## 2025, 2030, 2047

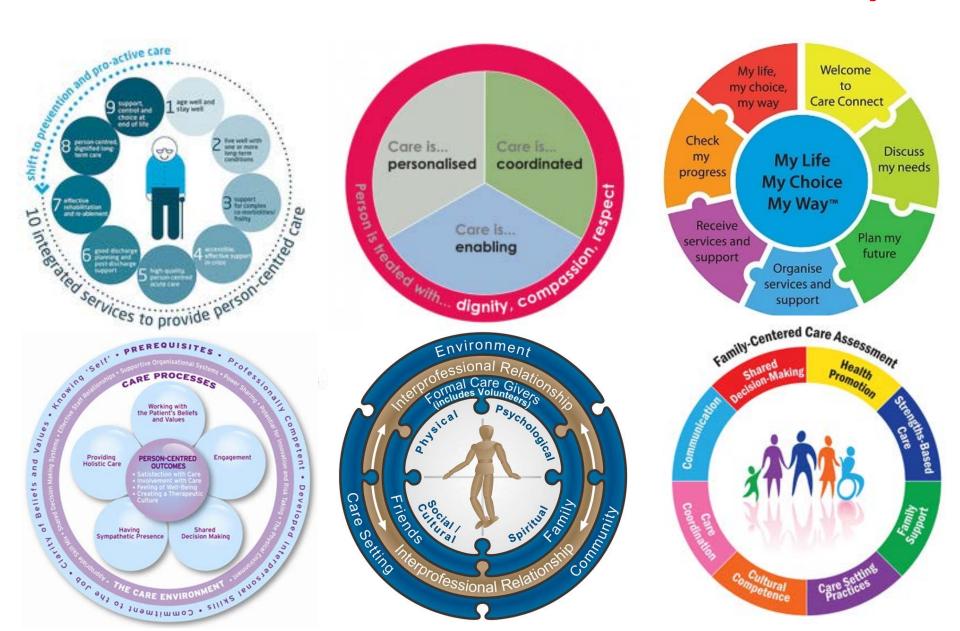
#### Gabriel M Leung

June 25, 2016

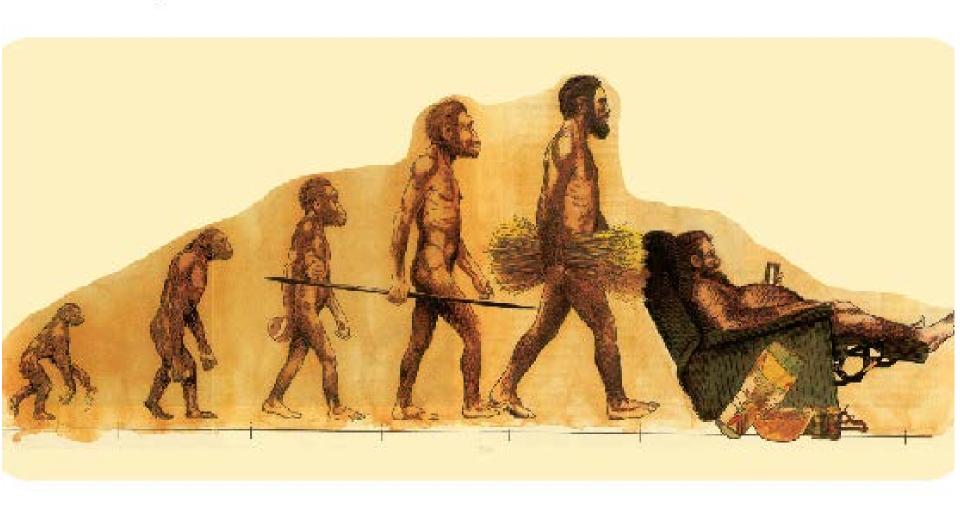
HKEC Symposium on Community Engagement XI



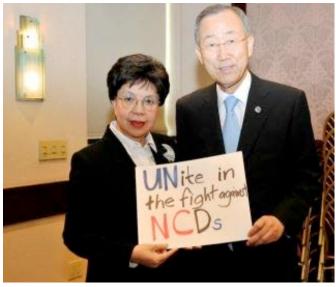
## **Person-centred Care – From Dream to Reality**



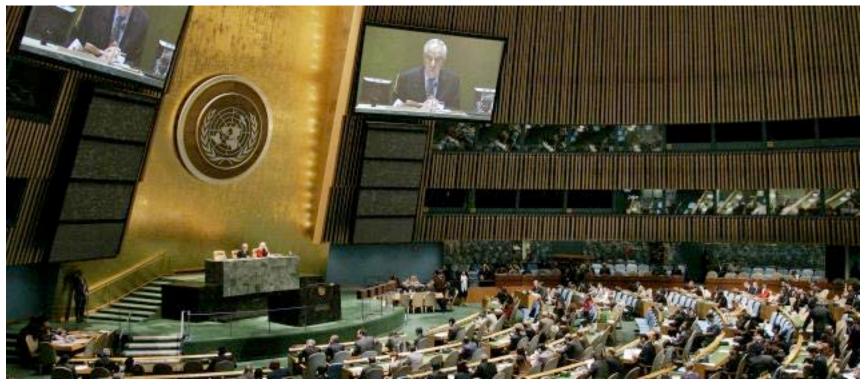
# Emerging epidemic of chronic conditions



# Provenance of 25x25







## Set of 9 voluntary global NCD targets for 2025

Harmful use of alcohol 10% reduction

**Premature** mortality from NCDs 25% reduction

**Essential NCD** medicines and technologies 80% coverage



**Physical** inactivity 10% reduction

Salt/ sodium intake 30% reduction

Tobacco use

Raised blood pressure 25% reduction

Drug therapy and counseling 50% coverage

Diabetes/ obesity 0% increase

30% reduction

Mortality and Morbidity

Risk Factors for NCDs

National Systems Response



## **Global Monitoring Framework**

#### **Mortality & Morbidity**

Unconditional probability of dying between ages 30 and 70 years from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases

