

# Filling the gaps in Integrated Care

Sarah M McGhee  
Chair Professor of Public Health Optometry  
The Hong Kong Polytechnic University

# Most of us live in an ageing population

In Europe, proportion aged over 80 years will rise from **5% in 2010** to almost **12% in 2050**



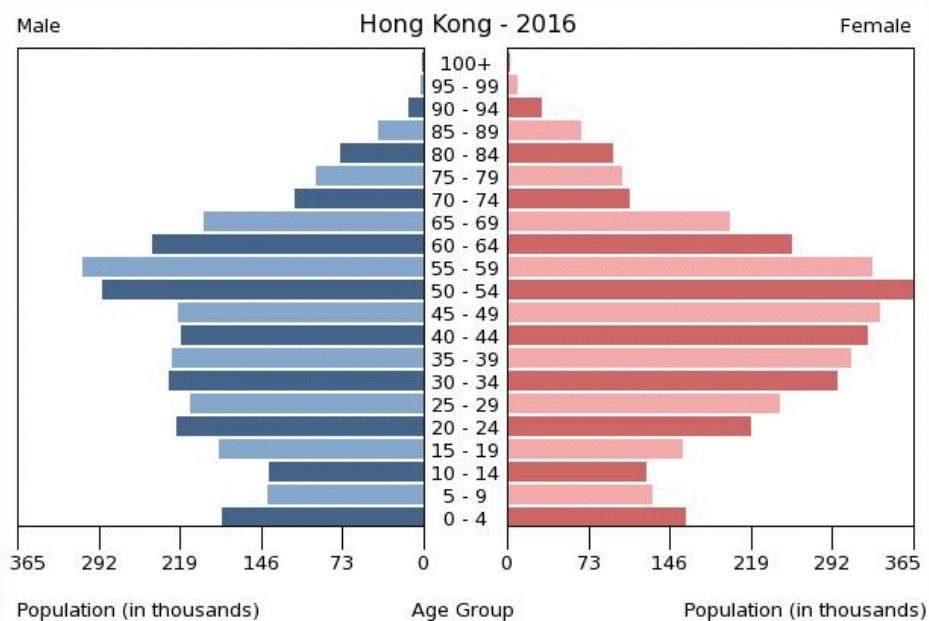
Globally, DALYs for non-communicable diseases rose from 2005 to 2013

Global Burden of Disease 2013

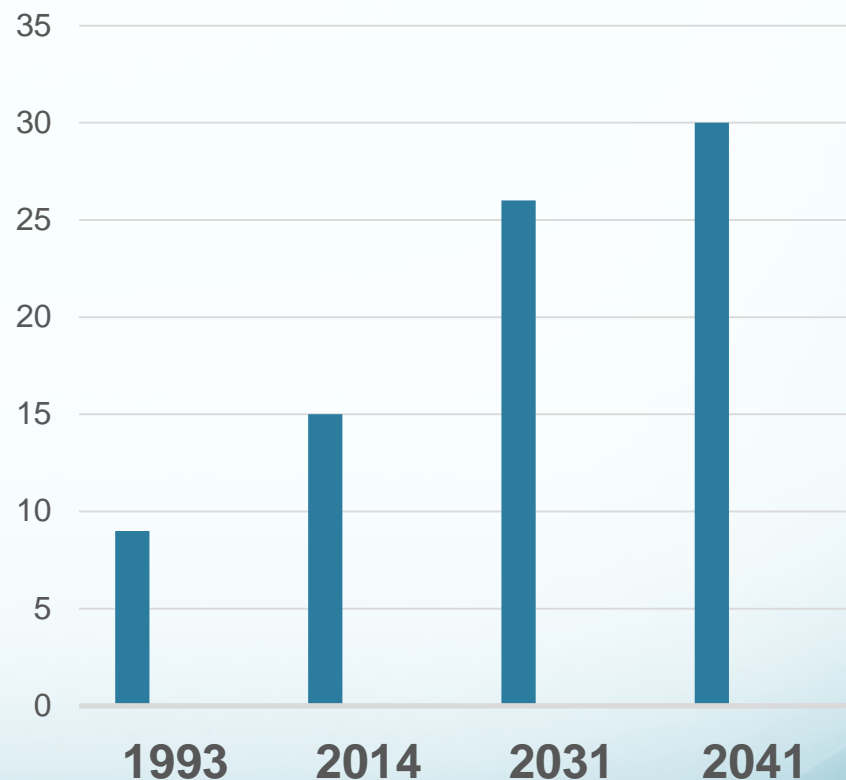
# What about Hong Kong?



