

Challenges Ahead in Healthcare Management

HA Convention

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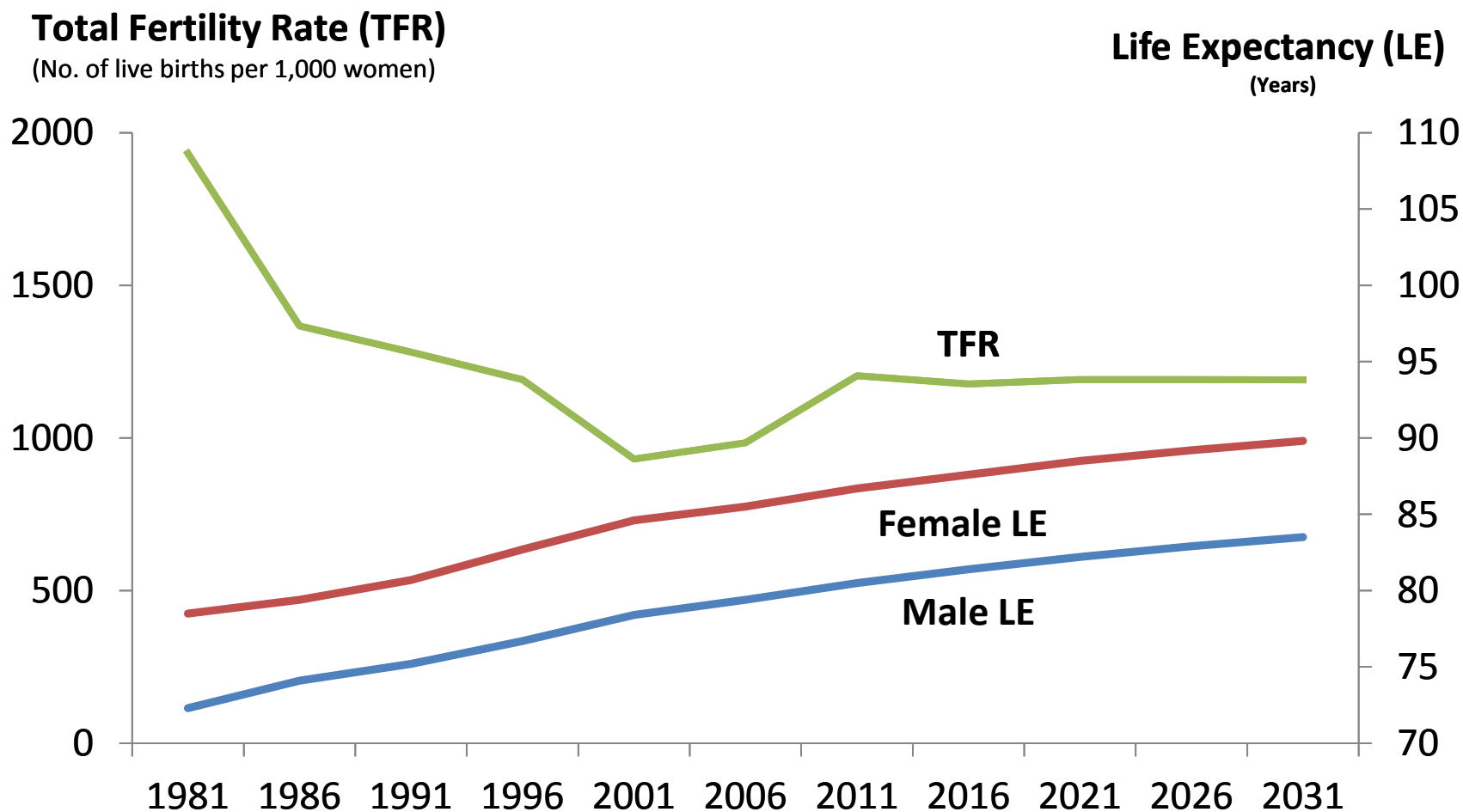
Hospital Authority



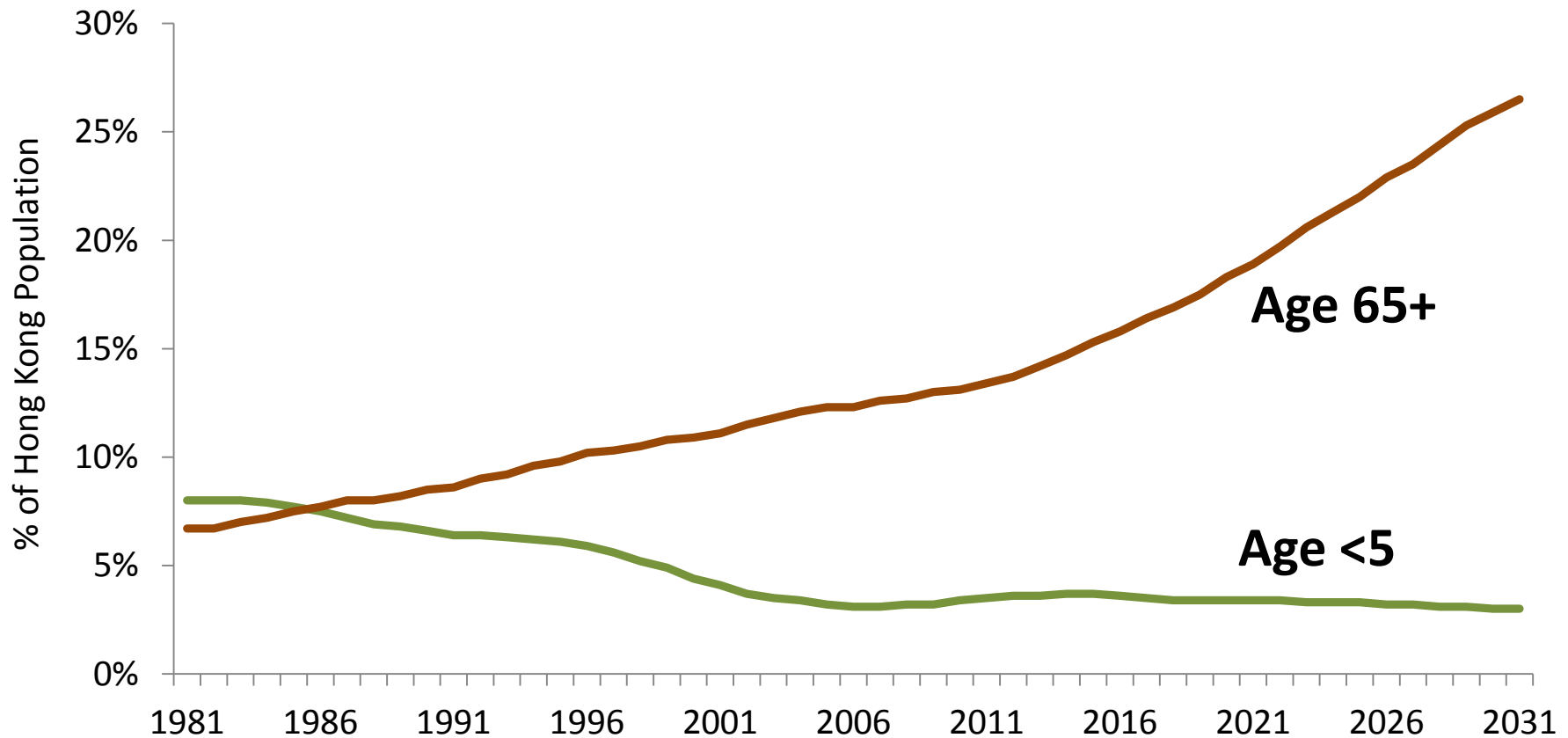
Population Ageing: Challenges to the Hospital Authority



