# Primary Care Needs of Older People in the Community: a Hong Kong Solution

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# A Fit for Purpose Health System

- **A system suited to accomplish its intended purpose**
- **Changing in a changing world:**

***Changing context:***

- An ageing population
- Prevalence of preventable chronic illness and loss of capacity
- Influenced by the social determinants of health

***Changing needs:***

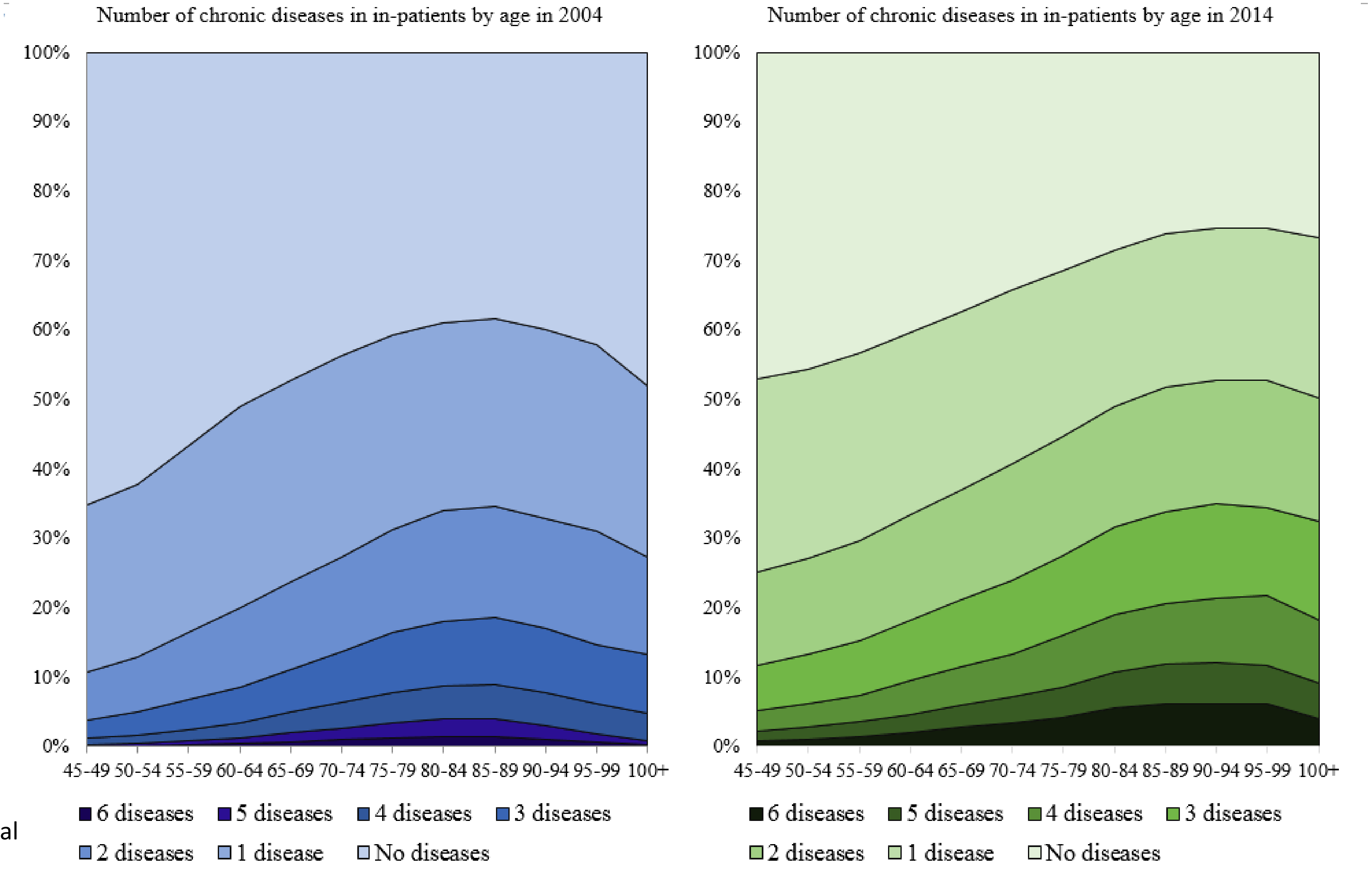
- Physical, mental, social and spiritual health needs
- Across the life course

***Changing knowledge & technology:***

- New medical knowledge, medical technology, information and communications technology
- Disrupting conventional models of care

# Hong Kong’s Changing Context

**Number of chronic diseases among inpatients, by age group, in the public sector in year 2004 and 2014**



Source: Yeoh (2018). Population ageing and systems rethinking. Annual Meeting of the International Society of Behavioral Nutrition and Physical Activity. International Society of Behavioral Nutrition and Physical Activity, 3-6 June 2018.

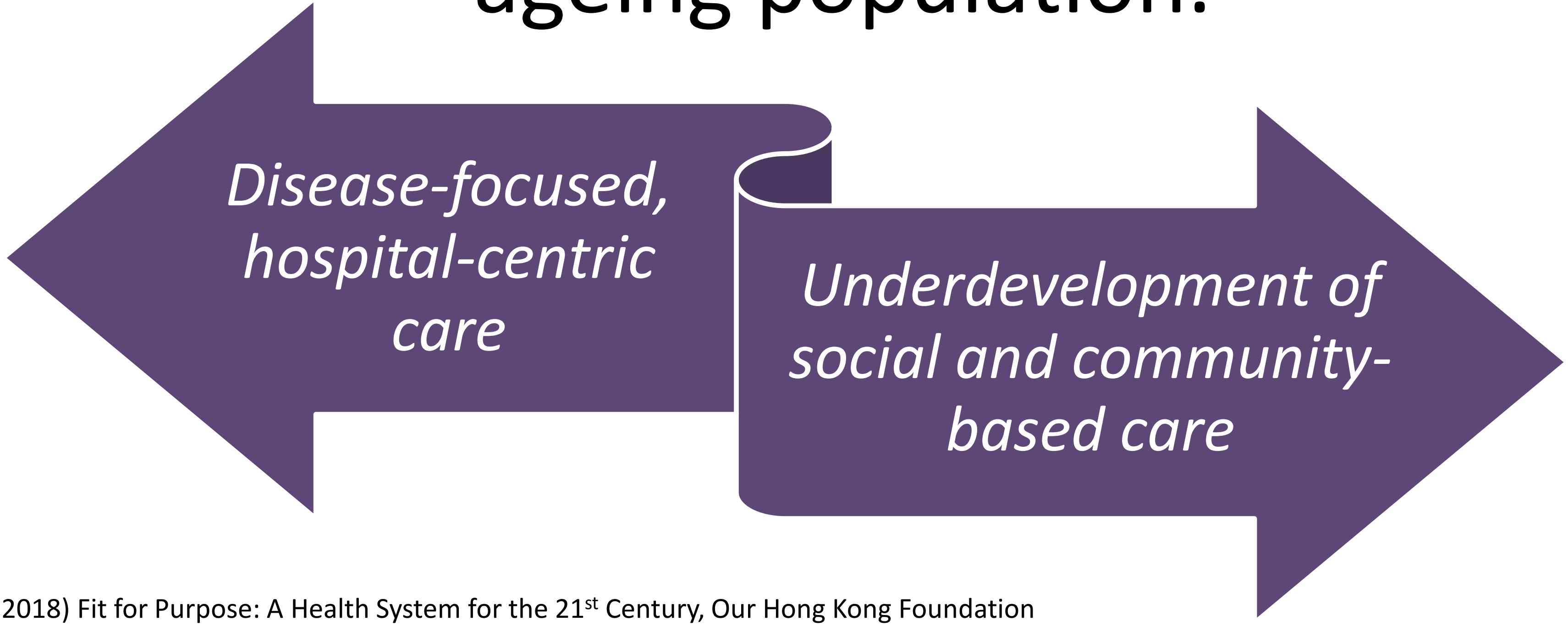
# Hong Kong's Challenges

- **Longer living populations**
- Prevalence of **preventable chronic conditions**
- **Lifestyle-related and socially determined**
- Fundamental **mismatch between services**
- **Shifting demand profile** necessitates a whole-of-society and life course approach

- **Fragmentation and segmentation**
  - Primary and hospital services
  - Personal and population health services
  - Long-term and community care
  - Public and private sectors
- **Advances in:**
  - **Medical knowledge and technologies** information and communication technology
- New opportunities while **disrupting current healthcare provision and financing models**

# Challenge 1: Mismatch

Mismatch between **how health services are delivered and the changing healthcare needs** of ageing population.



*Disease-focused, hospital-centric care*

*Underdevelopment of social and community-based care*

Source: EK Yeoh et al (2018) Fit for Purpose: A Health System for the 21st Century, Our Hong Kong Foundation

# Among all Hospital Admissions for Hong Kong Elderly, 65+

15% RCHE vs 85% home

46.8% due to ambulatory care sensitive conditions (ACSC)*

4% result in death in hosp.

