Hospital Authority Convention 2015

Impact of the Changing HIV/AIDS Landscape on Treatment Programmes

Dr. Lee Man Po

Consultant

Department of Medicine, QEH

Global & local HIV/AIDS situation

- **Global**
- In 2012, 35.3 million people living with HIV
- 2.3 million new infections
- 260,000 new infections in children
- 1.6 million AIDS-related deaths

- **Hong Kong (Dec 2014)**
- HIV (cumulative) 6,993
- AIDS (cumulative) 1,545

單季HIV感染 創30年新高

【本報訊】愛滋病病毒感染個案再創新高，衛生防護中心今年第三季接獲一百九十五宗愛滋病病毒（HIV）感染個案，是自一九八四年以來單季最高，而今年第一季錄得一百五十四宗呈報則屬第二高。

多因性接觸「中招」

本港的HIV感染個案累積至六千八百四十一宗；今年第三季亦有廿七宗愛滋病新增個案，即已發病個案，累積個案達一千五百廿四宗。衛生防護中心顧問醫生（特別預防計劃）黃加慶指，性接觸仍是最主要的傳播途徑，提醒市民應正確使用安全套，減低感染機會。

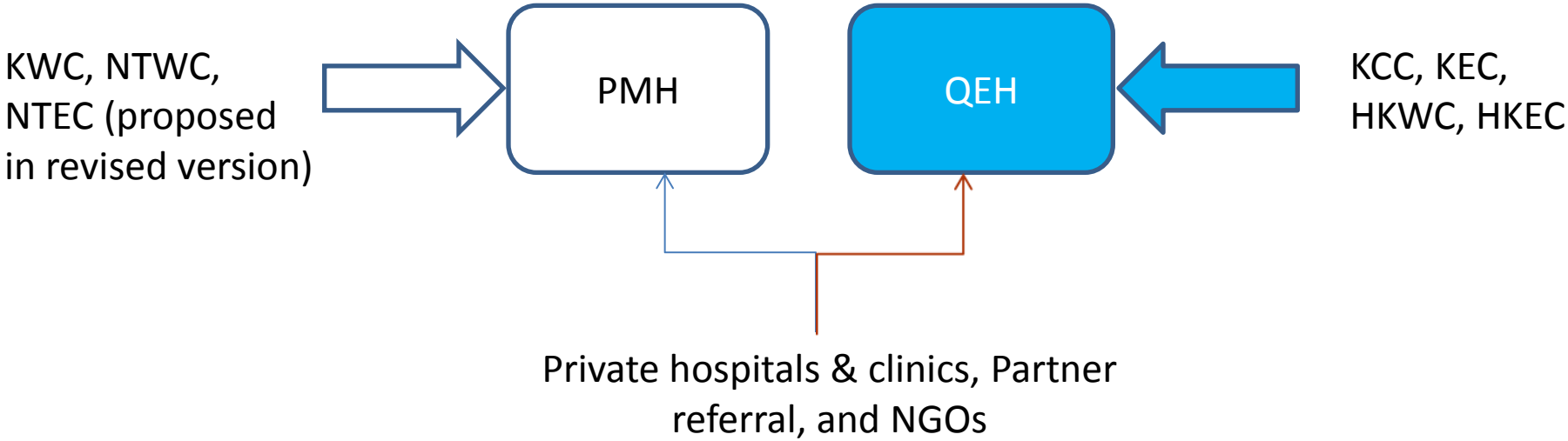
新增的一百九十五宗HIV感染個案包括一百六十七男及廿八女，當中一百零五人透過同性或雙性性接觸感染，經異性性接觸感染則有卅五人，一人經注射毒品感染，另有五十四人的感染途徑未能確定，其中一百一十七名感染者已到衛生署或醫院管理局的愛滋病專科服務接受治理。

新增個案中百分之六十三經異性性接觸受感染，百分之卅三經同性或雙性性接觸感染，並有廿宗併發症個案，包括十二宗結核病和八宗肺囊蟲肺炎。黃加慶呼籲曾進行不安全性行為人士，盡早接受愛滋病病毒抗體測試。

醫健

HIV/AIDS service delivery model in HA

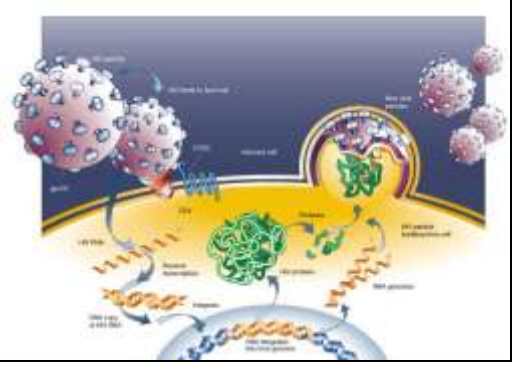
- **Designated adult treatment centres in QEH & PMH with established service networking**
- **Pediatric patients are cared in QMH & QEH**