Population Ageing in Hong Kong

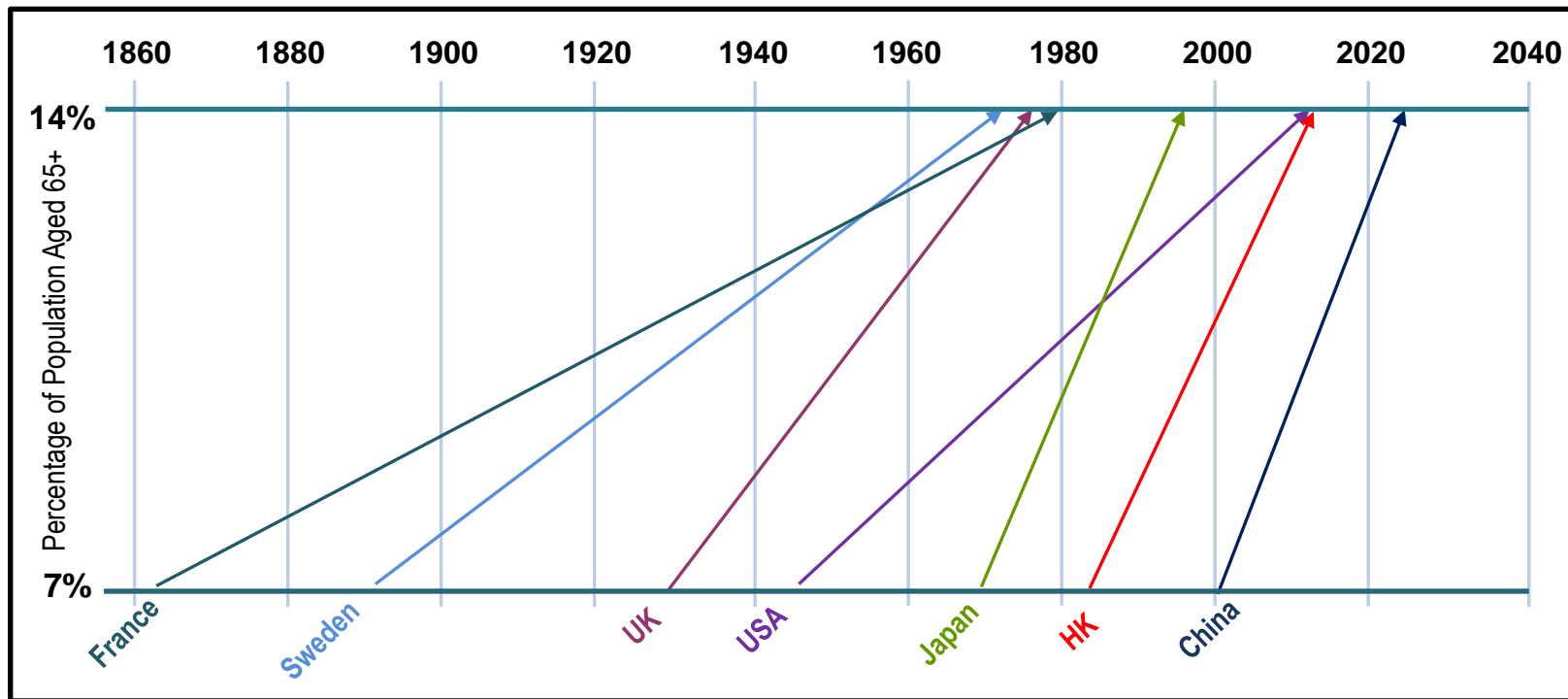


Proportion of Young Children in Hong Kong is Declining While Proportion of Elderly Increases Significantly



Speed of Population Ageing

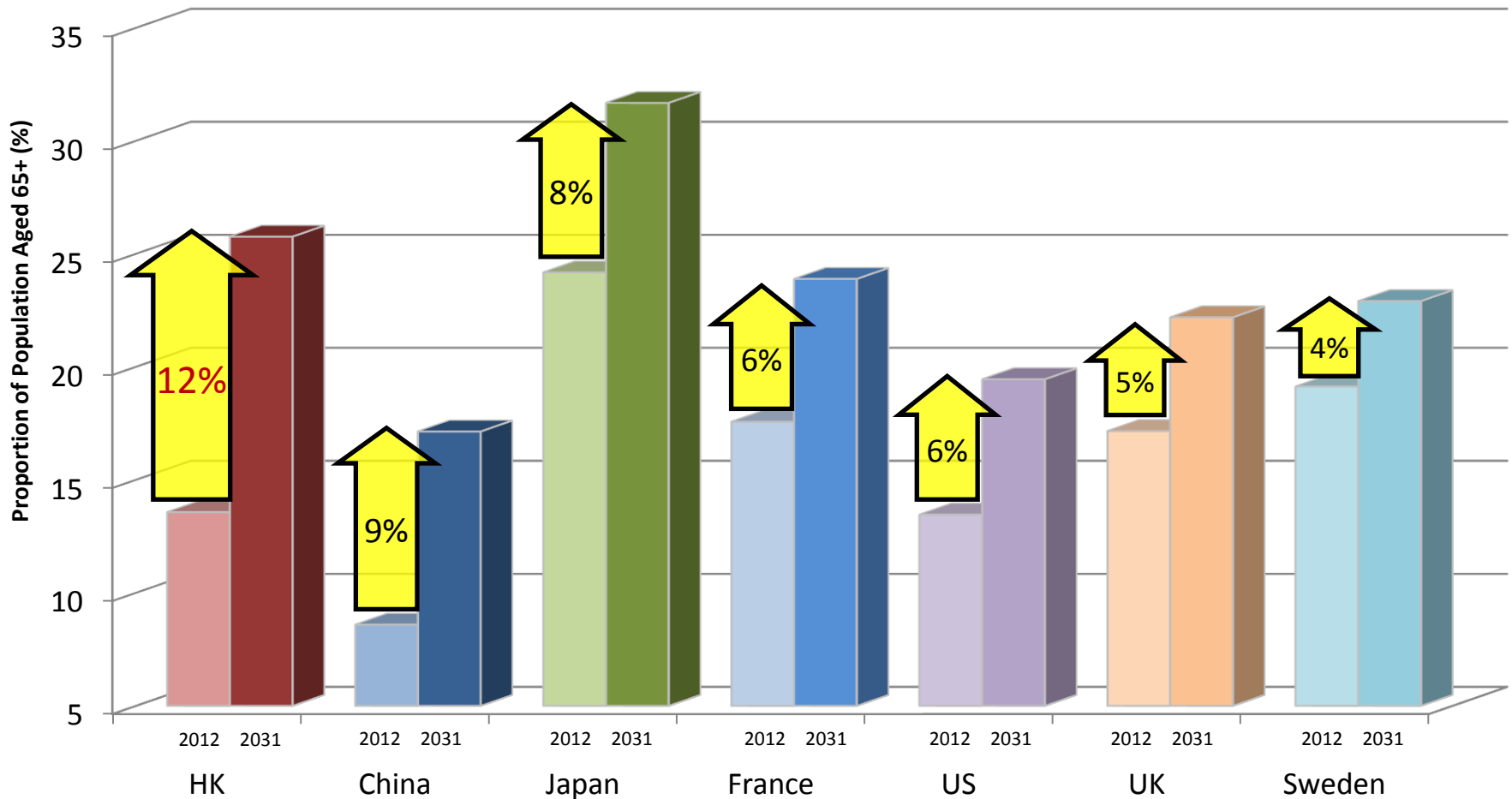
Time required/expected for the proportion of elderly population to rise from 7% to 14%



Source: Kinsella K, He W. *An Aging World: 2008*. Washington, DC: National Institute on Aging and U.S. Census Bureau 2009.

