

Cancer Services in Public Hospitals

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Overview

- Background
- Challenges in Cancer Care
- Service organization and provision
- Way forward



HK Healthcare System

No one will be deprived of adequate medical care because of a lack of means.

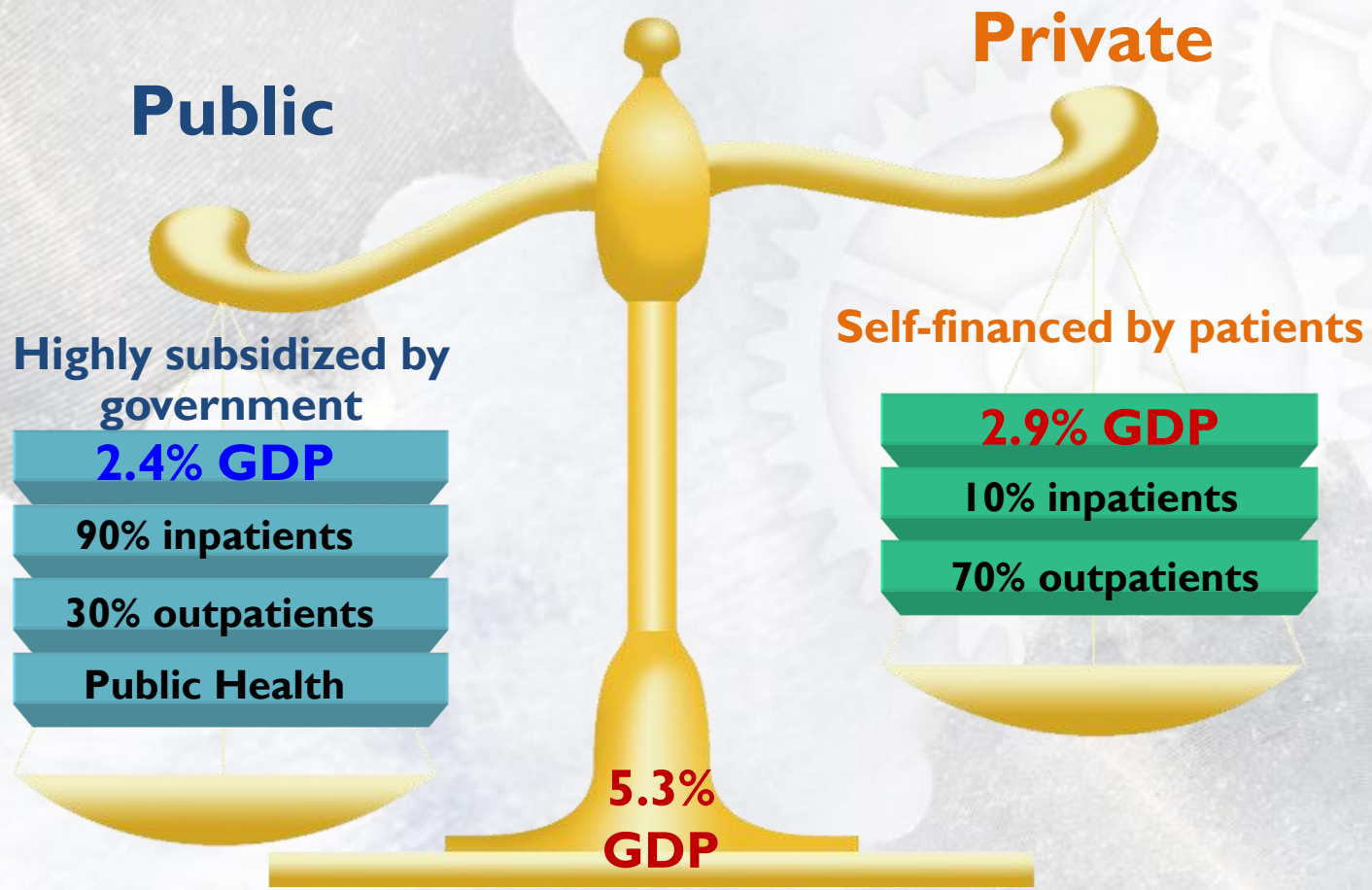
HK's public healthcare services are heavily subsidized

→ Fixed subsidy at 84% to 98%*

- **Area: 1040 Sq. km**
- **Population: 7.18 M**
- **Per capita GDP ~ US\$36,500**

***As at 2008/09**

HK Healthcare System



Source:

(1) GDP: 2009

(2) Inpatient (secondary & tertiary care) : "Public-private share by inpatient treated in 2009" from HA and Dept of Health

(3) Outpatient (primary care) : "Thematic Household Survey Report No. 30", Census and Statistics Dept (data collected during Feb to May 2008)

Hospital Authority

- Established in 1990 under the Hospital Authority Ordinance
- A statutory body tasked to manage all public hospitals and institutions
 - Government owned + charity + religious organizations
- Accountable to Secretary of Health



HA's Facilities and Services

- 42 public hospitals (7 clusters)
- ~27,000 beds
- 48 Specialist Outpatient Clinics
73 General Outpatient Clinics
- ~64,000 staff
- Budget: ~US\$5.36 billion



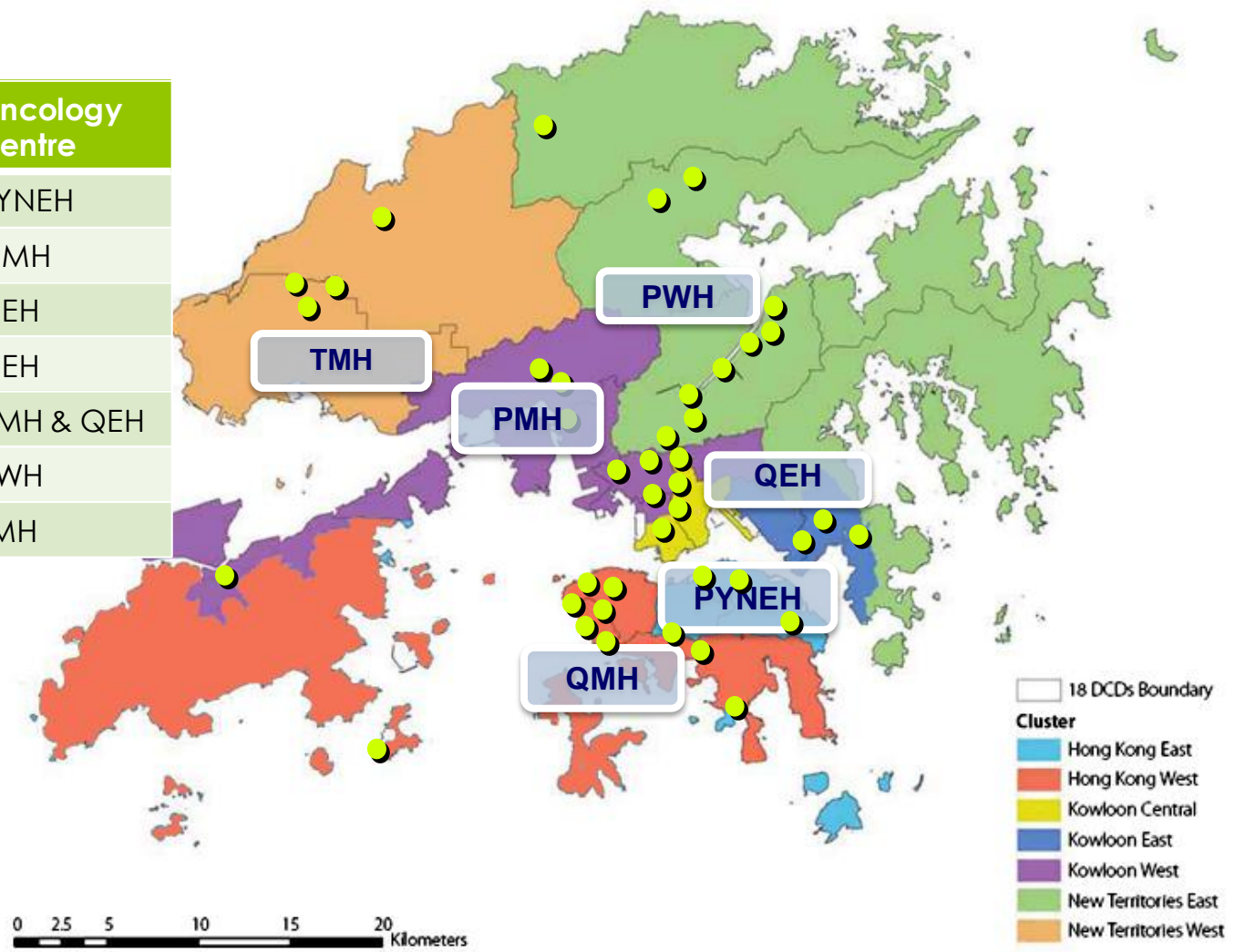
- 1.47m IP/DP discharges
- 2.24m A&E attendances
- 6.73m Specialist Outpatient Clinic attendances
- 5.32m Primary care attendances
- 2.15m Allied Health attendances