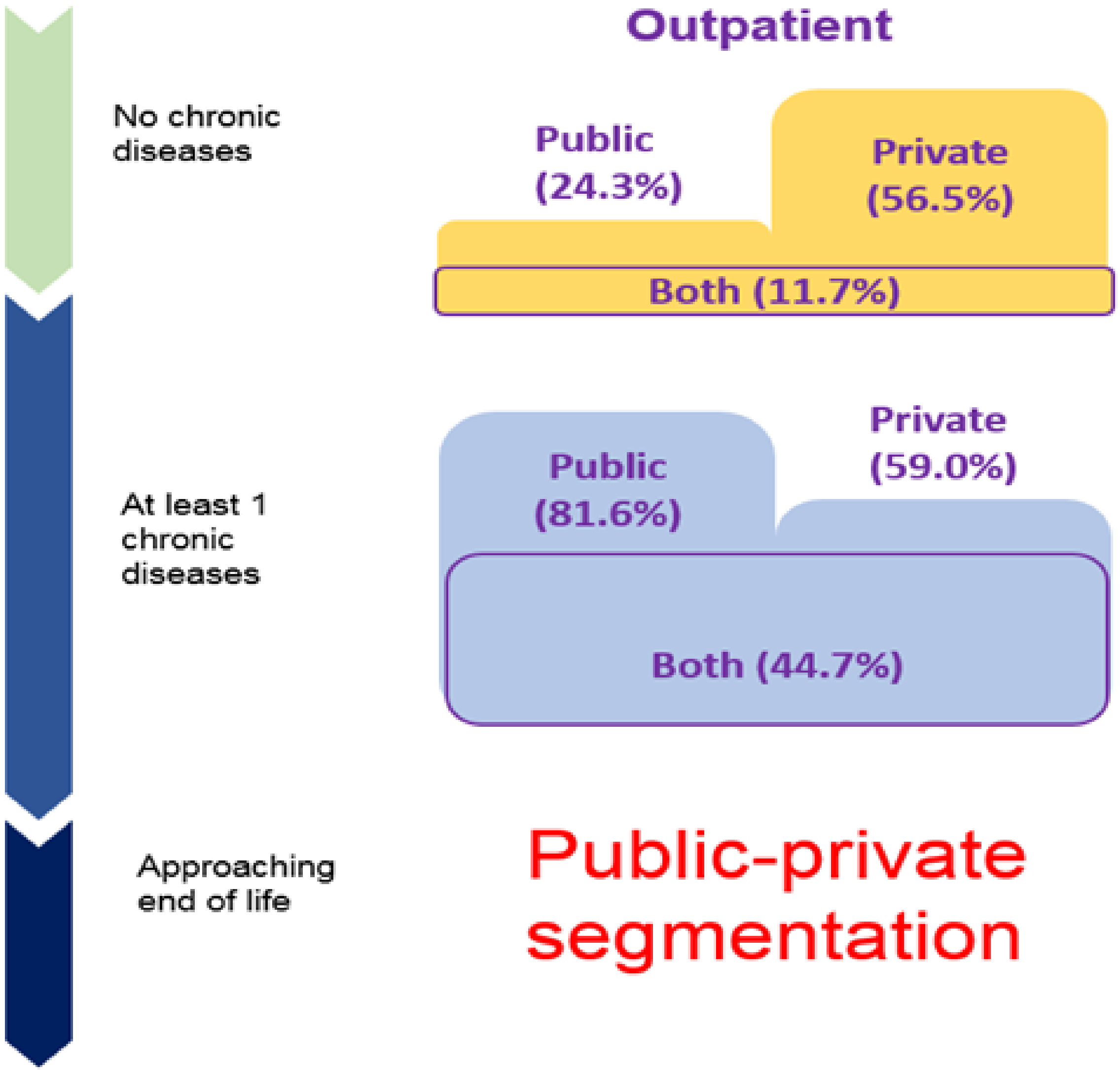
About 20% avoidable readmission in 30days

Segmentation of Health and Social Systems

**ACSC: Conditions in which hospitalization can be avoided by timely and effective care in ambulatory settings*

Source: Yeoh, 2018

# Patterns of Seeking Outpatient Care in Hong Kong

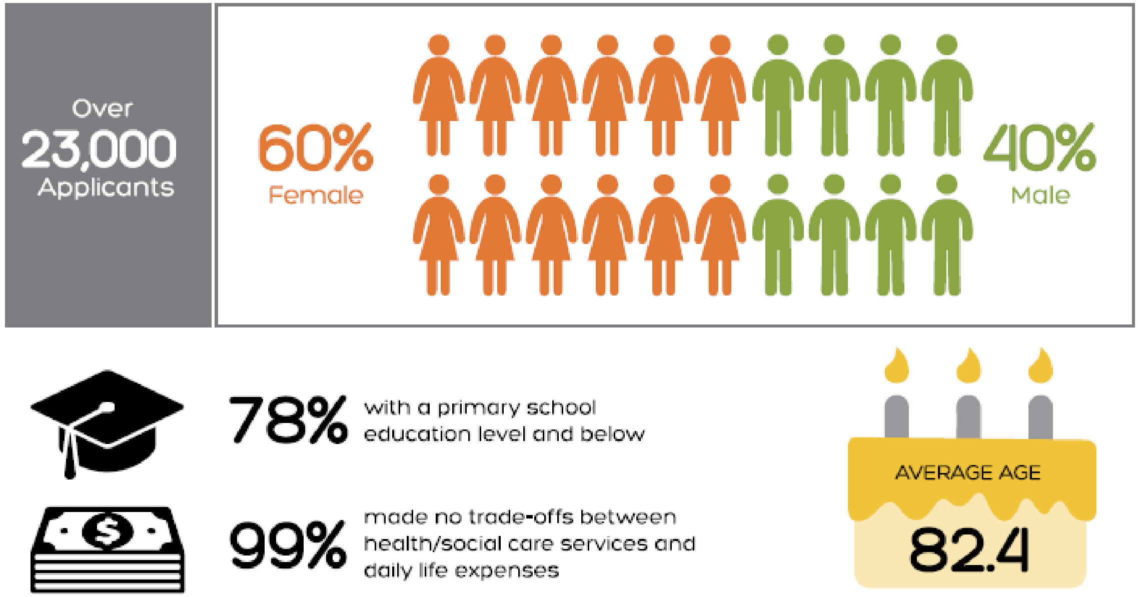

Outpatient
No chronic diseases
Public (24.3%)
Private (56.5%)
Both (11.7%)
At least 1 chronic diseases
Public (81.6%)
Private (59.0%)
Both (44.7%)
Approaching end of life

Public-private segmentation

Source: Yeoh, 2018

# Profile of Long Term Care Applicants

Standardised Care Need Assessment Mechanism for Elderly Services (SCNAMES)



Over **23,000** Applicants

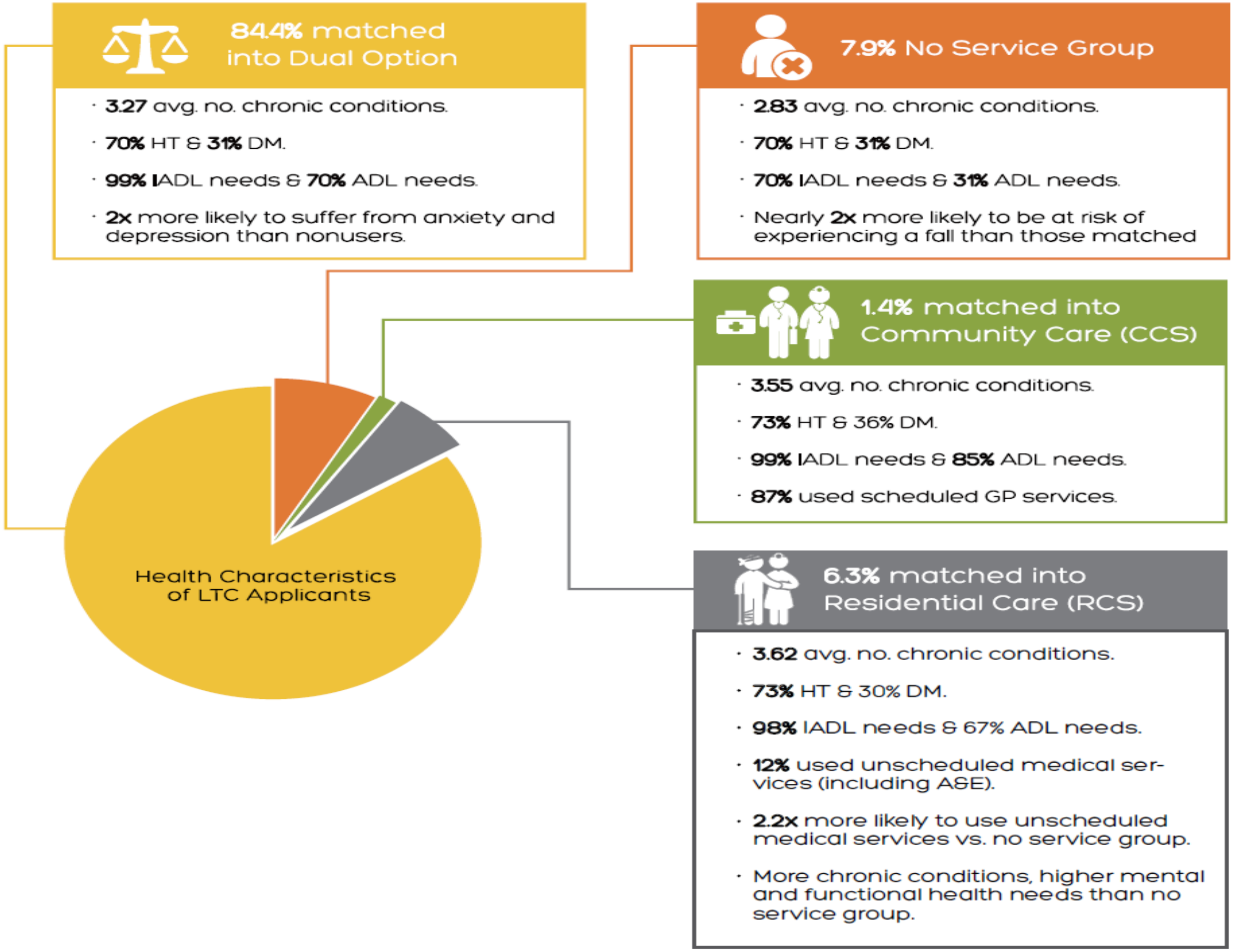
**60%** Female

**40%** Male

**78%** with a primary school education level and below

**99%** made no trade-offs between health/social care services and daily life expenses

AVERAGE AGE **82.4**



**84.4% matched into Dual Option**

- **3.27** avg. no. chronic conditions.
- **70%** HT & **31%** DM.
- **99%** IADL needs & **70%** ADL needs.
- **2x** more likely to suffer from anxiety and depression than nonusers.

**7.9% No Service Group**

- **2.83** avg. no. chronic conditions.
- **70%** HT & **31%** DM.
- **70%** IADL needs & **31%** ADL needs.
- Nearly **2x** more likely to be at risk of experiencing a fall than those matched

**1.4% matched into Community Care (CCS)**

- **3.55** avg. no. chronic conditions.
- **73%** HT & 36% DM.
- **99%** IADL needs & **85%** ADL needs.
- **87%** used scheduled GP services.

**6.3% matched into Residential Care (RCS)**

- **3.62** avg. no. chronic conditions.
- **73%** HT & 30% DM.
- **98%** IADL needs & 67% ADL needs.
- **12%** used unscheduled medical services (including A&E).
- **2.2x** more likely to use unscheduled medical services vs. no service group.
- More chronic conditions, higher mental and functional health needs than no service group.

