Improving the Health of the Population – The Singapore Model

Adj Prof LEE Chien Earn
Deputy Group CEO (Regional Health System), SingHealth
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SingHealth DukeNUS ACADEMIC MEDICAL CENTRE

PATIENTS. AT THE HEART OF ALL WE DO.®

Singapore General Hospital | Changi General Hospital | Sengkang General Hospital | KK Women's and Children's Hospital | National Cancer Centre Singapore | National Dental Centre Singapore | National Heart Centre Singapore | National Neuroscience Institute | Singapore National Eye Centre | SingHealth Community Hospitals | Polyclinics SingHealth

Primary Healthcare

- Polyclinics (20%)
- Private GP Clinics (80%)

Secondary & Tertiary Specialist Care

- Restructured Hospitals & National Centres (80%)
- Private Hospitals (20%)

Residential Long Term Care

- Public (36%)
- Not for profit (40%)
- Private (24%)

Hybrid Healthcare System

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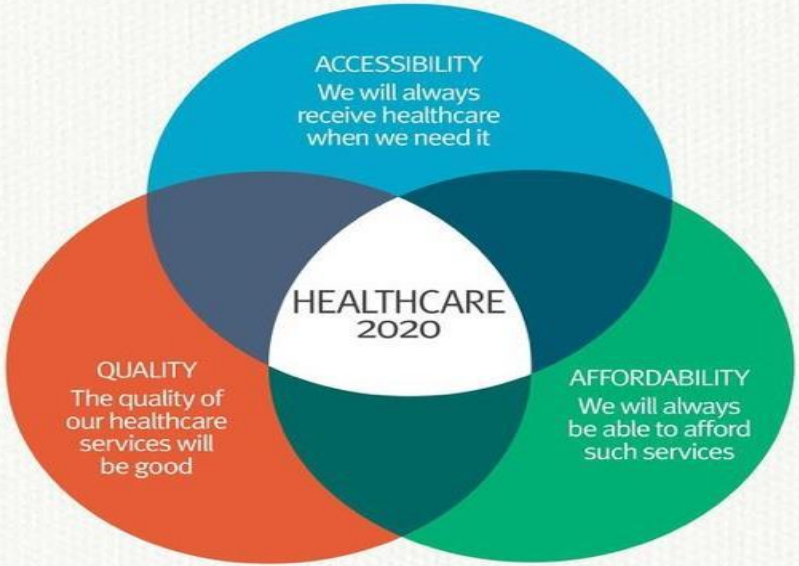
Healthcare 2020:
Improving Accessibility, Quality & Affordability

In March this year, the Ministry of Health unveiled the Healthcare 2020 Masterplan - essentially measures to enhance the accessibility, affordability, and quality of healthcare – to better meet the needs of Singaporeans.



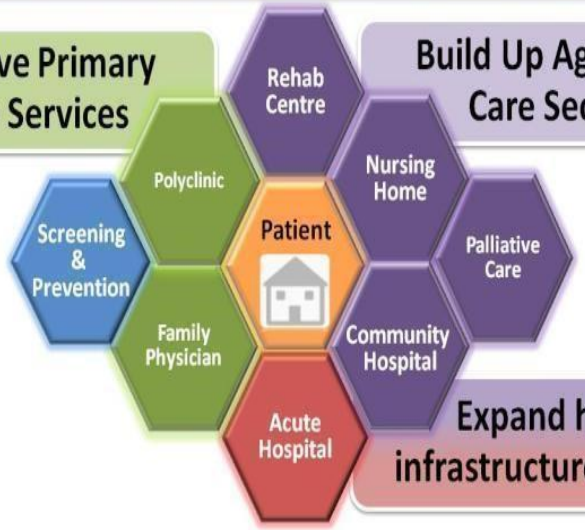
Strategies

Improve Quality Outcomes · Raise Care Standards

Integrate Care Through Regional Health Systems

Improve Primary Care Services

Build Up Aged Care Sector



Expand healthcare infrastructure capacity

Grow and retain our pool of healthcare professionals

Improve healthcare financing to keep healthcare affordable

Singapore tops in life expectancy at 84.8 years

Average S'porean enjoys longest span of good health, but years spent in poor health also up

Salma Khalik
Senior Health Correspondent
salma@sph.com.sg

Singapore topped the world in life

policies are formulated and implemented.