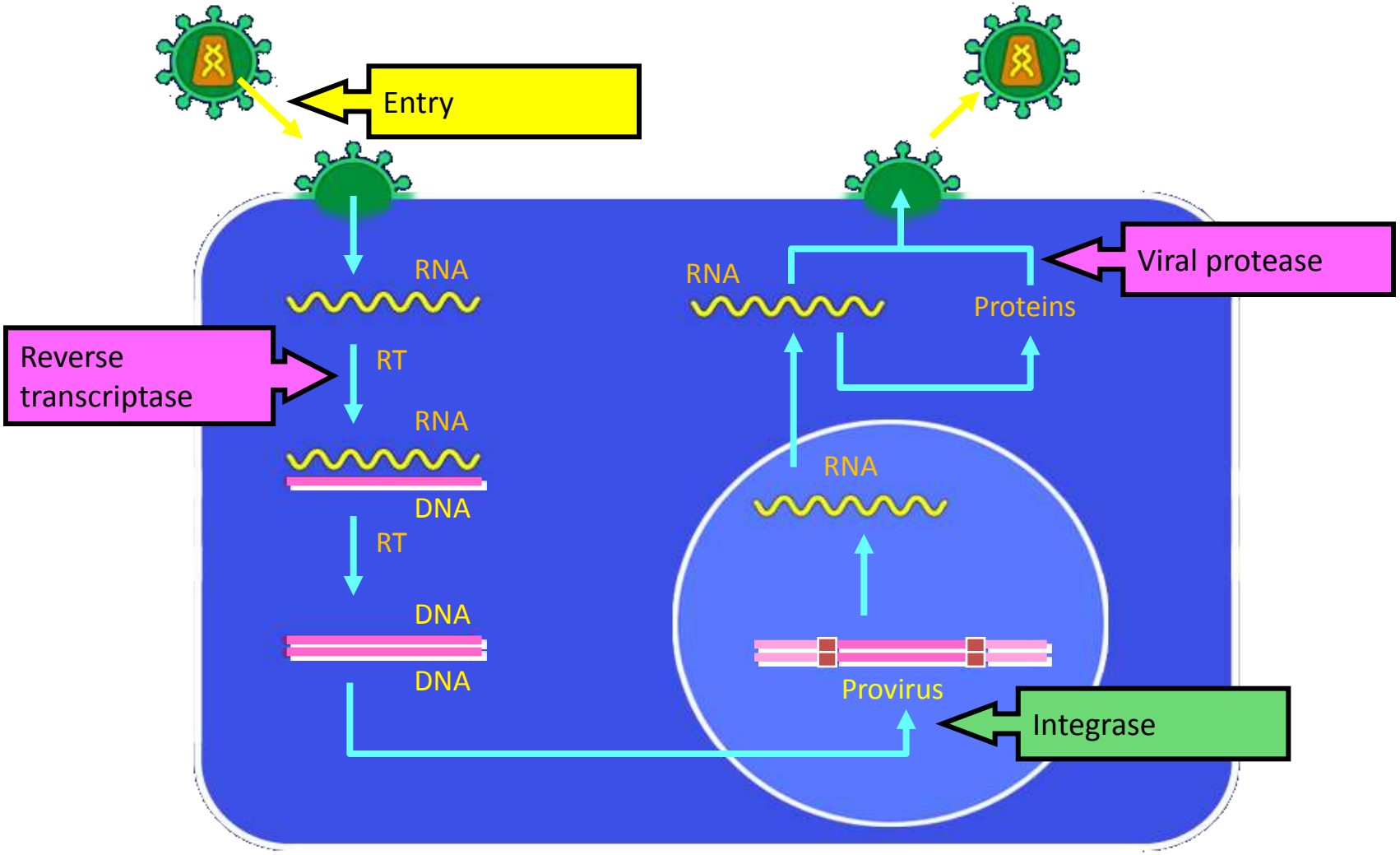
HAHO Operations Circular No. 15 / 2009

HIV/AIDS Service provided in QEH

- Provide multidisciplinary care to HIV/AIDS patients, including acute, rehabilitation and ambulatory service
- Provide counseling and psychosocial support to patients & their families
- Provide in-patient care for Integrated Treatment Center of Department of Health and support CHP in disease surveillance
- Partnership with NGOs for community care
- Post-exposure prophylaxis clinic for HCWs after needle stick injuries & mucosal contacts
- Organize training to HA staffs and conduct research to improve patient care



HIV-1 Lifecycle



Highly Active Anti-Retroviral Therapy (HAART)