Photo: Edward Stokes; Hong Kong Conservation Photography Foundation



## % of population aged 65 or above in HK



In 2013, 61% people aged 65+ had at least one chronic disease

- 43% of those over 50

(Hong Kong Census and Statistics Department, 2015)

Many older people have >1 chronic disease

Multi-morbidity associated with increased mortality, reduced QoL and increased use of hospital care

EU spending on medical care is currently growing faster than GDP

Growth of services is not sustainable

“To train enough professionals to keep all the people well by curing disease would involve expenditure of so large a fraction of the income of any nation as **to make the cure less attractive to tax payers than the disease ...**”

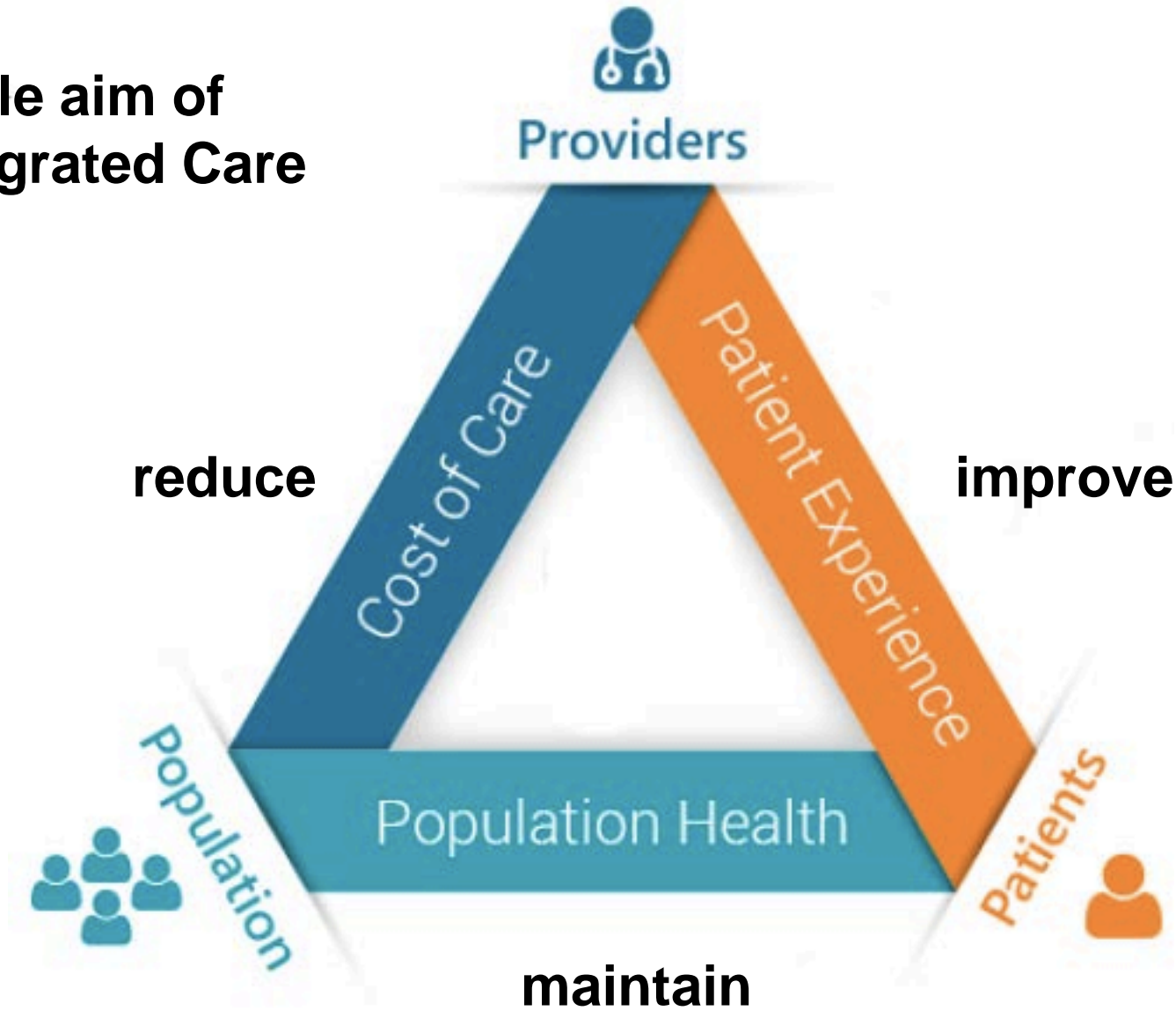
James Bryant Conant  
President, Harvard University    1933-1953

Traditional, hospital-based care  
is too expensive to be  
sustained

... need to organize services and  
use health care professionals in a  
way that is efficient and effective

**Integrated care** is a global movement

# Triple aim of Integrated Care



From the International Foundation for Integrated Care



# What we don't want:

- fragmented
- disease centered
- difficult to navigate
- not considering the whole person

and

- leading to poor quality care
- often in the wrong setting
- with undesirable outcomes

# SPECIALIST CARE TREATMENT

# SPECIALIST HOSPITALS



BASED ON THE KING'S FUND VISUALIZATION

The most common care is self-care and care by close family and friends

Integrated care seeks ways to better coordinate services

.....by working together around peoples holistic needs

.....by engaging individuals and communities in managing their care

Not just tinkering around the edges – it is a paradigm shift

# For example – **UK NHS Vanguard Projects**

## *Wirral project:*

GPs,  
local council, hospital  
specialists, community  
health,  
optometrists,  
pharmacists, dentists,  
charities,  
carers