Distribution of Public Hospitals and 6 Clinical Oncology Centres in HA

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Cluster	Oncology Centre
HKE	PYNEH
HKW	QMH
KC	QEH
KE	QEH
KW	PMH & QEH
NTE	PWH
NTW	TMH



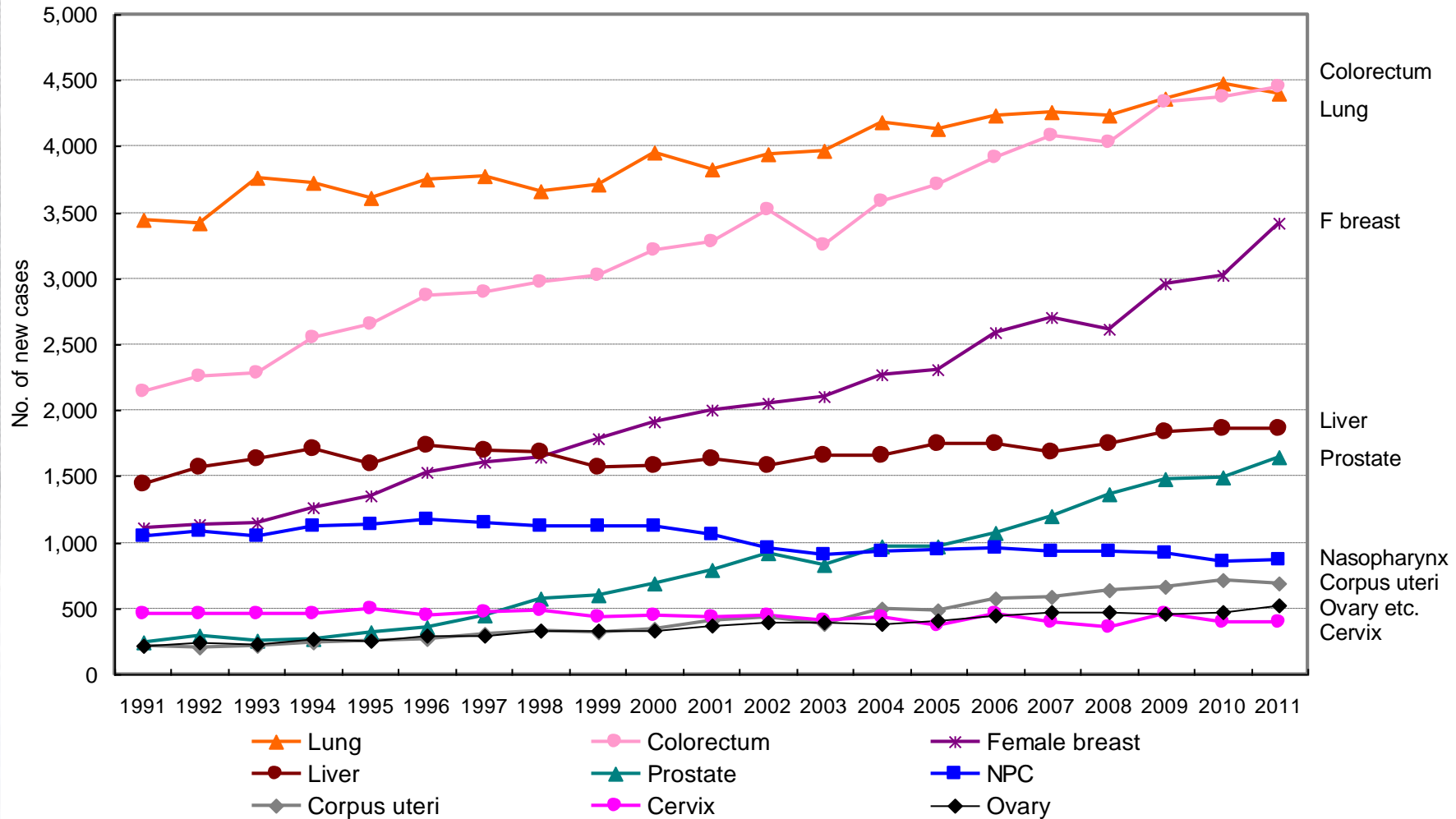
Challenges in Cancer Care

- Increasing burden
- Increasing complexities & advances in treatment technology
- Multidisciplinary involvement in cancer management
- Manpower constraint in recent years

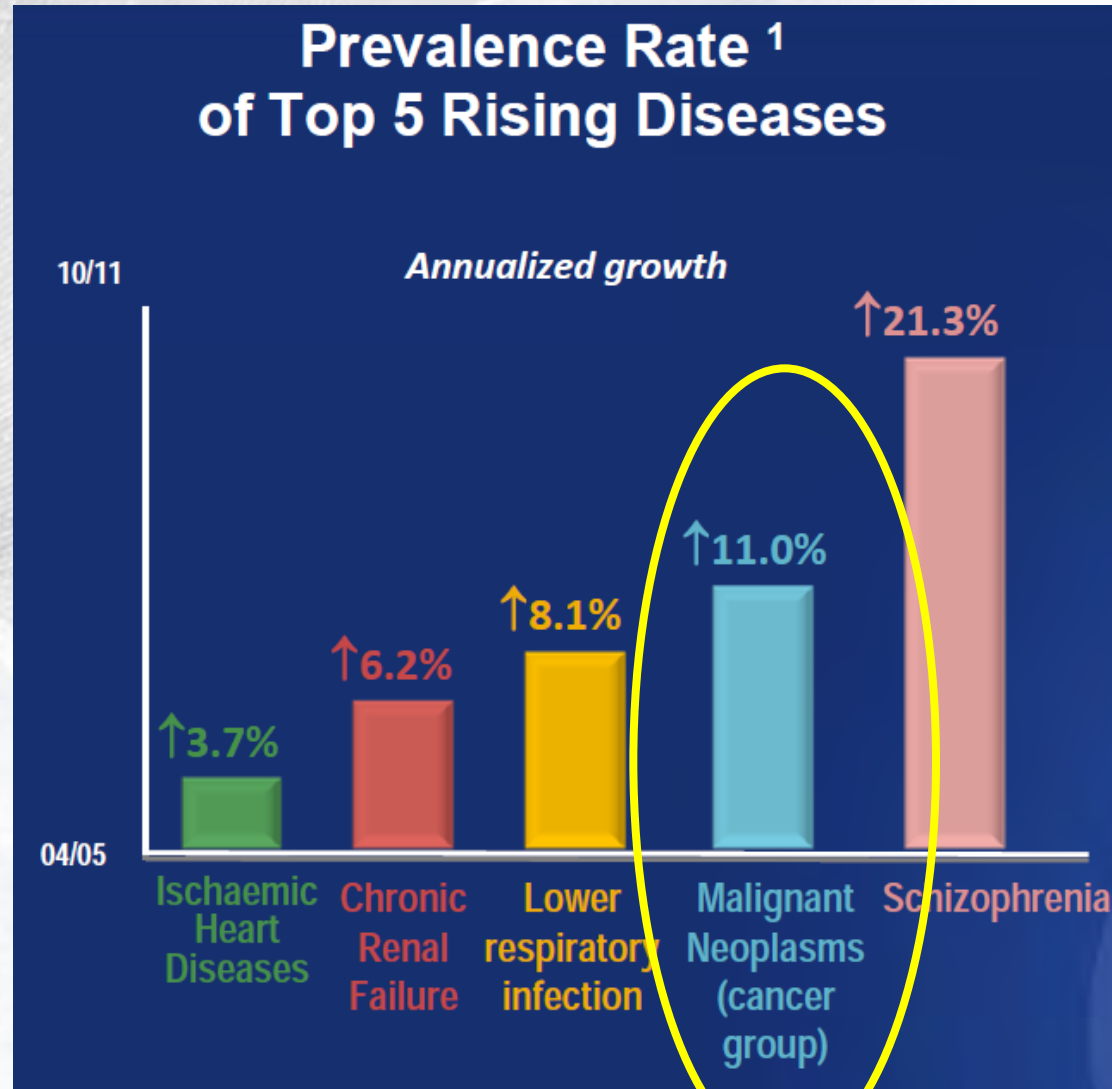
Rising trend in Colorectal, Breast and Prostate Cancers