Combination of 3 or more drugs belonging to two or more classes

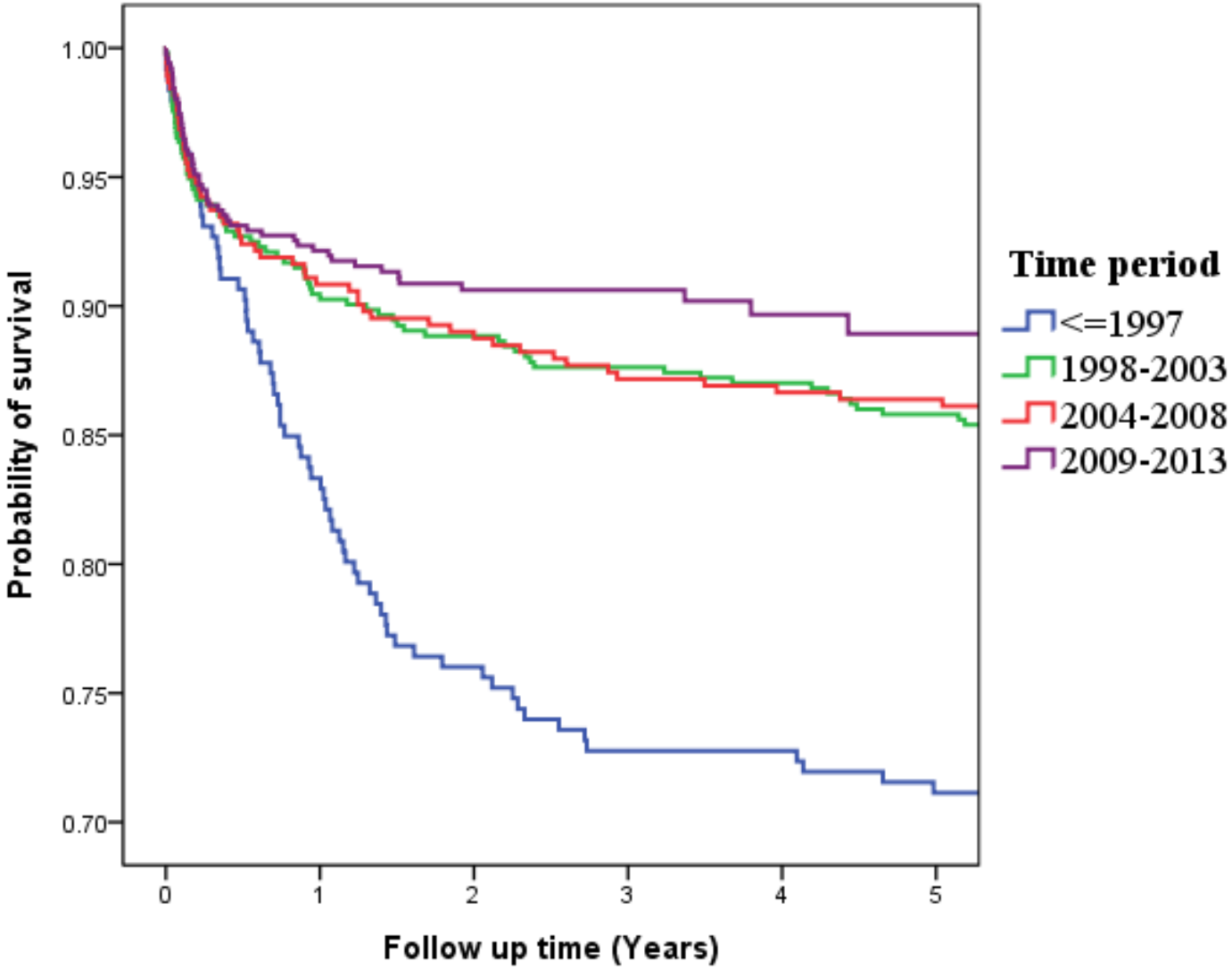
Treatment Benefits

- Maximal and durable suppression of viral replication
- Restoration of immunologic function
- Reduction of HIV-related morbidity and mortality
- Improvement in quality of life
- Prevent HIV transmission