Hong Kong Figures from Census & Statistics Department, HKSAR

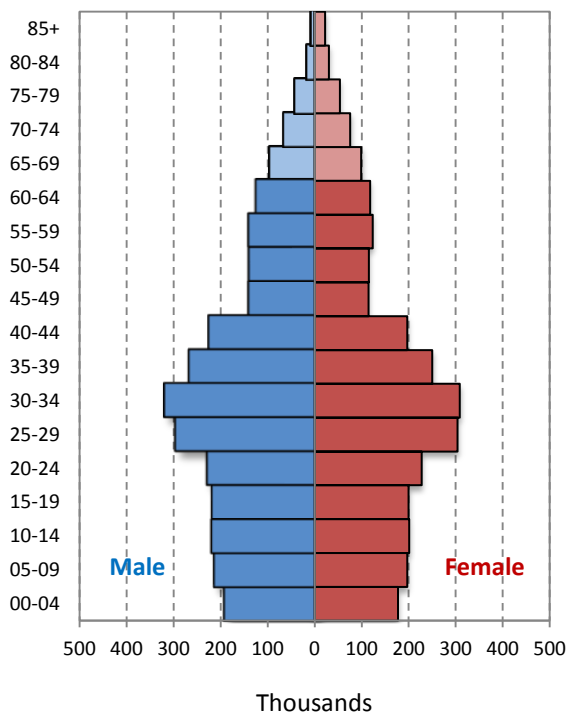
Hong Kong Elderly Population is Growing at a Faster Rate



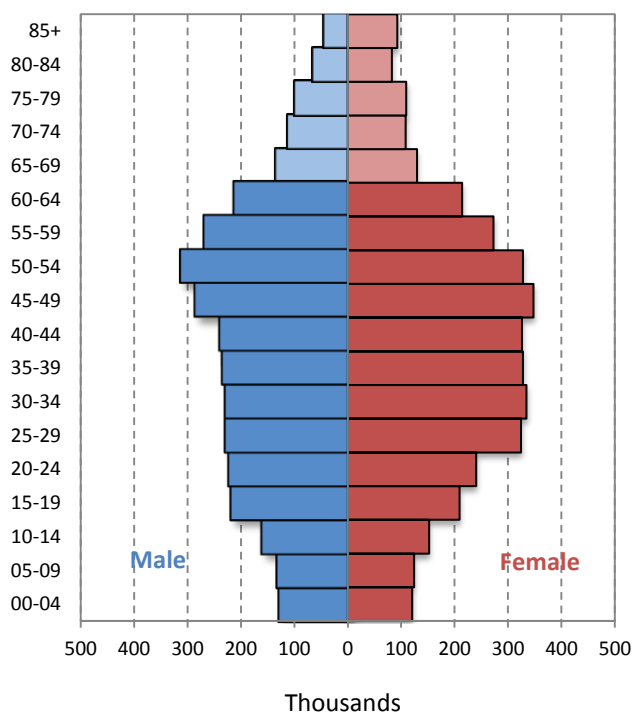
Source:
OECD Factbook 2013: Economic, Environmental and Social Statistics;
Hong Kong Population Projections 2010-2039, Census & Statistics Department, HKSAR

Hong Kong Population Pyramid

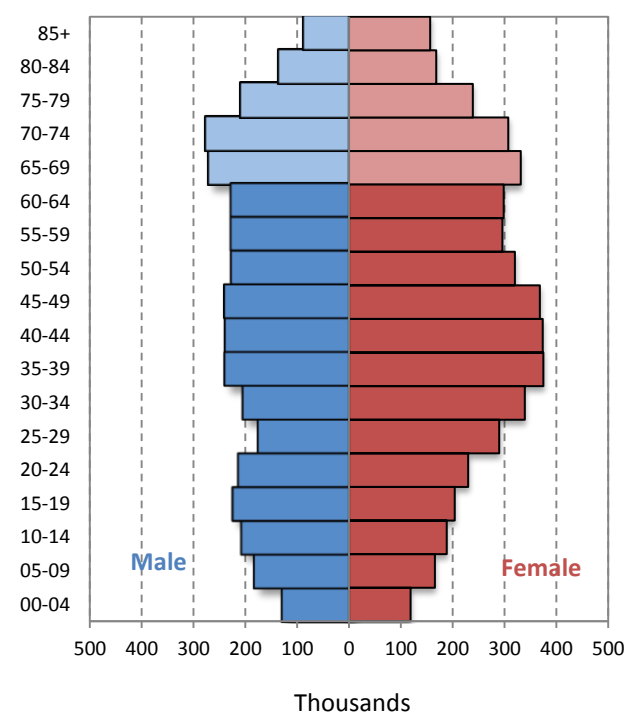
1991



2012



2031

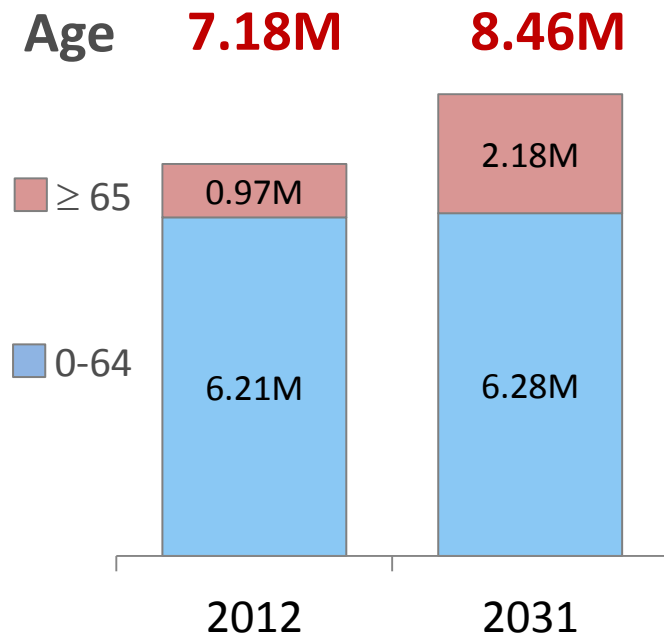


Source: Demographic Statistics Section, Census & Statistics Department, HKSAR
 Hong Kong Population Projections 2010-2039, Census & Statistics Department, HKSAR
 Remarks: The figures for 1991 are compiled based on the "extended de facto" method.

