Medical social collaboration 2.0 - Service and Technology Innovation

醫社合作 2.0 - 創新服務和應用科技



Reasons for Medical-social collaboration #1: Resource allocation in the healthcare system



Hospitalization rate

4 times of



General bed utilization rate

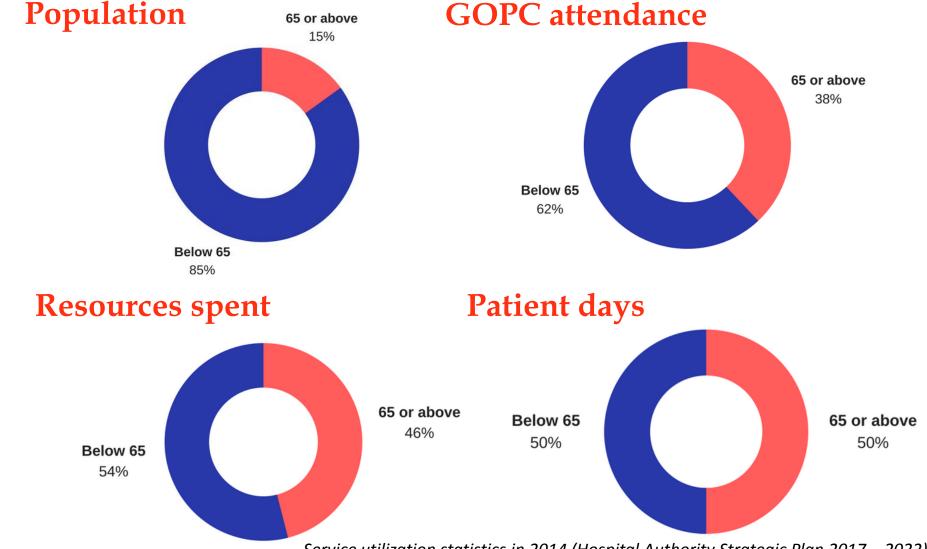


9 times of



Service utilization statistics in 2014 (Hospital Authority Strategic Plan 2017 – 2022)

Reasons for Medical-social collaboration #1: Resource allocation in the healthcare system



Reasons for Medical-social collaboration #1: Resource allocation in the healthcare system

Hong Kong ranked #1 among 55 regions by Bloomberg

- Bloomberg Health-Care Efficiency Index measures the <u>life expectancy</u>, <u>health-care spending per capita</u> and relative spending as a share of GDP
- High ranking mainly due to government subsidy
- US was ranked #50, it has the highest health expenditure per-capita per year on the list (USD 9,403 vs. USD 2,201)

Current Rank	2009 Rank	Change	Country/Region	Efficiency Score	Life Expectancy	Relative Cost %	Absolute Cost \$
1	1	-	Hong Kong	88.9	83.98	5.40	2,021
2	2	-	Singapore	84.2	82.65	4.92	2,752
3	8	5	Spain	72.2	83.80	9.03	2,658
4	7	3	S. Korea	71.5	82.16	7.37	2,060
5	3	-2	Japan	68.2	83.59	10.23	3,703
50	49	-1	U.S.	32.6	78.94	17.14	9,403

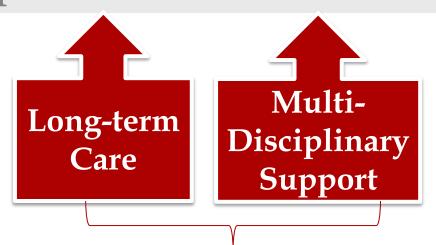
Reasons for Medical-social collaboration #2: Whole-person Care for the Elderly

Health is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity.

- World Health Organization, 1948



Chronic conditions + Physical Frailty + Epidemic of Loneliness



Integrated Model with Medical & Social Expertise

The Existing Model: Medical - Social Collaboration 1.0



Service Referral

Post-discharge Support

Patient Resource Centre

Carers' Training

Bridging the gaps of medical-social service.