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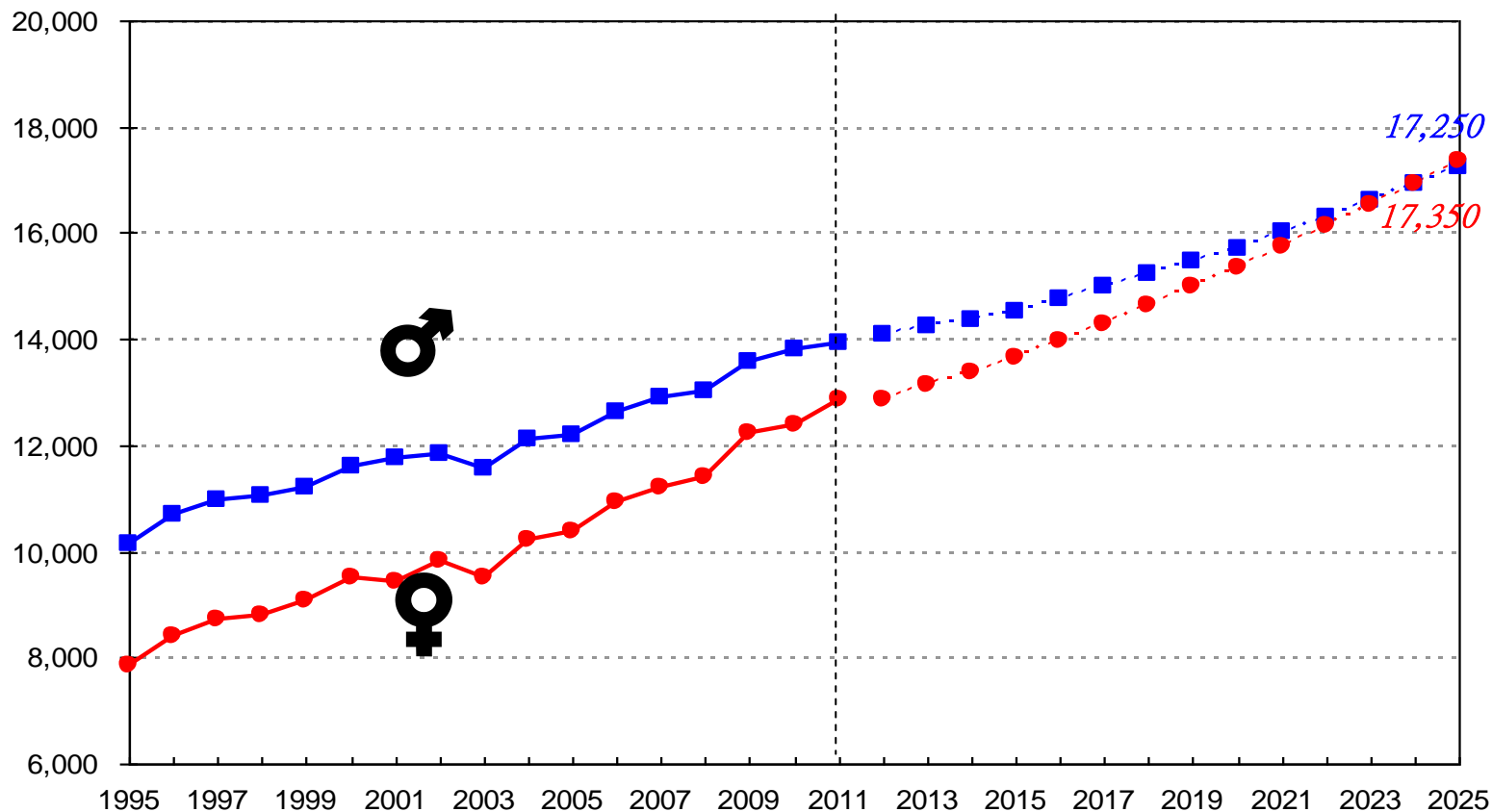
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Escalating Disease Burden



Projections of All Cancers cases (aged 20+) by Sex



*Cancers in children and adolescents (<20 yrs) were excluded due to the rarity in cancer (<1%) and different classification scheme. Non-melanoma skin cancers were also excluded in making projection as most cases are easily treated and cured.

Technology Advances along Patient Journey

- Patient's journey cut across various specialties and disciplines
- Technology and treatment advancements in all these areas
- Higher community expectation



Increasing complexities & advances in treatment technology

■ Increase in complexities in tumor diagnosis

- Comprehensive information out of smaller and smaller biopsies
- Increase number of biopsies for a single diagnosis, e.g. prostate biopsy

■ New technology in surgery

- e.g. Minimally Invasive Surgery (MIS), robotic surgery, endoscopic submucosal dissection (ESD), Natural Orifice Transluminal Endoscopic Surgery (NOTES)

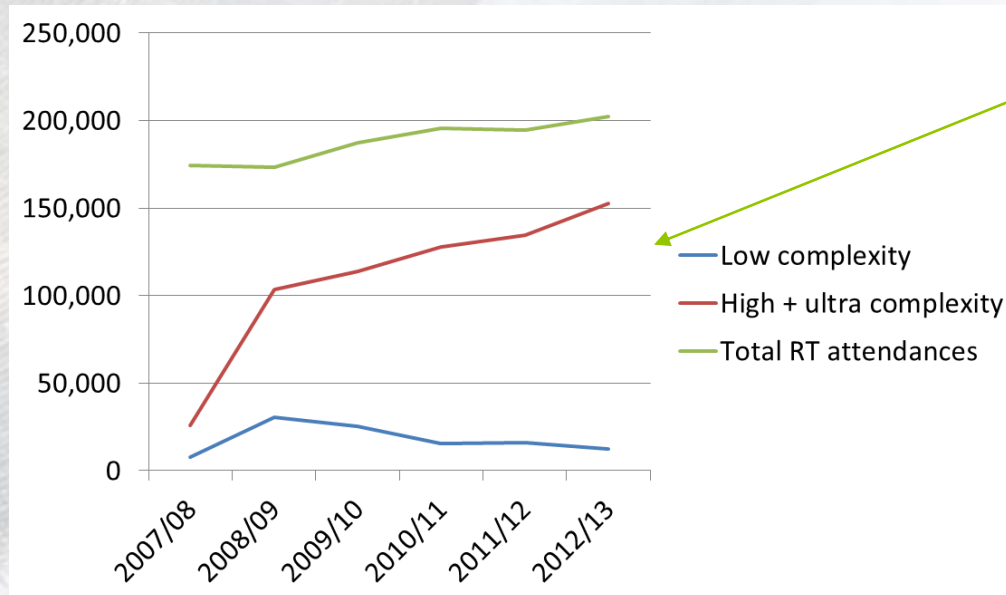
■ Increasing complexity of chemotherapy

Attendance	2008	2009	2010	2011	2012
Bolus Injection	11739	10954	8254	7263	6196
Short Infusion (<3 hr)	24710	26371	32680	39032	40059 (↑ 62%)
Long Infusion (>3hr)	7913	9197	11437	14489	16982 (↑ 115%)