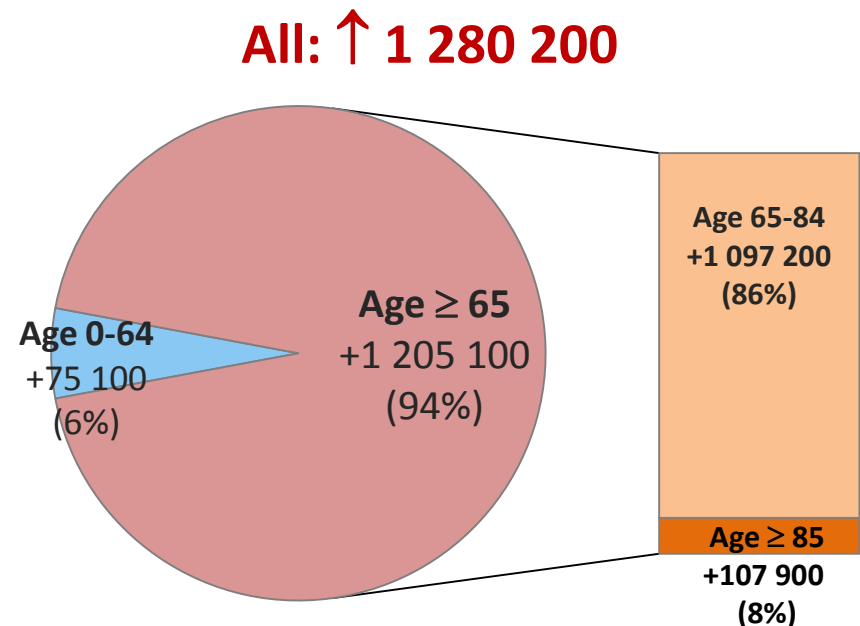
Hong Kong Demographic Change, 2012 to 2031

Elderly people will increase by 124% while overall population by 18%

Projected Population



Population Increase

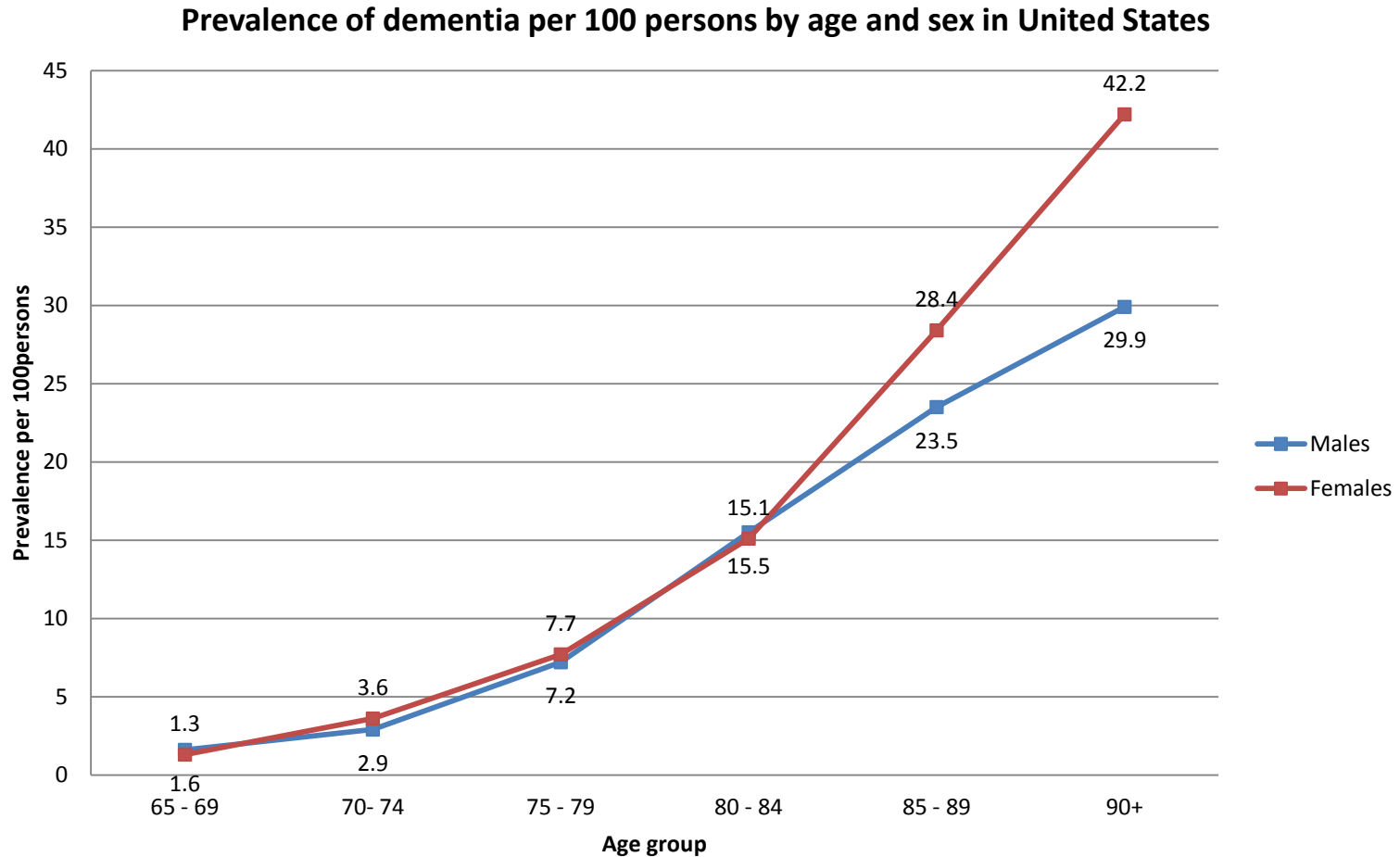


Elders and Disease Patterns

Institution Elderly in Hong Kong who had Chronic Diseases

Selected type of chronic diseases	No. of persons ('000)	%
Hypertension	33.5	59
Stroke	18.2	32
Alzheimer Disease / Dementia	17.9	32
Eye diseases	14.2	25
Diabetes	13.2	23
Heart diseases	12.9	23
Arthritis	9.8	17
Fractures	7.2	13
Respiratory diseases	4.9	9
Gastric diseases	4.5	8
Depression	4.4	8
Cancer (including all body parts)	3.5	6
Osteoporosis	3.3	6
Diseases of the ear / nose / throat (ENT)	2.9	5
Overall	56.6	

Dementia - Overseas Experience



Hospital Authority (HA)

