

Malaysia's Healthcare System : Quality, Patient Safety and Performance of Healthcare Delivery System

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Malaysia's Healthcare System Development and Performance

- ***Background, Quality, Patient Safety***
- ***Health system performance***
- ***Transformation of health system***

Malaysia : Population and Selected Vital Statistics (2015)

| | | |
|---|-----------------------|----------------|
| Total Population ('000) | 30,485.2 | |
| Population – age groups ('000) | | |
| Below 15 years | 7,733.4 | (25.4%) |
| 15 – 64 years | 20,972.0 | (68.8%) |
| 65 years and above | 1,779.8 | (5.8%) |
| Annual population growth (%) | 1.3 | |
| Crude birth rate (per 1000 population) | 16.9 | |
| Crude death rate (per 1000 population) | 4.8 | |
| Still birth rate (per 1000 births) | 4.4 | |
| Infant mortality rate (per 1000 live births) | 6.2 | |
| Maternal mortality rate (per 100,000 live births) | 22.7 | (2014) |
| Life expectancy at birth (in years) | 74.8 | |
| | 72.5 | (M) |
| | 77.4 | (F) |
| Total expenditures on health (2014) : RM50,278 mil | (4.54% of GDP) | |

Malaysia's Healthcare System

- ***Two tier system, by public and private sectors***
- ***Private providers in urban areas, concentration mainly in certain states***
- ***Public sector services widely and equitably distributed***
- ***Effective communicable disease control programmes***
- ***Comprehensive primary care in rural areas, excellent maternal and child health services***
- ***Private sector – urban primary care, specialist clinics, broad range of secondary, tertiary services in private hospitals.***

Healthcare Facilities (31 December 2015)

Ministry of Health : Provision of 1^o, 2^o, 3^o services with referral system

| | <u>No.</u> | <u>Beds</u> |
|--|------------------------|---------------|
| Hospitals | 143 | 41,389 |
| (Govt, Non MOH) | 9 | 3,698 |
| Health clinics | 1,061 | |
| Community clinics | 1,808 | |
| | | <u>Teams</u> |
| Mobile health clinics (teams) | | 203 |
| Flying doctor services | 6 (helicopters) | 12 |
| 1Malaysia clinics | 334 | |
| 1Malaysia mobile clinics (bus) | 5 | 10 |
| 1Malaysia mobile clinics (boat) | 4 | 8 |

Dental services – hospitals, clinics, mobile, schools, pre-school, elderly/special children, mobile clinics

Healthcare Facilities (2015, Health Facts, MOH)

- *Private*
- *Licensed*

| | No. | Beds |
|--------------------------------|--------------|---------------|
| <i>Hospitals</i> | 183 | 12,963 |
| <i>Maternity homes</i> | 14 | 50 |
| <i>Nursing homes</i> | 16 | 539 |
| <i>Hospice</i> | 3 | 22 |
| <i>Ambulatory care centers</i> | 63 | 98 |
| <i>Medical clinics</i> | 7,146 | |
| <i>Dental clinics</i> | 1,867 | |

Admission, Outpatient Attendances (2015)

| | <i>MOH Hospitals</i> | <i>Private Hospitals</i> |
|------------------------------|----------------------|--------------------------|
| <i>Admissions</i> | 2,526,205 | 1,064,718 |
| <i>Outpatient attendance</i> | 20,572,431 | 3,932.361 |
| <i>Health clinics</i> | 38,311,223 | |
| <i>Dental clinics</i> | 11,688,700 | |

Quality Assurance (QA) for Patient Care (Medical services), MOH

- ***Officially launched in 1985, as part of the MOH initiative for Quality Improvement***
- ***QA also for :-***
 - ***Public health services***
 - ***Pharmaceutical services***
 - ***Environmental health, laboratory services***
 - ***Dental services***
 - ***Etc***

Quality Assurance (QA) for Patient Care (Medical services)