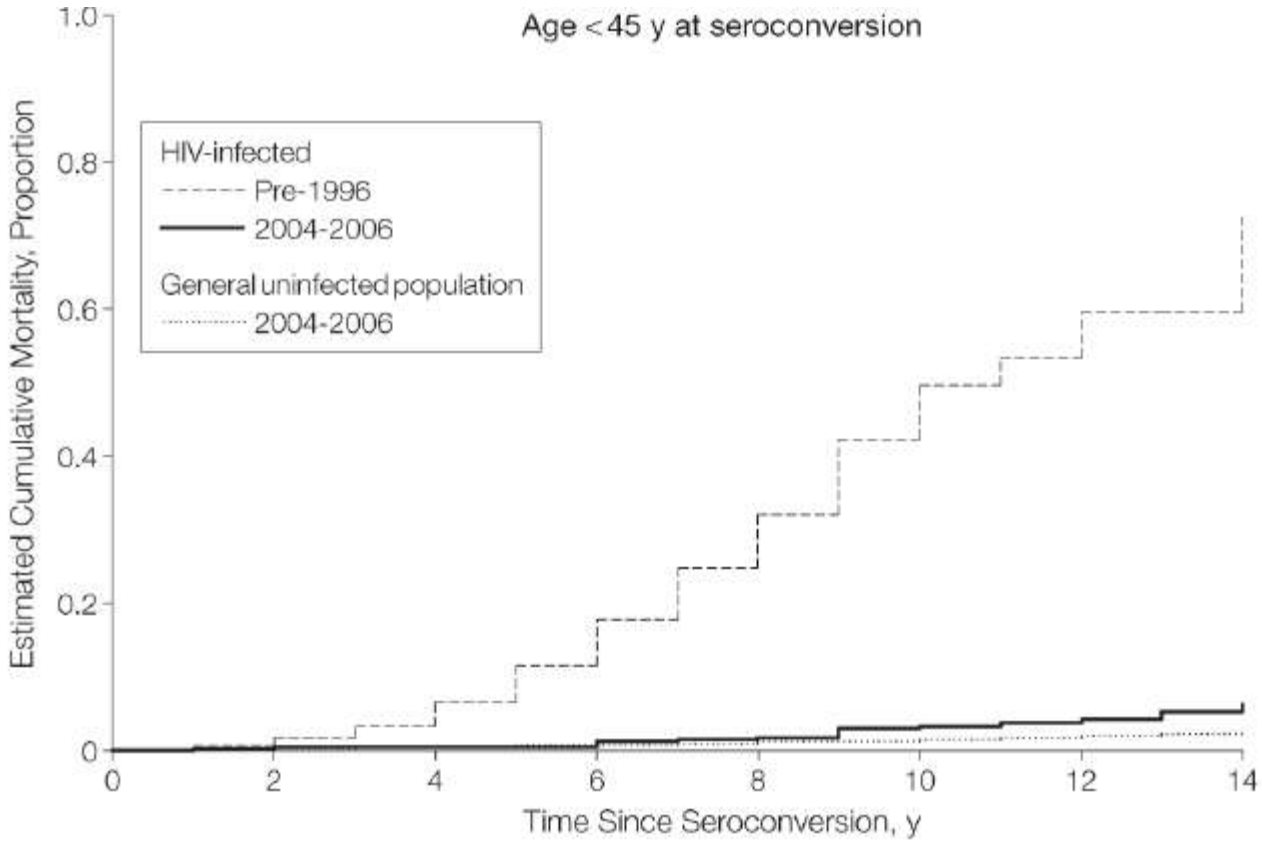
Not a cure for HIV infection

Survival estimates by time period

Queen Elizabeth Hospital, HKSAR



Risk of death after HIV seroconversion compared with mortality in the general population

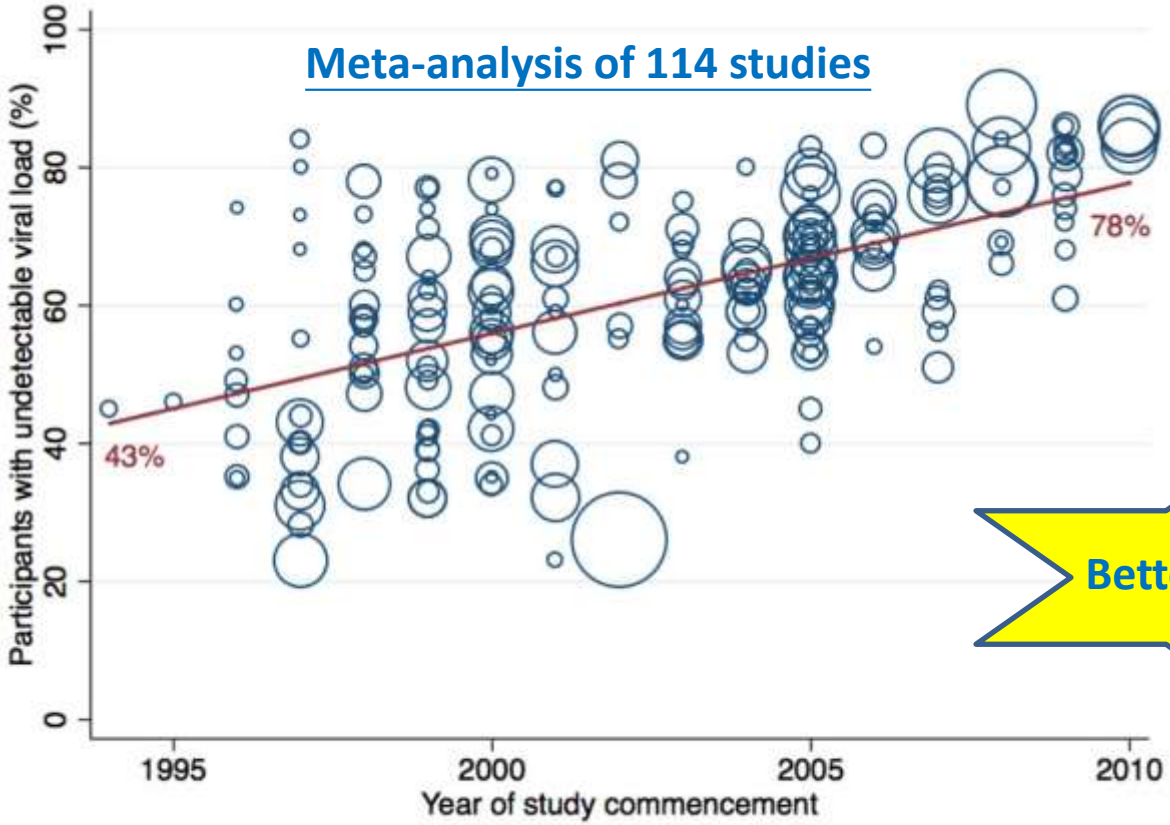


Mortality rates for HIV-infected persons have become much closer to general mortality rates since the introduction of HAART

JAMA 2008; 300: 51-59

Treatment efficacy by year of study commencement

Factors associated with higher efficacy: DHHS preferred regimens, low pre-treatment viral load (<100,000 cp/mL), TDF/FTC backbone, INSTI use as 3rd drug