“supporting people to  
live healthy lives”

“shaping local  
services around  
what really matters  
to people”

- Access to services 7 days a week
- Consultants work in community rather than hospital
- Health and care staff all use a single, shared assessment form
- A care coordinator
- Support people to look after themselves, stay healthy and make informed choices about care

# Medication issues

Disease focus with multi morbidity leads to multiple treatment protocols, polypharmacy, no holistic assessment of risks, benefits and priorities, sometimes diverse providers



Poor medication adherence

New approach in Spain involving pharmacists

# Patient-centered prescription model:

## *Patient centered assessment:*

determine care goal – survival,  
function or symptom control

## *Diagnosis centered assessment:*

therapy fits with care goal and  
simplify regimen

## *Medication centered assessment:*

convenience and benefit-risk  
balance to simplify regimen and  
replace higher risk drugs

Individualized  
therapeutic plan  
agreed

+ use mobile  
technology to  
improve adherence?

# Features of most Integrated Care programmes:

**Person-centered** – individual sets priorities for their care

**Maintaining health and stability** first, health care services only when required

**Right care in the right place at the right time** – often patients home, usually in community, rarely in hospital

Multidisciplinary **professional teams** linked with **volunteers/charities** and with **home carers**

Needs good **communication** – sometimes IT based

Needs an **‘integrator’** – professional, volunteer or carer



# Gaps

Hospital-centered instead of patient-centered

Piecemeal system instead of joined up

Poor communication and boundaries between professionals

# **Hospital-centered instead of patient-centered**

Multi-morbidity issues

- care can be difficult and expensive

Not all those with multiple conditions are 'high risk', only a subgroup

How to identify those who are most at risk of hospital admission and use of health care resources?

Small % use majority of resources

US: super-users

✧ 5% use 50% of hospital resources

Canada, Ontario

✧ 5% users (1.5% of population)  
account for 61% of hospital use

“If we could manage their care in a systematic way instead of haphazardly, proactively instead of reactively, with continuity of care instead of episodically, and in a way that is convenient for the patient, we *might* be able to improve quality and save money.”

Siekman & Hilger , Cleveland Clinic Journal of Medicine 2018

# What about Hong Kong?



Photo: Edward Stokes; Hong Kong Conservation Photography Foundation

# Predictors of longer length of stay in hospital in Hong Kong

- 66,000 individuals from Elderly Health Centres followed up over 10 years
- 74% admitted to hospital
- Tested indicators for best predictive model of more hospital use over 4 years
- Algorithm correctly predicted whether in top 10% of hospital use for about 70%

# Predictors of being in top 10% of hospital use

- Older age
- Diabetes
- COAD
- Heart disease
- Underweight or obese
- Depression symptoms
- Functional dependence



## Public and private healthcare services utilization by non-institutional elderly in Hong Kong: Is the inverse care law operating?

Ho-Kwan Yam<sup>a,\*</sup>, Stewart W. Mercer<sup>b</sup>, Lai-Yi Wong<sup>a</sup>, Wan-Kin Chan<sup>a</sup>, Eng-Kiong Yeoh<sup>a</sup>

<sup>a</sup> Centre for Systems for Health, School of Public Health, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong

<sup>b</sup> General Practice and Primary Care, Division of Community-Based Sciences, Faculty of Medicine, University of Glasgow, Glasgow, Scotland, UK

**Results:** Our analysis, based on Anderson's behavioral framework, shows that need factors (relating to actual or perceived illness and diseases) are significantly related to the healthcare services utilization examined. **However, enabling factors, such as monthly household income per capita, play a significant role in determining the utilization.** Although the lower-income elderly consult more Government clinics and less private clinics than the more affluent, they have a lower total utilization of healthcare services despite having significantly greater healthcare needs.

Health Policy 91 (2009) 229–238



## The ecology of health care in Hong Kong

Gabriel M. Leung<sup>a,\*</sup>, Irene O.L. Wong<sup>a</sup>, Wai-Sum Chan<sup>b</sup>, Sarah Choi<sup>c</sup>,  
Su-Vui Lo<sup>d</sup>, on behalf of the Health Care Financing Study Group