- ***Monitoring of 30 types of incidents :-
eg. falls in wards, complications in ICU,
adverse transfusion reactions, problems
relating to anesthesia, etc***
- ***Monitoring done in 6 monthly cycles***
- ***Currently 20 QI activities, covering a number
of approaches.***

MOH Operational Definition of Quality (2001)

Facilities and services are of high quality if they are :-

- ***Safe***
- ***Effectively***
- ***Appropriate***
- ***Equitably accessed***
- ***Efficient***
- ***Patient-centred and consumer friendly***

Q1 activities for patient care (medical services)

Hospital performance :

- ***Technical aspects of Q***
- ***Inter-personal (caring) aspects of Q***

Technical Quality

Indicator Approach

- ***National Indicator Approach (NIA)***
- ***Hospital Specific Approach (HSA)***
- ***Patient Safety Council of Malaysia***
- ***Incident Reporting***
- ***Hospital Infection Control***

Clinical Audit (Internal Peer Review)

- ***Perioperative Mortality Review (POMR)***
- ***Intensive care unit audit***
- ***Nursing audit***
- ***Maternal mortality review***
- ***Perinatal mortality review***

Technical Quality : External Peer Review

- ***Hospital Accreditation Programme***
 - ***Explicit process measurement***
- ***Clinical Care Pathways for Management of :***
 - ***Acute myocardial infarction***
 - ***Bronchial asthma***
 - ***Head injury***
 - ***Eclampsia***
- ***Clinical Practice Guidelines (CPG)***
- ***Credentialing of medical staff***
- ***Health Technology Assessment (HTA)***

Malaysia : Ministry of Health launched Patient Safety Council (September 2004)

Patient Safety Council addresses :

- ***Incidents of medical errors***
- ***Help improve overall patient safety and quality in healthcare.***

Malaysia : Patient Safety Council

- ***Comprised of 30 experts from across healthcare industry, MOH, Universities, private sector, professional organizations***
- ***Experts focus on six main issues :***
 - ***Data and information***
 - ***Consumer education***
 - ***Continuing education***
 - ***Medication safety, transfusion safety, laboratory services***
 - ***Quality of work life***

Malaysia : Patient Safety Council

Five main functions

- ***Develop a national, electronic database system for reporting and documenting medical errors in hospitals***
- ***Promote an open and fair system for confidential reporting of incidents***
- ***Analyze incidents and learn how to avoid them in future***
- ***Devise strategies to improve safety and quality***
- ***Publish reports on adverse incidents and patient safety.***

Malaysia : Patient Safety Council

Guidelines :

- ***MPSC guidelines***
- ***Incident Reports***
- ***Clinical Governance***
- ***Transfusion Practice Guidelines***
- ***Awareness Course for House Officer***
- ***Safety Goals Nursing. Roles and Responsibilities***
- ***Patients for patient safety***

Malaysia's Healthcare System Development and Performance

- ***Background, Quality, Patient Safety***
- ***Health system performance***
- ***Transformation of health system***

WHO's health system review of Malaysia reported that

***“Malaysia has achieved impressive gains for its population with a low-cost health system that provides universal and comprehensive services*”**

***Jaafar S, et.al
Malaysia Health System Review,
Health Systems in Transition, 2012***

***Optimizing Quality of Care and Patient Safety in Malaysia : The Current Global Initiatives, Gaps and Suggested Solutions.
Mu'taman Jarrar, Hamzah Abdul Rahman, Mohd. Sobri Don
Glob J Health Sci 2016 Jun 8 (6) 75-85***

- ***Observations :***
 - ***complaints – increasing numbers of medico legal cases***
- ***Leaders of healthcare organizations should transform work environments – interdisciplinary teams, learning culture, engage staff to improve quality and patient safety***
- ***Hospitals need to focus on strengthening systems to improve quality of care and patient safety.***

Improving Health Care Coverage, Equity and Financial Protection Through a Hybrid System : Malaysia's Experience
RP Rannan-Eliya, C Anuranga, Adilus Manual, et. al
Health Affairs, 2016; 35 (5), 838-846