Source: Our Hong Kong Foundation

# Challenge 2:
# Fragmentation and Segmentation

## *Delivery system fragmentation*

- ➢ Different **types of care**
- ➢ Different **settings and organisations**
- ➢ Different service **providers**
- ➢ Various **processes**
  - "Natural fissure lines" contributing to care fragmentation in a life course

## *Health system segmentation*

- ➢ Segmentation of **service delivery and financing** between public and private sectors.
- ➢ **Public-private** divide

## *Health and social sector segmentation*

- ➢ Segmentation of **service and finance of health social sector**
- ➢ Hinder **transition** along patient care pathways & **inadequate medical and social support**

Source: EK Yeoh et al (2018) Fit for Purpose: A Health System for the 21st Century, Our Hong Kong Foundation

# Challenge 3: Primary Care

## The primary care system is underdeveloped.

- Primary care in the private sector is ***unaffordable*** for certain segments of the population

- ***Underdeveloped*** primary care contributes to:
  - System fragmentation
  - Service delivery inefficiency
    - Encourages patients to access specialist and acute services
    - Overspecialization results in multiple healthcare providers within a single patient care pathway contributing to fragmentation
    - Serial referrals to different specialists can lead to service overlap, gaps in service delivery, longer wait times and inefficiency

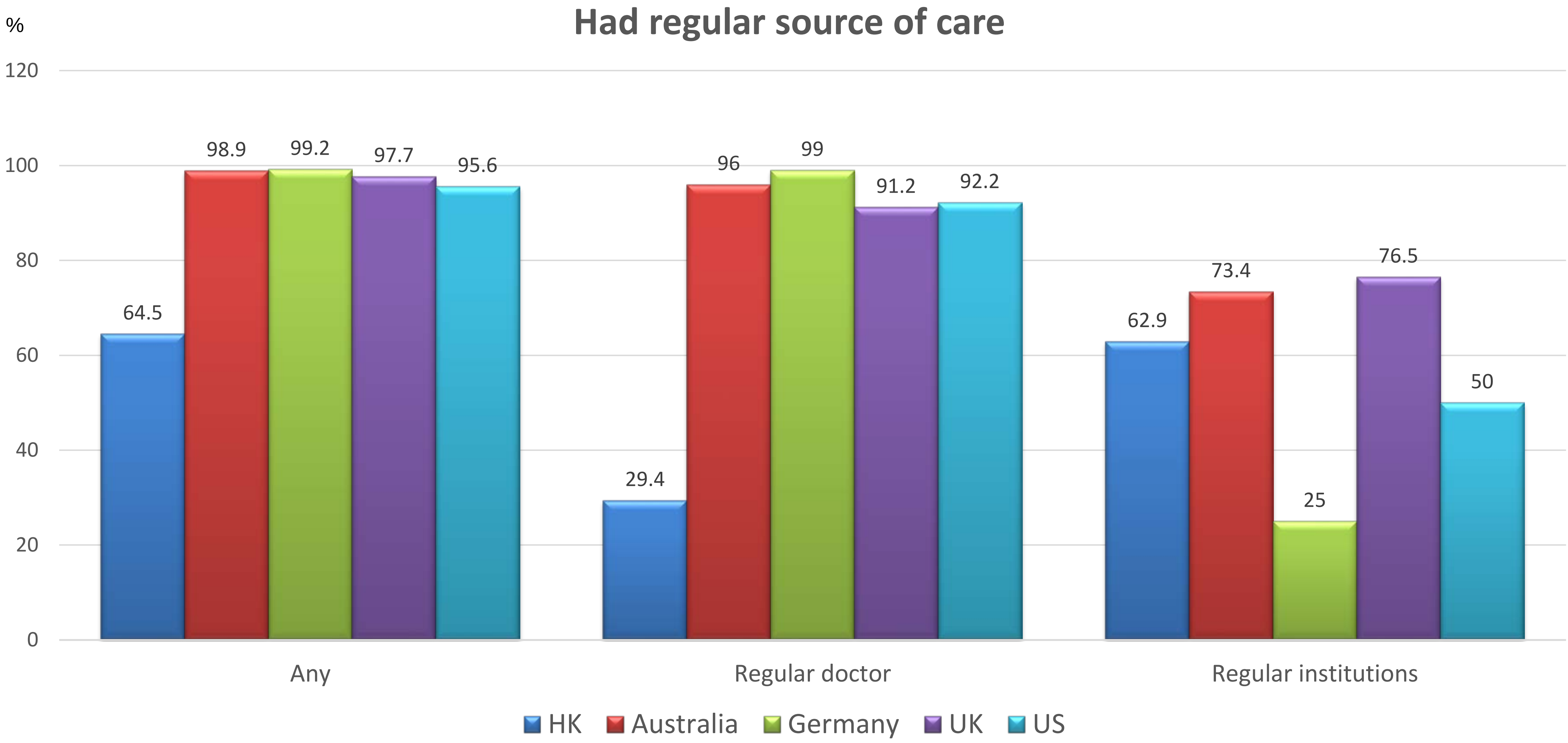
Source: EK Yeoh et al (2018) Fit for Purpose: A Health System for the 21st Century, Our Hong Kong Foundation

# Regular source of care among adults aged ≥60 in Hong Kong

| | Number | % |
|---|---|---|
| **All causes A&E visit in the past year** | **172** | **17.2** |
| 1 – 2 | 156 | 15.6 |
| 3 – 4 | 10 | 1.0 |
| 5 – 6 | 3 | 0.3 |
| ≥ 7 | 4 | 0.4 |
| **Had regular doctor for medical care** | **294** | **29.4** |
| One doctor | 277 | 27.7 |
| More than 1 doctor | 17 | 1.7 |
| **Had regular institutions for medical care** | **629** | **62.9** |
| **Providers of regular source of care** | | |
| General outpatient clinic/family medicine clinic | 282 | 44.8 |
| HA specialist outpatient clinic | 259 | 41.2 |
| Private family doctor | 135 | 21.5 |
| Chinese medicine clinic | 10 | 1.6 |
| Other private service (GP, specialist and hospital outpatient clinics) | 30 | 4.8 |
| Other public service (GDH, EHC DH) | 3 | 1.0 |

Source: Wong SY et al. JAMAD 2017; 18: 807.e1-807.e8.

# Healthcare usage among adults aged ≥60



Source: Wong SY et al. JAMAD 2017; 18: 807.e1-807.e8.

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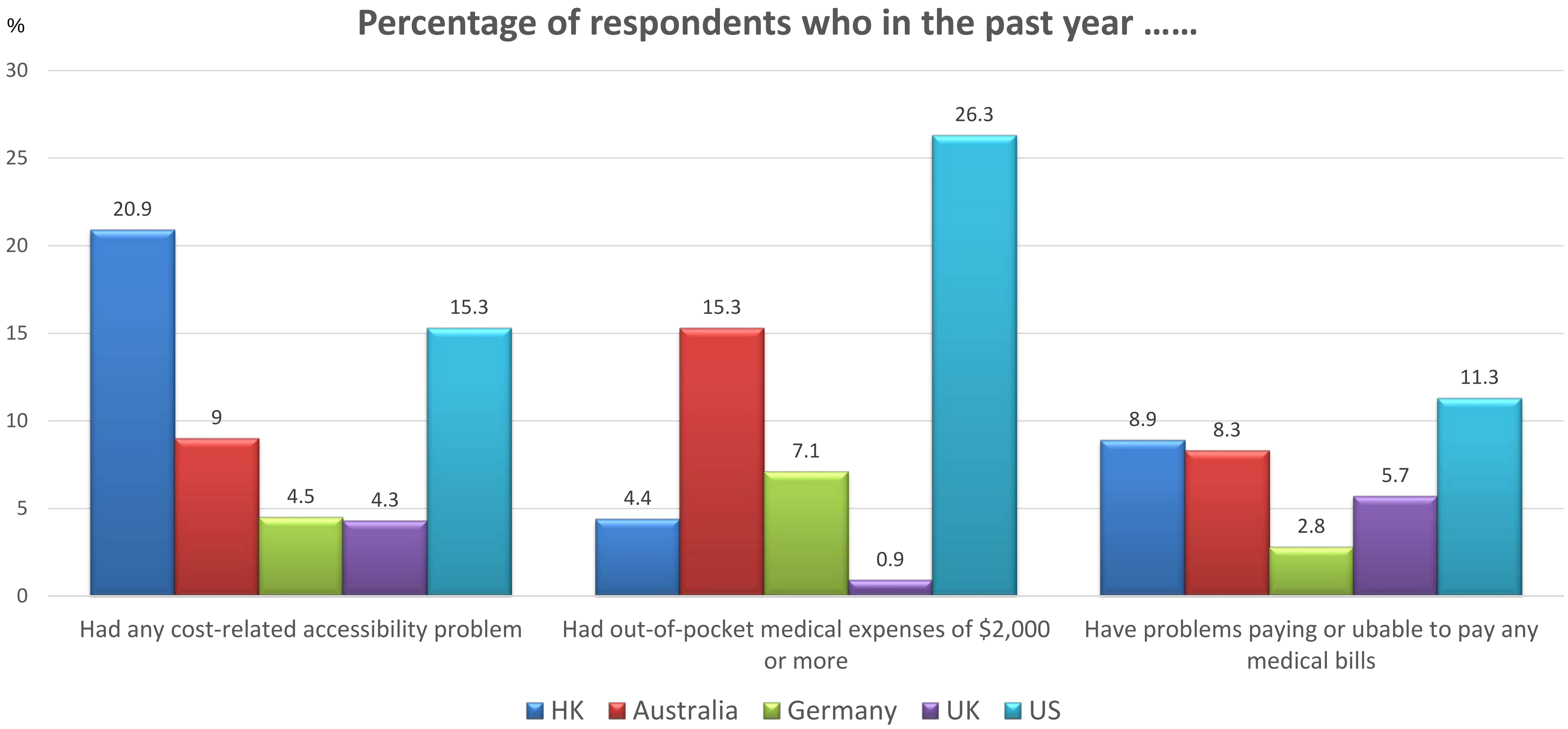
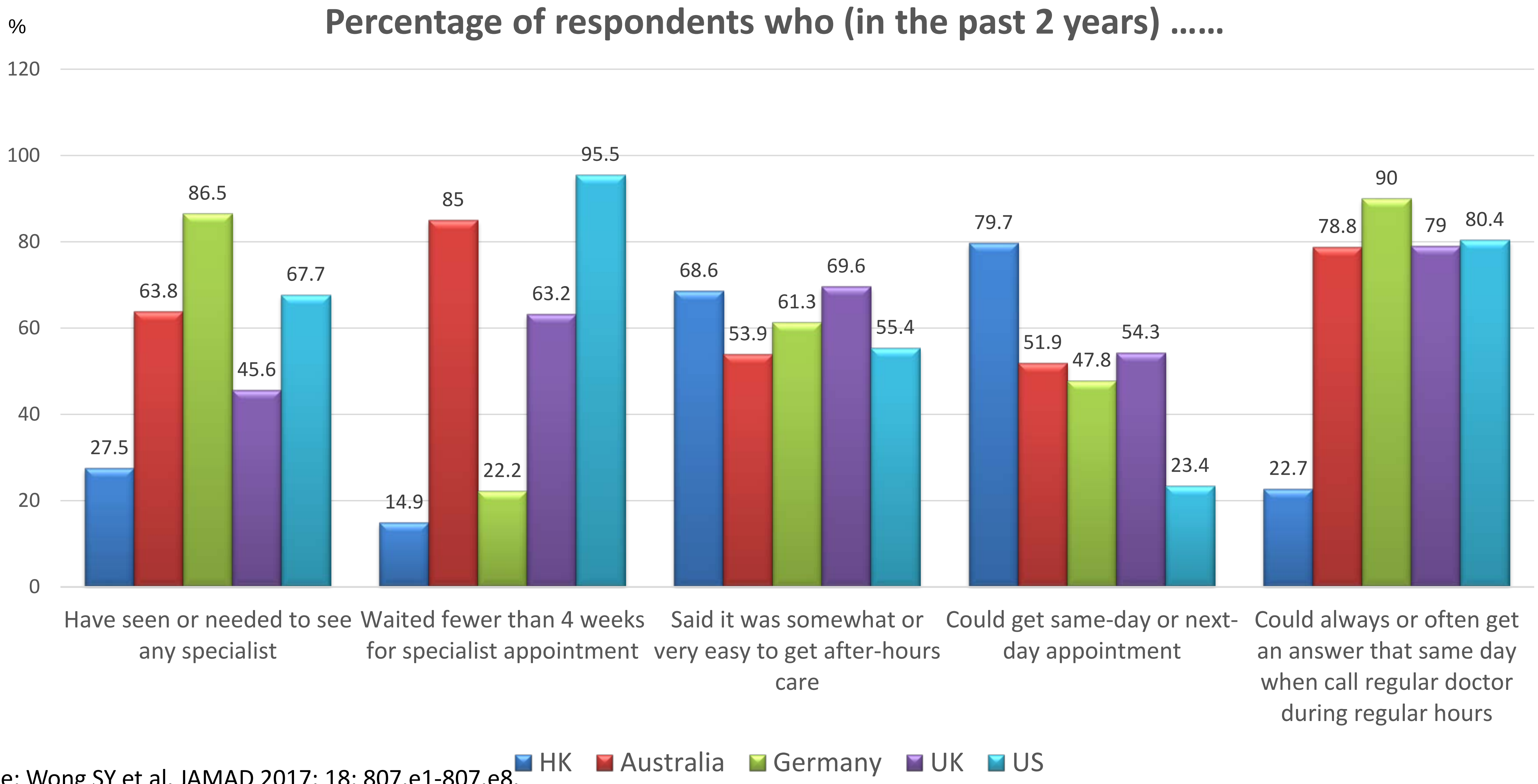
# Healthcare cost and access among adults aged ≥60 (1)