Comparison of 2012 vs 2008

Increasing complexities & advances in treatment technology

- Increasing radiotherapy complexity



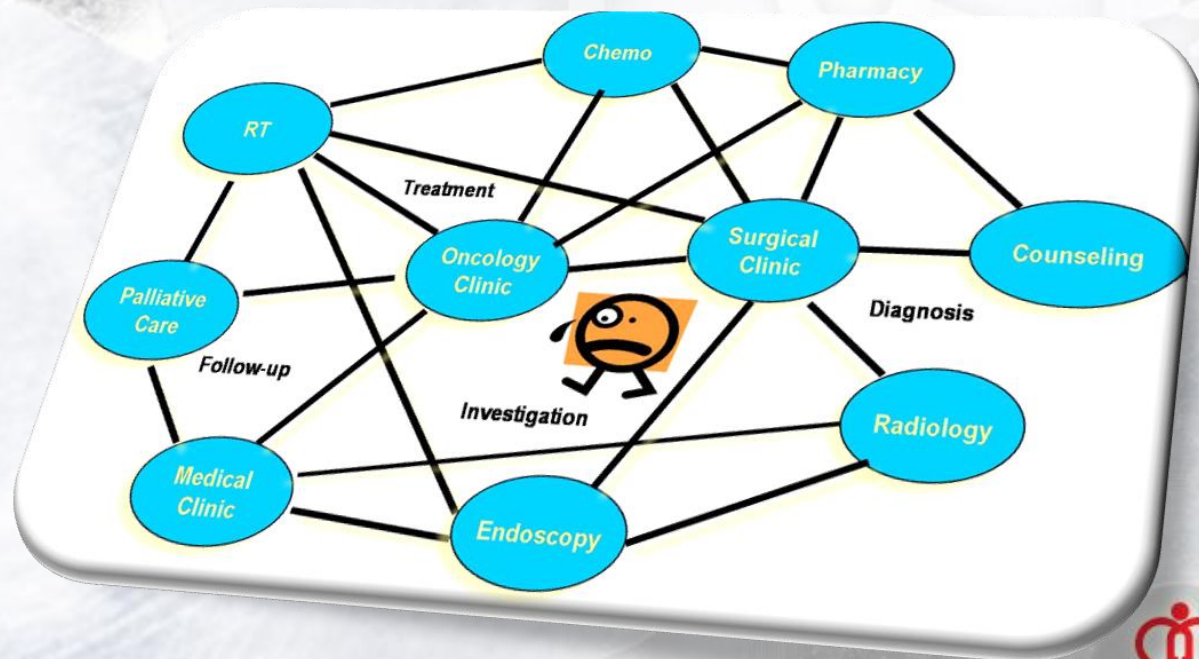
Recent increase in throughput is mainly in high tech RT, e.g. IGRT, IMRT

Technological complexities

- longer treatment / OT time
- more need of staff for support
- more training time
- more expensive
- Decision and treatment more complex

Complex Patient Journey

- Service used to be organized as specialty-based care
- Cancer care requires multidiscipline's input
- Fragmented information sharing across specialties leading to duplication of work and lower efficiency and patients' satisfaction



Manpower Shortage

- Despite continuous growth in activities, number of HA doctors & nurses has only **increased marginally**



HA Strategic Plan 2012-2017

■ Better manage growing demand

➤ Increase Capacity on High Demand Life Threatening Diseases

- “The focus is on serious conditions requiring multi-disciplinary and time critical care. Some examples are **cancer**, heart disease, renal failure and stroke. Other than **capacity increase** to improve patients’ access to time-critical care, these services will be **improved with modern technology and drugs, and coordinated service models.**”



Improve Access -Endoscopy Service

2011/12	Number of cases
Colonoscopy / Sigmoidoscopy	45,600
Oesophagogastro-duodenoscopy	80,800

- HA is now reviewing the service and target to improve the capacity of endoscopy service in meeting the growing demand

Improve Access -Pathology Service

- Baseline services in supporting cancer service

	Service type(s)
Histopathology	Diagnosis, staging, prognosis, predict recurrence
Cytology	Screening, diagnosis
Molecular testing	Direct treatment option

Improve Access -Pathology Service

2009/10

Expand the capacity of cytogenetic services for Leukaemia

2010/11

Improve access to molecular diagnostic tests for cancer of lung, breast, colorectal and brain

2013/14

Further improve access to cytogenetic tests for blood cancer and predictive molecular tests e.g. **EGFR, Her2 and KRAS** for solid tumors

Improve Access - Radiology

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2010/11

2011/12

2012/13

Increase the capacity through extended hour

- Increase capacity through public-private partnership (PPP)
- Improve access to PET scan

Install additional CT/MRI machines

Radiology

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	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Number of CT machines	20	22	26 #	28 ^	29	30
Number of MRI machines	11	11	13 #	14	15	16

Included 1 CT and 1 MRI for Civil Service Eligible Persons (CSEP) which were installed in QEH since 2010/11

^ Included 1 CT owned by Board of Governors of OLMH which was installed since 2011/12

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Radiology

- Increased capacity through extended hours

	2011/12
Additional patient attendances provided (CT & MRI)	~4,000

- Increased capacity through addition of CT / MRI machines

	2012/13
Additional patient attendances provided (CT & MRI)	~39,800

Radiology PPP

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Pilot Project on
Enhancing Radiological Investigation Services
Through Collaboration with the Private Sector

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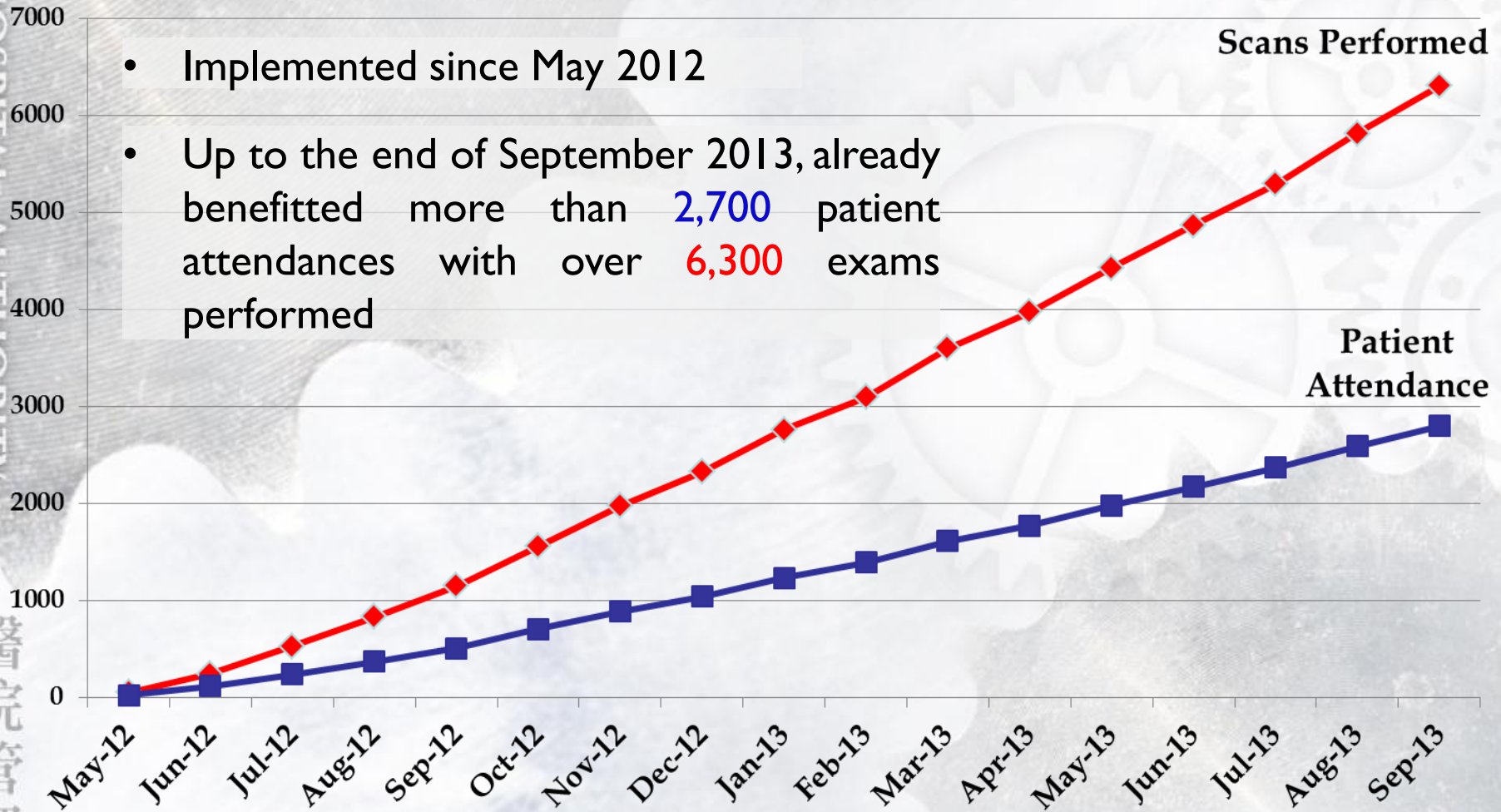
Project scope & Service providers

