Medisave to help pay medical bills at outpatient level
 - Deductible
 - Copayment
 - Annual Withdrawal Limit
 - Patient Registration and Certification
 - Use at GPs, SOCs and polyclinics

Integrated Care Path for Chronic Conditions

Acknowledgement: NHGP

Proposed Framework for ICP

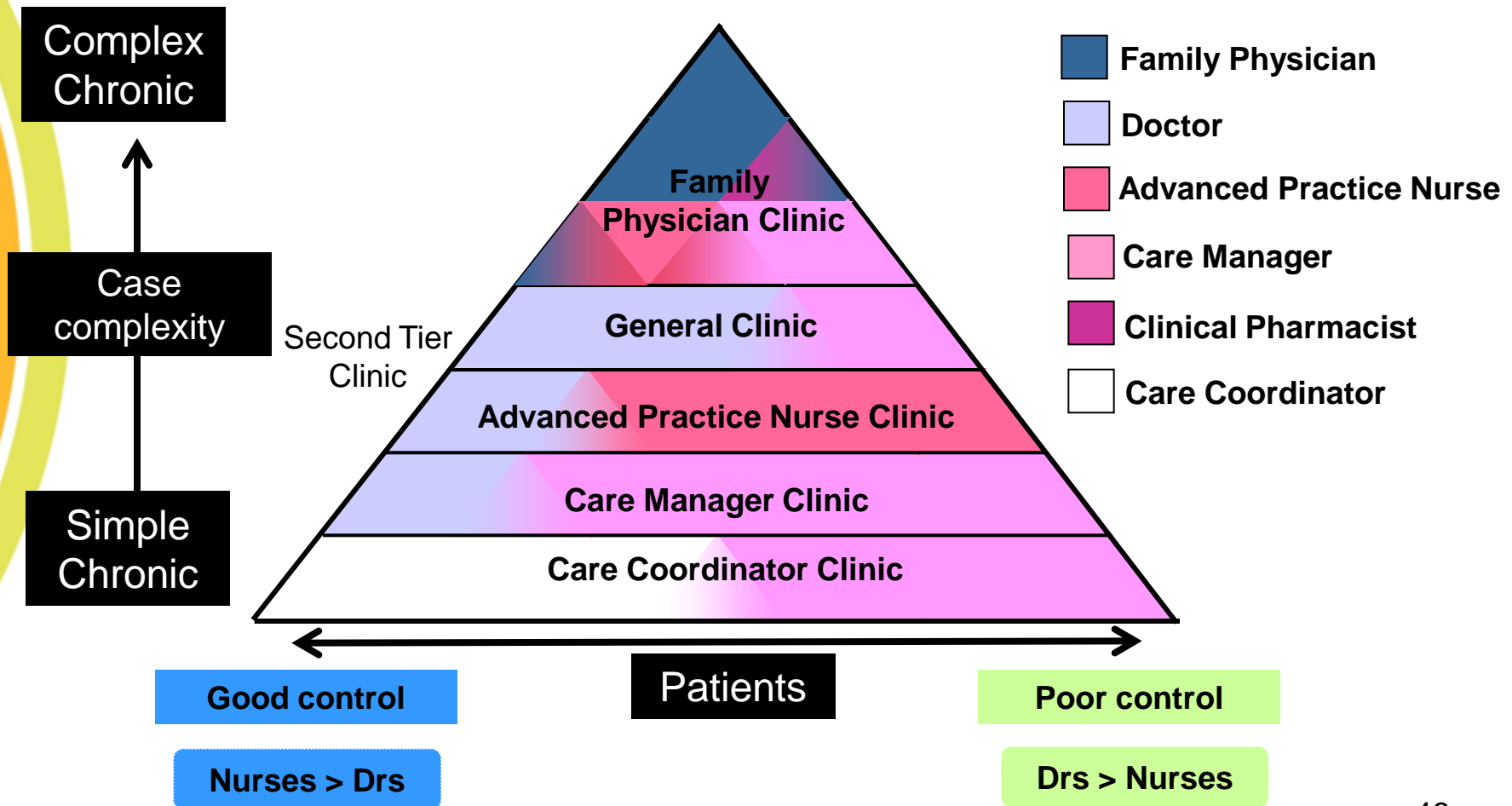


NATIONAL STANDARDS of CARE

Resource Management and Measurements

Team Care: Utilising non-doctor Clinicians

1 Singaporean to 1 Family Physician Led Team



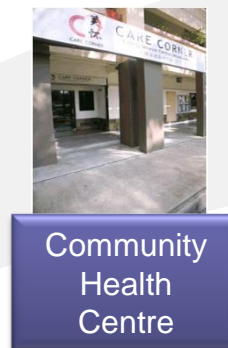
Transforming Primary Care for Improved Integration



Primary Care Landscape

Transforming Primary Care sector:

- ❖ Strengthen the GP capability in chronic disease management
- ❖ Increase access option to co-ordinated care
- ❖ Right site patients in primary care
- ❖ Achieve better coordination of care for patients with chronic diseases