Life expectancy and healthy years

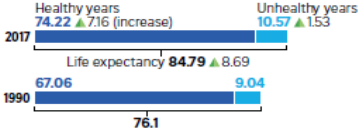
Life expectancy (2017)

Male	Years	Female	Years
Switzerland	82.12	**Singapore**	**87.55**
Singapore	**81.94**	Japan	87.21
Israel	81.28	Hong Kong	86.11
Hong Kong	81.15	Iceland	85.94
Japan	81.08	Spain	85.83

Years lived in good health (2017)

Male	Years	Female	Years
Singapore	**72.58**	**Singapore**	**75.81**
Hong Kong	72.34	Hong Kong	75.01
Japan	71.41	Japan	74.65
Switzerland	71.19	Spain	73.62
Italy	70.63	South Korea	73.45

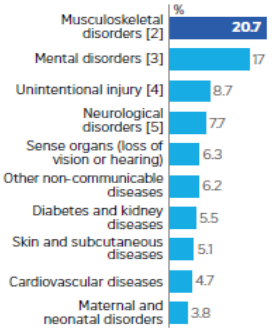
Changes to Singaporeans' life expectancies



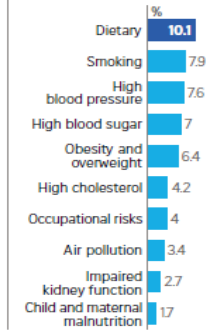
Source: THE BURDEN OF DISEASE IN SINGAPORE, 1990-2017
STRAITS TIMES GRAPHICS

Poor health and the main causes

Leading causes of years lived with disability in Singapore [1]



Major modifiable risk factors for ill health in Singapore



NOTES:
[1] Ill health that debilitates but does not kill
[2] Injury to the bones, joints, muscles, tendons, ligaments or nerves
[3] Significant as they start at a young age and last a long time
[4] Half of the injuries were caused by falls
[5] Including dementia, headache and stroke

Source: THE BURDEN OF DISEASE IN SINGAPORE, 1990-2017 STRAITS TIMES GRAPHICS

4.9% of GDP
spent on healthcare in 2016

2016 : ~$21 billion
2010: $10.9 billion

Rising demand of healthcare with an **ageing population**

1 in 4 Singaporeans will be aged 65 & above in 2030

Bloomberg 2019 Healthiest Country Index

2019 Rank	2017 Rank	Change	Economy	Health Grade	Health Score	Health Risk Penalties
1	6	+5	Spain	92.75	96.56	-3.81
2	1	-1	Italy	91.59	95.83	-4.24
3	2	-1	Iceland	91.44	96.11	-4.67
4	7	+3	Japan	91.38	95.59	-4.21
5	3	-2	Switzerland	90.93	94.71	-3.78
6	8	+2	Sweden	90.24	94.13	-3.89
7	5	-2	Australia	89.75	93.96	-4.21
8	4	-4	Singapore	89.29	93.19	-3.90
9	11	+2	Norway	89.09	93.25	-4.16
10	9	-1	Israel	88.15	92.01	-3.86

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Beyond Healthcare 2020

MINISTRY OF HEALTH
SINGAPORE

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Ecosystemic approach to influence lifestyle behaviours across life-course

Prevention of Non-Communicable Diseases

Mental Wellbeing Promotion

Lifestyle Risk Factors

Obesity Control
- Healthier food
- Physical activity
- Weight management

Tobacco Control
- Prevent initiation
- Promote cessation

Early detection & follow up: chronic diseases and cancers

Youth Preventive Health
- Growth & Development
- Immunisation
- Oral Health

School

Workplace

Community

Life course Approach

Formation of 3 Integrated Clusters

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SingHealth Regional Health System

Vision

Transforming Care. Improving Health

Mission

Partnering communities to

Keep Well

Population Health Improvement
Keeping the population as healthy as possible in the community

Get Well

Population Health Management
Access to right care at the right place and time

Age Well

Ageing in Place
The ability to live in one's own home and community safely, independently, and comfortably, regardless of age, income or ability level

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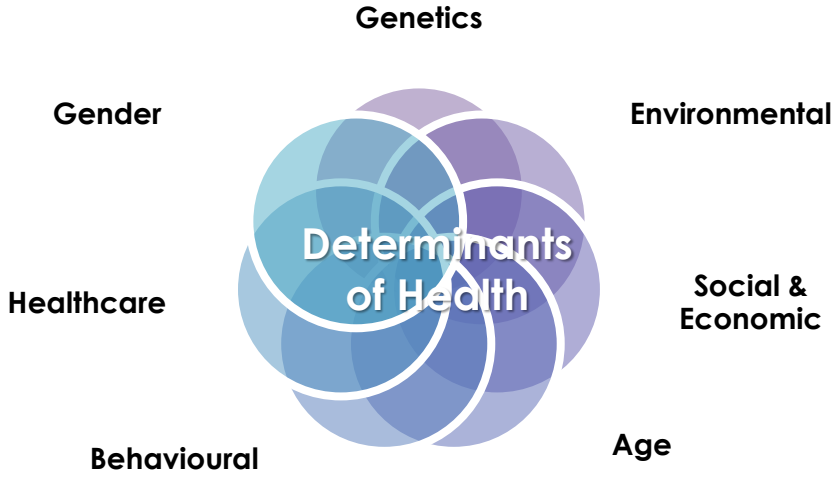
Life Journey Approach to Population Health