- Provides CT / MRI staging / re-staging exams to newly diagnosed, histologically proven HA cancer patients under full subsidy, initially:
 - Colorectal cancer
 - Breast cancer
 - Nasopharyngeal cancer
 - Lymphoma
- 5 private service providers, engaged through open tender, are currently taking part in the pilot project
- Examinations normally complete within 5 working days



Progress

- Implemented since May 2012
- Up to the end of September 2013, already benefitted more than 2,700 patient attendances with over 6,300 exams performed



Radiology

■ Improve access to PET scan service

- PET service was available to HA patients starting from 2003 in QEH
- PET service was initiated in PYNEH in 2012
- Both hospitals receive referrals from all HA clusters

■ Selected indications under HA standard service since April 2012

- Non-small cell lung cancer (NSCLC)
- Hodgkin's lymphoma (HL) or diffuse large B-cell lymphoma (DLBCL)

Improve Access - Surgery

2009/10

2010/11

2012/13

2013/14

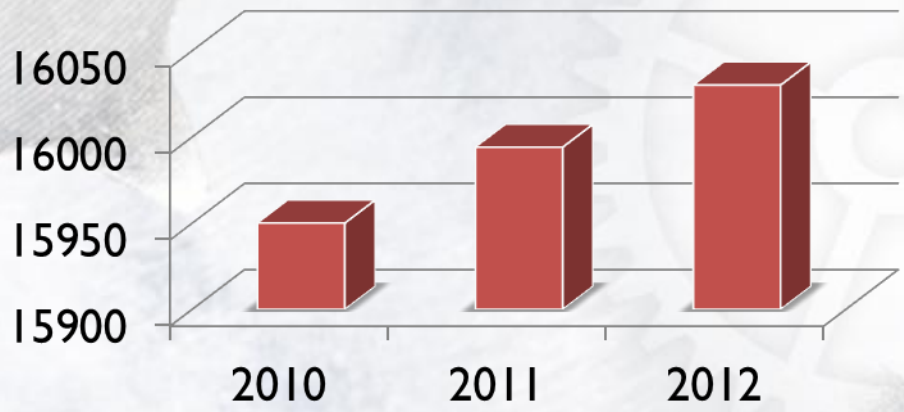
- Improve efficiency and outcome by developing robotic surgery for radical prostatectomy and rectal cancer surgery

Gradual increase in capacity of cancer surgery through addition of Operating Theatre (OT) sessions and extended-hour services

Surgery

Within 2010-2012	Number of operations per year
Malignant neoplasm	~16,000

No. of cancer surgery



Within 2010-2012	Number of robotic-assisted operations per year
Radical prostatectomy	~180
Laparoscopic total mesorectal excision (TME) for rectal cancer	~90

Improve access – Radiotherapy (RT)