New Care Models for Team Based Care

Family Medicine Clinic (FMC)



Multi-doctors practice (4 to 6 GPs)



Team-based services e.g. nurse counselling, diabetic eye screening



Support services e.g. pharmacy, basic laboratory services

Physical Co-Location of GPs & Support Services

New Care Models for Team Based Care



Physical Location / Virtual Network

Transforming Primary Care

How it relates to the RHS



Regional Hospital

Inpatient Care

Specialty Centres

Selected Outpatient Care

Medical Centre

Revised model for chronic care

Day Surgery +
Selected
Specialist Care

Family Medicine Clinics

Revised model
for acute care

Revised model
for chronic care

Shared X-ray
and Lab service

Team-based
care model

Urgent Care
Services*

Care model in polyclinics will progressively transform to that of FMCs

Cluster of GPs supported by CHC

CDMP GPs
Chronic and
mental health

PCPS GPs
Chronic and
mental health

CHC

DRP DFS,
AHP

CDMP GPs
Medisave
IT Linkages

PCPS GPs
Portable
subsidies

Polyclinics

Revised model for
acute care

X-Ray
Laboratories

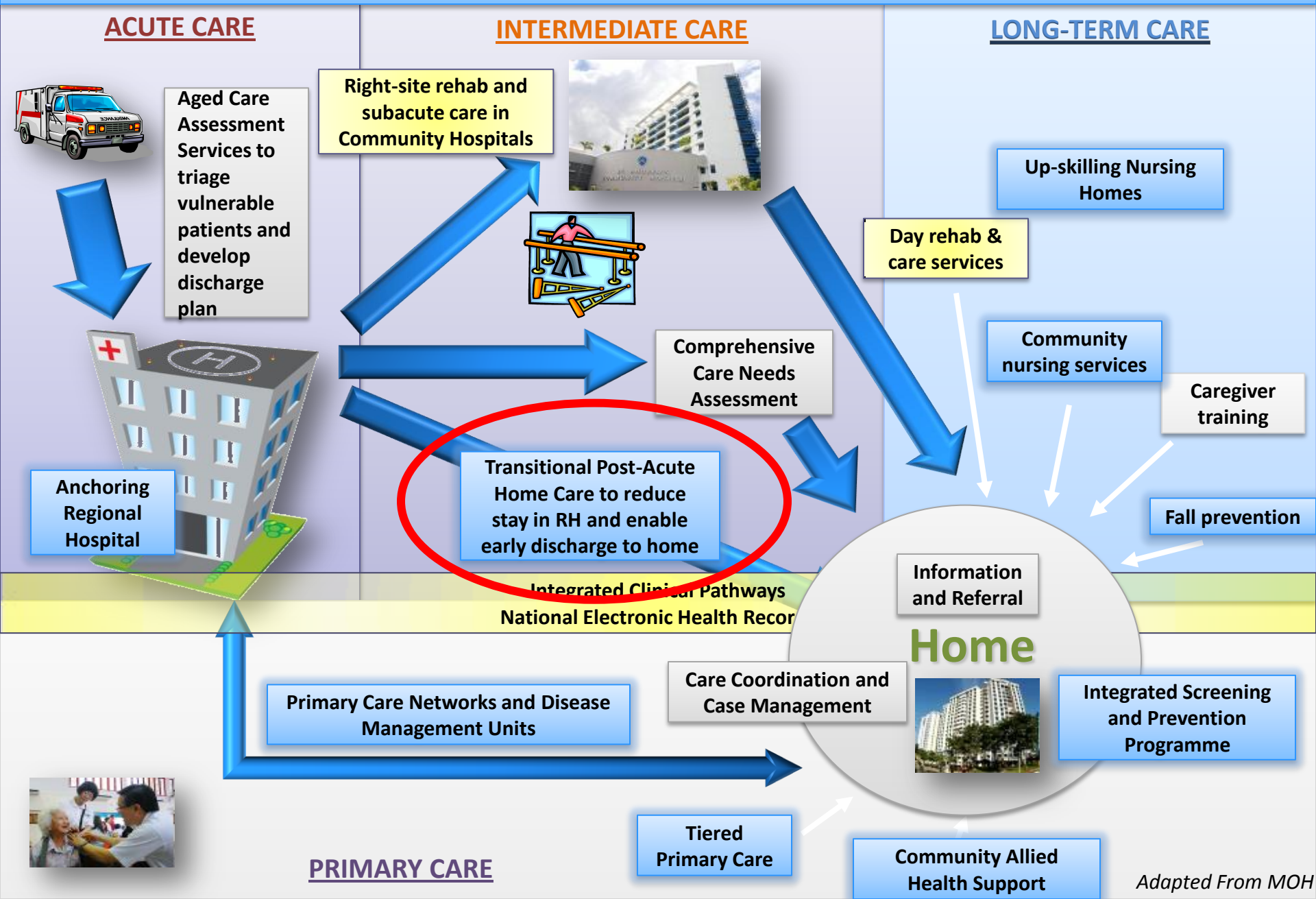