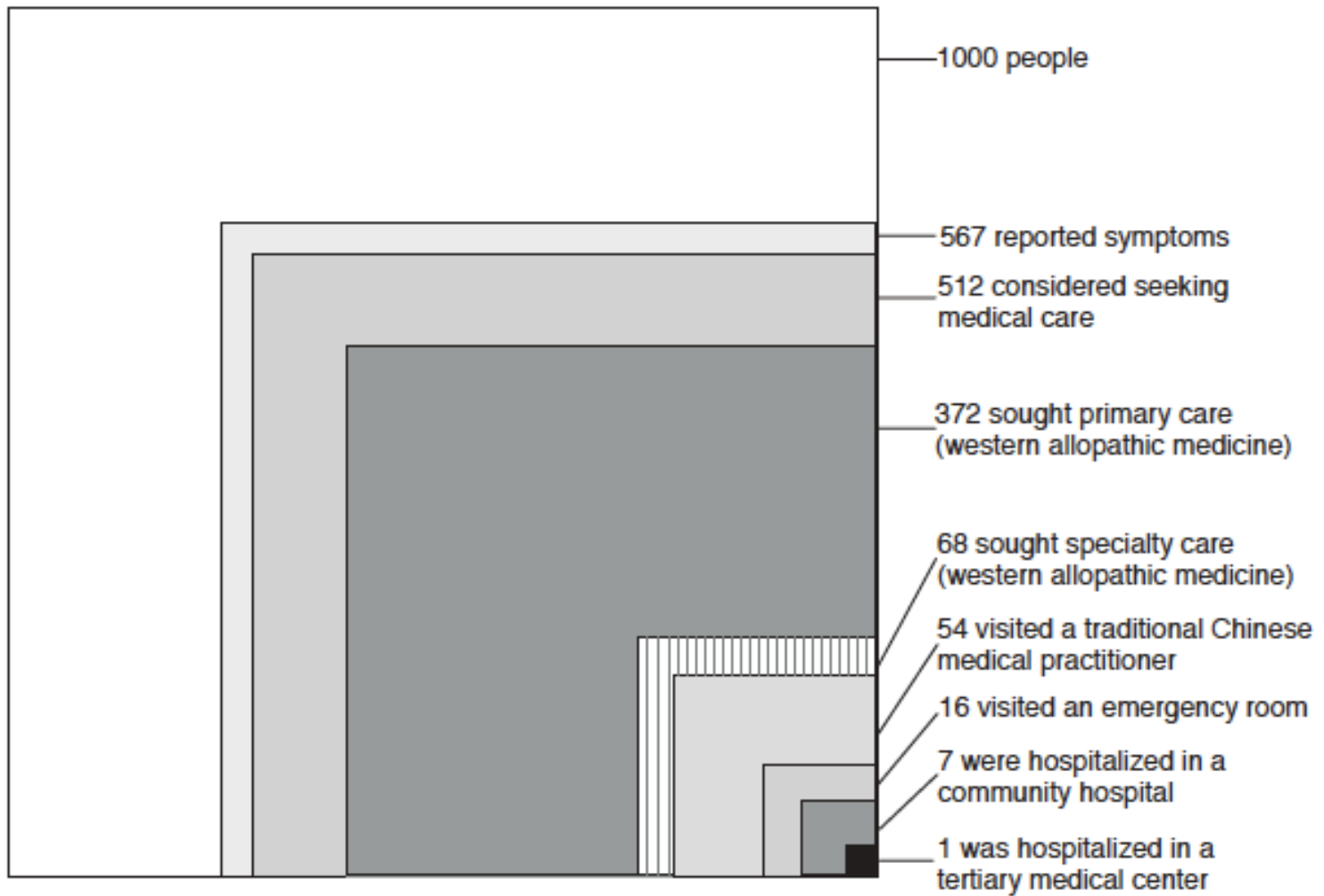
<sup>a</sup>*Department of Community Medicine, The University of Hong Kong, Faculty of Medicine Building,  
William MW Mong Block, 21 Sassoon Road, Pokfulam, Hong Kong, China*

<sup>b</sup>*Department of Statistics and Actuarial Science, The University of Hong Kong, China*

<sup>c</sup>*Department of Health, Government of the Hong Kong Special Administrative Region, China*