2009/10

Install 2 new
Linear
accelerators at
PMH and PWH

2010/11

- Install the 5th linear accelerator in PWH
- Expand RT capacity in KWC

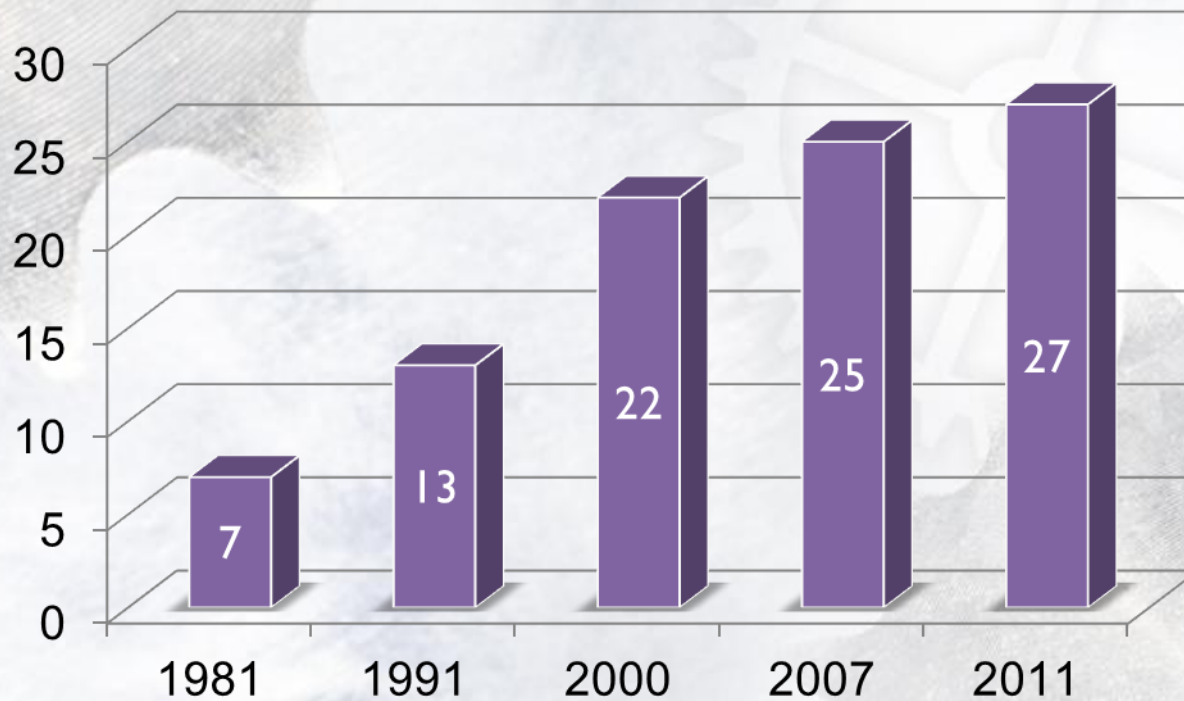
2013/14

- Recruit **additional radiation therapists** to support high tech. radiotherapy

Radiotherapy

■ Addition of Linear Accelerators

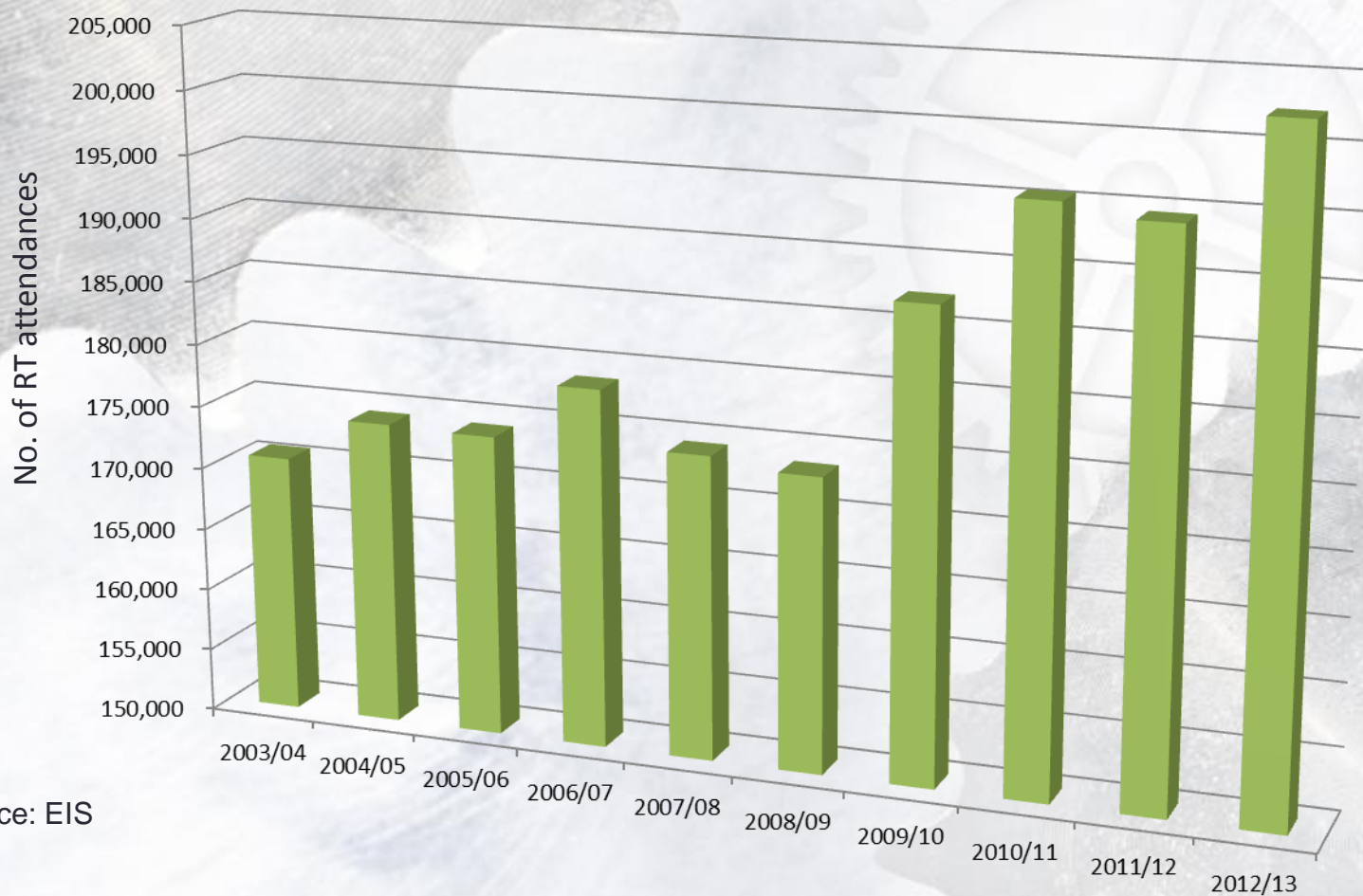
No. of LinAc in HA



Radiotherapy

■ Increasing RT attendances

Total no. of radiotherapy treatment attendances



Source: EIS

Radiotherapy

■ Modernization of RT technology

1996	IMRT
2005	IGRT
2008	VMAT/RapidArc
2011	Tomotherapy

■ Annual Plan 2013/14 to fill the current RT manpower gap to support the growing high-tech RT

Improve access – Chemotherapy Service

2009/10

Expand the capacity of 6 existing **chemotherapy day centres**

2011/12

Addition of 8 **oncology beds** in TMH

2013/14

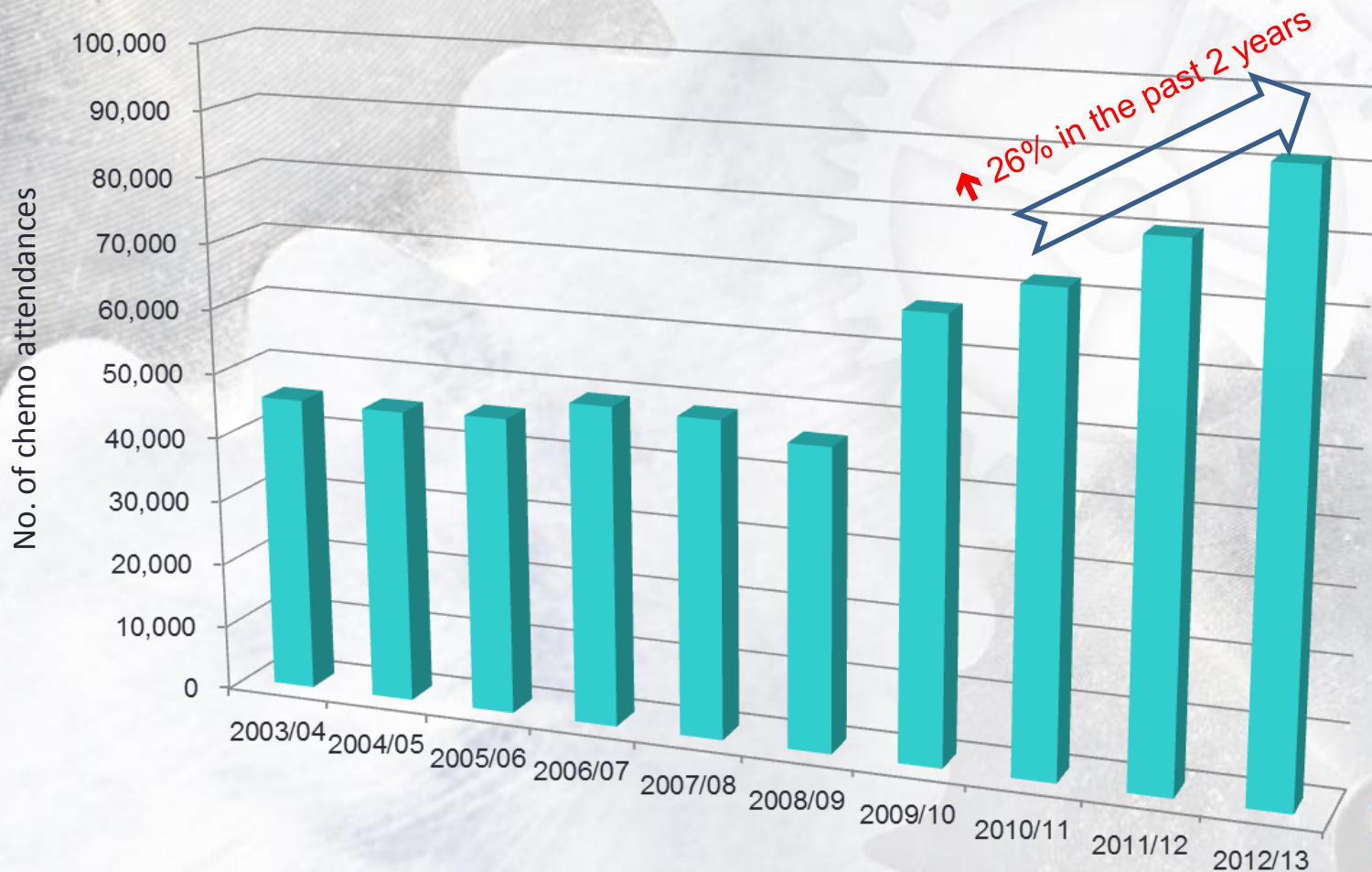
- Set up an ambulatory care unit with 8 day beds in **Children Cancer Centre** in PWH
- Start renovating a **Haematology Oncology ward** in NTEC

- Gradual increase in onsite chemotherapy service in **KEC**
- Improve access to **anti-cancer drugs**

Chemotherapy

- Increasing patient volume & chemo attendances

Total no. of chemotherapy treatment attendances



Chemotherapy

- Introduction of new and effective anti-cancer drugs into HA Drug Formulary (Apr 2010 – Oct 2013)
 - 14 drugs
 - 16 indications

- Expanded coverage of anti-cancer drugs in terms of special drugs (S), safety net (SN) and community care fund (CCF)



	SFI to CCF/SN	CCF to SN	SFI/SN to S
2010/11	3	-	6
2011/12	9	-	1
2012/13	7	-	4
2013/14 (up to Oct 2013)	3	2	8

SFI- Self Financed Items

Chemotherapy

Samaritan Fund

- It is the only Government fund administered by the HA that provides financial assistance to eligible patients in meeting the expenses on self-financed drugs

	2010/11	2011/12	2012/13 (up to Dec 2012)
No. of patients benefited	989	1083	949
Subsidies granted on Cancer Drugs	\$119.54M	\$138.29M	\$153.82M

Chemotherapy

- **Community Care Fund (CCF)**
 - Subsidy for patients of HA for specified self-financed cancer drugs which have not yet been brought into the Samaritan Fund but have been rapidly accumulating medical scientific evidence and with relatively higher efficacy