Revised model for
chronic care

Doctor-centric
care model

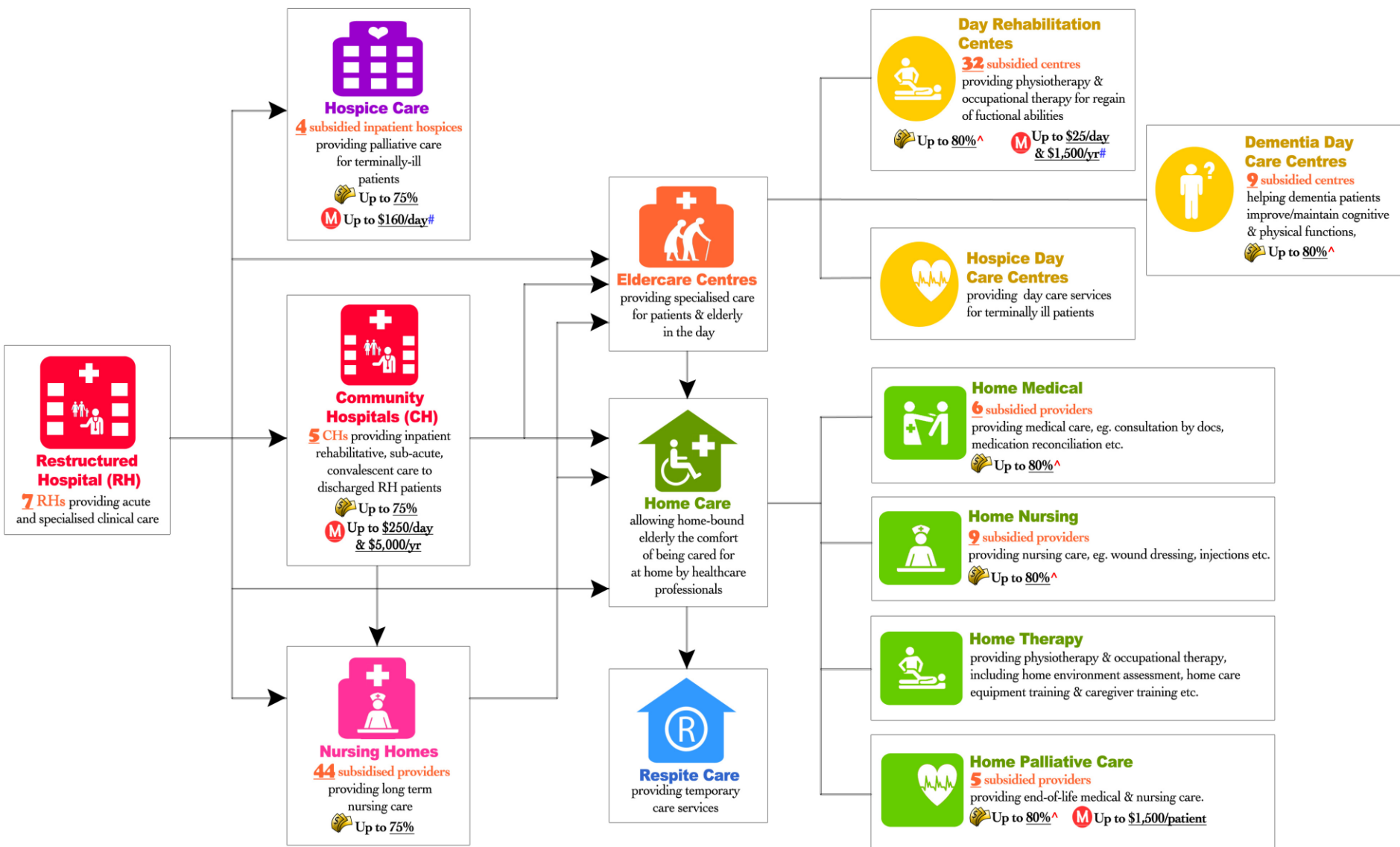
Integrating Acute Care with the Intermediate and Long Term Care (ILTC) Sector



Building Blocks of Integration



Transition of care from acute hospital to intermediate and long term care facilities



Legends

- Government Subsidies
- Medisave

Footnotes

- # At selected VWOs or centres
- ^ Available from 3Q2012 at MOH-funded providers

Explanatory Notes

- Medifund is available at selected CHs, NHs & inpatient hospices, and will be extended to cover non-residential services in April 2012.
- The Interim Disability Assistance Programme for the Elderly (IDAPE) will provide higher cash payouts and benefit more patients by 3Q2012. The cash can be used for all long term care facilities/services. For more info on eligibility criteria, please refer to MOH website at www.moh.gov.sg.
- Eldershiield provides monthly cash payouts to insured Singaporeans to help them defray out-of-pocket expenses for all approved long term care facilities/services, subject to a disability assessment.