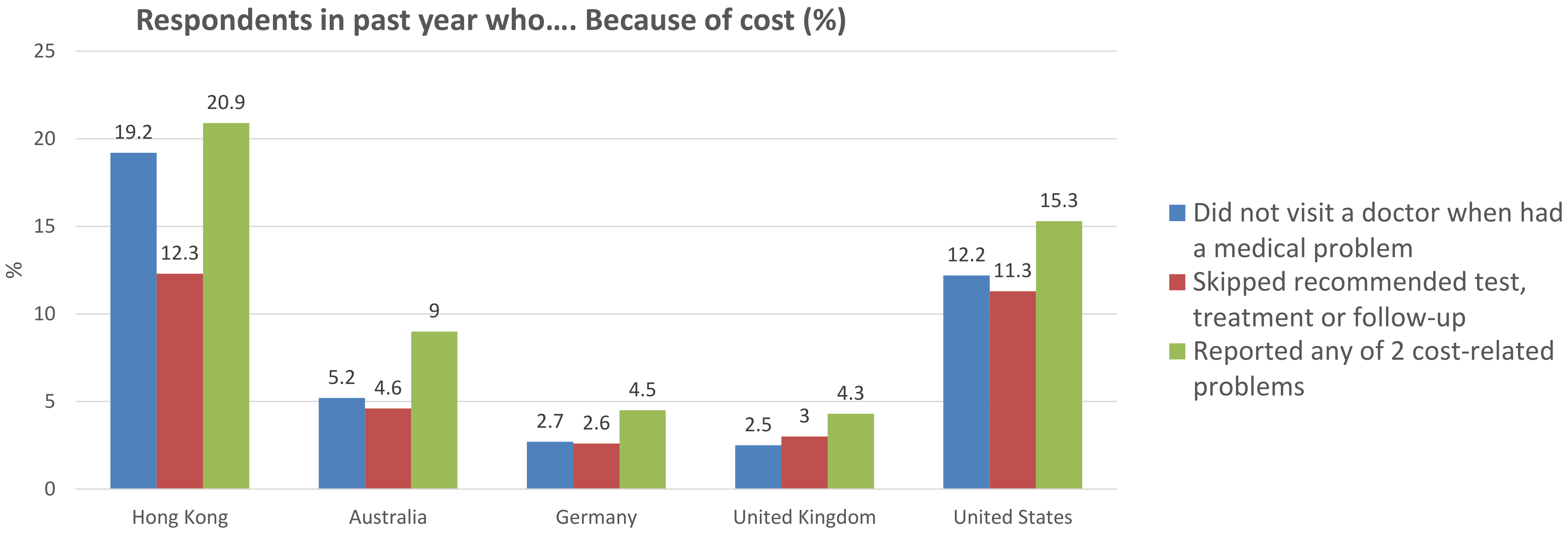
Source: Wong SY et al. JAMAD 2017; 18: 807.e1-807.e8.

# Healthcare cost and access among adults aged ≥60 (2)



Source: Wong SY et al. JAMAD 2017; 18: 807.e1-807.e8.

# Cost-related accessibility problems among adults aged ≥60

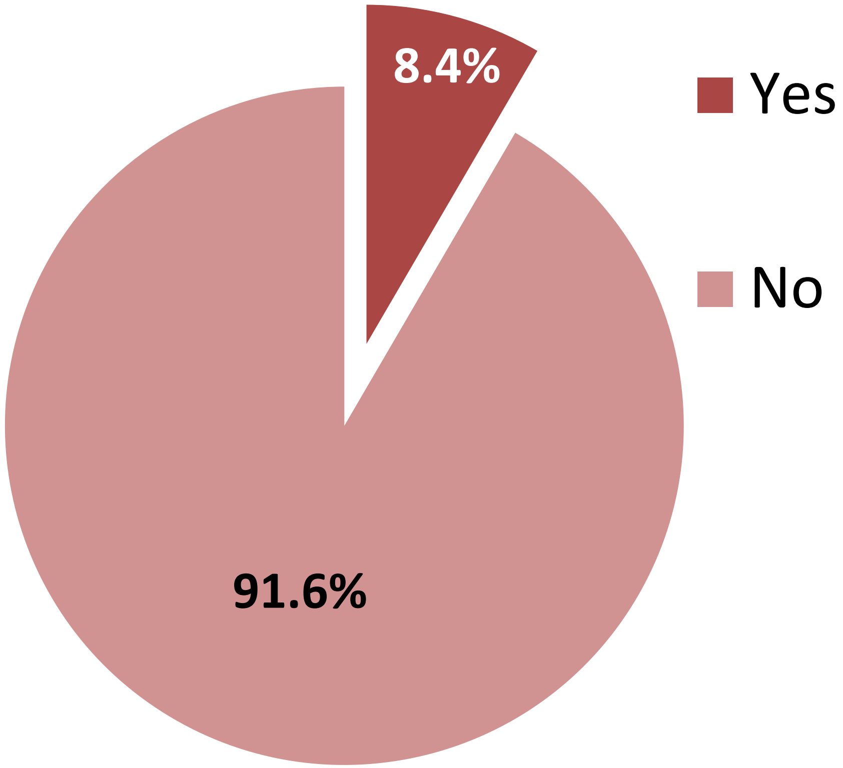


Source: Wong SY et al. JAMAD 2017; 18: 807.e1-807.e8.

# Financial Barriers to Medical Care among the Poor

A random sample of Hong Kong household (2,233 respondents)

## *Unable to seek medical care due to lack of financial means:*



*Median household income:*

Yes ***(HKD$7,668)***

No ***(HKD$12,500)***

SYS Wong et al (2018) PLOS One

# From Challenges to Opportunities for Change

The **challenges** we face:

- Demographic change (Ageing populations)
- Preventable chronic illnesses
- Technological change

**3 components to change**:

1. Patient-centred
2. Integrated care
3. Primary care-led

Enabled by

**Health Governance and Leadership**

Source: EK Yeoh et al (2018) Fit for Purpose: A Health System for the 21st Century, Our Hong Kong Foundation

# Transforming the System to be Fit for Purpose

**Person-centred Care**

- We need to reorient the health system for “the community of persons”.

**Primary Care-led Integrated Care**

- We need to reorganise how services are delivered to strengthen integration within and between providers and sectors.

**Health Governance**

- We need to put in place governance levers and structures to support and enable the development of new service models.