The Paradigm Shift: Medical - Social Collaboration 2.0



Prevention

Early Detection

Chronic disease management

Step-down care

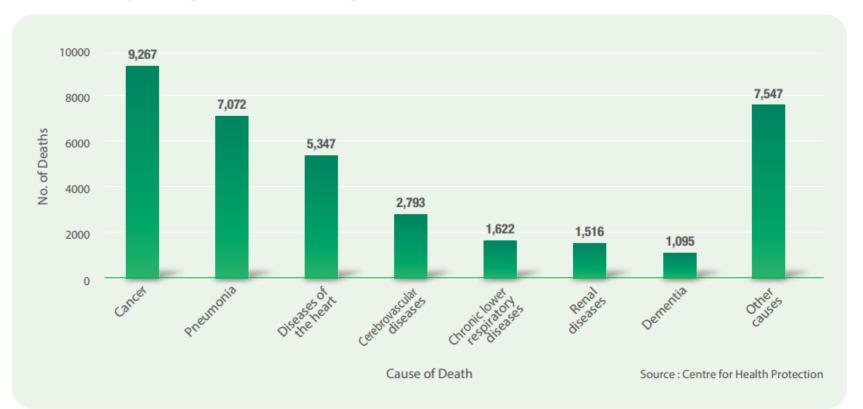
Self empowerment

Healthcare outside the hospital walls.

Challenge #1: Chronic Disease Management

Chronic conditions are prevalent in elderly population (65 or above) → Major burden to the healthcare system

No. of Deaths by Leading Cause of Death in Ages 65 and Above (2014)



Service utilization statistics in 2014 (Hospital Authority Strategic Plan 2017 – 2022)

Challenge #1: Chronic Disease Management

Projected increase in number of patients with chronic conditions in 2024 compared to 2014

Diabetes



Stroke



Hypertension



Coronary heart disease



Service utilization statistics in 2014 (Hospital Authority Strategic Plan 2017 – 2022)

#1: Community Health Centre (CHC) Model

Chronic disease management

REAL CHALLENGES:

Medication + Consultation + Lifestyle change

Lack of motivation... Lack of resources... Not practical...



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"Down to earth"
Professional Advice

Practical Scenario
Training
Peer Support

Challenge #2: Dementia tsunami

Example: Dementia care

Multi-pronged impact calls for Multi-disciplinary support



Challenge #2: Dementia tsunami

Only 10%

dementia patients have received formal diagnosis*

Waiting Time of New Case Booking for Specialist Out-patient Services of Psychiatry (1 April 2016 – 31 Mar 2017)

Urgent Case

(Average of all clusters)

Semi-urgent Case

(Average of all clusters)

Stable Case

(Average of all clusters)

~1 week

 $\sim 3 - 4$ weeks

 \sim 92 weeks (42 - 165 weeks)

^{*}Active Prevention & Early Detection of Cognitive Impairment, Simon K.Y. Lee Foundation, 2015

#2 Alternative to Diagnosis before Treatment

Example: Dementia care

Diagnosis → Treatment
Thinking out of the box...

Alternatives?

- Behavioral therapy
- No-drugs approach
- No harm done in wrong diagnosis
- Benefits of cognitive training



Pilot Scheme on
Dementia
Community
Support Services
for the Elderly

智友醫社同行

Challenge #3: Long Waiting Queue

專科門診穩定新症輪候時間

Waiting Time for Stable New Case Booking for Specialist Out-patient Services

2016年4月1日至2017年3月31日

1 April 2016 - 31 March 2017

(資料只供參考 For reference only)