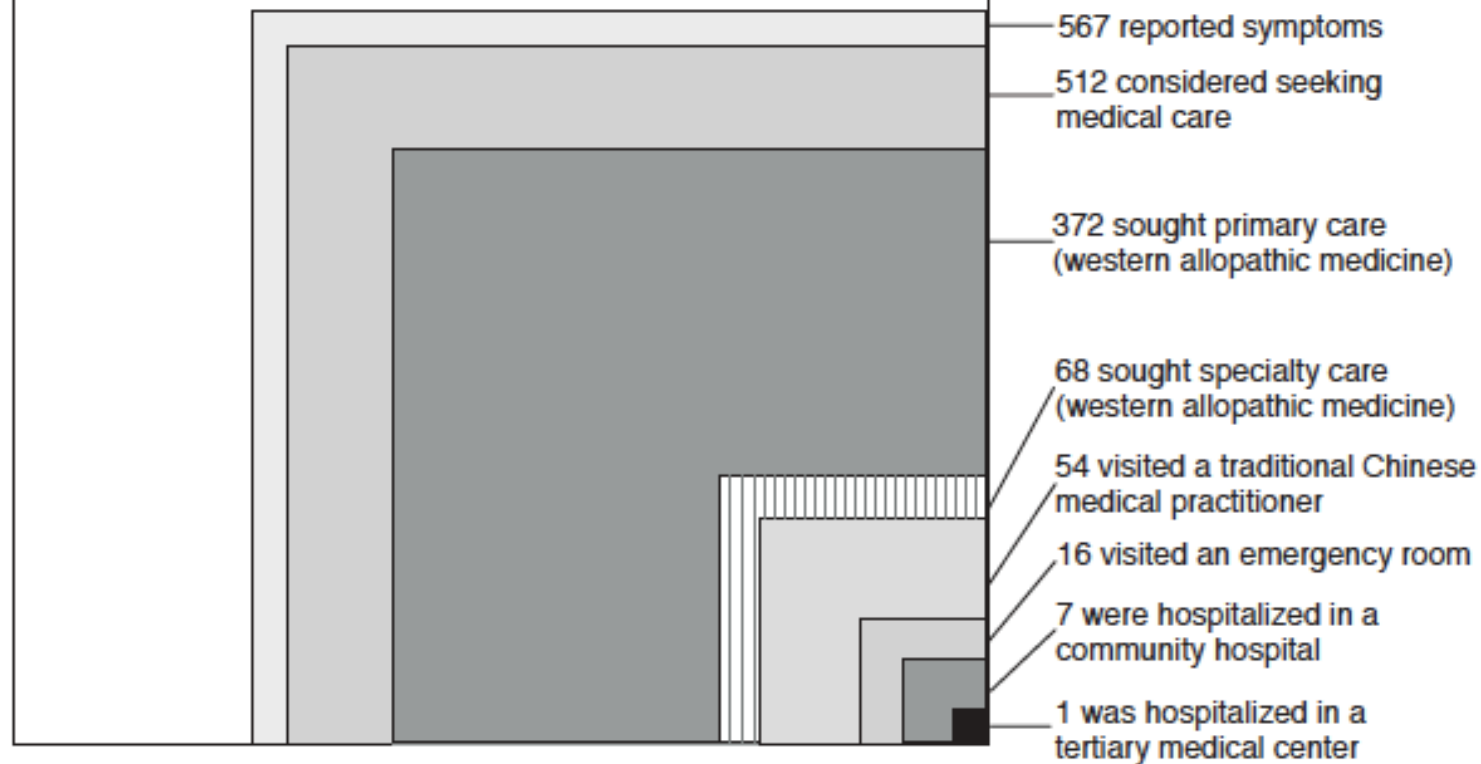
<sup>d</sup>*Health, Welfare and Food Bureau, Government of the Hong Kong Special Administrative Region, China*

Our results show that very few people who experienced symptoms opted for self-management (90/567 = 15.9%). Of the latter group, most self-prescribed OTC medications and very few relied on lifestyle changes (i.e. diet modification or expectant management) only. Lastly, doctor-shopping, or the changing of



Monthly prevalence estimates of illness in the community and the roles of various sources of health care.

preceding month in Hong Kong (567 per 1000) compared to the US (800 per 1000), 90.3% (512/567) of those with symptoms considered seeking care in our sample compared to only 40.9% (327/800) in the US study. These large differences cannot be accounted for by varying definitions of terms or questionnaire wording because they were identical between the two studies



Monthly prevalence estimates of illness in the community and the roles of various sources of health care.

RESEARCH FOR NURSING PRACTICE

## Identifying service needs from the users and service providers' perspective: a focus group study of Chinese elders, health and social care professionals