Years	Pre-2000	2000 - 2002	2003 - 2005	2006 - 2008	Post-2008
Efficacy (SD)	47% (14)	52% (17)	64% (7.1)	74% (8.5)	82% (6.7)

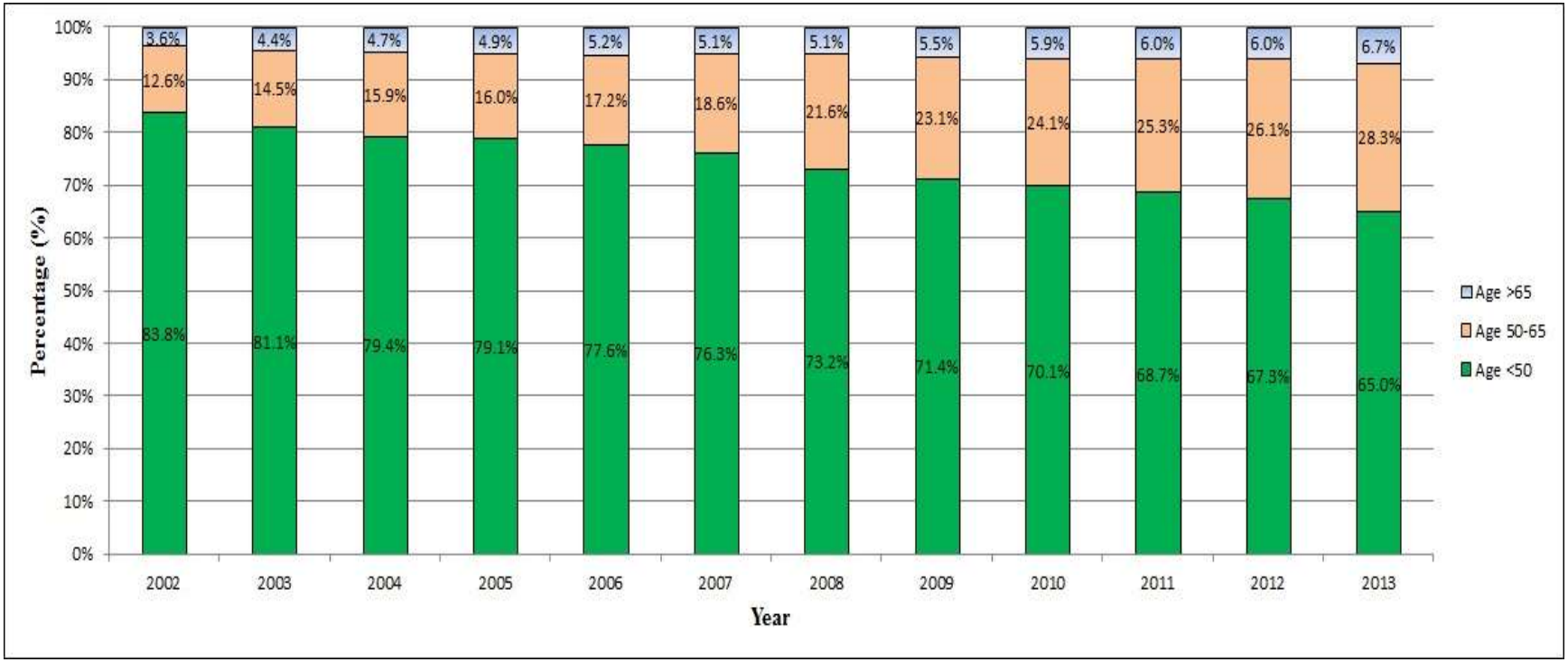
Better Treatment

PLoS One 2014;9:e97482

Current issues face by treatment programmes

- Existing service is heavily stretched due to increasing number of active cases
- Evolving patient needs
- Challenge to achieve long-term optimal drug adherence
- “Premature aging” and increased non-communicable diseases (non-AIDS events)
- Late disease presentation is still frequent resulting in poorer treatment outcomes

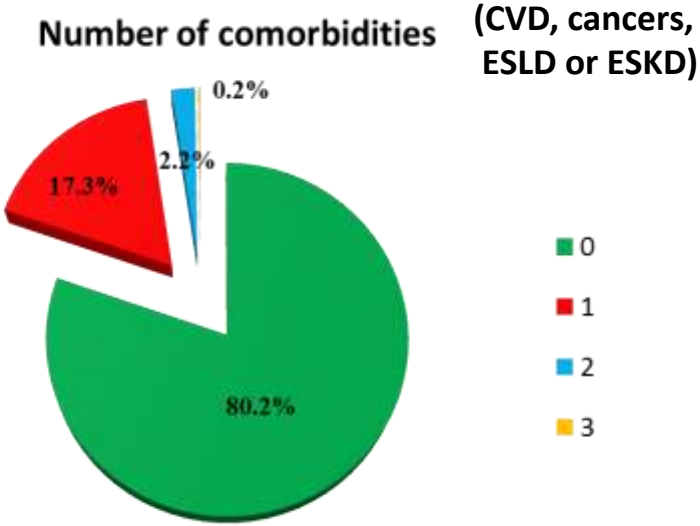
Rising number of HIV-infected adults aged ≥ 50 – QEH