About Transitional Care



- ❖ Transitional care can be defined as care that is required to facilitate a shift from one disease stage and/or place of care to another
- ❖ Transitional care is based on a comprehensive plan of care and the availability of health care practitioners who are well-trained in chronic care and have current information about the patient's goals, preferences, and clinical status. It includes logistical arrangements, education of the patient and family, and coordination among the health professionals involved in the transition. Transitional care, which encompasses both the sending and the receiving aspects of the transfer, is essential for persons with complex care needs.

(Source: Coleman EA, Boult CE on behalf of the American Geriatrics Society Health Care Systems Committee. Improving the Quality of Transitional Care for Persons with Complex Care Needs. Journal of the American Geriatrics Society. 2003;51(4):556-557.)

Transitional Care Programmes

Care Concept

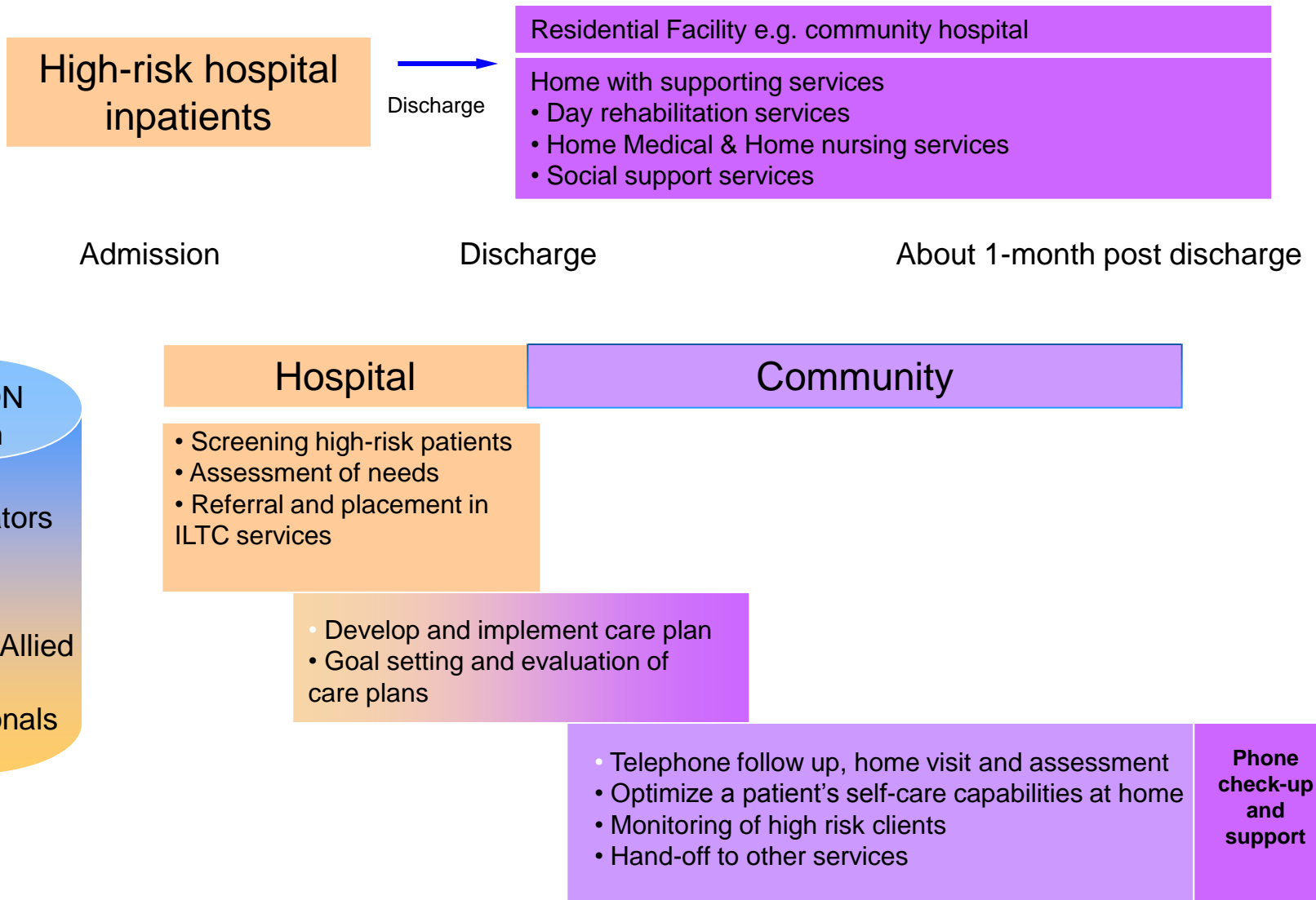
- Improving disease recovery to a 'more stable, dischargeable' state and expedite discharge from acute care facilities
- Reduce/Avoid AE attendance and hospital/acute care admission/re-admission
- Hand-off patients to both home/community-based care providers