Jean Woo, Benise Mak, Joanna OY Cheng and Edith Choy

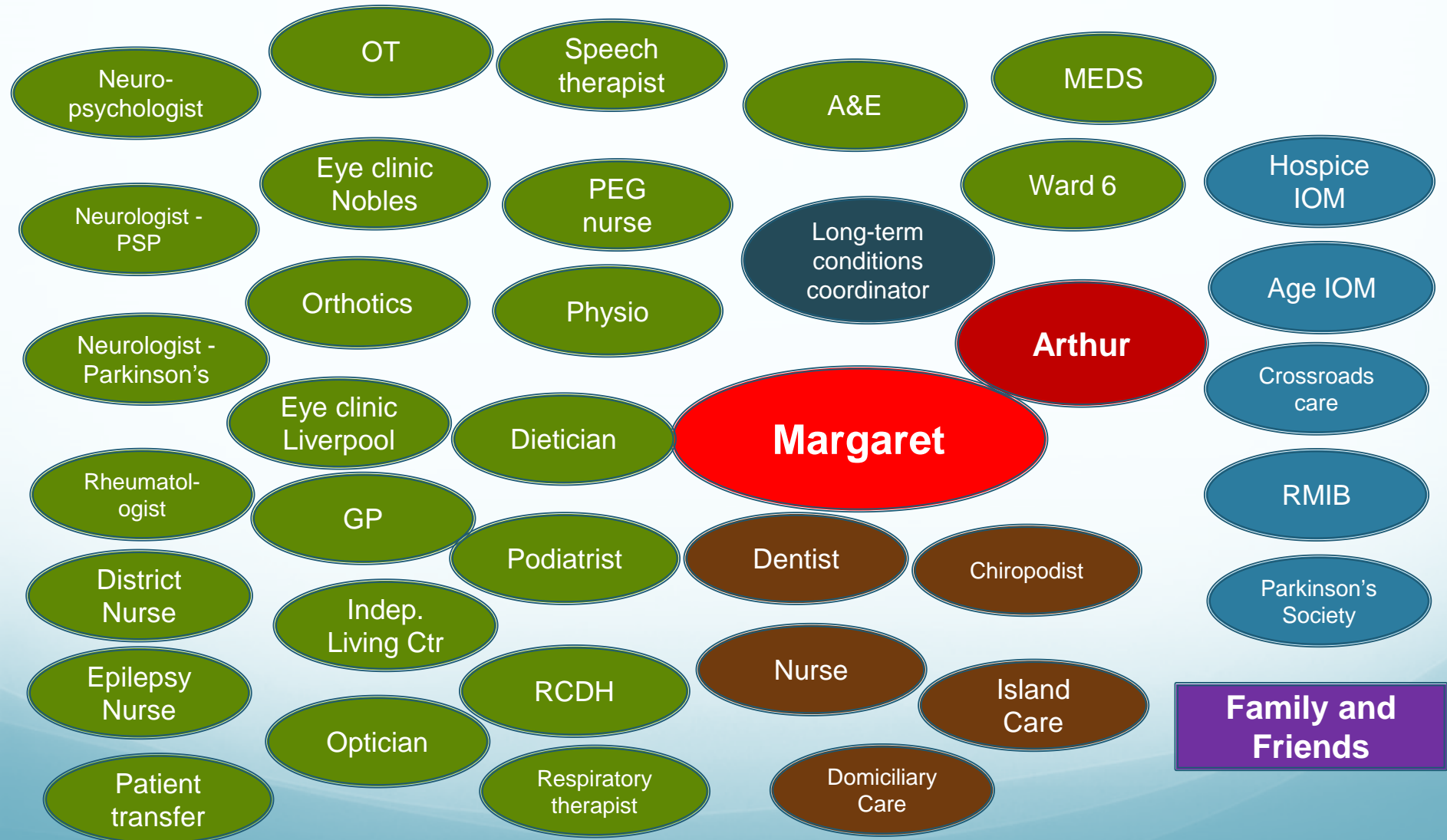
Results. The study identified several areas for improvement in services for older people, covering adequacy, accessibility and affordability of medical services, coordination of health and social care, quality of long-term care, negative perceptions and training needs. Some themes such as service adequacy and negative staff attitudes occurred in both older people and health professional focus groups. The themes of fast access, continuity of care and smooth transition, affordability, provision of information of available health and social services appear to be universal as these have also been identified in similar studies in other countries.

# Piecemeal system instead of joined up

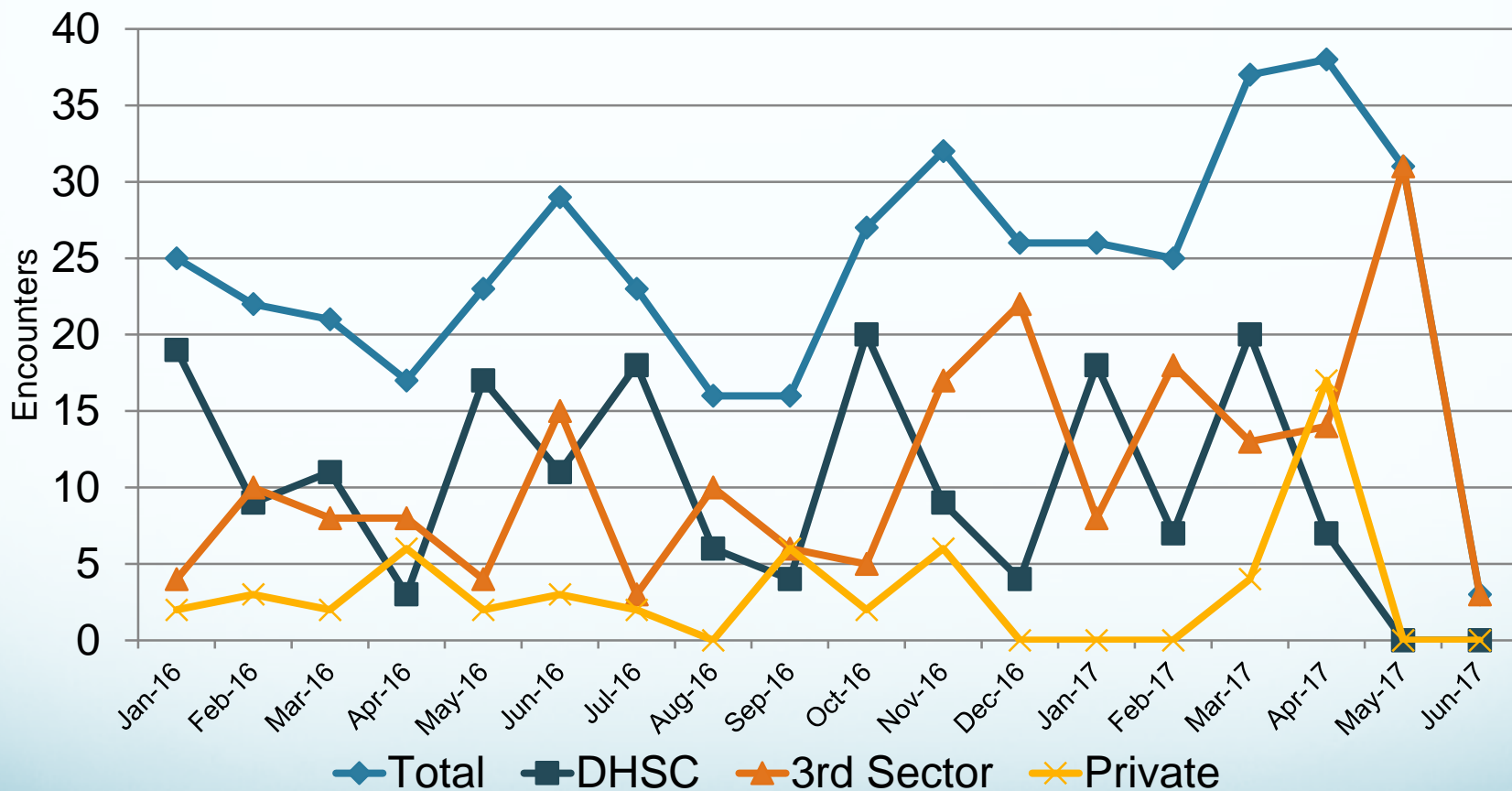
Margaret was living in the Isle of Man with Arthur when she developed cancer