Cancer incidence by type of cancer

#### **Risk Factors**

Harmful use of alcohol (3)
Low fruit and vegetable intake
Physical inactivity (2)
Salt intake
Saturated fat intake
Tobacco use (2)
Raised blood glucose/diabetes
Raised blood pressure
Overweight and obesity (2)
Raised total cholesterol

#### **National Systems Response**

Cervical cancer screening
Drug therapy and counseling
Essential NCD medicines & technologies
Hepatitis B vaccine
Human Papilloma Virus vaccine
Marketing to children
Access to palliative care
Policies to limit saturated
fats and virtually eliminate

trans fats

Total number of related indicators in brackets



25 Indicators

## SUSTAINABLE G ALS





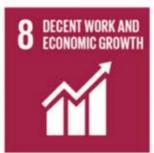
































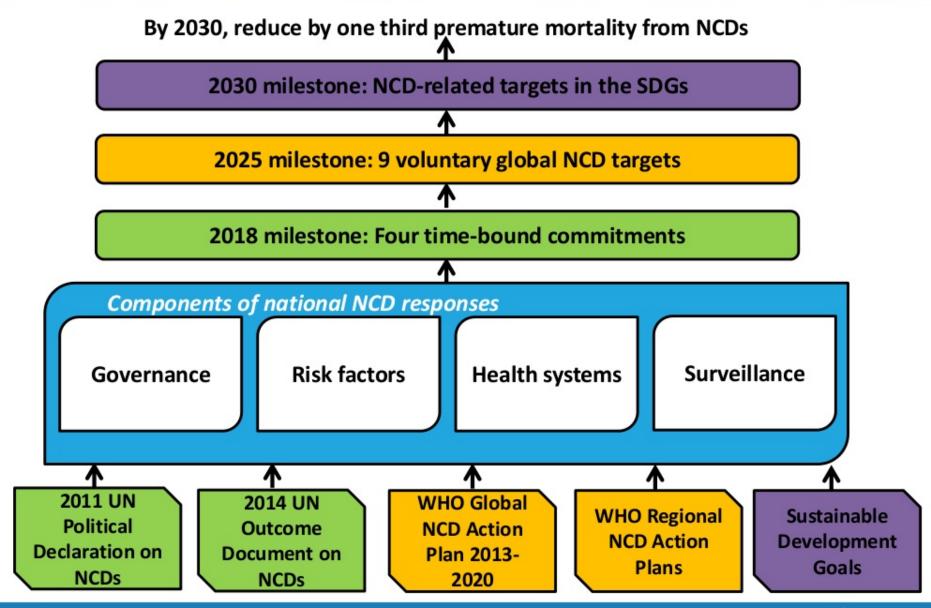
NCDs are included in the global sustainable development agenda for the first time.

3 of the 9 health targets under Sustainable Development Goal 3 on health and wellbeing focus on NCD-related issues. The Framework Convention on Tobacco Control (FCTC) is included as a means of implementation target. This is an important shift in setting global health and sustainable human devlopment priorities.

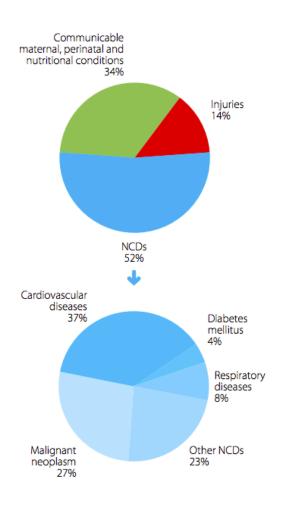


#2030Agenda ncdalliance.org

#### Getting to 2030: Global vision

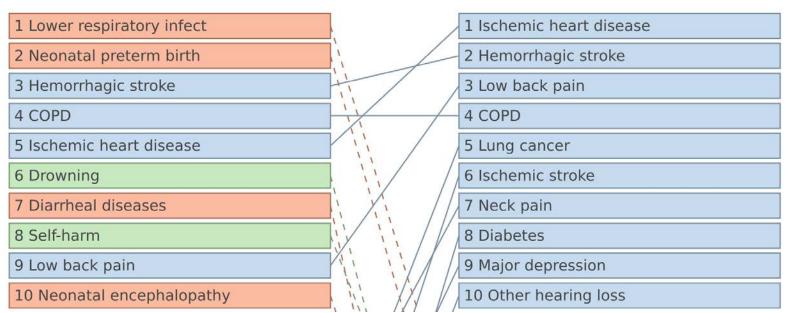


#### Raison d'être: NCDs dominate GBD

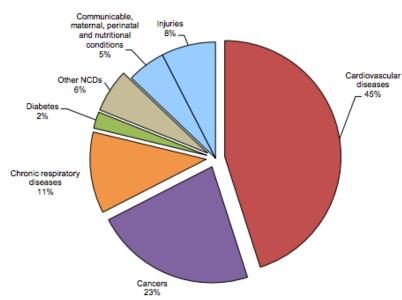


- NCDs accounted for 68% of all deaths globally in 2012
- About 42% of all NCD deaths occurred before age 70 years
- Four killers accounted for 82% of all NCD deaths:
  - Cardiovascular diseases
  - Cancer
  - Chronic respiratory diseases
  - Diabetes

## China Both sexes, All ages, DALYs per 100,000 1990 rank 2013 rank



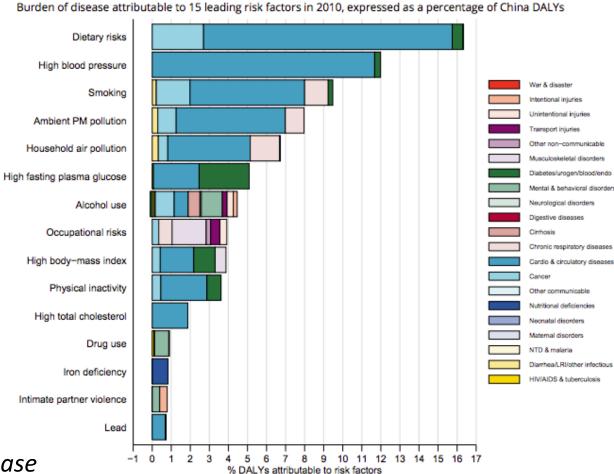
- NCDs accounted for 87% of all deaths in China in 2014
- Cardiovascular diseases, including stroke and ischaemic heart disease, remain the top killers
  - High rates of smoking and hypertension continue to drive the epidemic