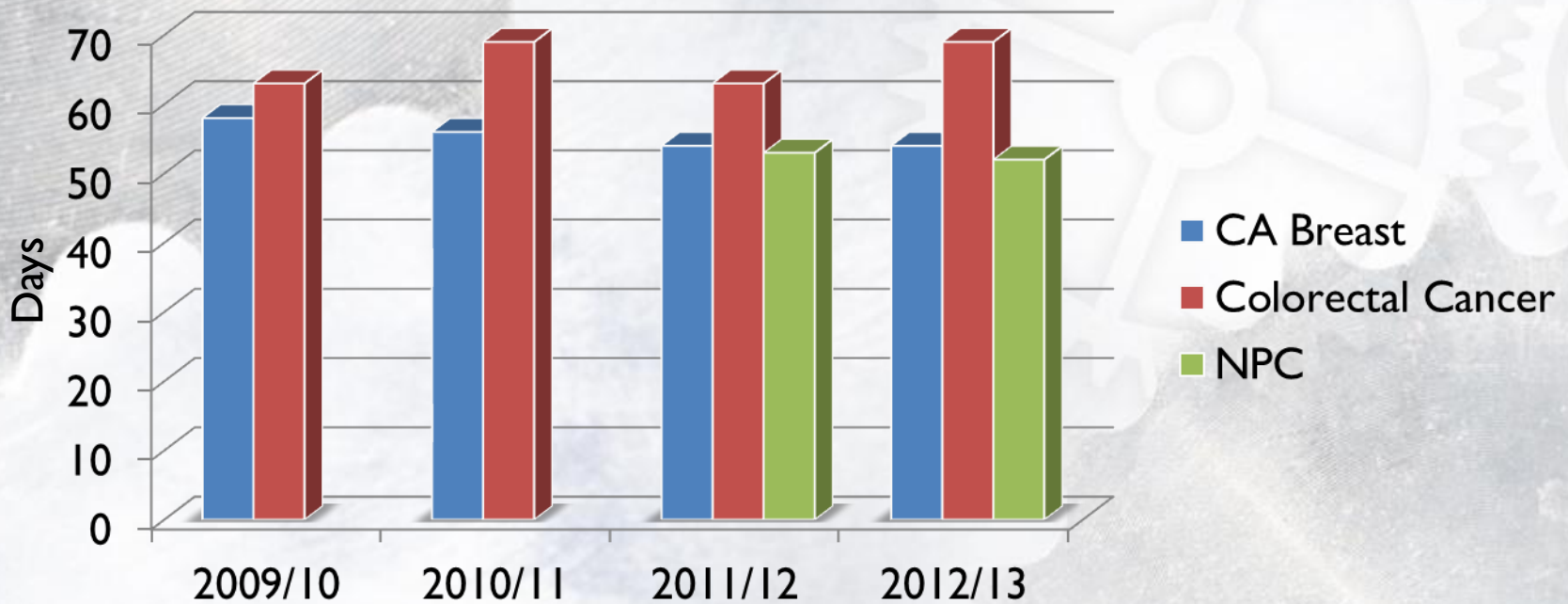
Implementation Date	Beneficiary (as at 31 Aug 2013)	Disbursements (as at 31 Aug 2013)
August 2011	1545 person-times	~\$138.41M

Key Performance Indicators (KPI)

- **Waiting time (days)** at the 90th percentile for patients with colorectal cancer/breast cancer/nasopharyngeal cancers **receiving first definitive treatment after diagnosis**
- **Waiting time (days)** from **decision-to-treat (DTT)** to **start of RT** for 90th percentile of cancer patients requiring radical RT

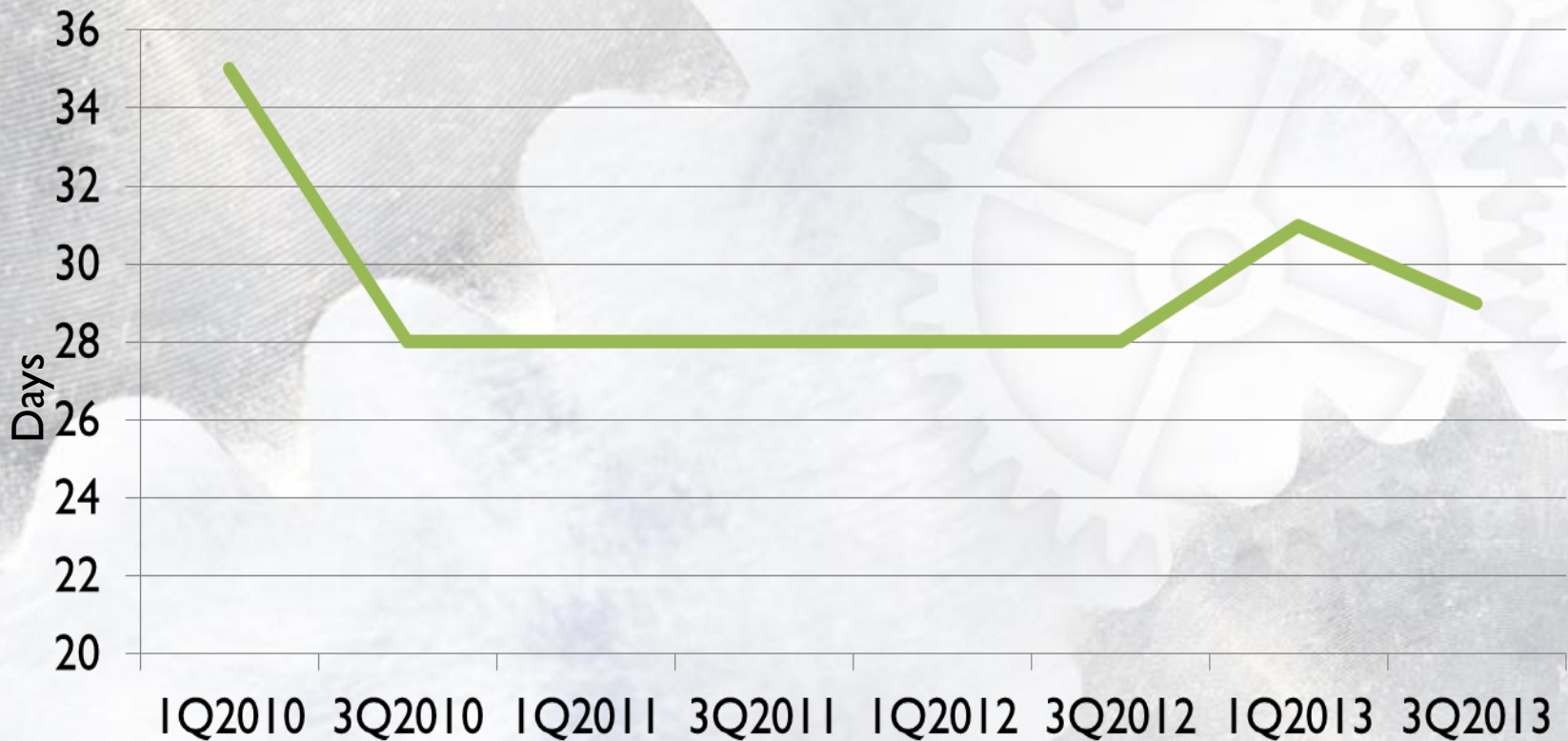
KPI

Waiting time (days) at the 90th percentile for patients with colorectal cancer/breast cancer/nasopharyngeal cancers receiving first definitive treatment after diagnosis



KPI

Waiting time (days) from DTT to start of RT for 90th percentile of cancer patients requiring radical RT



Palliative Care

- 16 hospitals under HA provide integrated palliative care services through multi-disciplinary teams
- Service components in a holistic approach to address patients' physical, psychosocial and spiritual needs
 - In-patient care
 - Ambulatory care (e.g. outpatient, day care and home care)
 - Bereavement services
- Around 340 palliative care beds for patients with severe or complex symptoms and needs

LKS Palliative care program

■ Background

- With support from Li Ka Shing Foundation (LKSF) since 2007, 10 palliative care day centres have been established in 7 clusters

■ Objective

- To serve the needy terminal cancer patients (children and adults) so that more patients could receive comprehensive palliative care and end of life care