Source: EK Yeoh et al (2018) Fit for Purpose: A Health System for the 21st Century, Our Hong Kong Foundation

# Person-centred Care

**Reorient the health system for *“the community of persons”*.**

***Promoting patient and community empowerment, engagement and coproduction.***

- Self-care, and empowerment including families and communities
- Empowerment programmes to cover a comprehensive range of diseases and enabling health
- Promoting coproduction in health

Source: EK Yeoh et al (2018) Fit for Purpose: A Health System for the 21st Century, Our Hong Kong Foundation

# Person-centred Care

***Positioning the patient as the "Integrator of services" in a person health journey over the life course.***

- ***Enable "person health pathways"***
  - **"Patient portal"** Electronic Health Record Sharing System empowers patients to monitor health, integrating health promotion, disease prevention and care process, and enabling coproduction of health
  - Online functions information to help people remain healthy
  - Services coordinated across different care settings and service providers
  - Enable patients and caregivers to become integrators of their own care
  - Telehealth services
  - Apps and 24-hour triage hotlines help people
    - make informed healthcare choices
    - managing health provider appointments
    - virtual consultations
  - Capitalize on the opportunities afforded by big data and AI
  - Further development of information networks and platforms

Source: EK Yeoh et al (2018) Fit for Purpose: A Health System for the 21st Century, Our Hong Kong Foundation

# Primary Care-led Integrated Care

***Strengthen health services integration through new models of care.***

| Conceptual Model of Integrated Health Services |
|---|
| 1. **Designing care across the life course,** care pathways are tailored for the holistic physical, social and spiritual needs of individuals throughout the life course |
| 2. **Organising providers and settings**:<br>• coordination for smooth transition throughout the care pathway<br>• population and personal health functions need to be integrated |
| **3. Managerial processes must be in place.**<br>crucial for sustainability focus on:<br>– efficiency and effectiveness<br>– mechanisms for monitoring, evaluation, review and renewal of current service models |
| **4. Clinical governance**<br>• strengthened to monitor and evaluate how care is being coordinated to meet holistic needs of patients.<br>• assessment of care needs, and discharge planning<br>• service or care pathways, facilitate the delivery of a continuum of care needed across settings and provider transitions |

Source: EK Yeoh et al (2018) Fit for Purpose: A Health System for the 21st Century, Our Hong Kong Foundation

# Primary Care-led Integrated Care

***Accelerate the pace of primary care development in Hong Kong.***

## 1. Primary Care

- ***Comprehensive*** to address holistic needs
- ***Coordinated*** across different care providers and service settings
- ***Continuous*** to cater for needs across the life course
- ***Accessible*** for patients to initiate necessary interactions with health service providers
- ***Quality assurance***

## 2. Scaled up for:

- Population approach of chronic disease management
- Health promotion & prevention

Source: EK Yeoh et al (2018) Fit for Purpose: A Health System for the 21st Century, Our Hong Kong Foundation

# Primary Care-led Integrated Care

***Urgent need to build up a primary care workforce.***

- Enable **'patient affiliation with a primary care doctor'**
- Family doctors
- Generalists trained to deal with multiple chronic illnesses, and ageing-related complications such as decreasing reserves and capacity manifesting as fragility
- Primary care doctors trained to provide long-term & palliative care, care for the disabled
- "Specialists" who provide primary care. 50% of doctors in primary care
- Nursing, allied health professions, social workers & community health work force
- **Multidisciplinary** and **quality assurance**

Source: EK Yeoh et al (2018) Fit for Purpose: A Health System for the 21st Century, Our Hong Kong Foundation

# Integrating Care for Community of Persons

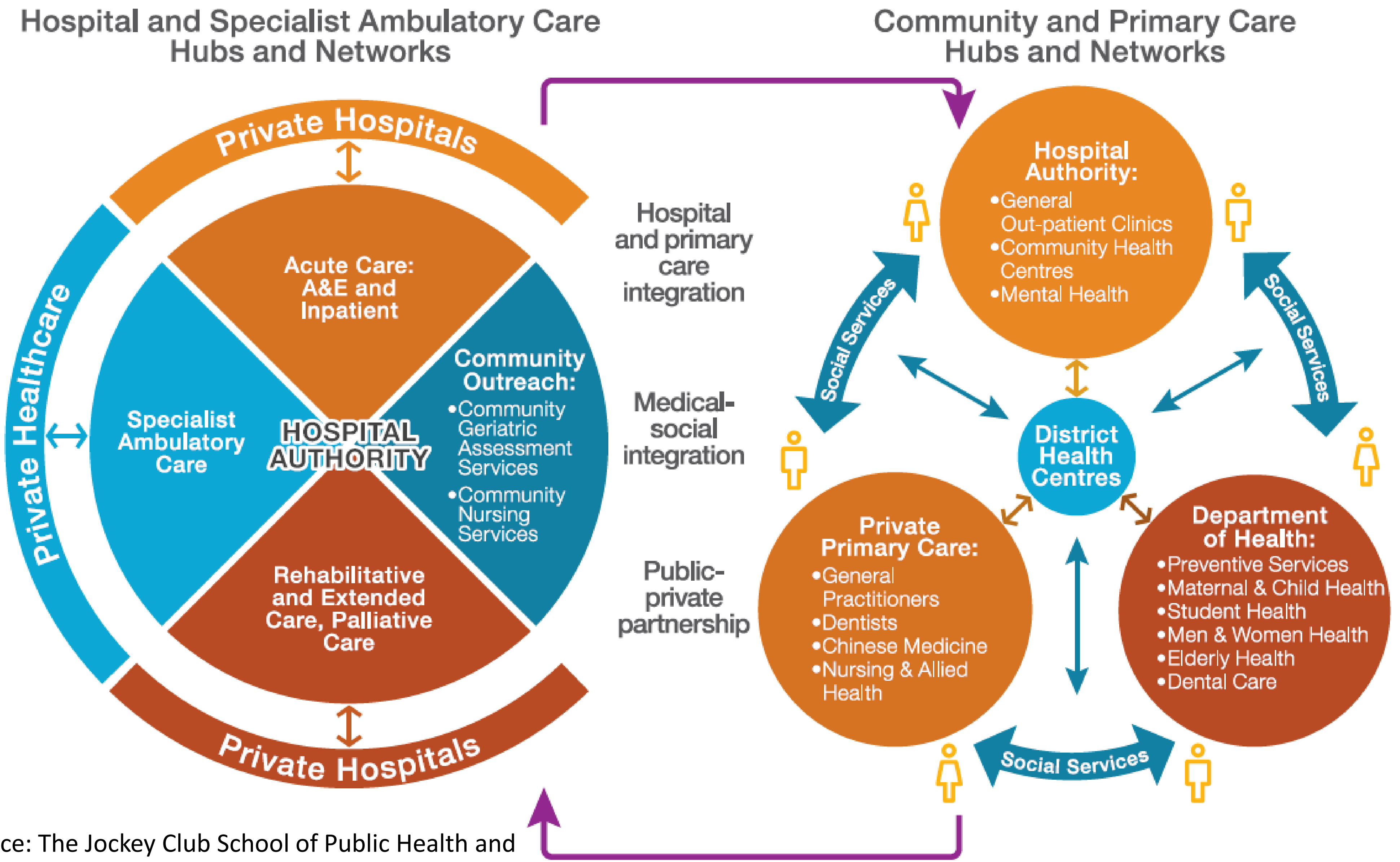
**Integrating community and primary care:**

**District health centres** within and with public and private primary care, health promotion & prevention, specialist care, social services and community care

**Integrating multidisciplinary care:**

- Hospital & specialist care and community and primary care
- Primary & social and community care

# Conceptual Model of Integrated Health Services



Hospital and Specialist Ambulatory Care Hubs and Networks

Private Hospitals

Private Healthcare

**HOSPITAL AUTHORITY**

**Acute Care:** A&E and Inpatient

**Specialist Ambulatory Care**

**Community Outreach:**
- Community Geriatric Assessment Services
- Community Nursing Services

**Rehabilitative and Extended Care, Palliative Care**

Private Hospitals

Hospital and primary care integration

Medical-social integration

Public-private partnership

Community and Primary Care Hubs and Networks

**Hospital Authority:**
- General Out-patient Clinics
- Community Health Centres
- Mental Health

**District Health Centres**

**Private Primary Care:**
- General Practitioners
- Dentists
- Chinese Medicine
- Nursing & Allied Health

**Department of Health:**
- Preventive Services
- Maternal & Child Health
- Student Health
- Men & Women Health
- Elderly Health
- Dental Care

Social Services

Social Services

Social Services

Source: The Jockey Club School of Public Health and Primary Care, 2018

# Primary Care-led Integrated Care

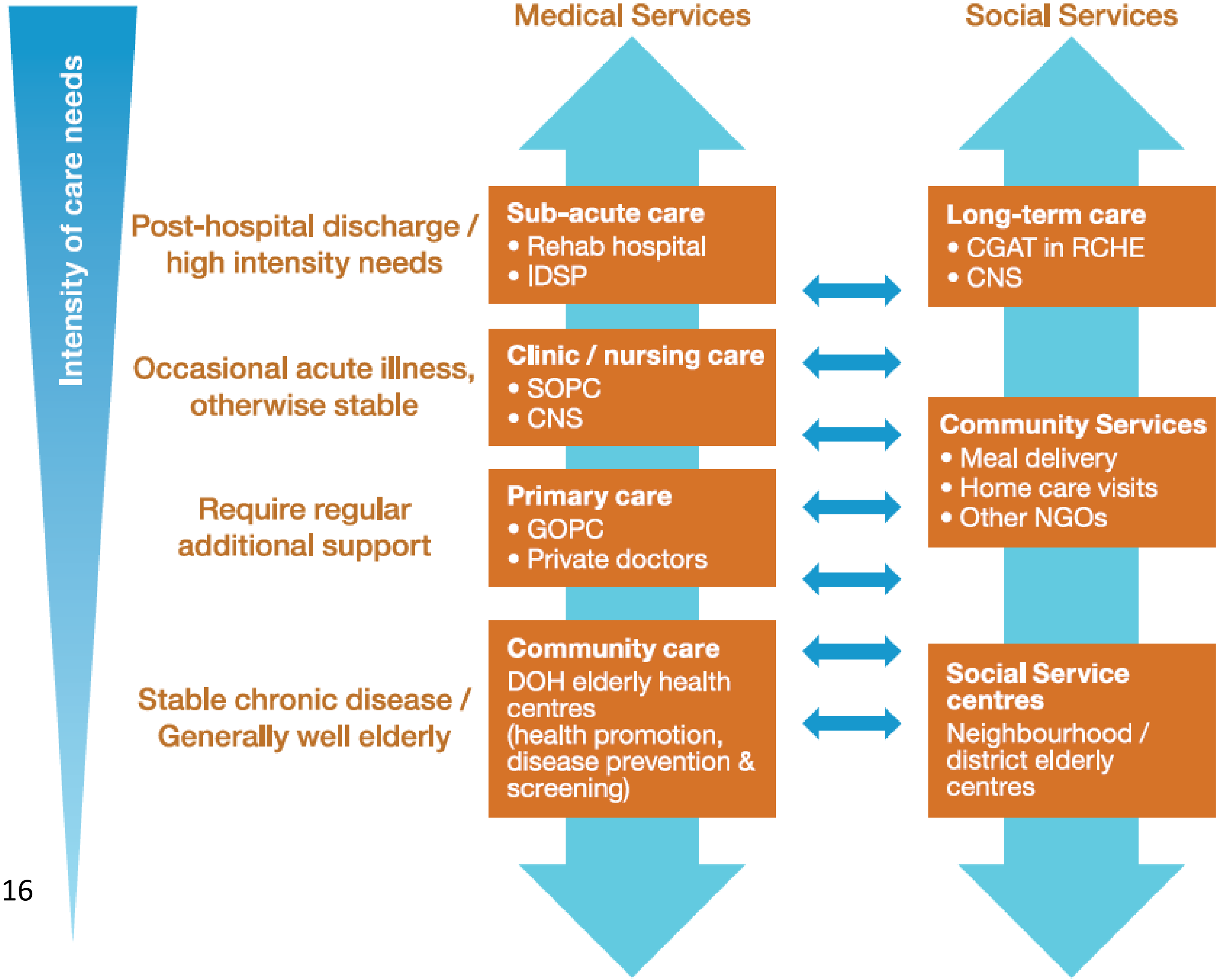
***Enable integration by formalizing links between service providers and healthcare professionals.***