Institute for Health Metrics and Evaluation 2013 WHO Noncommunicable diseases country profiles (China) 2014

## NCDs are largely avoidable

- 1. Dietary risks
- 2. High blood pressure
- 3. Smoking
- 4. Air pollution
- High fasting plasma glucose
- 6. Alcohol use



Leading risk factors of disease in China (2010)

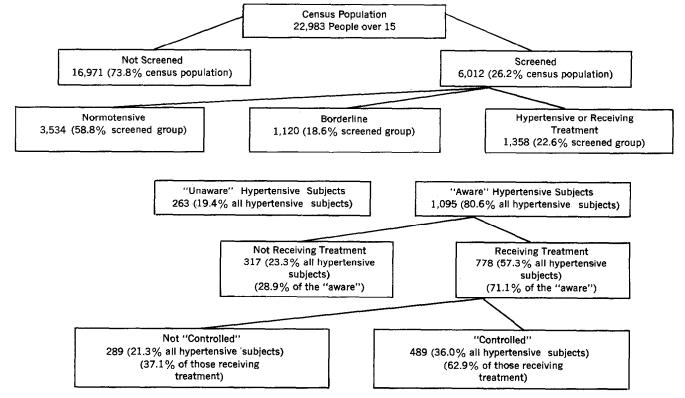
#### **Hypertension-A Community Problem**

### "Rule of Halves"

JOSEPH A. WILBER, M.D. J. GORDON BARROW, M.D.

Atlanta, Georgia

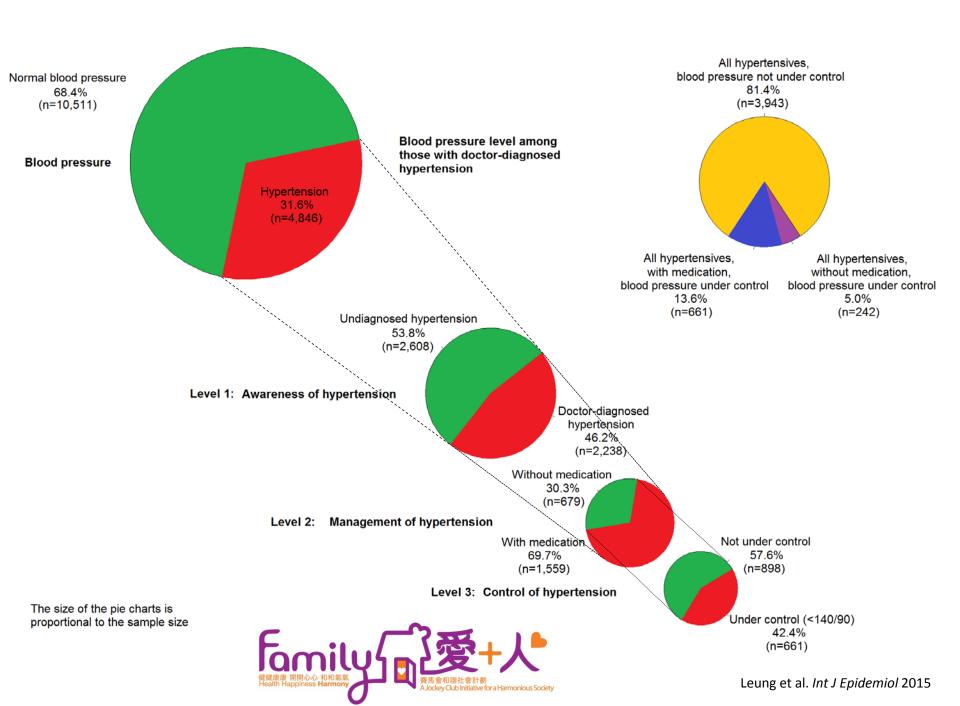
The major problem in achieving better control of hypertension in a community is based on the fact that hypertension is a silent asymptomatic disease. Ignorance of the general population as to the nature of elevated blood pressure, its morbid effects and the methods of maintaining its control is widespread and contributes to the large percentage of undetected and untreated hypertensive subjects in a community. It is suggested that community screening programs combined with simplified diagnostic evaluation and intense patient education and follow-up may greatly increase the percentages under continuous treatment and control.



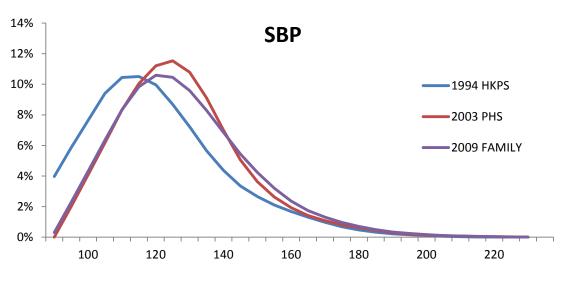
Service of the Georgia Department of Public Health and the Georgia Regional Medical Program. This study was supported by Grant No. 27, Georgia Regional Medical Program. Also in part pursuant to Contract No. HSM-110-69-407 with the Health Services and Mental Health Administration, Department of Health, Education and Welfare. Requests for reprints should be addressed to The Cardiovascular Disease Control Service, the Georgia Department of Public Health, 47 Trinity Avenue, S.W., Atlanta, Georgia 30334.