■ Progress

- >5,000 terminally ill patients and their families have benefited in 2011/12



Patient experience & service coordination

- Cancer case manager program

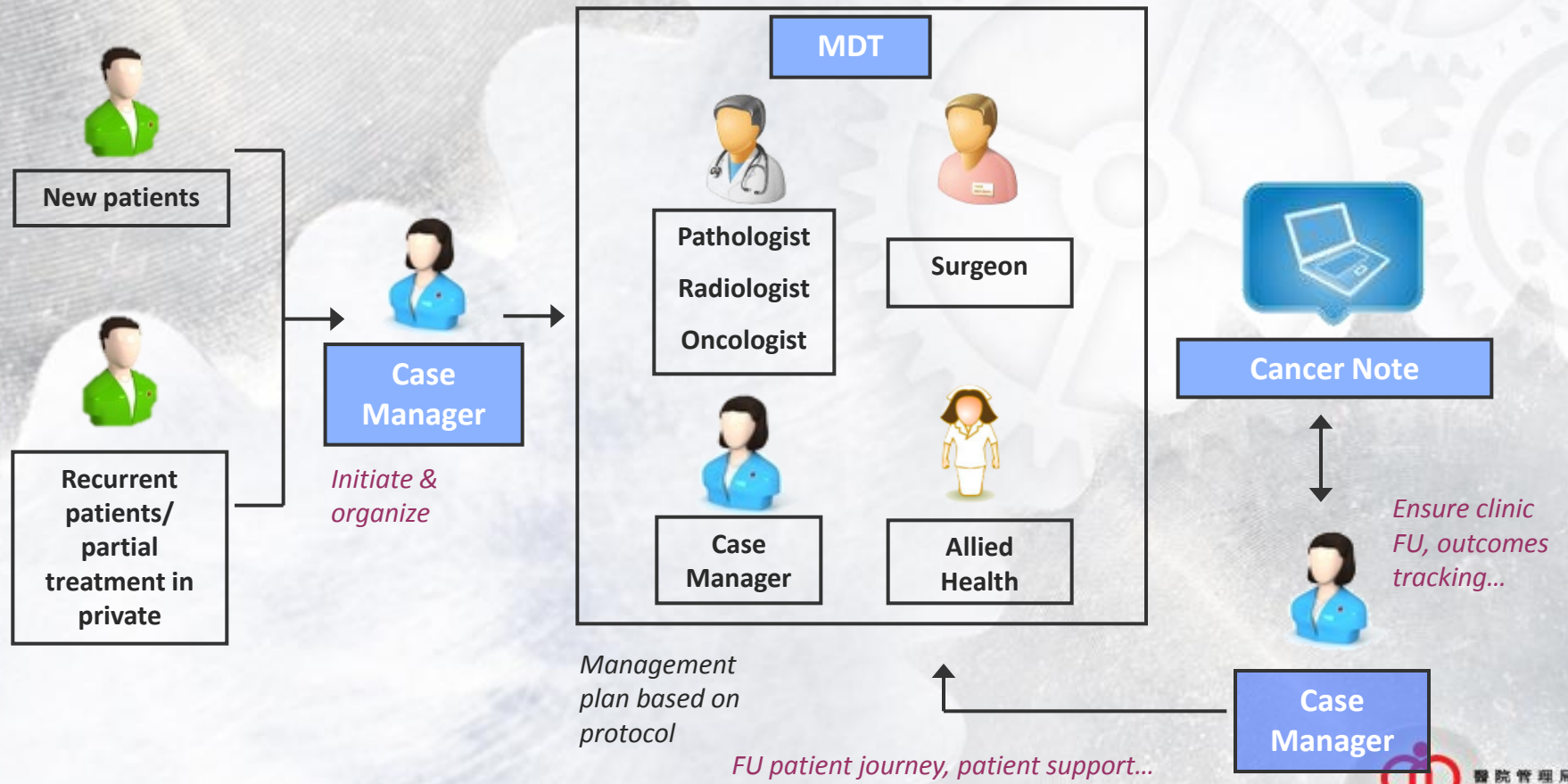


Cancer case manager (CCM) program

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Objective:

- To enhance quality of cancer service in HA through the advancement of patient-centred care



Programme development

- Target: CA Breast & Colorectal cases
- Pilot in KWC & NTWC in 2010/11
- Extension to KCC & HKEC in 2011/12
- Planned for further extension to other clusters in the future

As of Sept 2013, ~3,300 CA breast new cases & ~3,800 CA colorectal new cases benefitted from the program

Patients' Experience



Evaluation in Kowloon West Cluster & Kowloon Central Cluster

KWC (2011)

- Compared with 10 years ago where patients became more anxious after receiving bad news, patients in the CCM Program reported **better psychological status after case managers broke bad news**

KCC (2012)

- Overall **>90% satisfaction rate** among patients who completed the CCM program
- **Improved quality of life:**
 - Significant correlations between Functional Assessment of Cancer Therapy: General (FACT-G) & knowledge on cancer disease / satisfaction with the cancer case manager



Improve Quality & Safety

■ Oncology clinical pharmacy services



Oncology clinical pharmacy services

■ Background

- Designated program started in PMH & TMH in 2010/11
- Services rolled out to all 7 centres in 2011/12

■ Objectives

- To provide pharmaceutical care
- To enhance medication safety
- To review and standardize chemotherapy protocols and related MARs at cluster level
- To provide medication education to other health care professionals and patients

Roles and Responsibilities

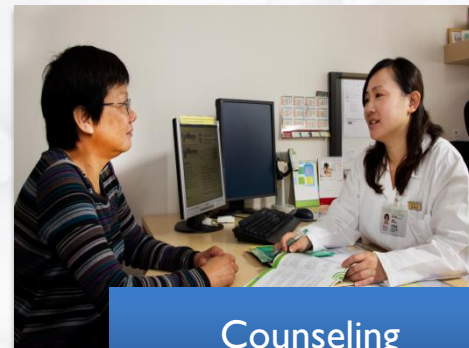
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Working group on protocol review



Clinical Round



Counseling



Clinical Screening



Solving reconstitution issue

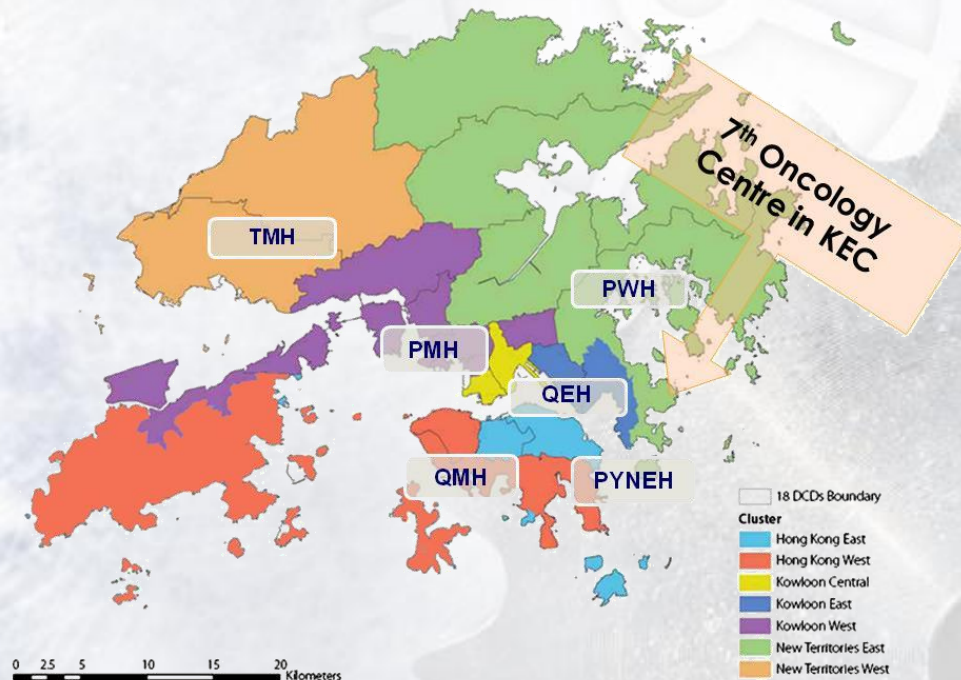


Drug advice to nurse

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Way Forward

- Develop the 7th Oncology center in UCH in ~2021
- Training of health professionals
 - E.g. doctors, nurses, allied health, practising pharmacists to serve the growing needs of specialised service
- Improve coverage of drugs and effective treatment



Thank you

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