- ***Malaysia made substantial progress in providing access to health care for its citizens. More successful than many other countries better known as models of universal health coverage.***
- ***Malaysia's health care coverage and outcomes approaching levels achieved by member nations of OECD.***
- ***Malaysia's results achieved through mix of public services (funded by general revenues) and parallel private services (OOP spending)***
- ***Malaysia system has been stable for decades, provides protection from financial risk, despite modest government spending.***

- ***Malaysia achieved high levels of financial protection despite higher levels of out-of-pocket (OOP) spending (36% in 2013). The 2009 level of OOP spending in GDP in Malaysia (1.7%) is low by global standards, average for OECD countries. Malaysia's level of financial risk similar to European nations.***

- ***Malaysia's experience has limitations :***
 - ***perception of inferior consumer quality in public system by non-poor patients***
 - ***purchase of private services by middle and upper income patients – financial burden and sense of dissatisfaction***
 - ***political dilemma – how to spend more on public services while maintaining approach of low corporate and personal income taxes?***

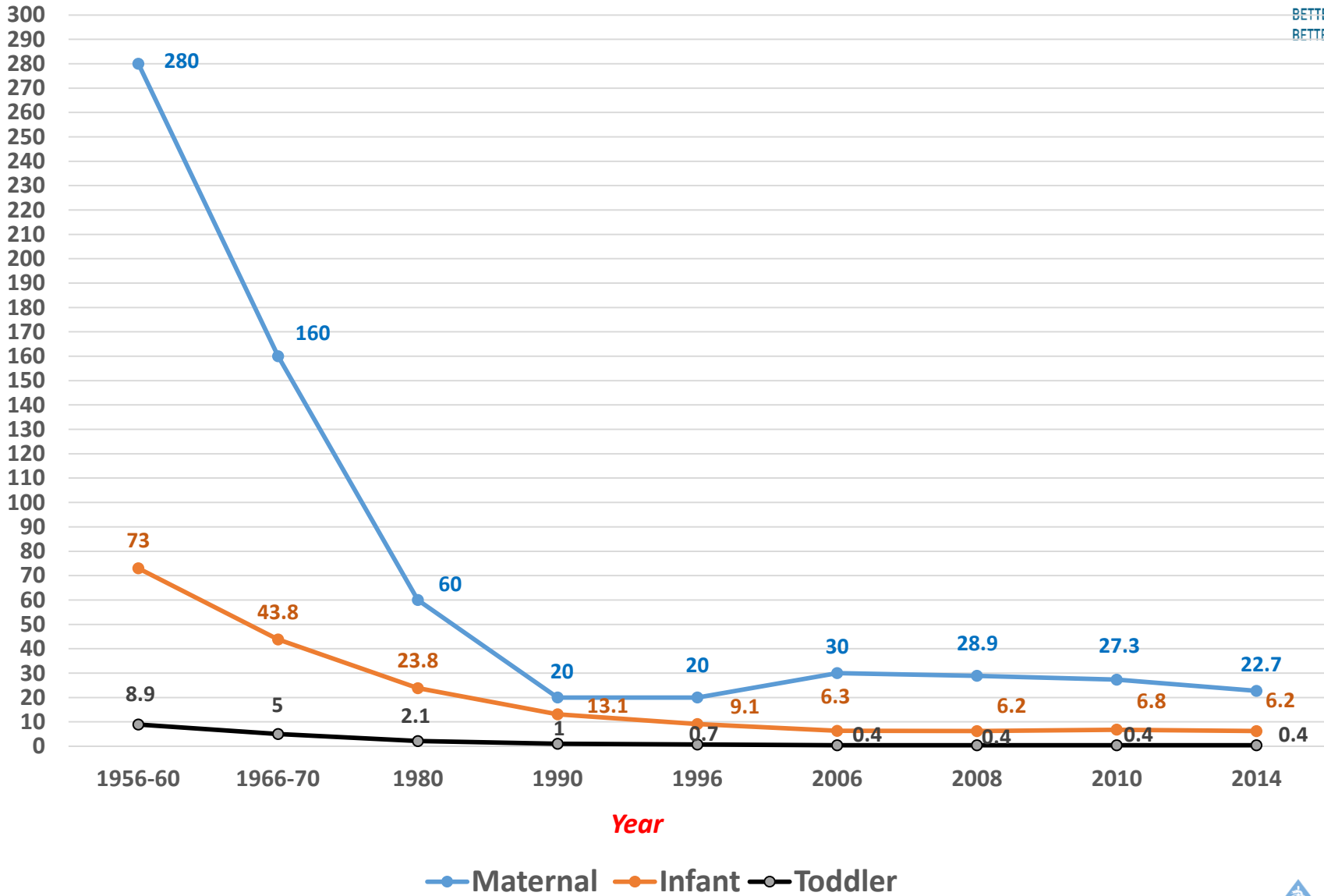
Malaysia, Selected Vital Statistics

| <i>Mortality Rates</i> | | | | | | | | | |
|-----------------------------------|---------|---------|------|------|------|------|------|------|------|
| Year | 1956-60 | 1966-70 | 1980 | 1990 | 1996 | 2006 | 2008 | 2010 | 2014 |
| Maternal (100,000 live births) | 280 | 160 | 60 | 20 | 20 | 30 | 28.9 | 27.3 | 22.7 |
| Infant (1000 live births) | 73 | 43.8 | 23.8 | 13.1 | 9.1 | 6.3 | 6.2 | 6.8 | 6.2 |
| Toddler (1000 live births) | 8.9 | 5 | 2.1 | 1 | 0.7 | 0.4 | 0.4 | 0.4 | 0.4 |

| <i>Life Expectancy in Years, at birth, by sex</i> | | | | | | | | | |
|---|------|------|------|------|------|------|------|------|------|
| Year | 1957 | 1967 | 1975 | 1985 | 1996 | 2006 | 2008 | 2010 | 2014 |
| Male | 55.8 | 63.5 | 65.7 | 67.7 | 69.3 | 71.7 | 71.6 | 71.9 | 72.5 |
| Female | 58.2 | 66.3 | 70.7 | 72.4 | 74.1 | 76.4 | 76.4 | 77 | 77.2 |