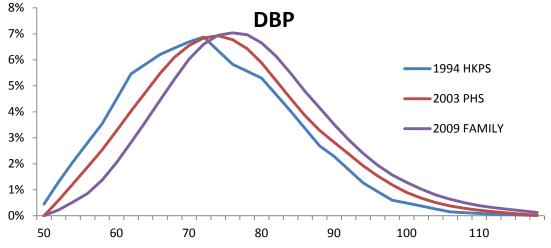
From the Cardiovascular Disease Control

Figure 1. Status of the screened population at time of initial interview.

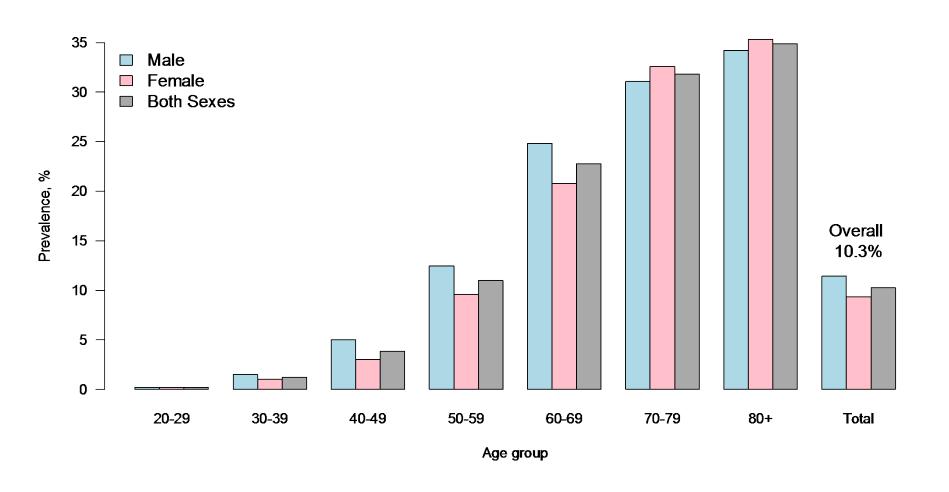


## Rosean shift of whole distributions

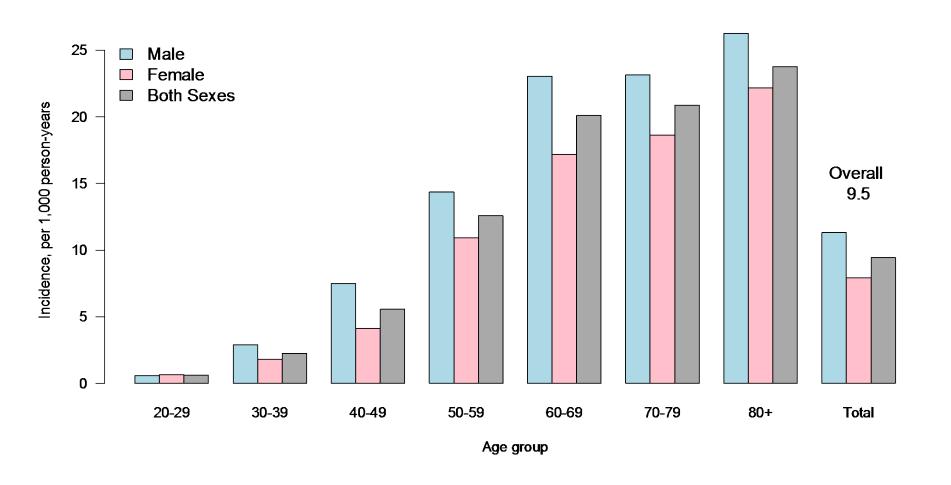




### Prevalence of diagnosed diabetes in HK, 2014



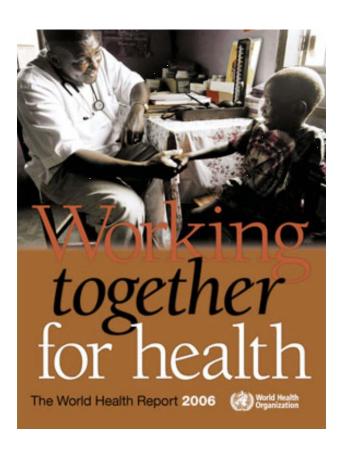
## Incidence of diagnosed diabetes in HK, 2014

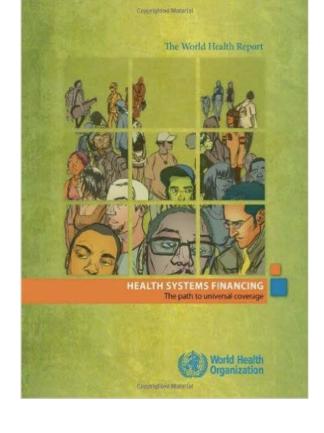


#### Potential burden

- Prevalence of 10.3% after adjusting for patients who only use private care as at 2014
  - unadjusted prevalence of 9.0%
- Hong Kong is the most and longest developed Chinese city
  - Conservatively assuming 36.4% are unaware as per US
    - → actual prevalence rate of 16.2%