Birth | Early Childhood | Adolescence | Young Adulthood | Parenting | Middle Age | Early Seniority | Late Seniority | End of Life

Build Enabled Communities by Leveraging Strengths of the Community

Integrate Healthcare Teams for Seamless Care

Bridge Health and Social Care Services



Delivering Care That Matters

Taking into consideration **behavioral and social determinants** of health and a **life course perspective**

Bio-psychosocial characteristics

+

Acuity and severity of disease

+

Health care utilisation

+

Socio-demographic groupings

Behavioural Determinants of Health

Life Course Transitions

Complex adaptive nature of health

Birth → Early Childhood → Adolescence → Young Adulthood → Parenting → Middle Age → Early Seniority → Late Seniority → End of Life

Improved risk stratification of our populations, resulting in more effective and efficient interventions and implementation

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Communities of Care

Geographical Team-Based Approach

- ✓ Deeper understanding of the **population needs in the respective zones**
- ✓ **Skill-mix** to cater to different levels of needs and care
- ✓ **Greater accessibility**
- ✓ **Ease of collaboration** and building capability for health & social care personnel
- ✓ **Increase efficiency** in resource allocation

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Enabling Seamless and Coordinated Care

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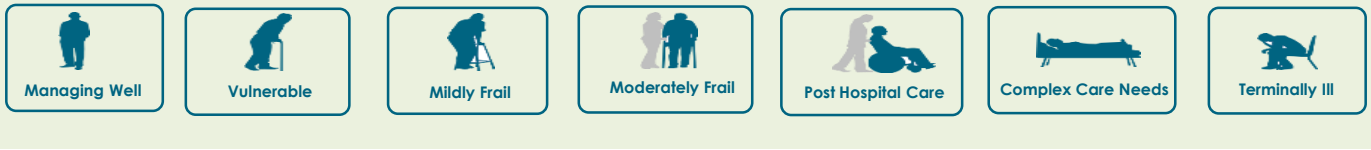
SingHealth Community Nursing

Objectives

- Building healthy & empowered community
- Right siting & Integration of care
- Continuing quality care in community and ageing in place

Roles

Prevent	Empower	Re-enable	Palliate
Preventive Health for Seniors	Empowerment of Self-management of Chronic Conditions	Transitional Care for High Risk Clients, Post Acute Care	Palliative Care for Clients with Non-malignant Conditions



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Preventive Health for the Well & Pre-frail

Managing Well

Vulnerable

Community Health Posts

- Located at RCs & CCs

- Nurses' roles:
  - Regular health coaching and monitoring individuals with abnormal screening results to
    - Make healthy lifestyle changes
    - Promote follow-up with primary care providers

  - Individual & group education and activities

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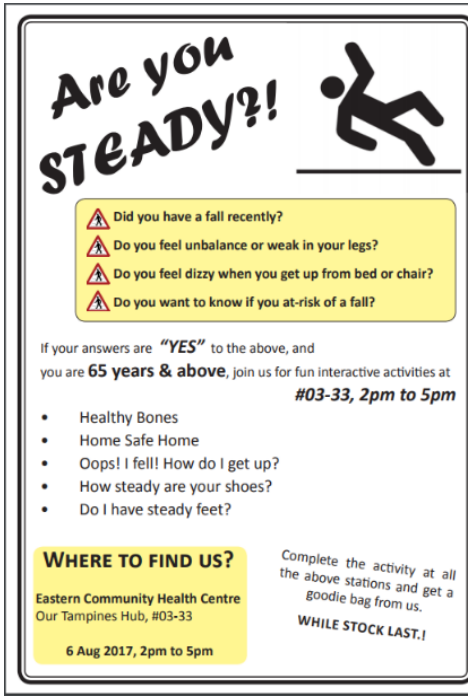
Preventive &Self-Management Service for Frail Seniors

Community Falls Prevention Programme

Vulnerable | Mildly Frail | Moderately Frail

Developed by Community Nursing, Community Geriatrics, Ophthalmology, and Rehabilitation Service



1. SCREENING

Vision Function Tests
- LogMAR Vision
- Stereoscopic Vision
- Contrast Sensitivity (MET)