2010年4月1日主	2017年3月31日	1 April 2016 = 31	Warch 2017			真性八份多为 10116	oloronoc omy)				
	醫院聯網 Hospital Clusters										
	港島東 HK East	港島西 HK West	九龍中 Kowloon Central	九龍東 Kowloon East	九龍西 Kowloon West	新界東 NT East	新界西 NT West				
耳鼻喉科 Ear, Nose, Throat	50 星期/weeks	39 星期/weeks	60 星期/weeks	94 星期/weeks	61 星期/weeks	64 星期/weeks	77 星期/weeks				
眼科 Eye	53 星期/weeks	41 星期/weeks	91 星期/weeks	137 星期/weeks	54 星期/weeks	68 星期/weeks	50 星期/weeks				
婦科 Gynaecology	142 星期/weeks	149 星期/weeks	47 星期/weeks	65 星期/weeks	62 星期/weeks	88 星期/weeks	126 星期/weeks				
内科 Medicine	75 星期/weeks	78 星期/weeks	93 星期/weeks	98 星期/weeks	87 星期/weeks	103 星期/weeks	71 星期/weeks				
 伊科 Orthopaedics & Traumatology	99 星期/weeks	105 星期/weeks	91 星期/weeks	121 星期/weeks	136 星期/weeks	179 星期/weeks	79 星期/weeks				
兒科 Paediatrics	19 星期/weeks	17 星期/weeks	28 星期/weeks	26 星期/weeks	22 星期/weeks	35 星期/weeks	26 星期/weeks				
精神科 Psychiatry	42 星期/weeks	127 星期/weeks	51 星期/weeks	98 星期/weeks	67 星期/weeks	165 星期/weeks	92 星期/weeks				
外科 Surgery	63 星期/weeks	59 星期/weeks	52 星期/weeks	85 星期/weeks	70 星期/weeks	84 星期/weeks	71 星期/weeks				

下次更新日期: 2017年7月31日

Date of Next Update: 31 July 2017

#3 Community and Self Care - Tele-medicine

Example: Tec4Home in Vancouver

Telehealth for Emergency-Community Continuity of Care Connectivity via Home-tele-monitoring for Patients with Heart Failure Conditions



Doctor - Patient / Carers Partnership

Continuous monitoring...

- Less Revisits to Hospital
- Better Patient Quality of Life
- Better management of health conditions
- Real-time alerts of complications
- Empower self-care ability

^{*}Research done by Prof. Kendall Ho at St. Paul's Hospital, Vancouver General Hospital (Study Period: Oct 2016 – Aug 2017)

#3 Community and Self Care – Health monitoring at residential homes



Bridge the Medical - Social Gap in Technology



#3 Community and Self Care – Health monitoring at residential homes







- Health data collection and sharing
- Continual health monitoring





#3 Big data analysis to address upstream cause

Analysis of statistics of admission causes

Collaboration with academics for analysis → Make policy recommendations → Tackle problem from the upstream cause

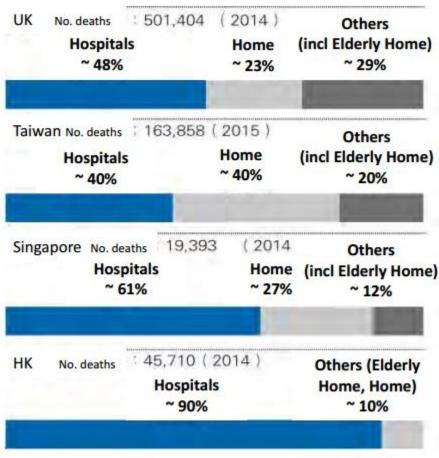
- Fall hotspots?
- Elderly homes with frequent bedsore problems?





Challenge #4 Significant costs for End-of-life

Comparisons across countries – Place of Death



Ref: Mingpao News July 10, 2016

Challenge #4 Significant costs for End-of-life



Figure 1. Cumulative Health Care Expenditures from the Age of 65 Years until Death, According to the Type of Health Service and the Age at Death.

Spillman & Lubitz (2010)

#4 Cost-saving for End-of-life Care

Last days & Dying-in-place - Alternatives to Hospital

- Last days at Residential Homes for the Elderly with CGAT support
- Dying-in-Nursing Home (DIN)

Less cost incurred + More social support





More intensive visits by CGAT doctors



More training for staff on palliative care skills

Conclusion

- Enhance 1.0
- **↑ Cross-disciplinary communication**
- Launch 2.0

Restructure healthcare division of labour Revamp traditional mode of service delivery

Mutual Trust & Respect

Role perceptions

Autonomy and interdependence

Thank you!