## The Grand Convergence of Means



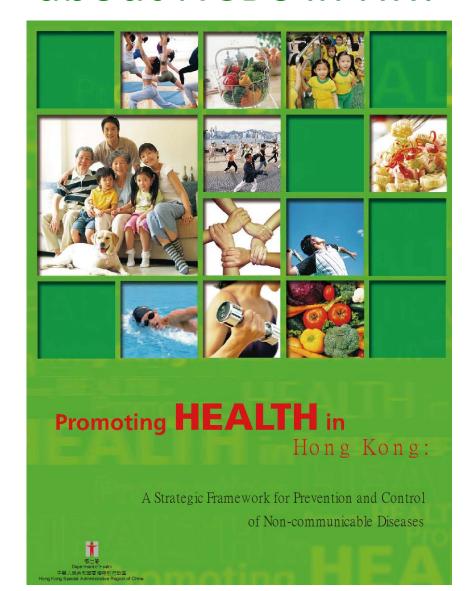


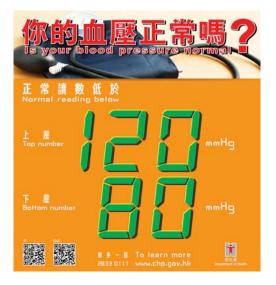






## What have we done about NCDs in HK?











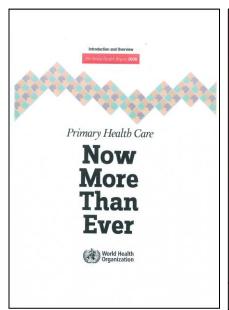


保障市民健康 Protecting Hong Kong's health

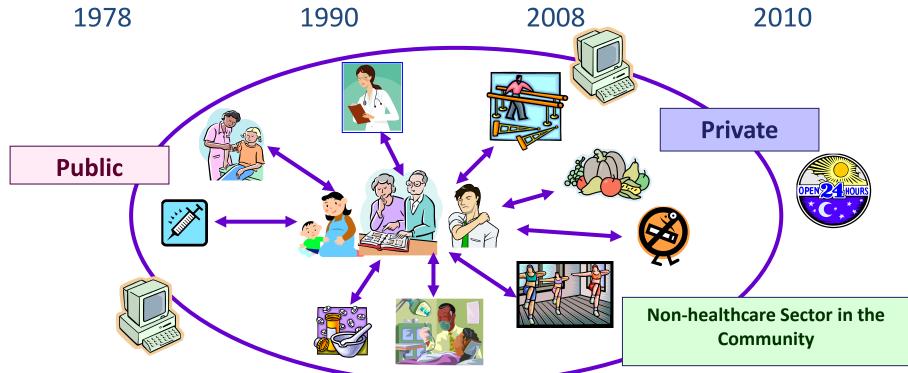












## **Primary Care Initiatives**























RAMP, PEP, NAHC, "Shared Care Programme", TSWPPP

**TSWCHC** 

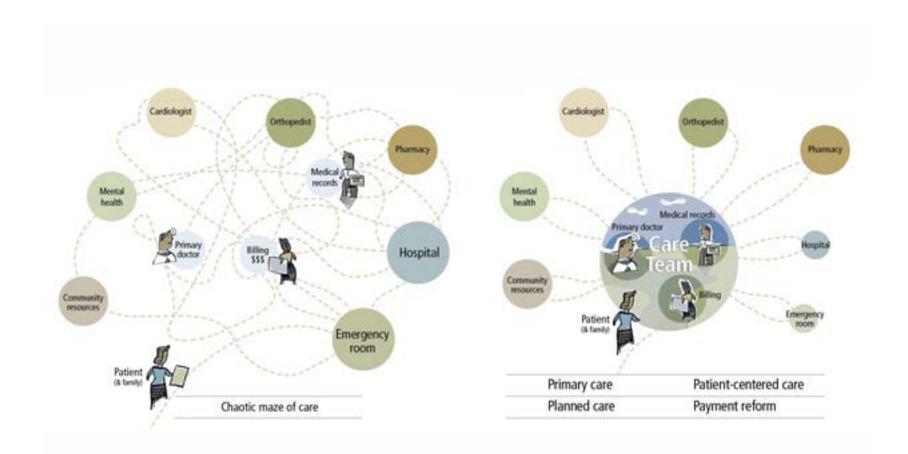
**HEALTH AND** Department of Health **CARE SYSTEM:** Quality Commission **April 2013** itigation Authority Local NHS Blood Healthwatch & Transplant Health & Wellbeing Boards Public NHS Authority health National Comissioning services Board nstitute for Health Research Commissioning DEPARTMENT OF HEALTH All PUBLIC & PATIENTS IIHR Clinical Groups Research Networks surgeries Community PARLIAMENT health services Public Health NHS Business Local England government Dentists Authority Mental Home health care Health & Social ocal Education services Care Information & Training Centre Education England Hospitals KEY **NHS Trust** Development Providing care Authority Local government Commissioning care National Institute for Health & LOCAL ORGANISATIONS Care Excellence Improving public health Empowering patients and Medicines & Healthcare Products local communities NATIONAL ORGANISATIONS Regulatory Agency Supporting providers of REGULATION & SAFEGUARDING Safeguarding patients' interests SECRETARY OF STATE

Source: nhs.uk, 2013





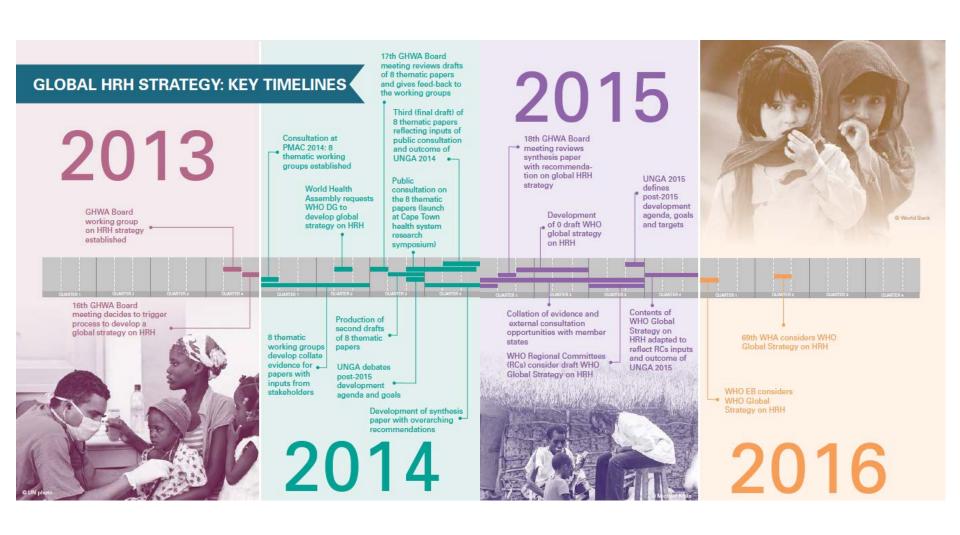
	Community Health Centre	Family Health Network	Family Health Group	Family Health Organization	Family Health Team
Year	Mid-1980s	2001	2003	2005	2006
Physician Reimbursement	Salary	Blended capitation	Blended fee for service	Blended capitation	Blended salary
Governance	Community Board	Physician-led	Physician-led	Physician-led	Mixed
After-Hours Requirement	Yes	Yes	Yes	Yes	Yes
Accountability Agreements	Yes	No	No	No	Yes
Formal Enrollment	No	Yes	Yes	Yes	Yes
Community Outreach/HP	Yes	No	No	No	Yes
Loss of Bonus Payment for outside Primary Care Use	No	Yes	No	Yes	Yes