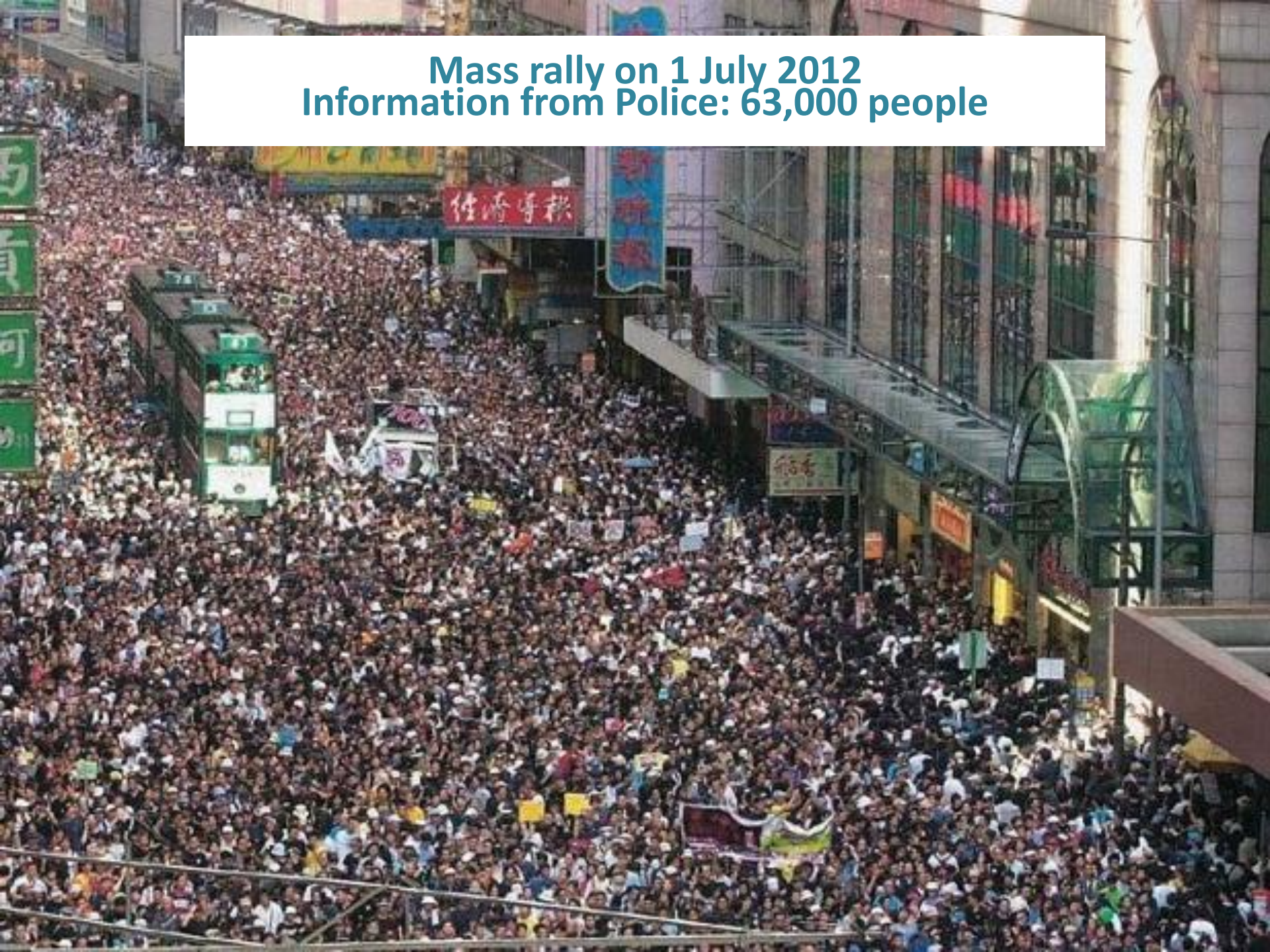


Government policy: No one should be denied adequate medical treatment through lack of means



Provides public healthcare services to **7 Million** Hong Kong residents
An average 80,000 patients per day receiving services from HA

Mass rally on 1 July 2012
Information from Police: 63,000 people



Challenges

1. Increasing Service Volume

2. Developing responsive service models

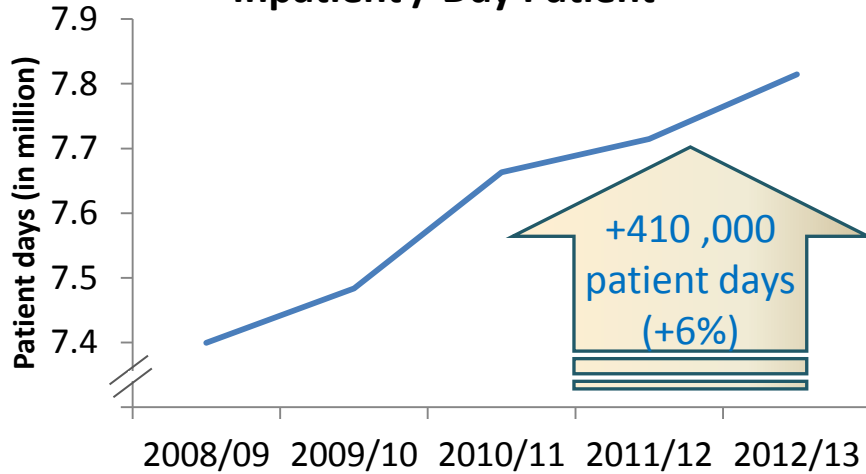
3. Nurturing Skilled Workforce

4. Optimising the use of Modern Technologies

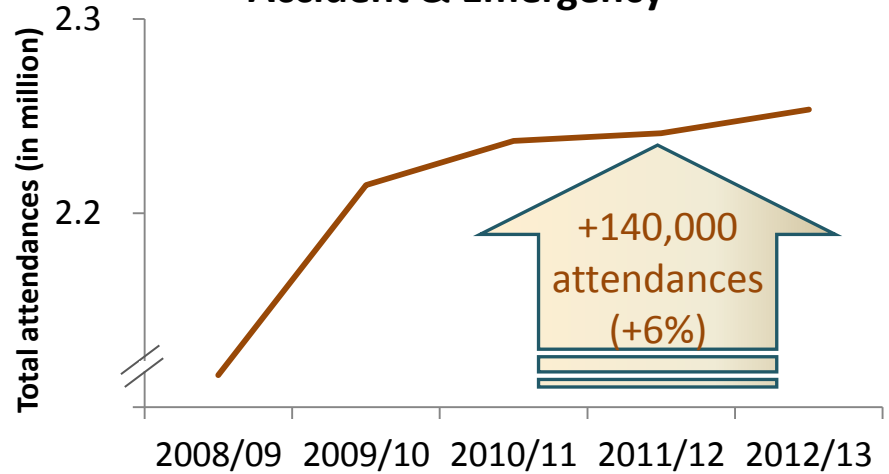
5. Maintaining a Financially Sustainable Organization

Increasing Service Volume

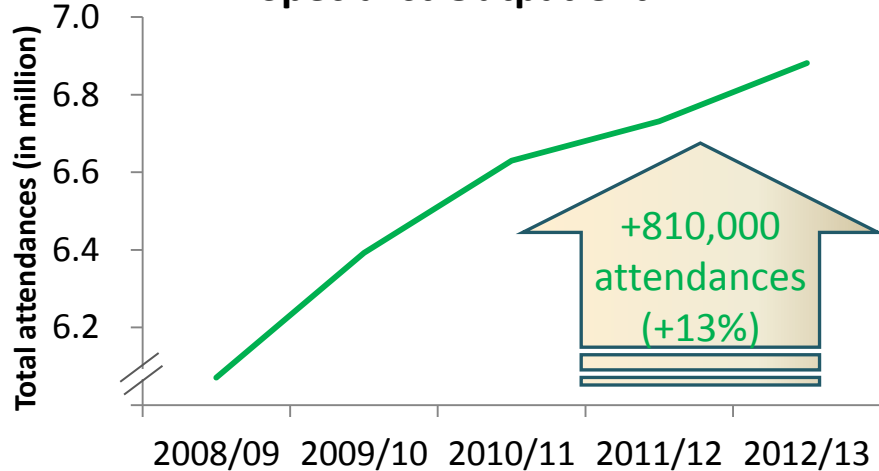
Inpatient / Day Patient



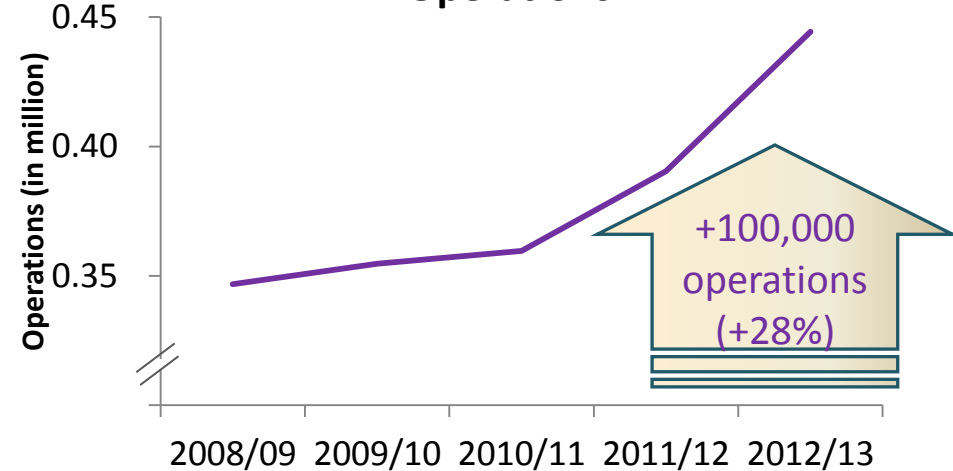
Accident & Emergency



Specialist Outpatient



Operations



Elderly's Share in HA Service Throughput

Services*	Patient activities (in million)		% of Elderly's Share
	All Age	Aged 65+	
Inpatient / Day Patient	7.7	3.8	49%
Accident & Emergency	2.2	0.6	27%
Specialist Outpatient	6.7	2.2	33%
Primary Care	5.6	2.1	38%
Allied Health Outpatient	2.2	0.5	22%
Day Rehabilitation Services	0.5	0.2	46%