# Care Map over 1.5 years



# Number of Encounters per Month by Sector January 2016 to June 2017



# Need an 'integrator'

In Margaret's case, it was her husband  
- then Long Term Conditions Coordinator (nurse)

Could be GP, a carer, the local pharmacist ...

In UK, adverts now say  
'Visit your pharmacist before your GP'

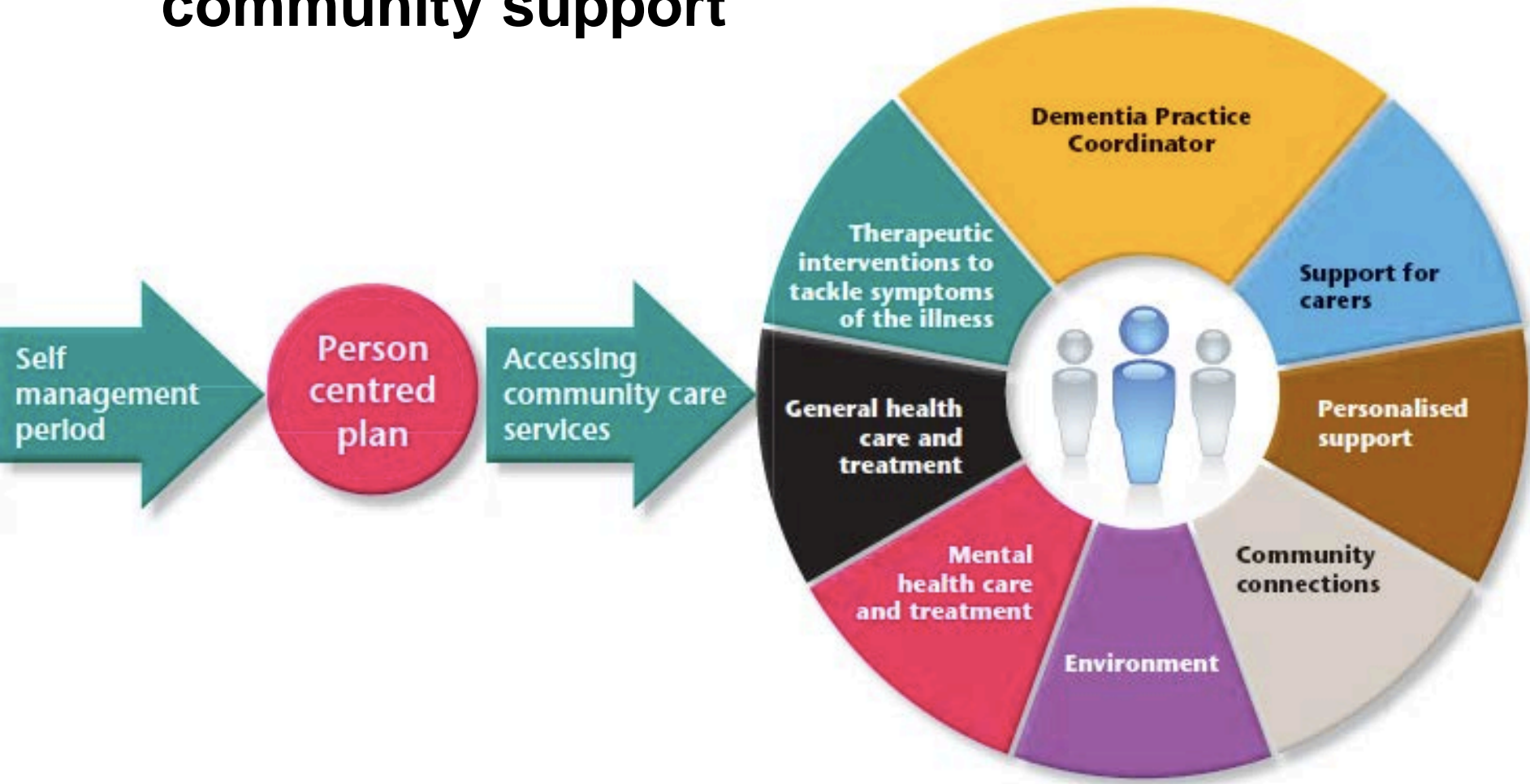
Campaign launched by industry but  
with backing of GPs and NHS  
community services