**Tools and Mechanisms to Foster Stronger Connections:**

- Design of care pathways, clinical protocols, care plans, referral and care assessment and discharge protocols
- Reviews of provider organisations, care settings, information flow and patient engagement
- Formal mechanisms enable communication and ongoing dialogue between providers

Source: EK Yeoh et al (2018) Fit for Purpose: A Health System for the 21st Century, Our Hong Kong Foundation

# Conceptual Model for Integrated Community Medical-social Services for the Care of Older People in Hong Kong



Intensity of care needs

Medical Services

Social Services

Post-hospital discharge / high intensity needs

Occasional acute illness, otherwise stable

Require regular additional support

Stable chronic disease / Generally well elderly

**Sub-acute care**
- Rehab hospital
- IDSP

**Clinic / nursing care**
- SOPC
- CNS

**Primary care**
- GOPC
- Private doctors

**Community care**
DOH elderly health centres (health promotion, disease prevention & screening)

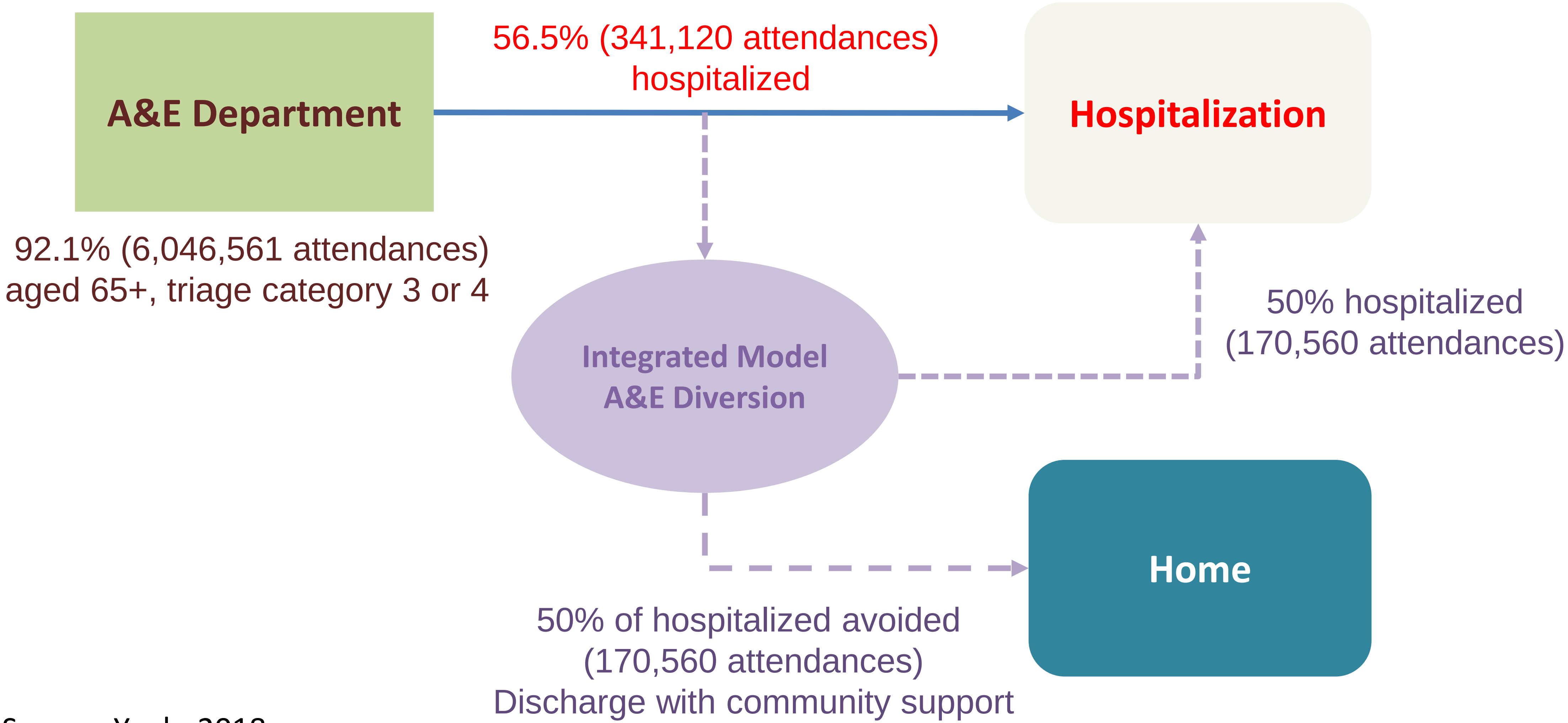
**Long-term care**
- CGAT in RCHE
- CNS

**Community Services**
- Meal delivery
- Home care visits
- Other NGOs

**Social Service centres**
Neighbourhood / district elderly centres

Source: The Jockey Club School of Public Health and Primary Care, 2017; OHKF, 2016

# Integrated Model Between A&E and Geriatric



**A&E Department**

92.1% (6,046,561 attendances)
aged 65+, triage category 3 or 4

56.5% (341,120 attendances)
hospitalized

**Hospitalization**

**Integrated Model**
**A&E Diversion**

50% hospitalized
(170,560 attendances)

**Home**

50% of hospitalized avoided
(170,560 attendances)
Discharge with community support

Source: Yeoh, 2018

# Primary Care-led Integrated Care

***Medical and social care integration.***

- Adequate medical and nursing *support for desirable health outcomes*, adequate *funding*, *resources and infrastructure* need to be available for social care
- *Scale up social support* for chronically ill, frail elderly and patients discharged back into the community
- Study funding needs and *shared funding mechanisms* where health and social care authorities enter *pooled budget arrangements* and agree on integrated spending plan

Source: EK Yeoh et al (2018) Fit for Purpose: A Health System for the 21st Century, Our Hong Kong Foundation

# Primary Care-led Integrated Care

***Re-evaluation of the strategic complementary role of the private sector.***

The role of the private sector in primary care, chronic disease management, long-term care and for defined population groups should be studied and redefined to enable a more strategic role to emerge.

Source: EK Yeoh et al (2018) Fit for Purpose: A Health System for the 21st Century, Our Hong Kong Foundation

# Health Governance

***Strategic and needs-based planning* and strategic purchasing, payment mechanisms and resource allocation.**

- ***Needs and service mix assessments*** to inform priorities from strategic purchasing, commissioning mechanisms
- ***Appropriate resource allocation and payment mechanisms***
  - Budgetary, case payment, bundled, and mix payment capitation for primary, community and hospital inpatient care to encourage efficiency and effectiveness

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Source: EK Yeoh et al (2018) Fit for Purpose: A Health System for the 21st Century, Our Hong Kong Foundation

# Health Governance

***Mechanisms to gather evidence and intelligence, research to support planning.***

- ***Commission research*** studying how health system integration should work in Hong Kong with reference to a framework guided by a vision and systemic in its construct.

***21st century information architecture.***

- Development of ***information networks and platforms*** such as a Big Data Analytics Platform, the electronic health record system and the development of a “Health ID" representing the collation of health data over a life course.

Source: EK Yeoh et al (2018) Fit for Purpose: A Health System for the 21st Century, Our Hong Kong Foundation

# Health Governance

***Align system incentives* to promote integration.**

- Consider ***strategically purchasing services*** encourage coordination and integration.
- ***Redesign vouchers and public-private partnerships*** to target disease prevention and chronic disease management.
- ***Personal health budgets*** can integrate services around individual patients and promote greater personalisation and wellbeing.
- ***Incentives*** for primary care workforce: performance payment, career structure, professionalism.

Source: EK Yeoh et al (2018) Fit for Purpose: A Health System for the 21st Century, Our Hong Kong Foundation

# Elderly Healthcare Voucher: Usage

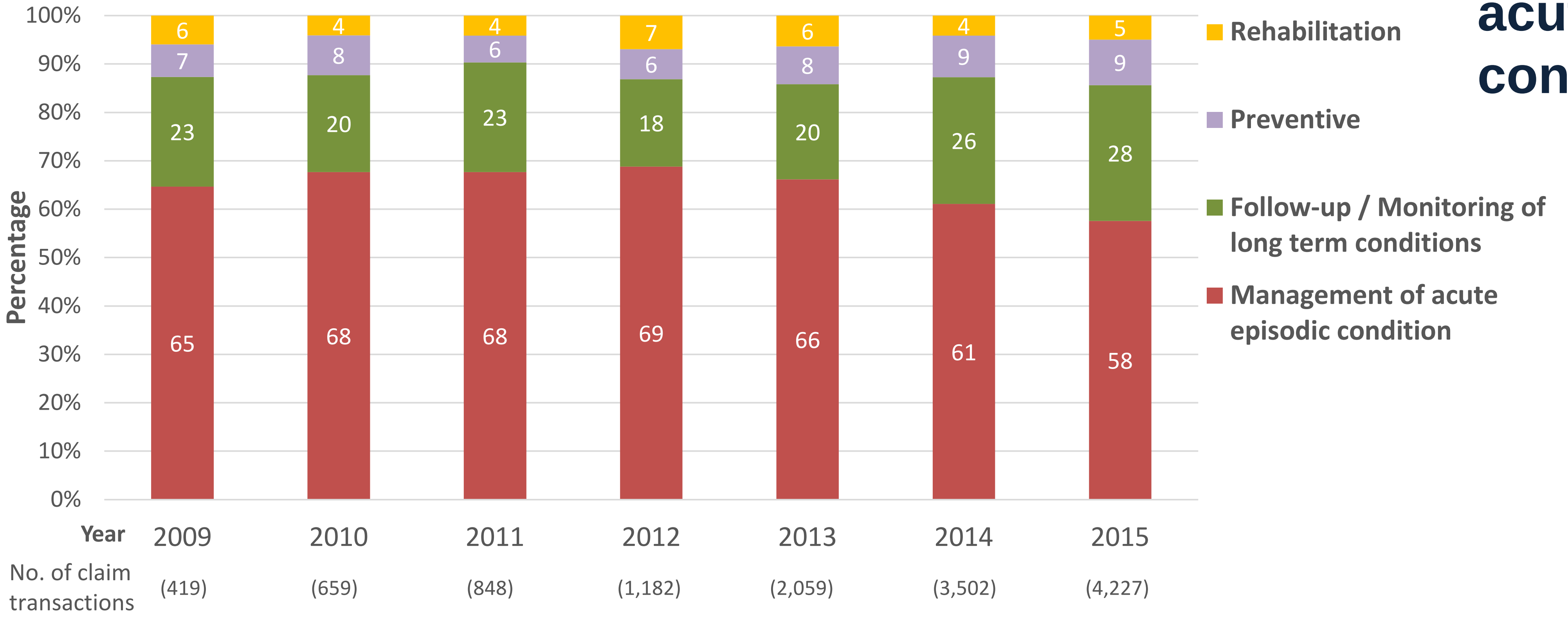
*(from repeated cross sectional survey)*