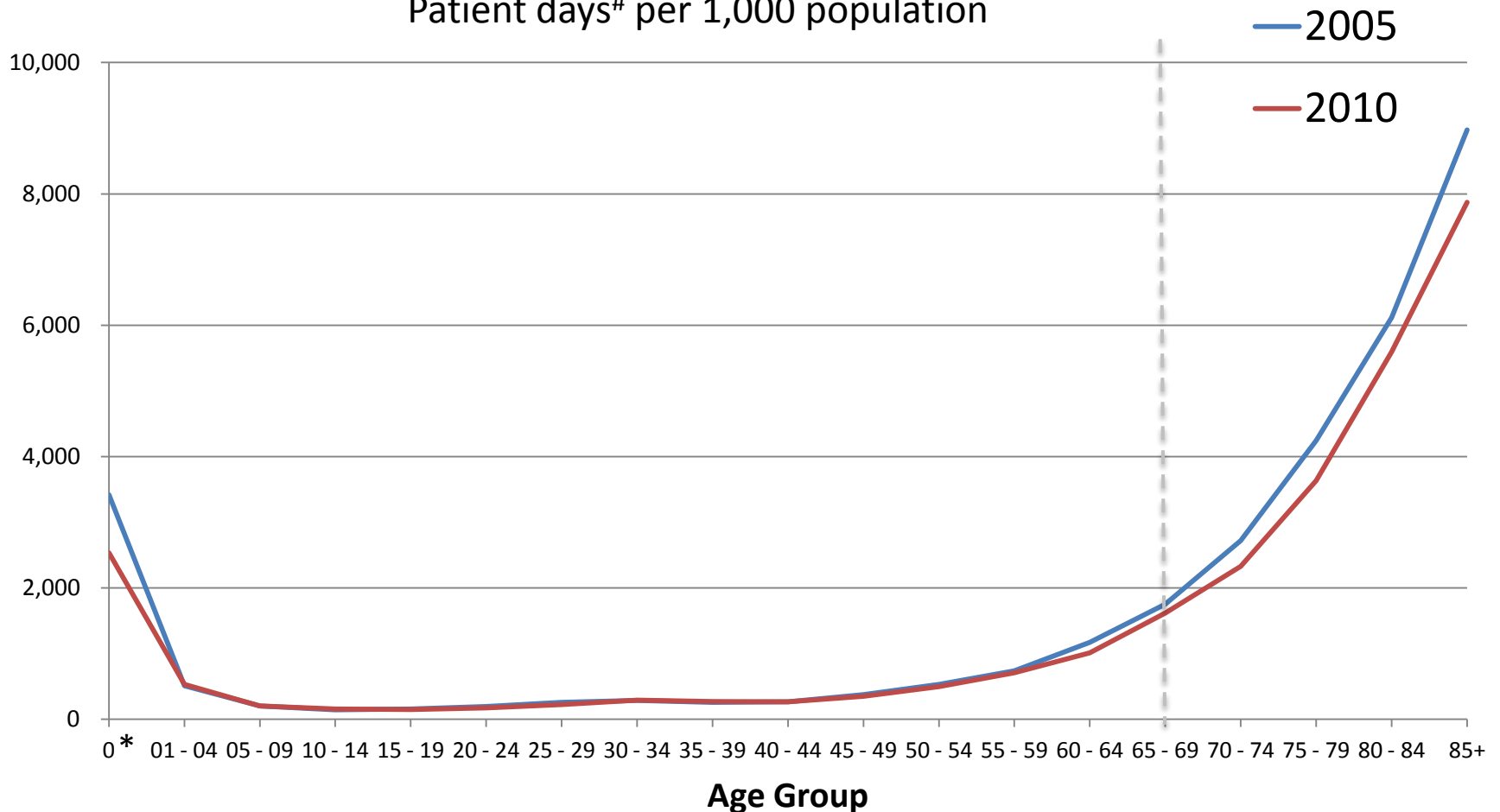
Remarks

* HA Service Statistics, 2011/12; Patients with missing age were excluded.

Impact of Population Ageing: Service Utilization

Inpatient Service Utilization (Age-specific)

Patient days[#] per 1,000 population



Remarks

Patient days for General Specialty only (i.e. Care Category: Acute General or Convalescence/Rehabilitation).

* Figures at age 0 refer to patient days (exclude Nursery only) per 1000 registered births.

Impact of Population Ageing: Hospital Admission

Hospitalization rate of elderly people is 4 times that of non-elderly

Non-Elderly (< 65)



Elderly (65+)



Ever admitted to any
HA hospital
(General specialty*)

0.7 in 10

2.6 in 10

1

vs.

4

Remarks

* Refers to Acute General and Convalescence/Rehabilitation in 2010.
Age 0 are excluded in the calculation of hospital services utilization.

Impact of Population Ageing: Hospital Bed Requirement

Elderly population's requirement for hospital beds is 9 times of non-elderly's

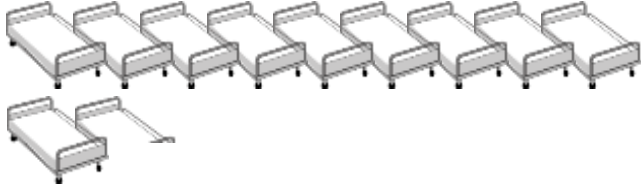
Per 1,000 Non-Elderly (<65)



Per 1,000 Elderly (65+)



Hospital Bed Requirement*
(General specialty)



1.3 beds

11.8 beds

1

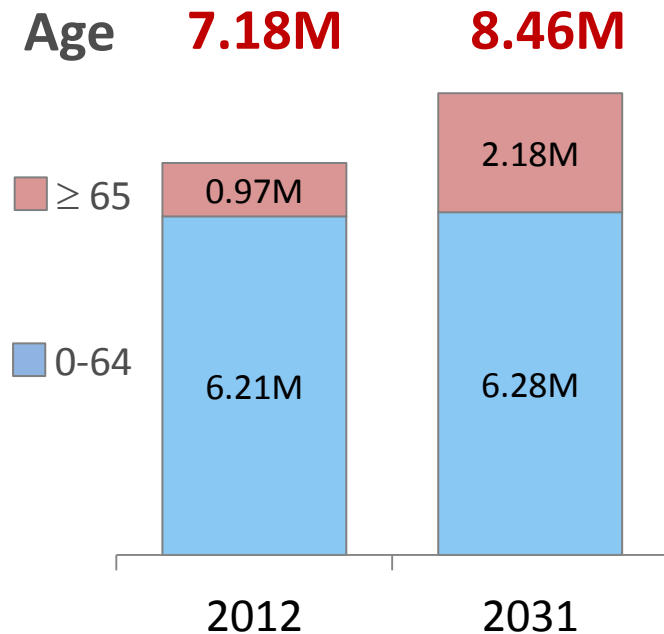
vs.