Source: <a href="http://www.ghinnovates.org/">http://www.ghinnovates.org/</a>

Larson NEJM 2009

## Who will deliver universal primary care?





## Health professionals for a new century: transforming education to strengthen health systems in an interdependent world



Julio Frenk\*, Lincoln Chen\*, Zulfiqar A Bhutta, Jordan Cohen, Nigel Crisp, Timothy Evans, Harvey Fineberg, Patricia Garcia, Yang Ke, Patrick Kelley, Barry Kistnasamy, Afaf Meleis, David Naylor, Ariel Pablos-Mendez, Srinath Reddy, Susan Scrimshaw, Jaime Sepulveda, David Serwadda, Huda Zurayk

Published Online November 29, 2010 DOI:10.1016/S0140-6736(10)61854-5

See Online/Comment DOI:10.1016/S0140-6736(10)62008-9 DOI:10.1016/S0140-6736(10)61968-X

\*Joint first authors

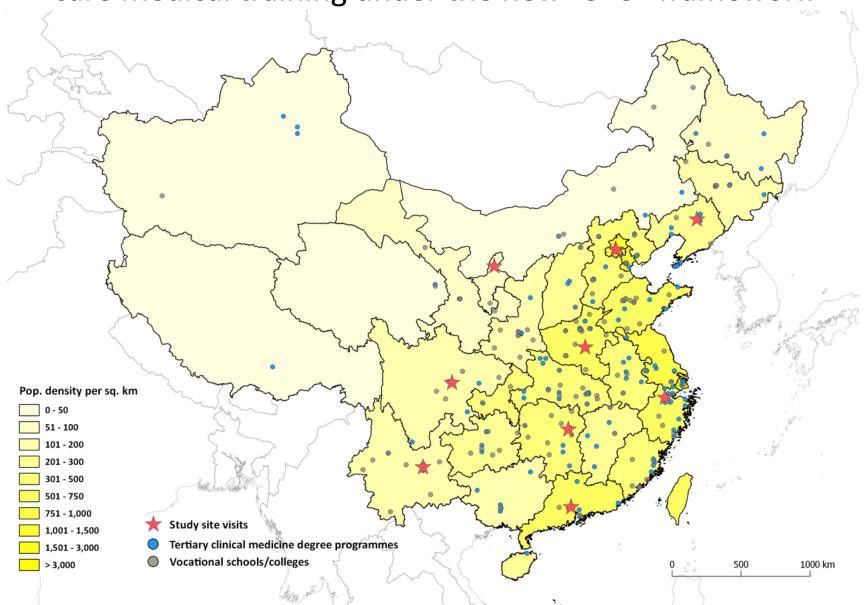
Harvard School of Public Health, Boston, MA, USA (Prof J Frenk MD); China Medical Board, Cambridge, MA, USA (L Chen MD); Aga Khan University, Karachi, Pakistan (Prof Z A Bhutta PhD); George Washington University Medical Center, Washington, DC, USA (Prof J Cohen MD); Independent member of House of Lords, London, UK (N Crisp KCB): James P Grant School of Public Health, Dhaka, Bangladesh (Prof T Evans MD); US Institute of Medicine, Washington, DC, USA (H Fineberg MD, P Kelley MD); School of Public Health Universidad Peruana Cayetano, Heredia, Lima, Peru (Prof P Garcia MD); Peking University Health Science Centre, Beijing, China (Prof Y Ke MD); National Health Laboratory Service, Johannesburg, South Africa (B Kistnasamy MD); School of Nursing, University of Pennsylvania, Philadelphia, PA, USA (Prof A Meleis PhD); University of Toronto, Toronto, ON, Canada (Prof D Naylor MD); The Rockefeller Foundation,

utions train about 1 million new doctors, nurses, midwives, and public health professionals every year.

Severe institutional shortages are exacerbated by The Rockefeller Four maldistribution, both between and within countries.

New York, NY, USA

A landscaping assessment of China's postgraduate primary care medical training under the new "5+3" framework



#### Official documents issued by: State Council Official documents related to GP Ministry of Health (MOH) / National Health and Family Planning Commission (NHFPC) Ministry of Education (MOE) Jointly issued by NHFPC & MOE Jointly issued by NHFPC, MOE, Ministry of Finance, National Development and Reform Commission, Ministry of Human Resources and Social Security, State Commission Office of Public Sectors Reform. and State Administration of Traditional Chinese Medicine Jointly issued by NHFPC, MOE, Ministry of Finance, National Development and Reform Commission, State Commission Office of

Outline for Standardized Clinical Residency Training System 临床住院医师规范化培 训大纲

1995

Chinese Medicine

Development of General Practitioner Education 发展全科医学教育的意见★

2000

Public Sectors Reform, and State Administration of Traditional Opinions on the

Guideline on Setting up General Practitioners System 国务院关于建立全科医 生制度的指导意见 🛨

2011

Opinions on Establishing Standardized Residency Training 关于建立住院医师规范化 培训制度的指导意见

2013

Approval of the First Batch of Clinical Medicine Professional Master's Degree for Training Reform (Pilot) 关于批准第一批临床医学硕 士专业学位研究生培养模式 改革试点高校的通知