*(from linked administrative data)*

- An **increase in the ever use of voucher** (95% in 2016, up from 37% in 2010)

Vouchers are **mainly used for acute episodic condition.**

## Voucher Claim Transactions by Reason of Visit (2009-2015)



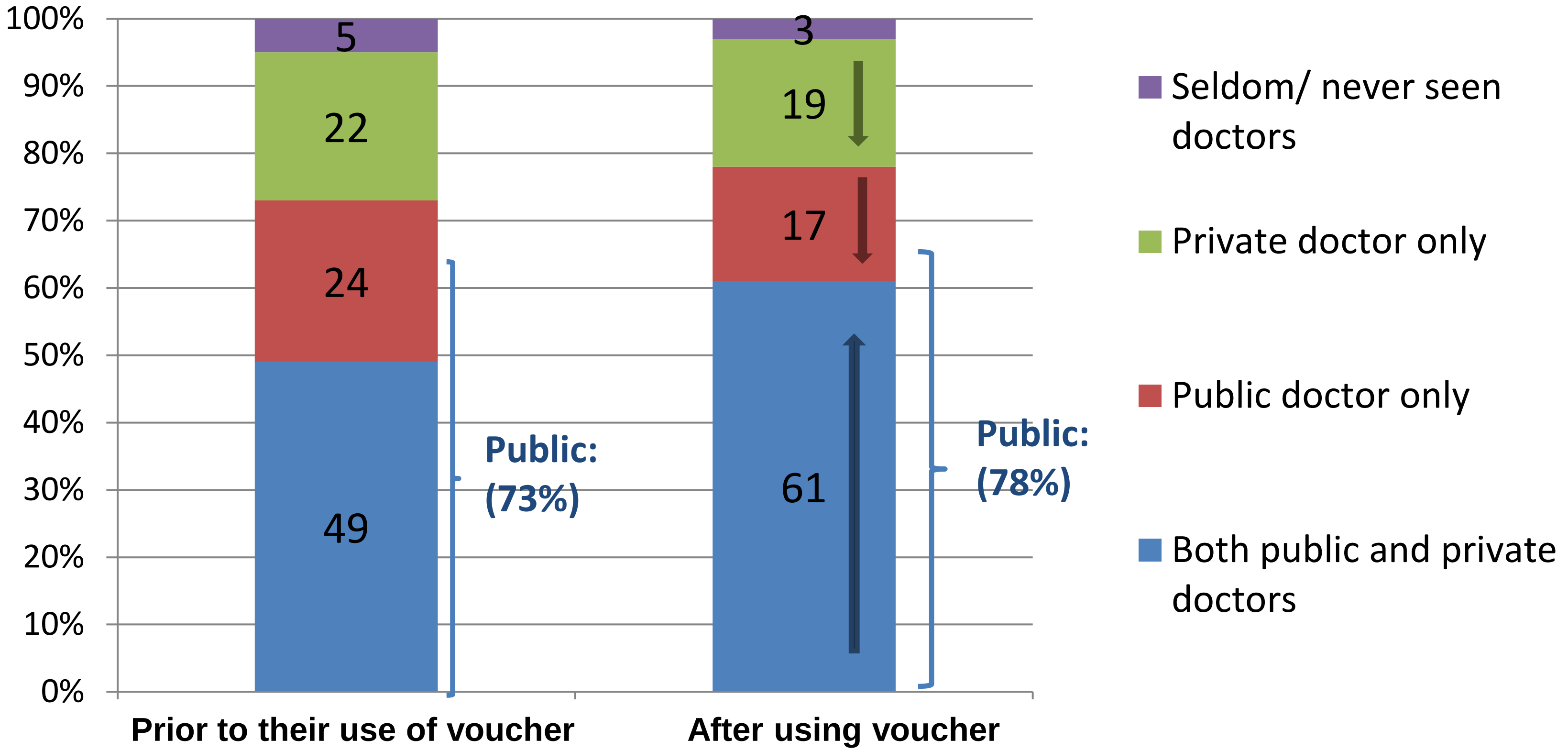
EK Yeoh. Improving Elderly Healthcare Voucher Scheme to Incentivise Primary Care in Hong Kong: How has Health Service Utilisation changed? [HMRF Study: 12130651, (2018)]

# Elderly Healthcare Voucher:

## Perceived choice between visiting public and private doctors

*(from repeated cross sectional survey)*

**Did you usually consult public doctors or private doctors or both for general illness? (n=905)**



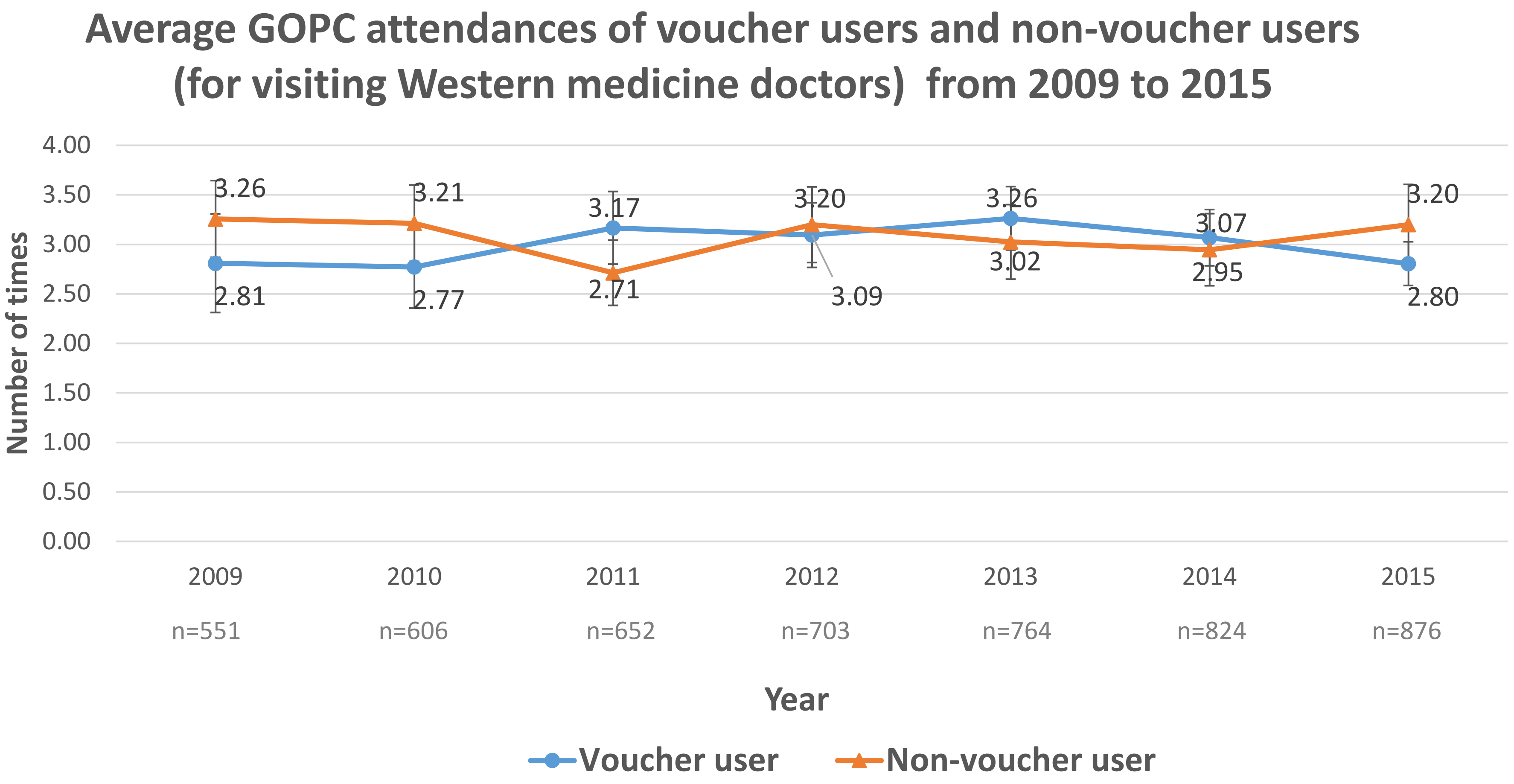
**Dual utilization of both public and private sector** as their usual source of care

EK Yeoh. Improving Elderly Healthcare Voucher Scheme to Incentivise Primary Care in Hong Kong: How has Health Service Utilisation changed? [HMRF Study: 12130651, (2018)]

# Elderly Healthcare Voucher:

## Relieving pressure on public services

*(from linked administrative data)*



**No significant differences in the GOPC attendances** between voucher users and non-users over time

EK Yeoh. Improving Elderly Healthcare Voucher Scheme to Incentivise Primary Care in Hong Kong: How has Health Service Utilisation changed? [HMRF Study: 12130651, (2018)]