9

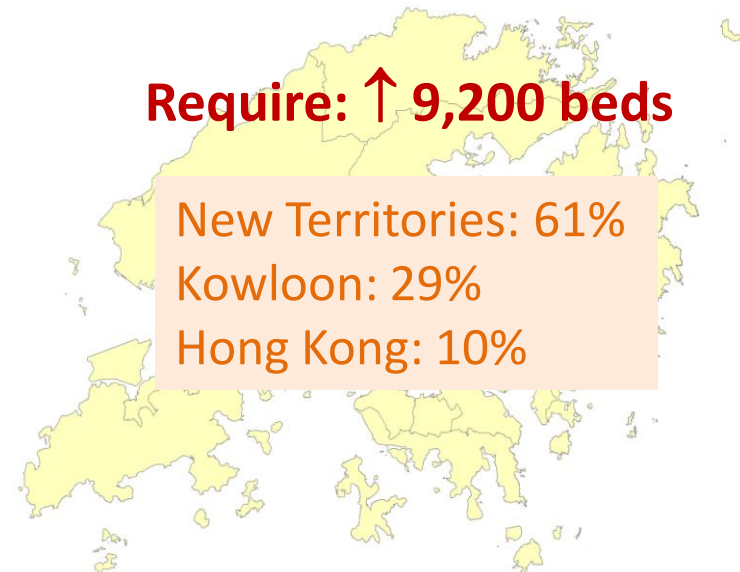
Remarks
* Bed requirement is based on the rate of patient days per population for General Specialty only (i.e. Acute General and Convalescence/Rehabilitation) in 2010. Age 0 are excluded in the calculation of hospital services utilization.

Demographic Change & Hospital Beds Requirement 2012 to 2031

Projected Population



Additional Hospital Beds



Prepare to expand capacity

Build new hospitals

Expand / redevelop existing hospitals



Elder Friendly Design

What can the built hospital environment do to maximize the functional ability of the elderly?

- Bigger waiting areas
 - Space for wheelchairs
 - Range of seat type to suit different patients
 - Reduce trip hazards
- Space to move independently with/without mobility aids



Challenges

1. Increasing Service Volume

2. Developing responsive service models

3. Nurturing Skilled Workforce

4. Optimising the use of Modern Technologies

5. Maintaining a Financially Sustainable Organization

Service delivery Models

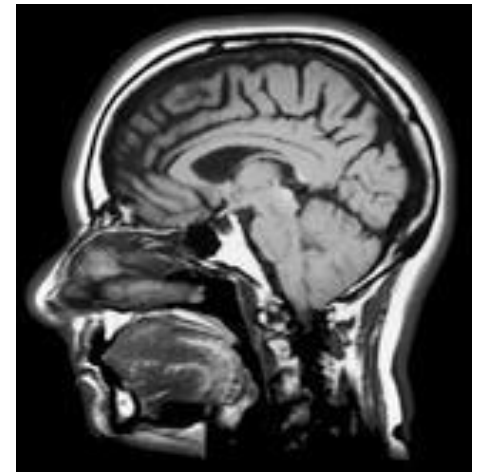
- Changing patterns of diseases
- Increasing disease complexity
- Diverse needs of patients

Require service delivery models that are responsive to patients



System Perspective

- Separate large volume of elective procedures from emergency
- Develop large independently functioning ambulatory centres
 - Diagnostic imaging
 - Pathology investigations
 - Therapeutic & interventional procedures



Incorporating Innovations into Service Models

- Community Health Call Centre
 - Proactive outbound calls
 - Provide support to post-discharged high risk elderly patients: drugs, symptoms, fast track access
 - Empower and reinforce self-management behaviours of chronic patients
- Remote patient monitoring e.g. diabetes, hypertension



Sensors Help Keep the Elderly Safe, and at Home



Achieve better coordination of care

Across different levels of healthcare

Across health and social sectors

Facilitate integration, avoid fragmentation



Challenges

1. Increasing Service Volume
2. Developing Responsive Service Models
- 3. Nurturing Skilled Workforce**
4. Optimising the use of Modern Technologies
5. Maintaining a sustainable organization

Additional Health Workforce Required

The provision of 9,200 new beds will require additional manpower:

2031 vs 2012



Additional **Doctors**

~ 2,800



Additional **Nurses**

~ 10,000



Additional **Allied Health professionals**

~3,500

But HA is facing considerable manpower challenges

Adequate Number

- Reduce attrition
 - Improve career prospects
 - Enhance training opportunities
 - Improve work environment
 - Implement flexible employment



- Ensure adequate supply
 - Local production: lead time required
 - Overseas graduates: need to overcome local difficulties
 - Make better use of retired staff

Appropriate Skillsets

- Holistic approach
- Geriatric skillsets
- Multi-sectoral, inter-disciplinary team working

**Build a modern workforce
that is appropriately skilled**

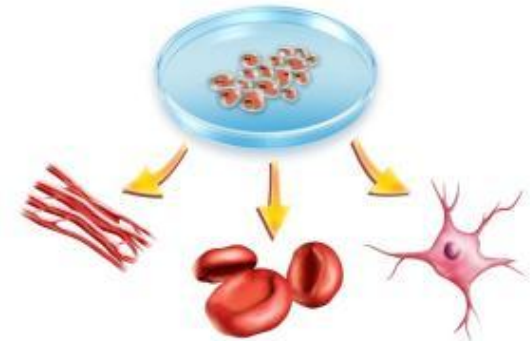


Challenges

1. Increasing Service Volume
2. Developing Innovative Service Models
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- 4. Optimising the use of Modern Technologies**
5. Maintaining a sustainable organization

New Technologies

- Rapid advances in medical science
- Shape & influence the practice of medicine
- Regenerative medicine
 - Addressing degenerative diseases associated with ageing
 - Technology that could replace the long-term management of chronic diseases with cures for many major conditions
 - Stem cell transplantation, cell reprogramming, synthetic organ creation



Robots



RP-VITA (US)

Approved by FDA. Telemedicine consults inclusive of active patient monitoring in high-acuity environments where immediate clinical action may be required



RIBA (Japan)

Assist nurses by lifting patients in and out of their beds and wheelchairs



Actroid-F (Japan)

Provide patients with companionship during their hospital stays



KIRO-M5 (Korea)

Alerts residents to scheduled activities and emergencies, detects soiled diapers and can function as a walker

Tele-operated ACTROID-F

IS

kokoro
a company of Sanyo Group

Assistive Technology

A device or system that allows individuals to perform tasks they would otherwise be unable to do, or increases the ease and safety with which tasks can be performed (WHO, 2004)