Transitional Care Programmes

Care Lead	<ul style="list-style-type: none">• Medical/Nursing leads, with multi-disciplinary capabilities
Care Focus	<ul style="list-style-type: none">• Direct active intervention / care provision• Significantly diverse and complex scope: - medical / nursing / social / functional / physical / rehabilitation / mental needs• Less co-ordination of care services/providers across care continuum and more on active medical/nursing care needs
Care Settings	<ul style="list-style-type: none">• Acute care facility(Inpatient) to Home/Community
Care Levels	<ul style="list-style-type: none">• Higher level of acuity• Various disease states, including acute exacerbations, which may be difficult to stabilise• Complex medical needs requiring interventions
Care Duration	<ul style="list-style-type: none">• Average 3 months

ACTION TEAMS:

At work in the hospitals



❖ Aged Care Transition (ACTION) Teams

- Assess the needs of elderly patients and facilitate their transition into appropriate care upon hospital discharge
- 65 care coordinators in 5 RHs, 1 Tertiary Centre & 3 Community Hospitals
- More than 10,000 patients recruited since 2008
- Average length of stay (bed days) reduced by 43% and 82% of cases were able to discharge



Helping older patients make the transition to home care

Madam Sharon Phang (above, far right) looks after her aged in-laws, Madam Lee Hong Choo and Mr. Lau Keng Lye, at home, assisted by maid Ellen Villa. After two home visits and several phone consultations with a care coordinator of the Agency for Integrated Care, both Mr. Lau and Madam Lee Hong Choo...

The Need for ACTION Teams – Why?

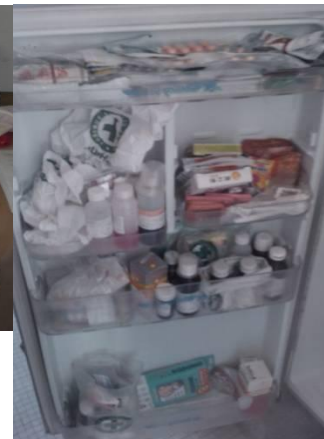


Before



After

Repeated hospital admissions due to lack for appropriate care.



Disorganised medications and from multiple sources, often leading to double dosing



Living environment in disarray, compounding to health conditions

Evaluation - Baseline Characteristics of ACTION patients



Variable [Mean \pm SD unless stated]	Number of patients (%) N=4132 (ACTION); N=4132 (Control)					
	Before propensity score weighting			Propensity score weighted†		
	ACTION	Non-ACTION	P-value ^(a)	ACTION	Non-ACTION	P-value ^(b)
Age, years	79.2 \pm 7.7	79.1 \pm 7.7	-	79.2 \pm 7.7	79.2 \pm 7.7	-
Female (%)	56.2	56.2	-	56.5	56.5	-
Charlson Index	1.7 \pm 1.9	1.4 \pm 1.7	<0.001	1.6 \pm 1.8	1.5 \pm 1.8	0.37
Length of stay, days	14.6 \pm 16.2	7.4 \pm 10.0	<0.001	11.6 \pm 13.0	11.1 \pm 15.4	0.25
No. of hospitalizations within 180 days before index hospitalization	0.74 \pm 1.3	0.89 \pm 1.5	<0.001	0.79 \pm 1.4	0.81 \pm 1.4	0.51
% with > 1 hospitalizations Change to Hospitalization within 180 days before index hospitalization (%)	16.5	20.1	<0.001	17.8	18.2	0.63
No. of ED visits within 180 days before index hospitalization	1.9 \pm 2.3	1.7 \pm 2.1	<0.001	1.9 \pm 2.0	1.9 \pm 3.1	0.89
% with > 1 ED visits Change to ED visit within 180 days before index hospitalization (%)	44.6	39.9	<0.001	44.2	41.0	0.005

Evaluation - ACTION reduced hospital utilisation



Propensity adjusted utilization outcomes	ACTION	Non-ACTION	P-value*	Odds ratio (95% CI)	P-value*
Rehospitalizations					
No. of rehospitalizations within 15 days	578	868	<0.001	0.60 (0.53, 0.68)	<0.001
<u>Rehospitalized</u> within 15 days, %	12.6	19.3	<0.001		
No. of rehospitalizations within 30 days	950	1281	<0.001	0.69 (0.62, 0.77)	<0.001
<u>Rehospitalized</u> within 30 days, %	19.5	25.9	<0.001		
No. of rehospitalizations within 180 days	3347	4132	<0.001	0.80 (0.73, 0.88)	<0.001
<u>Rehospitalized</u> within 180 days, %	44.6	50.2	<0.001		
ED visit					
Chart Area					
No. of ED visits within 30 days	992	1240	0.002	0.81 (0.72, 0.90)	<0.001
ED visit within 30 days, %	19.3	23.0	<0.001		
No. of ED visits within 180 days	3801	4545	0.052	0.90 (0.82, 0.99)	0.027
ED visit within 180 days, %	46.3	48.9	<0.027		