**2013** 

2012

Education Programme

试点高校的通知

Opinions on Deepening Medical **Education Reform** 关于医教协同深化临床医学人 才培养改革的意见

2014

Change of 7-year Clinical Medicine Programme into Integrated "5+3" Model 关于做好七年制临床医学教育调整为 "5+3"一体化人才培养改革工作的通知

2015

1993

Implementation of Pilot for Standardized Residency Training 临床住院医师规范化培 训试行办法

1998

Pilot Work for Standardized General **Practitioners Training** Program 全科医师规范化培训★ 试行办法

Outline for Standardized General Practitioners Training Program 全科医师规范化培训大纲**★** 

The Measures for Certificate Issues in Standardized Clinical Residency Training system (Trial Implementation) 临床住院医师规范化培训合格 证书颁发管理办法(试行)

The Development of Residency Training for Specialists (Pilot) 关于开展专科医师培 训试点工作的通知

2006

Opinions on Medical Education Reform

关于实施临床医学教育综合改革的若干意见

Approval of the First Batch of Excellent Physician

关于批准第一批卓越医生教育培养计划项目

Opinions on Implementing Excellent Physician **Education Program** 关于实施卓越医生教育培养计划的意见

Benchmarks of Standardized Residency Training for General Practitioners (Trial Implementation) 全科医生规范化培养标准 (试行)

Benchmarks of Residency Training for Assistant General Practitioners 助理全科医生培训标准 (试行)▼

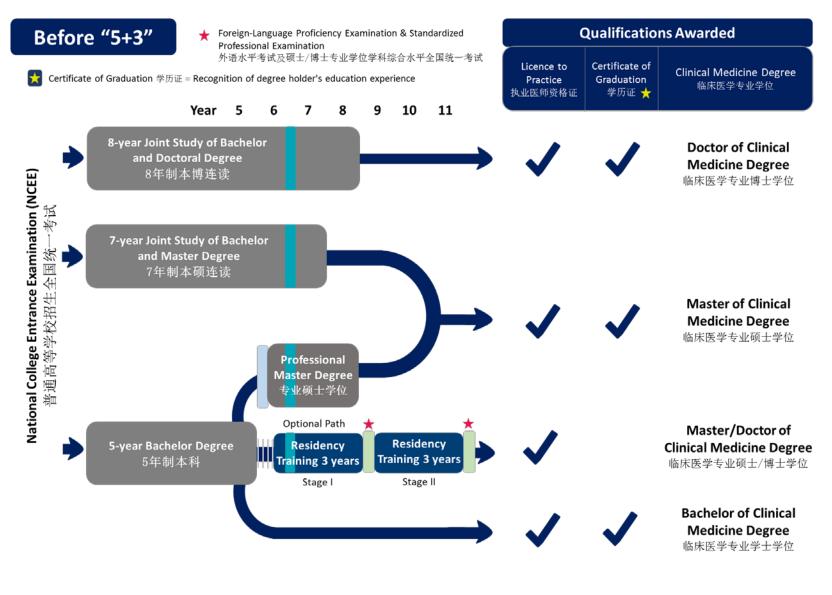
2014

Resident Doctor Standardized Training Management Methods (Trial Implementation) 住院医师规范化培训管理办法(试行)

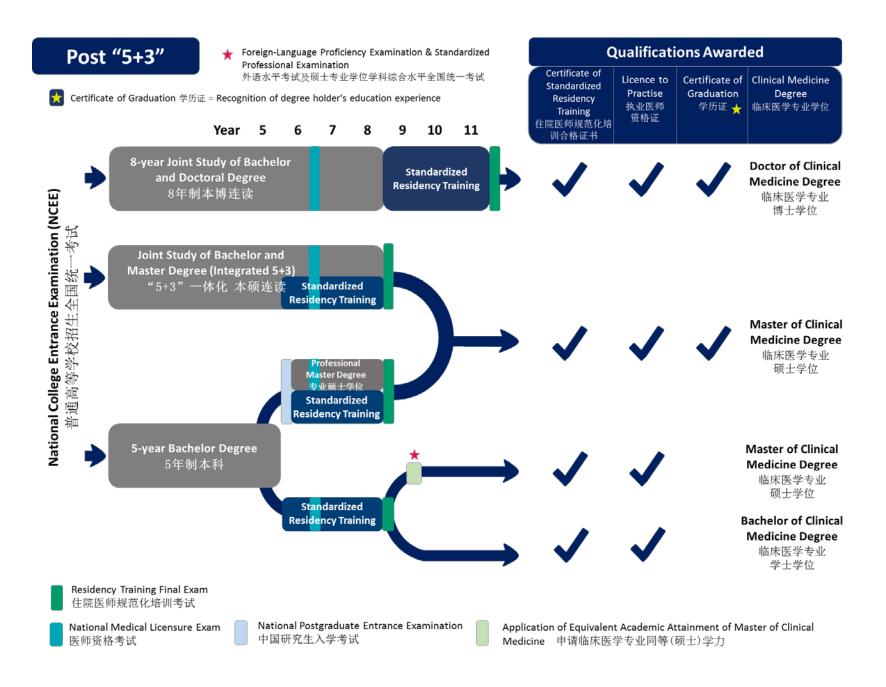
Entry Criteria for Authorization of Institutions of Standardized Residency Training (Trial Implementation) 住院医师规范化培训基地认定标准(试行)

Requirements of Standardized Residency **Training Bases** 关于做好住院医师规范化培训基地有关工 作的通知

Benchmarks and Connotations of Standardized Residency Training (Trial Implementation) 住院医师规范化培训内容与标准(试行)



National Medical Licensure Exam 医师资格考试 National Postgraduate Entrance Examination 中国研究生入学考试 Application of Equivalent Academic Attainment of Master/Doctor of Clinical Medicine 申请临床医学专业同等(硕士/博士)学力