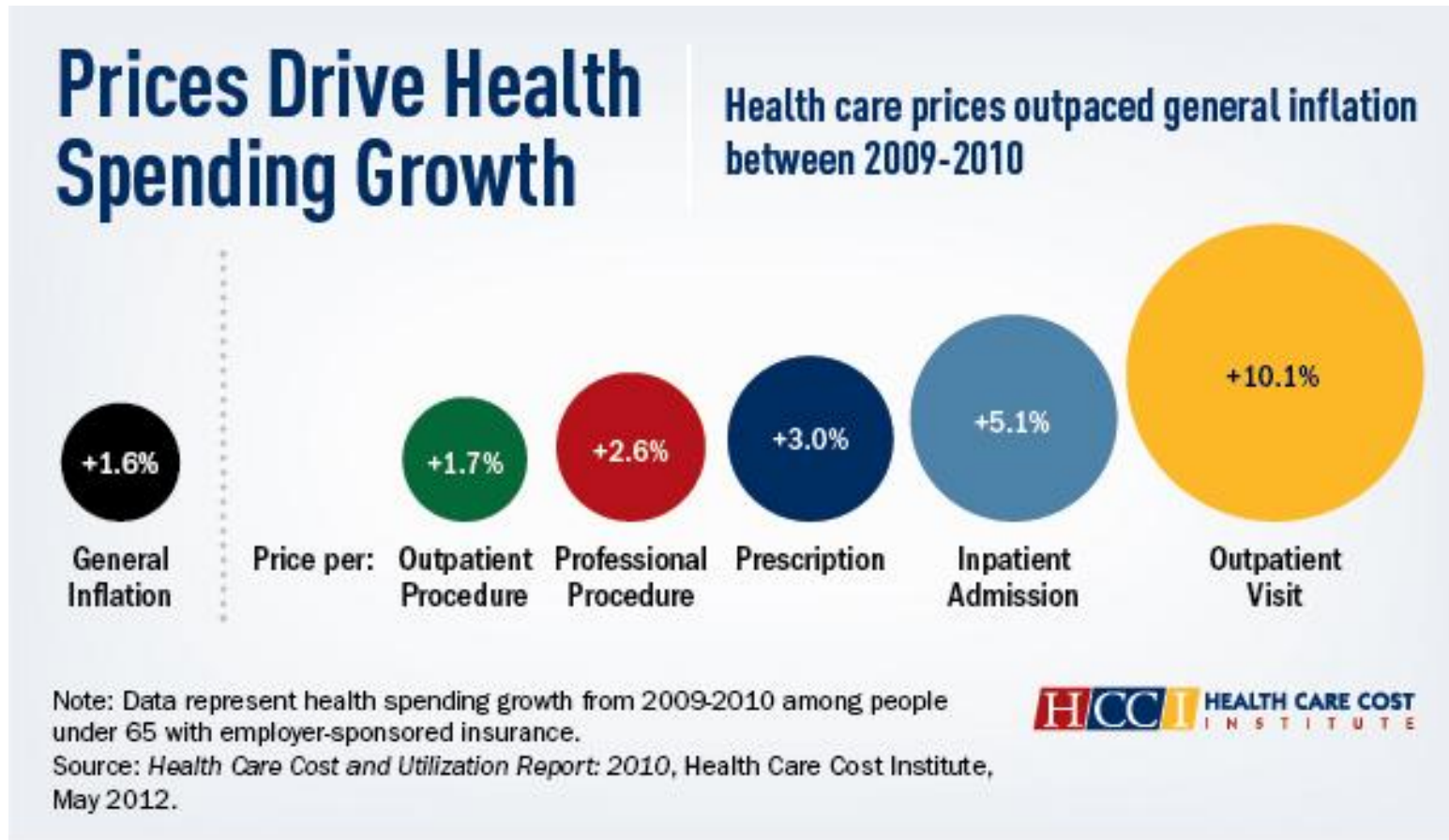
Common conditions affecting people over age 65	Assistive technology that can help to alleviate the condition and maintain independence
Arthritis	Equipment for daily living
Hypertension and heart disease	Telehealth for remote monitoring of vital signs such as heart rate and variability and body weight
Diabetes	Orthopaedic footwear; telehealth for remote monitoring of blood glucose, hypoglycaemia alarms and medication reminders
Hearing problems	Hearing aids , induction loops, text phones
Cataracts and other forms of visual degeneration	Visual aids, better lighting, reading magnification cameras and displays, colour sensors, text to sound converters
Mobility problems	Wheelchairs, walking-frames, stair-lifts, fall detectors , bed monitors, personal environmental controls
Dementia	Telecare systems to monitor safety and movement

Judiciously manage the entry of new
and expensive technologies

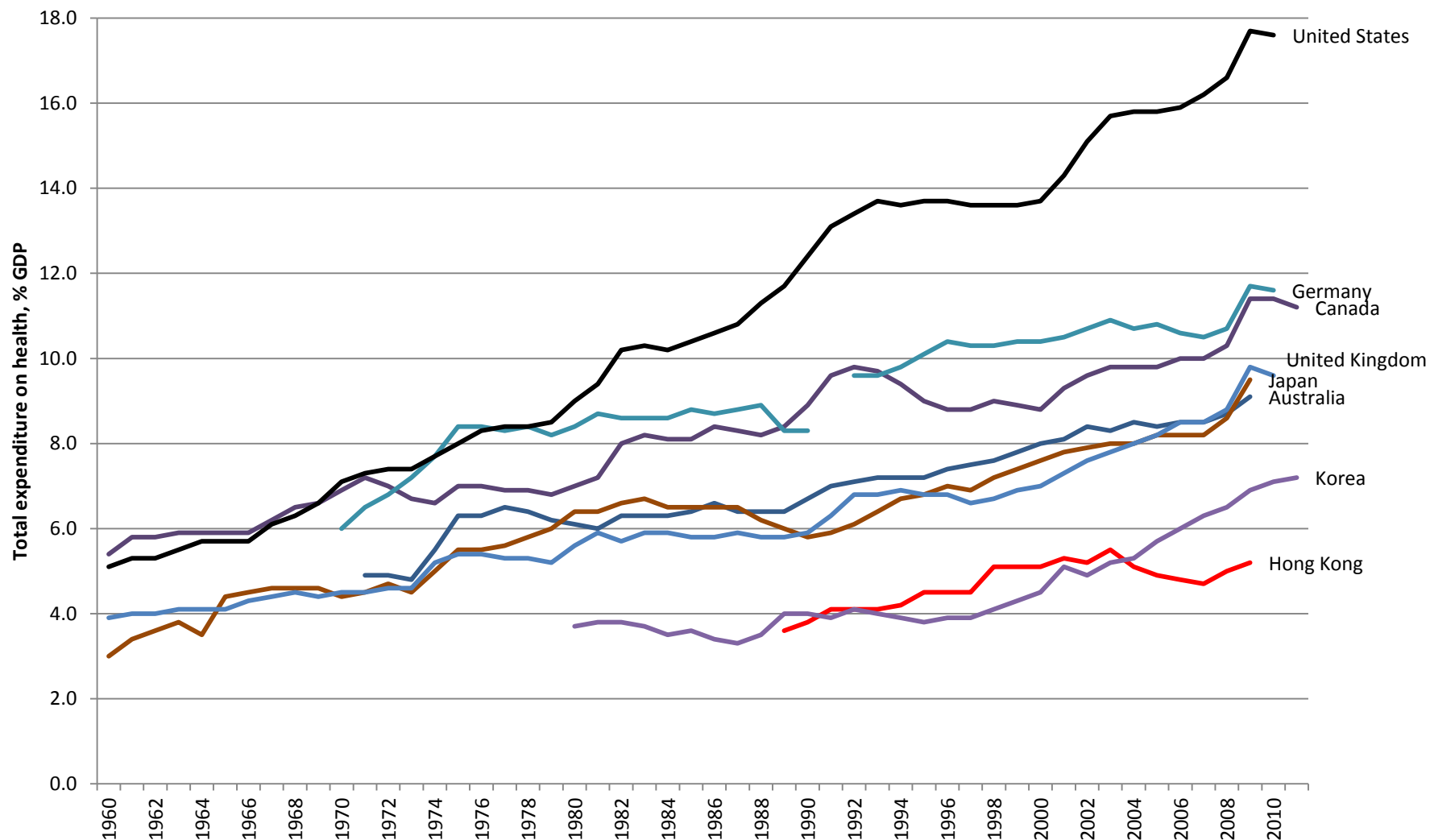
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Modern Healthcare is Expensive



Healthcare Expenditure: International Comparison



Source: OECD Health Data 2012

Hong Kong's Domestic Health Accounts - Estimate of Domestic Health Expenditure, 1989/90 – 2009/10

Achieve financial sustainability



**To meet the challenges of
population ageing, we also need...**

Long Term Care to be
better developed

and

More **Research** on the impact of
population ageing and effective ways to
address the issues

Thank You!