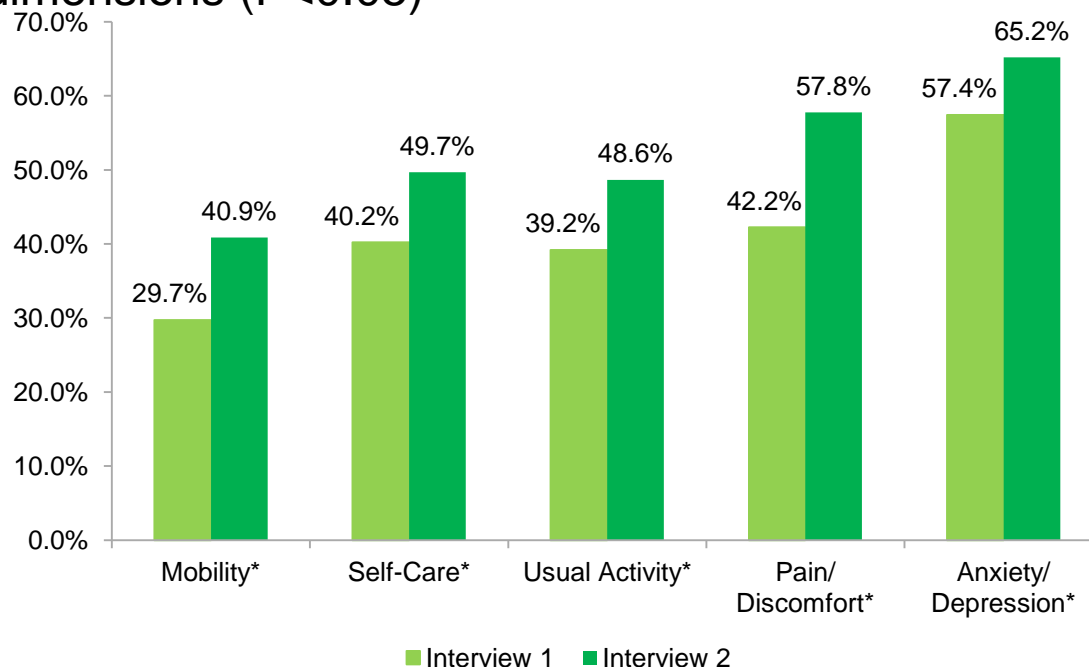
* weighted regression / logistic regression of each covariate on discharge disposition; Wald test p-value of coefficient for discharge disposition

Evaluation - Estimated Cost Savings

- Cost savings from public health system's perspective could be estimated from the difference in reduced hospital days and incremental program costs
- Additional cost for ACTION program over six months (Apr to Sep 2010) was S\$1.94m (>95% the care coordinators' salary)
- Estimated cost savings from 8714 reduced hospitals days = S\$7.3m
- Additional ACTION program cost to keep a care recipient out of hospital was \$1.94m/8714 or S\$223 per day.
Estimate of Overall cost savings = S\$5.4m over 6 months.
- Assumes no net additional healthcare cost by ACTION care recipients compared to the control group**.

Evaluation - Perception in Health-Related QoL (EQ-5D)

- Analysed for surveys completed by same person (n=296)
- Higher proportion reported having 'no problems' at 4-6 weeks for all 5 dimensions (P<0.05)



	Interview 1	Interview 2
'Self'-rated health* (0=worst health, 100=best health)	60.4	64.1

*p<0.05

Program of All Inclusive Care for the Elderly (PACE) in the US



Started in the 70s in San Francisco, USA

Objectives of PACE are to:

- Delay institutionalisation and reduce utilisation of acute healthcare services
- Enables frail elderly to receive the care that they need in the community that they are accustomed to

Delivering all needed medical and supportive services, (via capitated funding model) the program is able to provide the entire continuum of care and services to seniors with chronic care needs, while maintaining their independence in the community for as long as possible.

Interdisciplinary team based approach to caring for the participant

Clearly shown that in a debilitated, frail, elderly population, with whom health care costs are expected to be high, a combination of team care, managed health care and care coordination can lead to better outcomes and reduced cost over time (Hirth et al, 2009)

Singapore Programme for Integrated Care for the Elderly (SPICE)

❖ Singapore Programme for Integrated Care for the Elderly (SPICE)

- Officially launched in 26 Oct 2010
- Salvation Army - Bedok Multi-Service Centre
- Offers an alternative to nursing home for patients discharged from acute hospitals
- Fulfills care needs of frail elderly in the community
- **BASED ON THE PROGRAM OF ALL INCLUSIVE CARE FOR THE ELDERLY (PACE) IN THE US**