# Allied Health Professionals Delivering Integrated Dementia Care: Living Well with Community Support



# 8 Pillars Model of community support



## **Introducing the role of Dementia Practice Coordinator in the Highlands**

*Lynda Forrest is a specialist occupational therapist based in NHS Highland, one of 5 boards selected to test out the delivery of the 8 Pillars Model of Community Support. Lynda is part of a small team based in East Sutherland, where she and her colleagues have been finding innovative ways to deliver integrated dementia care to remote and rural communities.*



# What about Hong Kong?



Photo: Edward Stokes; Hong Kong Conservation Photography Foundation

Risk Assessment & Monitoring  
Programmes (RAMP)

Patient Empowerment Programmes (PEP)

.....cutting edge but need to go further

# Poor communication and boundaries between professionals

Specialists and non-specialist

Physical and mental health professionals

Doctors and nurses

Ophthalmologists and optometrists

# Project ECHO

**E**xtension for **C**ommunity **H**ealthcare **O**utcomes

A telementoring programme developed at the University of New Mexico by Dr Sanjeev Arora to improve Hepatitis C management

(Ted talk on youtube)

“Moving knowledge, not patients”

Initially aimed at rural areas

Wait was 8 months to see specialist, then required weekly treatment, toxic and no family doctors were treating it

After ECHO, patients were seen within 2 weeks locally and results were as good as the specialist centre



Networks of specialists and generalists  
Working together to deliver the right care, in  
the right place at the right time



# Key ideas

- Use technology to leverage scarce specialty resources
- Democratize skills
- Case based learning with guided practice

## Non-specialists

- ✧ co-manage
- ✧ learn by doing
- ✧ present own cases
- ✧ learn from others

# How ECHO works

**Hub:** Specialists + invited guests

**Spokes:** Elderly Care Homes, family medicine, community clinics, nursing clinics .....

**Technology:** Uses multipoint videoconferencing

## ECHO Session

Monthly, 1-2 hours

20 minute teaching presentation on topics chosen by the spokes

2 x anonymised case presentations delivered by spokes



Equipment is not expensive

Works with Zoom technology, low bandwidth

Non-specialists are  
upskilled to have  
confidence with cases  
and not need to refer  
them upwards

At the same time,  
specialists learn the  
issues of work in  
the community

# Democratizes knowledge

In both directions

Technology is only an enabler, it is a change in way of thinking and working

## Creates a **community of practice**

Meetings are multidisciplinary  
- could even include carers

Over time:

People get to know one another through their discussions

Breaks down barriers between the specialists and generalists

- hospital and community workers
- doctors and nurses
- mental and physical health workers
- health care staff and others

**Attract non-specialists** by learning skills at their own worksite

Hubs can also be spokes e.g. for international collaboration and upskilling of the specialists

- **attracts specialists** to engage

Hepatitis C  
Asthma  
Breast cancer  
Diabetes  
HIV  
Behavioural health  
Tobacco cessation  
Palliative care  
Geriatrics  
Dermatology  
Eating disorders  
Cardiac risk reduction  
Geriatrics  
Women's health  
Dementia  
Childhood obesity  
issues  
Autism  
Rheumatology  
Chronic pain  
Genomics  
Complex care  
Mental health & addictions  
Ophthalmology  
Chronic lung disease  
Dyslexia  
Heart failure



# International Foundation for Integrated Care has identified 7 essential components of effective implementation of integrated care

It is about

- excellent care
- **disruptive innovation**
- **competencies**
- broader picture of wellbeing
- effective strategies
- **context**
- outcomes

# What about Hong Kong?



Photo: Edward Stokes; Hong Kong Conservation Photography Foundation

Hong Kong has its own challenges in implementing the concepts of integrated care e.g.

- ✧ Public perceptions of quality care and their corresponding behaviours
- ✧ Less developed community care sector
- ✧ Less recognition of potential role of allied health care staff as well as nurses

*Universities, Hospital Authority, Food and Health Bureau need to:*

Train staff with competencies for the future but also prepare those already in the system for change

Demonstrate the potential for change with innovative projects but they need to challenge the status quo

Use technology to facilitate change in thinking – for Hong Kong that's the easy part!

Thank you