# Hong Kong Solution

# Objectives of the District Health Centre (DHC) Scheme

## DHC as an Complex intervention for Evaluation

*Inter-related components*

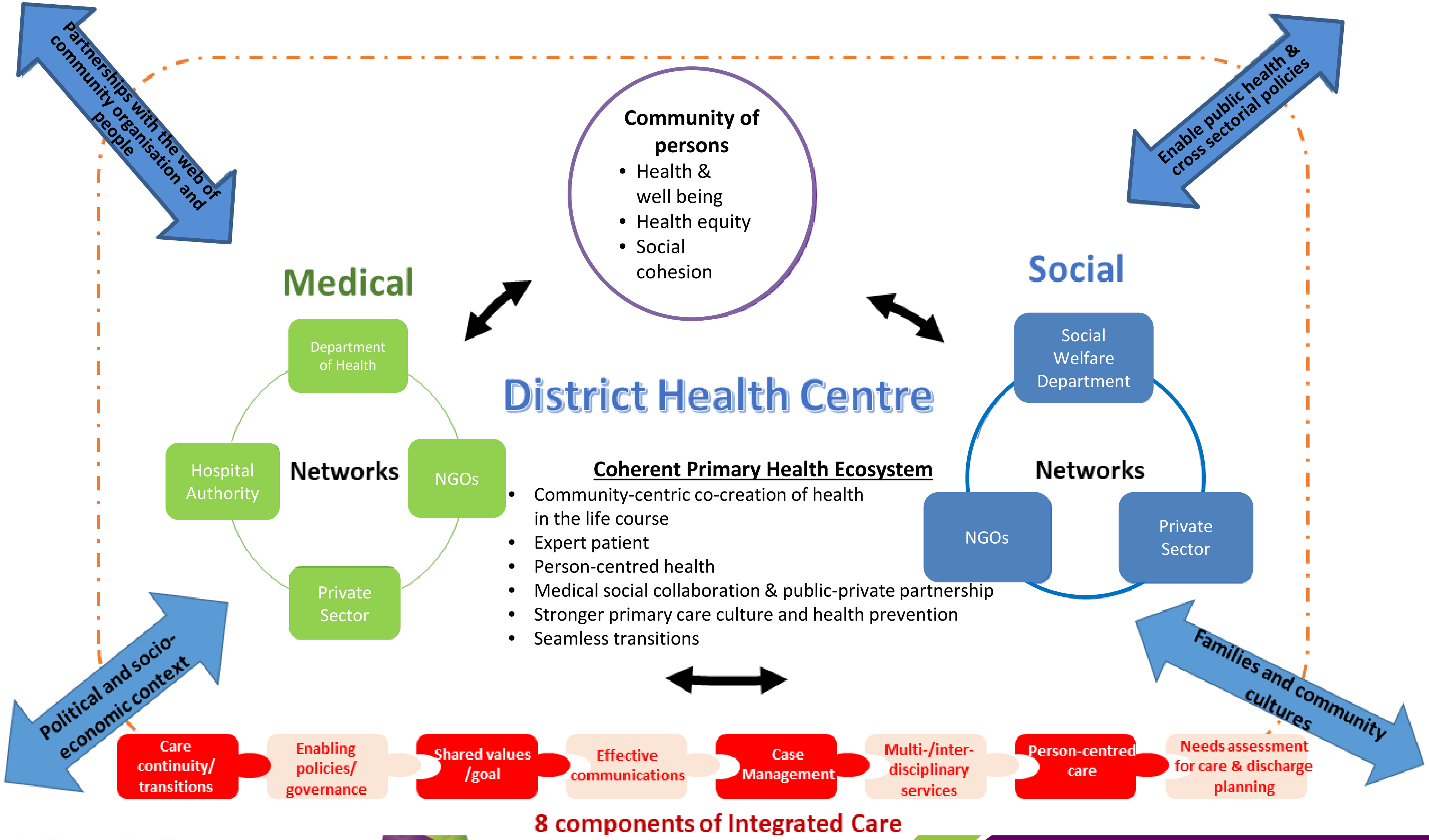
**Community component**

- Enhance public awareness of personal health management, and enhance disease prevention and their capability in self-management of health

**Health system and organisational component**

- Strengthen medical and rehabilitation services in the community through district-based primary healthcare services on a public-private partnership and medical-social collaboration model, thereby reducing unwarranted use of hospital services

# Conceptual Framework for Population Health in the District



Partnerships with the web of community organisation and people

Enable public health & cross sectorial policies

**Community of persons**
- Health & well being
- Health equity
- Social cohesion

**Medical**

Department of Health

Hospital Authority

**Networks**

NGOs

Private Sector

**District Health Centre**

**Social**

Social Welfare Department

**Networks**

NGOs

Private Sector

**Coherent Primary Health Ecosystem**
- Community-centric co-creation of health in the life course
- Expert patient
- Person-centred health
- Medical social collaboration & public-private partnership
- Stronger primary care culture and health prevention
- Seamless transitions

Political and socio-economic context

Families and community cultures

Care continuity/ transitions

Enabling policies/ governance

Shared values /goal

Effective communications

Case Management

Multi-/inter-disciplinary services

Person-centred care

Needs assessment for care & discharge planning

8 components of Integrated Care

# DHCs in building coherence in the local PHC ecosystem

| Community Responsibilities | |
|---|---|
| Identification of needs (including target groups and special needs) | -Working with key stakeholder groups and community partners and groups to develop comprehensive community diagnosis (e.g., needs assessment) and review and update regularly |
| Development of action programmes | -Working with the local community to decide on priority of health development issues and design intervention programmes with evaluation in response to the needs identified in community diagnosis |
| Surveillance for equity | -Working with local community groups to improve access for those who are known to have difficulties accessing service |
| Intersectoral collaboration | -Working with FHB to ensure local health development strategies are aligned with the overarching policies, and in parallel making sure local health needs are made known to the FHB to improve relevance of future policies to the local district population<br>-Involving other sectors outside of health in the designing, planning and implementation of community health development (innovative approaches)<br>-Involving non-public sectors to think about new approaches to financially sustain health development (e.g., PPP) |
| Community participation | -Involving local people in the organization and delivery of healthcare |

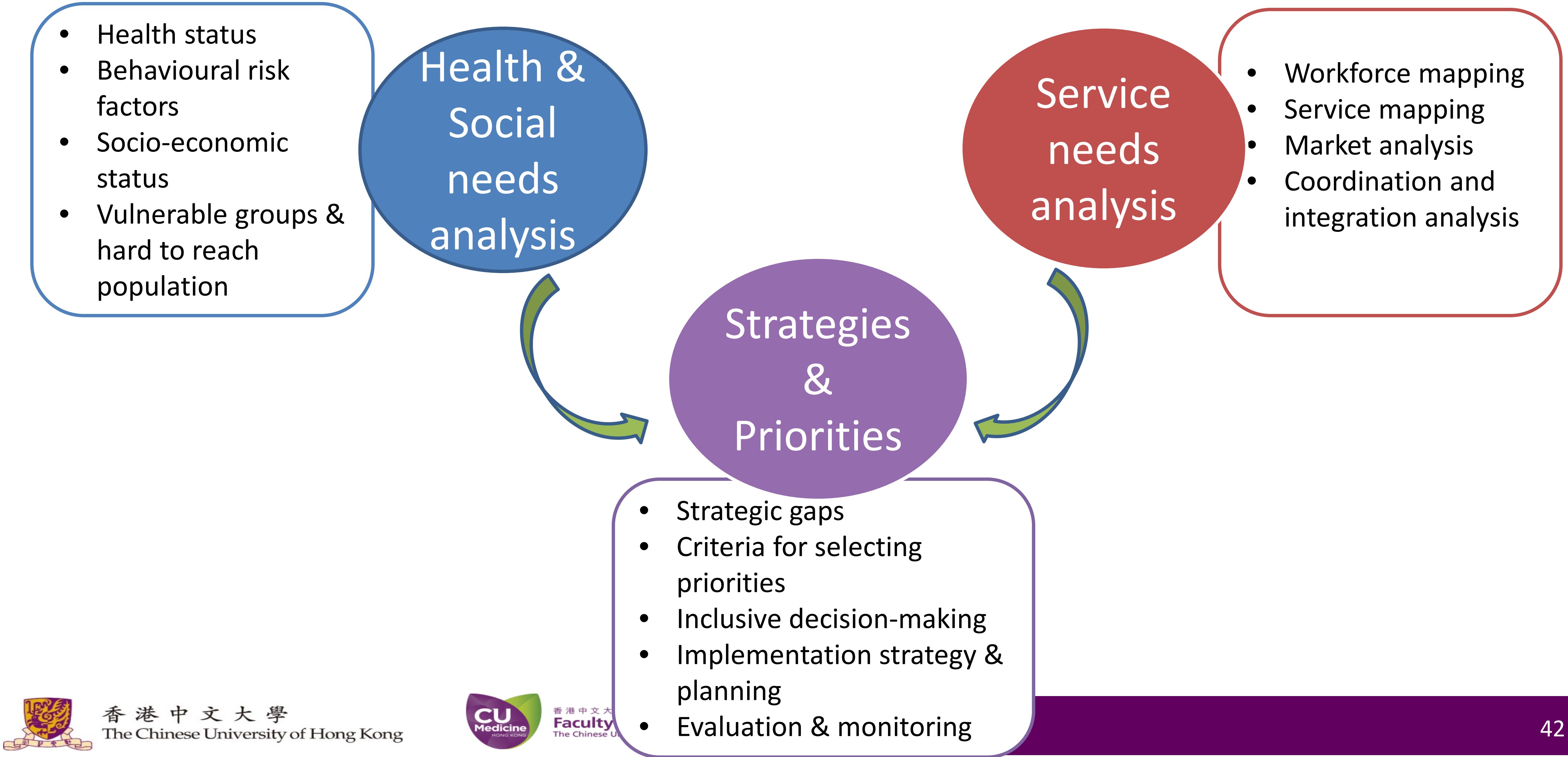
Source: Adapt from WHO 1994 “The Health Centres in District Health Systems”

# DHC service characteristics

| Characteristics | By forging partnerships with local community groups to: |
|---|---|
| Comprehensive | -Ensure preventive, promotive, rehabilitative (etc.) efforts are incorporated into curative services. |
| Integration | -Design care plans that would leverage social determinants of health to improve the health of clients in a holistic way |
| Channeled to individuals, families and community | -Services and programmes can be designed to involve families and communities in addition to individuals to maximize reach |
| Continuity of care | -Design care pathways that would keep care in the local community<br>-Build a workforce of community health workers and care-coordinators to assist in designing and coordinating health seeking efforts with a focus on clients with most complex health needs |

Source: Adapt from WHO 1994 “The Health Centres in District Health Systems”

# Framework for Meeting the Primary Care Needs of Older People



- Health status
- Behavioural risk factors
- Socio-economic status
- Vulnerable groups & hard to reach population

Health & Social needs analysis

Service needs analysis

- Workforce mapping
- Service mapping
- Market analysis
- Coordination and integration analysis

Strategies & Priorities

- Strategic gaps
- Criteria for selecting priorities
- Inclusive decision-making
- Implementation strategy & planning
- Evaluation & monitoring

# Thank you