On trial: Scheme to provide day-care services for aged and sick



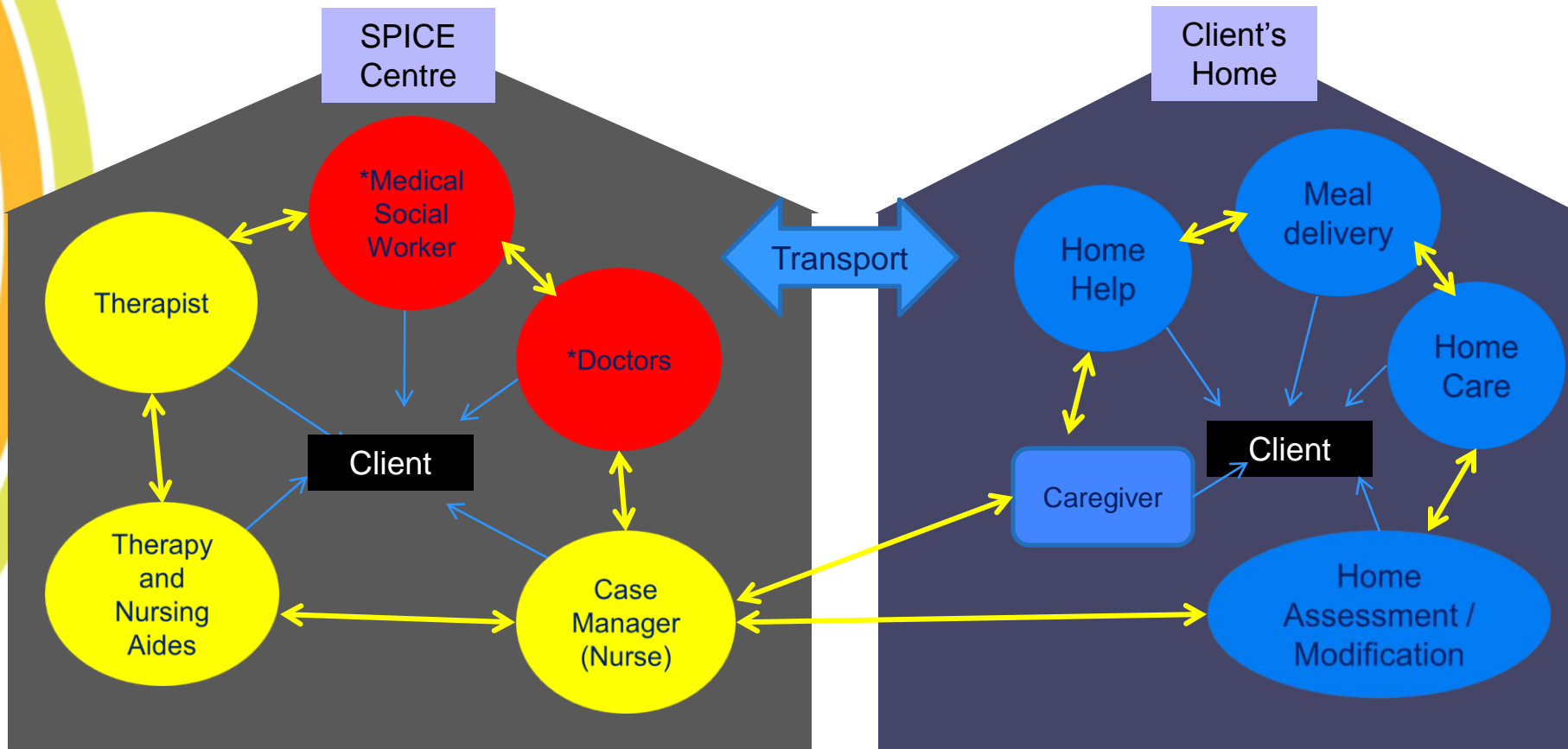
Char Boh was admitted to the centre in day. PHOTO: AGENCY FOR INTEGRATED CARE



SPICE Model (based on PACE)

- Individualized Care Plan
- Multi-disciplinary Team
- Social / Community activities
- Prevention / Active Ageing activities