Short Physical Performance Battery Test
- Balance
- Gait Speed
- Chair Stand

Falls Assessment Form
- Personal health information
- Cognitive Screening
- Fracture Risk
- Specific falls assessment

2. REFERRALS

Failed eye function test
- OPS for further referral to Eye Clinic

SPPB > 6 with no significant medical history
- Structured Exercise Programme
- If participants are keen, to administer the PARQ

SPPB </= 6 + positive screen for risk factors for falls
- PT @ CHC
  - No other risk factors
  - </= 2 falls in last 1 yr
  - Fear of falling
- Polyclinic + PT @ CHC
  - Postural giddiness
- Falls Clinic (get referral from OPS)
  - >/= 2 falls in last 3 months
  - >/= 3 falls in last 1 year
  - Injurious falls
  - LOC
  - Dizziness
  - Impaired cognition
  - Significant fracture risk

3. EDUCATION

Falls Prevention Education to all + following topics if needed.
- Vision care - Structured Exercise Programme - Postural dizziness - Osteoporosis - Footwear

** If the participant screens positive for > 1 domain, to refer to the service with higher level of intervention.*

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Community Falls Prevention Programme

Vulnerable | Mildly Frail | Moderately Frail

1st Level:
Falls Screening & Awareness

Screening

2nd Level:
Comprehensive Falls Assessment, Education & Follow Up Interventions

Vision Screening

Education

Gait & Balance

Falls Risk Questionnaire & Education

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Community Nurse Posts

Self-management & empowerment for frail seniors & their caregivers

Mildly Frail

Moderately Frail

43 SingHealth Community Nursing Posts have served

> 9,000 Unique Residents Since launch in 2017

Services

- Health & Geriatric Assessment e.g. falls, forgetfulness
- Health Coaching for Disease Prevention
- Chronic Disease Monitoring & Self-management Education
- Medication Self Management Support & Education
- Care Referral & Coordination

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Support for patients with high risks & complex care needs

Post hospital care

Complex Care needs

Safe and timely transit from hospital to home for

- Frail patients with complex care needs, high healthcare utilisation, and/or
- High risk of preventable readmissions

Hospital to Home (H2H) Service

Basic and advanced nursing care and procedures

Specialized care management

Care and case management

Patient and caregiver education and training

Early-Discharge Services

Community OPAT: complete IV antibiotics treatment via home care

Subcutaneous injection for chemotherapy

Community vascular wound management

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Health Management Unit

Post hospital care

Telecare for chronic disease management

Telecarers (trained nurses) provide regular phone support to patients with diabetes, COPD, heart failure, hip fracture and acute myocardial infarct

Tele-monitoring	Tele-education	Care Coordination
Monitor parameters such as blood glucose, pulse rate, blood pressure and weight	Patients are educated on how to recognise and manage symptoms	Telecarers coordinate patients' care with partners: polyclinics and GPs, case managers, psychologists, AHPs, ILTC sector

Patient Relations Management IT system
Alerts telecarers when patients visit the A&E, are admitted to the hospital, miss their follow-up appointments, or have any abnormal lab results

Early intervention and follow-up care

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Oversight of Community Nursing Development

Advisors:
- GCN; CN, SGH
- Dy GCN; CN, CGH
- CN, SHP

SingHealth RHS
Community Nursing Committee

Community Nursing

Lay Extenders

neighbours for Active Living

Strategic direction & governance
Alignment and harmonization of services & practice
Professional development of community nurses
Learning, sharing and co-development of best practices
Endorsement of new guidelines/protocols related to community nursing
Recommendation on issues requiring discussion or approval in higher level management platforms

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Community Palliative Nursing (Generalist)
Training & Competency Framework

Aim

Equip community nurses with the knowledge and skills to provide palliative home care

Training providers

ASSISI HOSPICE Caring for Life

LIEN Centre for Palliative Care

SingHealth Academy | College of Clinical Nursing

ST. ANDREW'S COMMUNITY HOSPITAL

Singapore General Hospital

Changi General Hospital

Competencies

A. Palliative care management

- Assessment and care planning including Advanced Care Planning
- Symptom management, comfort and well being
- Communications

B. Procedural Skills

- Subcutaneous insertion & management
- High fleet enema
- Per rectal examination
- Oral care
- Fentanyl patch application, disposal & patient education

Basic ELNEC (2 days) + subset training OR E-learning

↓

20-hour clinical attachment to hospices / palliative care services

↓

Palliative care journal club, case logs, other related training

Thank You

For more info on SingHealth Regional Health System, please visit www.singhealth.com.sg/rhs

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