Increased comorbidities in HIV patients

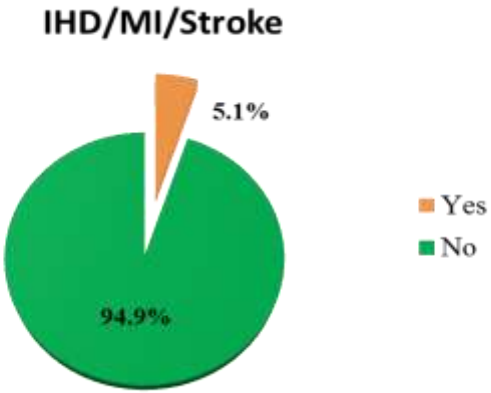
Non-AIDS co-morbidities

- Cardiovascular diseases
- Cancers (non-AIDS)
- Chronic liver disease
- Chronic kidney disease
- DM
- Neurocognitive disorder
- Osteoporosis

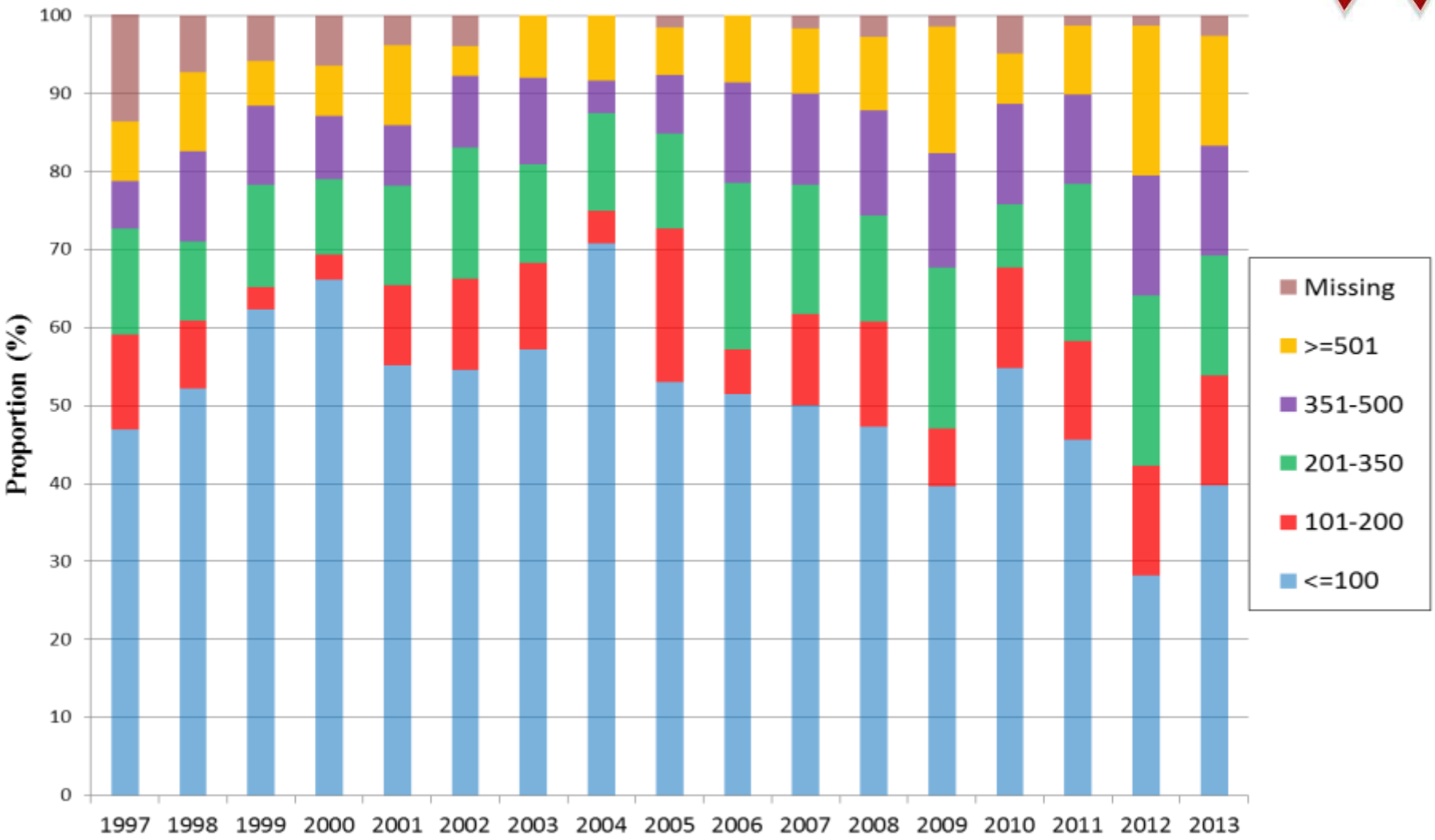


Contributing factors of CVD in HIV patients

- Genetic influences
- HIV infection
- Antiretroviral therapy
- Dyslipidemia, DM, smoking