#### National Guidelines of Postgraduate Residency Training Curricular Structure

Training locaiton	Specialty	Length of rotation (Month)		
		GP	Assistant GP	
Hospitals	Internal medicine	12	8.5	
	Emergency	3.5	2.5	
	Neurology	2	2	
	Pediatrics	2	1	
	Surgery	2	1.5	
	Gynecology	1	1.5	
	Psychiatry	1	0.5	
	Dermatology	0.5	0.5	
	Ophthalmology	0.5	0.5	
	Otolaryngology	0.5	0.5	
	Infectious Diseases	0.5	0.5	
	Rehabilitation Medicine	0.5	0.5	
	Traditional Chinese Medicine	0.5	0.5	
	Other Elective	0.5	-	
	Subtotal	27	20.5	
Grass-roots Health Care Institutions	Subtotal	6	4	
	Overall	33	24.5	

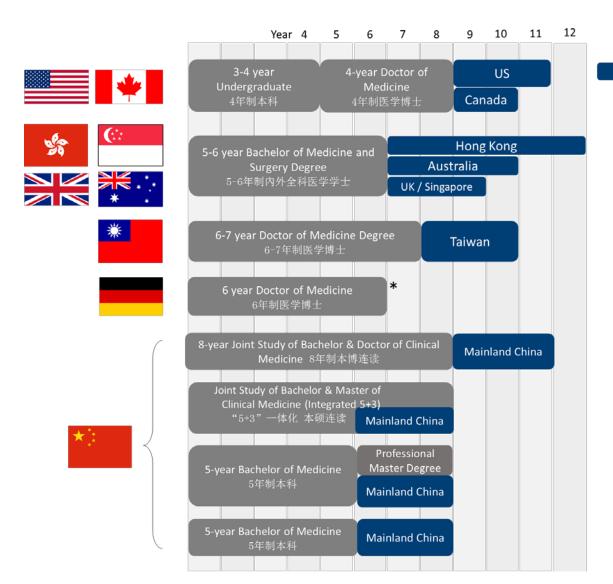
#### **Training Content**

#### <u>GP</u>

- Theory learning: Medical ethics and communication, law, clinical research, theories of clinical medicine. General practice, community health service and public health.
- Clinical skills: the detailed requirements is determined by the specific clinical specialty the trainee is rotated to.
- 3. Clinical practice at primary care settings

#### Assistant GP

- Theory learning: basic theories of GP, behavioral and psychological issues and communication at primary care settings.
- Clinical services: training of basic clinical skills, diagnosis of common diseases and critical illness.
- Primary care and public health: preventive health care, common chronic disease management, emergency management.



Formal postgraduate training in family medicine or general practice

## **Key Issues Arising**

#### 1. More than a hundred flowers currently bloom

- 1.1. Different schools have different starting points
- 1.2. Different impact on pre-existing admission tracks
- 1.3. Standardized assessments that should befit standardized residency training

#### 2. Vying for primacy: academia vs hospitals

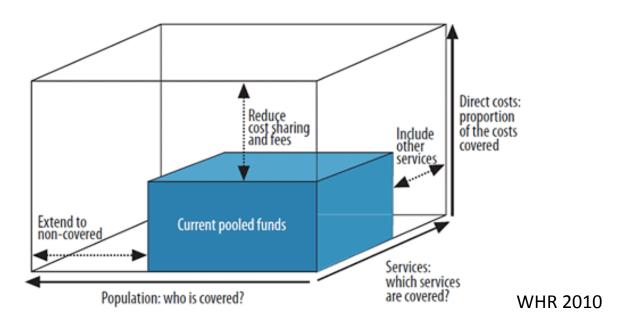
- 2.1. Locus of control
- 2.2. Job markets ultimately guide trainee behavior

#### 3. Where does one find the founder generation of GP trainers?

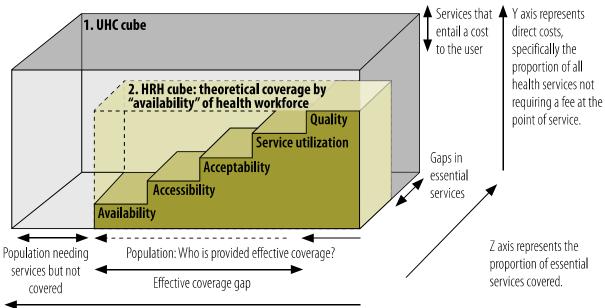
- 3.1. Insufficient number of GP training bases
- 3.2. Lack of GP department in most training institutions
- 3.3. More rotations for GP training
- 3.4. In need of more qualified GP trainers
- 3.5. Minimal incentives for GP trainers

#### 4. Are there willing GP trainees?

- 4.1. Mismatches along the training supply chain
- 4.2. In need of a national matching system
- 4.3. Difficulties in filling GP training posts
- 4.4. A vicious cycle hindering development of GP specialty



#### Three dimensions to consider when moving towards universal coverage



X axis represents the population, specifically the percentage of the population covered by health services.

Campbell et al. Bull WHO. 2013

## 20+ years of plans and counting...

1999 Harvard Report – Social insurance; vertically integrated MCOs in both public and private sectors

2008 Your Health, Your Life – Review of health financing typologies; health services reform vis-à-vis primary care and informatics

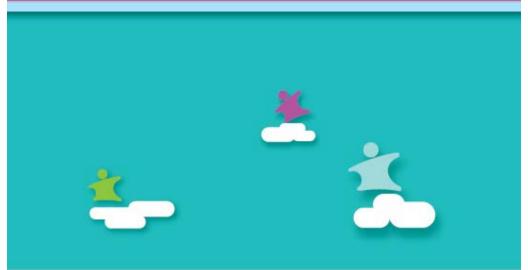


1993 "Rainbow Report" – Incomedependent graduated percentage subsidy, itemised charging for semi-private services and coordinated voluntary private insurance

2001 Lifelong Investment in Health –
"Health Protection Accounts", i.e.
Singaporean-style medical savings
accounts without the insurance component

2010 My Health, My Choice – "Health Protection Scheme", i.e. voluntary, regulated private insurance with an emphasis on post-retirement care







## 2047 - Rose Garden 2.0