- Personal Care
- Medical and Nursing care
- Rehabilitation
- Day Care Services



*MSW & Doctor: Not under staffing from SPICE

Innovative Pilot Projects between Acute Hospitals and Community Partners

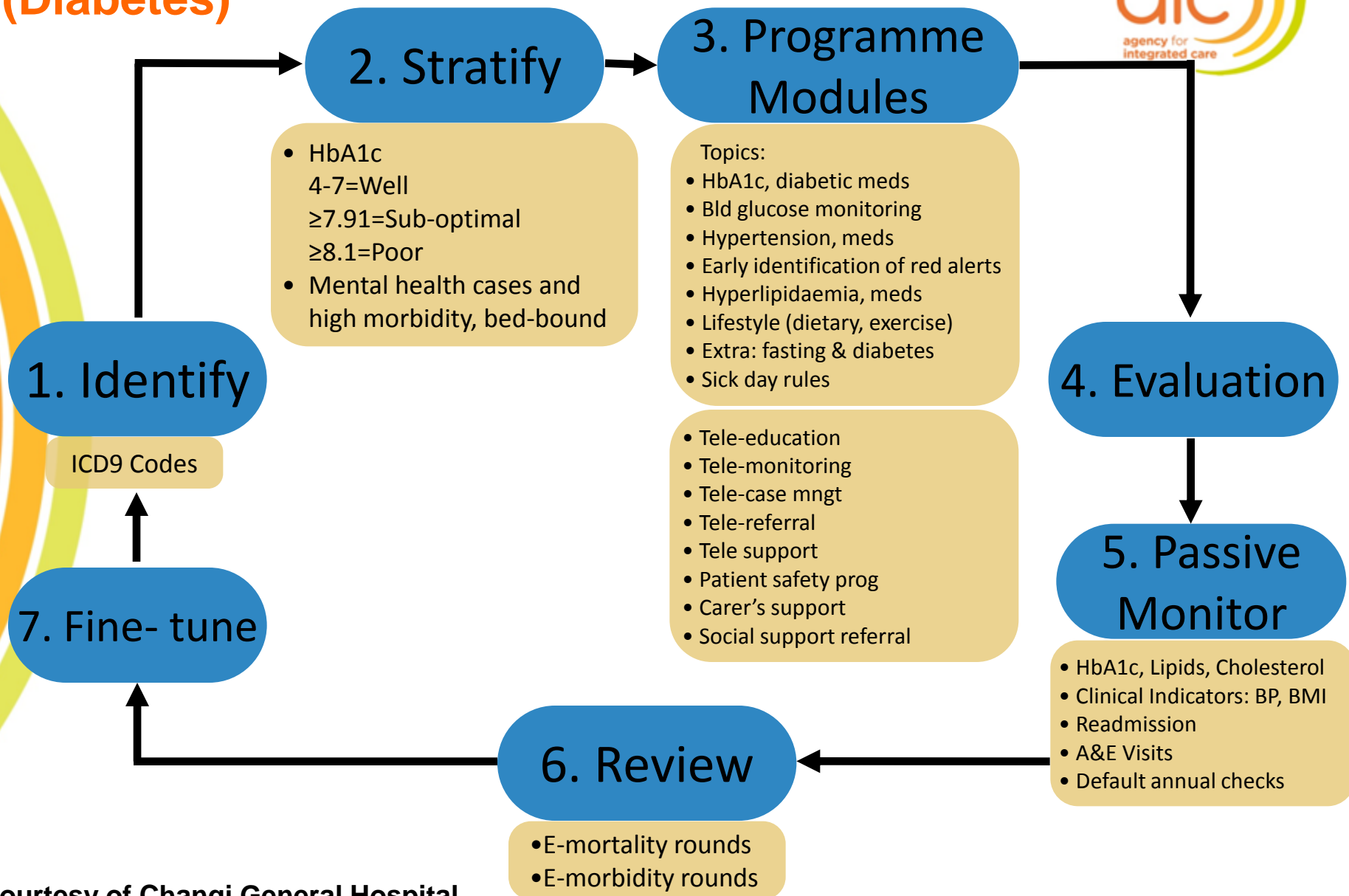


Innovative Use of IT In Care Delivery for Care - Khoo Teck Puat Hospital

- Regional Nursing Home Hub through Telemedicine
- Geriatricians from the hospital conduct consults using webcams with various nursing home partners to review patients



Changi General Hospital: Health Management Unit (Diabetes)



Challenges & Moving Forward



Challenges in Care Integration

- The different fragments in the healthcare industry, including the different departments in an organisation, are usually working in silos.
- An uphill task to convince the different fragmented bodies to change their old working style to work together in an integrated eco-system.
- Many are still more concerned over the short-term benefits such as their bottomline, than the long-term benefits which care integration heralds, especially when more effort and monetary investments are required from them.
- Change fatigue - The change from an healthcare system targeted at acute episodic care to one that is integrated for long-term care is not a simple task. This fatigue limits the pace of change.

Key Lessons Learnt

- It starts with political “buy-in” and leadership (from policy development to implementation and evaluation).
- The need to invest first before you “see the returns”.
- New skills needed amongst professionals and managers:
 - ◆ Collaboration
 - ◆ Working in teams across different settings
 - ◆ Creating “win-win” solutions and approaches
 - ◆ Exercising “sensitivity”
 - ◆ Removing “silos”
- Robust IT systems help a great deal
- Start with specific patient populations and demonstrate “quick wins”
- Be disciplined
- Adapt where possible
- Evaluate

Key Challenges Ahead



- Integration of care, in itself, not a “technical” challenge
 - ◆ Leadership / management orientation and focus
 - ◆ Changing mindsets
 - ◆ Shifts in “professional power”
- How to create seamless integrated care in the face of “fee-for-service” financing models?
- Collaboration (across care settings) as a necessary skill
- Care coordination
- Performance and outcome measurement
 - ◆ Patient
 - ◆ Provider
 - ◆ System

Thank you

Email: Jason.Cheah@aic.sg

2nd Asian Integrated Care Conference
8 & 9 November 2013

www.aic.sg



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Useful websites



- Agency for Integrated Care
www.aic.sg
- Singapore Silver Pages
www.aic.sg/silverpages/
- Ministry of Health, Singapore
www.moh.gov.sg
- Community Health Assist Scheme (CHAS)
www.chas.sg
- Eric Coleman's Care Transitions Programme
www.caretransitions.org
- Mary Naylor's Transitional Care Model
www.transitionalcare.info