CD4 cell counts at presentation



Majority of patients were diagnosed at later stages of disease

QEH

Strategies to sustain quality HIV care

1. Scale-up HIV treatment programme (manpower, drug cost and laboratory tests) – funding allocation through Resources Allocation Exercise (RAE)

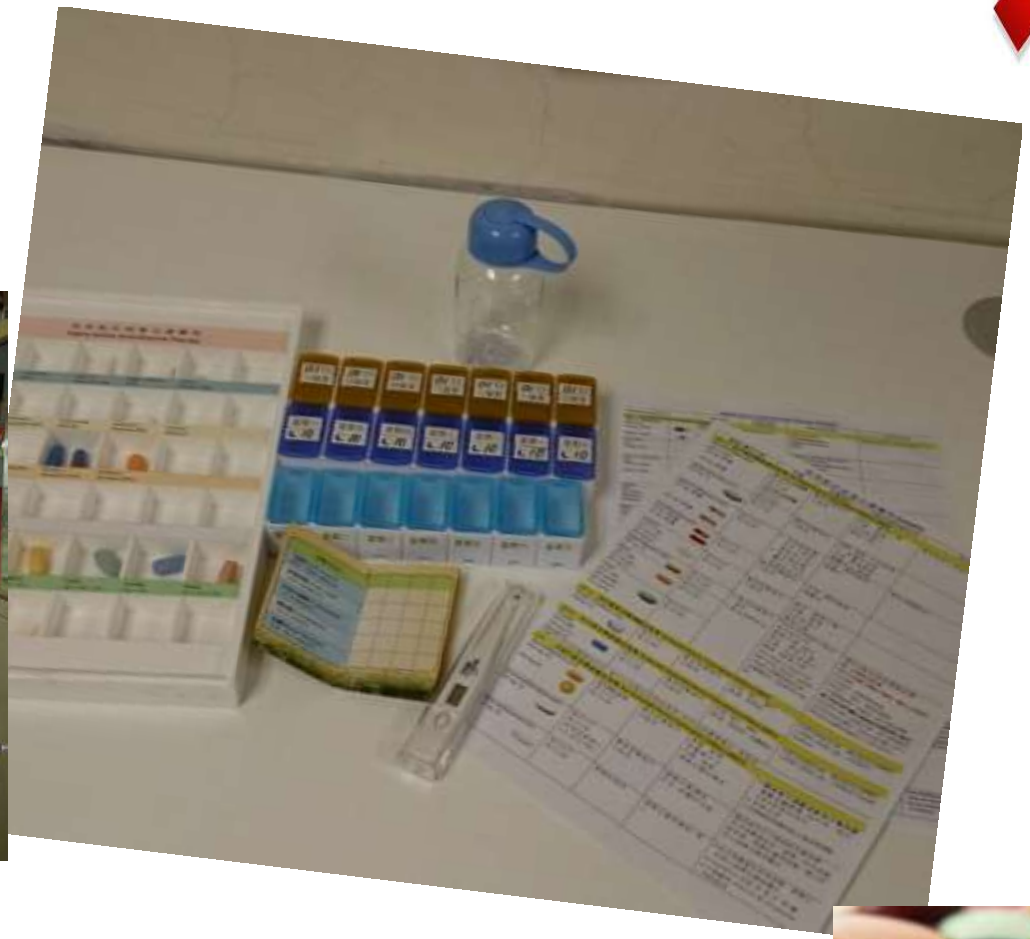
2. Integrated and multi-disciplinary care team approach

3. Primary and secondary disease prevention, regular complications screening

4. Provide service to meet patient needs (sexual and reproductive health counseling, linking mental and substance abuse service, vocational training and life restructuring program, etc.)

5. Support & enhance drug adherence

- Use a multi-disciplinary team approach
- Provide education on medication dosing & potential side effects
- Simplify regimens, dosing, and food requirements
- Monitor drug adherence at every clinic visit
- Educational materials, adherence tools such as pillboxes & alarms
- Use community resources (family & friends, NGO workers and visiting nurses, peer support)
- Nursing case management program
- Therapeutic Adherence Program (TAP)
- Patient empowerment program



Provide education, educational aids & pill boxes to enhance drug adherence

6. Improve programme efficiency & reduce cost

- Designated treatment centers for HIV/AIDS service
- Centralized high-cost and sophisticated laboratory diagnostics
- Task shifting to cope with manpower shortage (accredited nurse clinic; empower supporting staffs)
- Partnership with NGOs to continue rehabilitation and community care
- Applied Lean management to streamline clinic workflow

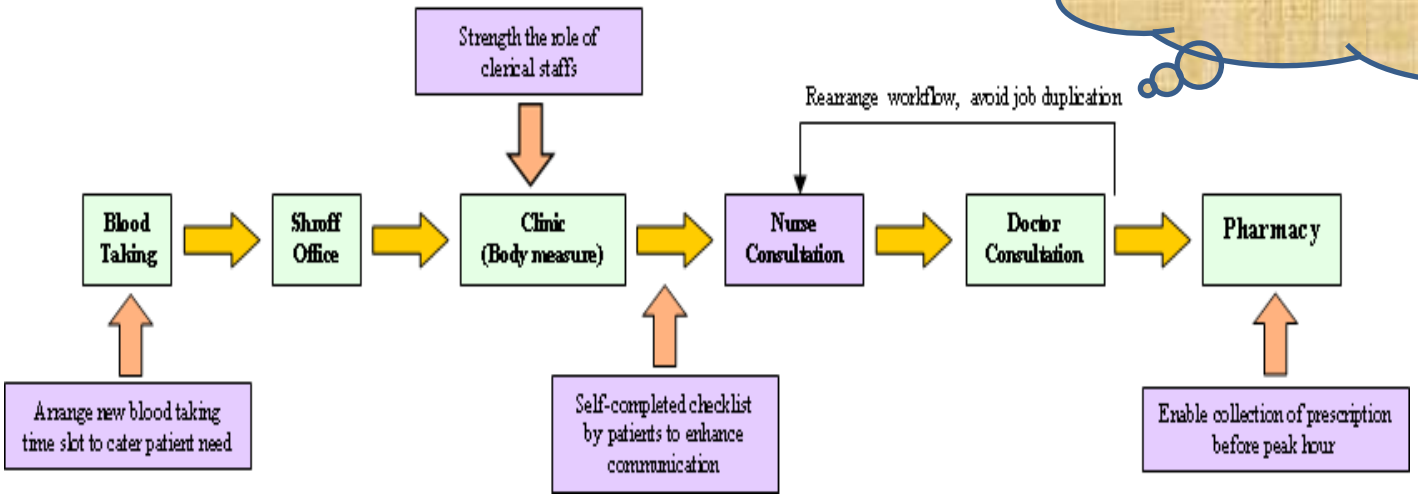
Streamlining clinic workflow of Special Medical Service

ID: 069 | QEH / Med | Leader: Dr M P Lee |
Sponsor: Dr Patrick Li, Ms Amy Tsoi | Facilitator: Dr M P Lee

We Innovate!

"Make a big impact with small changes"

Standardized clinic workflow



Lean management was successfully adopted in a specialist out-patient clinic to streamline workflow resulted in shortened waiting time in the clinic and improved patient satisfaction.

Fig 1. Total time patient spent in the clinic before and after program implementation

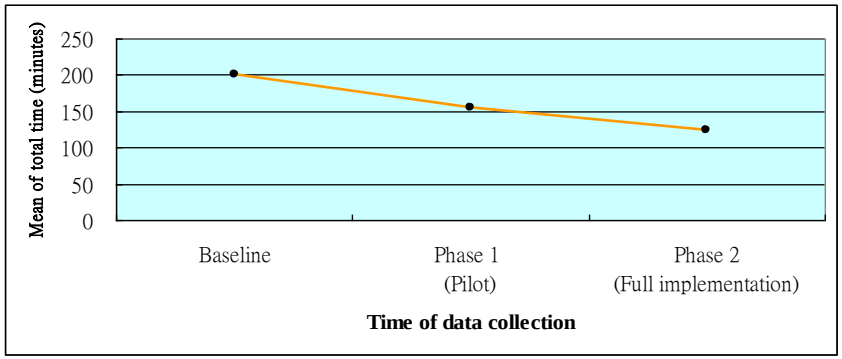


Fig 2. Patient's satisfaction on waiting time before and after program implementation

7. Institution-wide holistic care training

- Between 2012 to 2015, 20 HIV holistic care training workshops have been conducted for HA staffs.

- A total of 307 professional staffs (nurses, doctors, pharmacists, PT, OT, MSW, etc) and 279 supporting staffs from 7 clusters were enrolled.

E-Courseware

on Occupational Post-exposure Prophylaxis for HIV Infection and Practical Communication Skills to Enhance Patient-centered Care of HIV Infected Patients

244 HA staffs completed the e-Learning program between Apr 2014 - Apr 2015

HIV Holistic Care Training Initiative - Contributors

HAHO Representatives

HR/T&D Division

Simon CHENG, HOHR Dep CM(HR)2

May CHAU, HOHR HRM(T&D)

Elissa TAM, HOHR HRO(T&D)

CS/IHC Division

Dicky WONG, HOCS Principal(IHC)

Henry KWAN, HOCS T&D Officer(IHC)

Cluster Representatives

KCC

Dr Patrick LI, QEH Hon CON(MED) [Hon Program Advisor]

Dr M P LEE, QEH CON(MED)

Dr Wilson LAM, QEH Asso. CON(MED)

Ms W Y CHUNG, QEH NS(AIDS)

KWC

Dr Owen T Y TSANG Dr, PMH CON(Med&Geri) & HAIDC MD(ID)

Ms H M CHOW, PMH APN(IDC)

Mr K M HO, PMH APN (IDSM Service, IDC)

NTWC

Ms Esther SIU, NTWC MC(O&G)

HIV Holistic Care Training CD

Essential Components of Quality HIV Treatment Programme

Conclusions

- In the advent of HAART, HIV has been transformed from an inevitably fatal condition into a chronic manageable disease.
- However, current treatment is unable to eradicate HIV and lifelong treatment is required.
- Treatment programmes should be scale-up to meet the increasing service demand, address evolving needs of patients, and sustain quality HIV care.

Thank you!