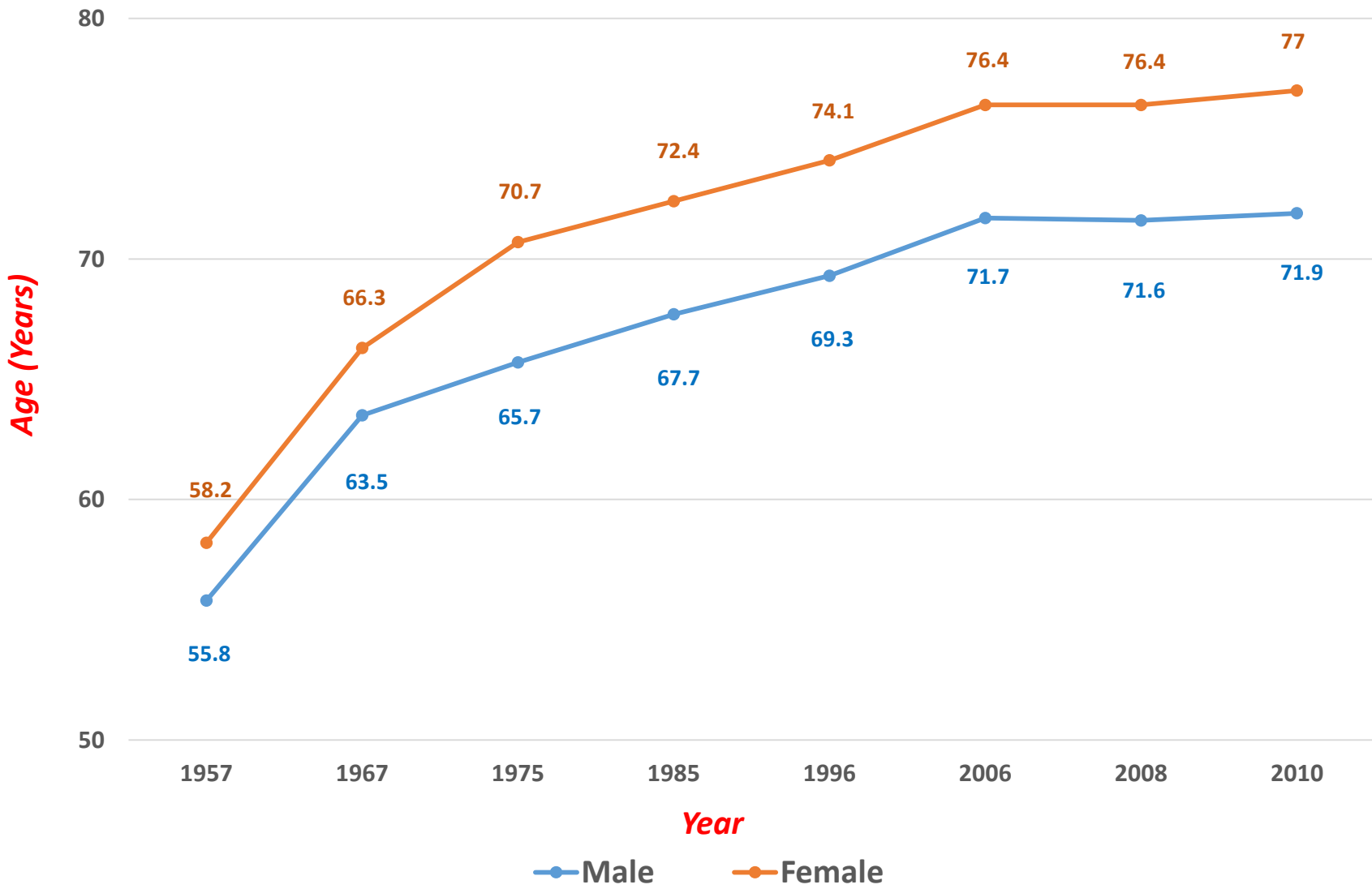
- **AB Suleiman, M Jegathesan (Eds)**
Health in Malaysia, 1999
- **Health facts, MOH (2015)**

Mortality Rate



Data from : AB Suleiman, M Jegathesan (Eds) 1999 and MOH Health facts (2015)

Life Expectancy in Years, at Birth, by Sex



Data from : AB Suleiman, M Jegathesan (Eds) 1999 and MOH Health facts (2015)

In a recent study MOH conducted with the Harvard School of Public Health (Report in 2016, not publicly available)

- ***Malaysia's healthcare system made good progress until 2000***
- ***Performance plateaued from 2001 onwards. Malaysia's performance consistently below nearby countries like Singapore, Taiwan, Hong Kong, New Zealand and Australia.***

Three examples of some current challenging healthcare issues :

- ***Diabetes Mellitus***
- ***Cancer***
Example – breast cancer
- ***Dialysis treatment***

Alarming increase in diabetes mellitus among Malaysians. Star Online, 8 April 2016

***Deputy Health Minister Datuk Seri Dr Hilmi Yahya :
Based on National Health & Morbidity Survey 2015 :-***

- ***3.5 million or 17.5% of citizens above 18 years are diabetic.***
- ***More than 50% or 9.2% of citizens were unaware they were diabetic***

***Prevalence : 11.6% - 2006
15.2% - 2011
(20.8% - 2014, MHMSIV)***

National Diabetes Registry (2009 – 2012)

Patients achieving glycaemic targets :

| HbA1c | 2009 | 2010 | 2011 | 2012 |
|-----------------------|----------------|----------------|---------------|----------------|
| < 6.5% | 10,559 (19.4%) | 12,079 (24.8%) | 11550 (22.6%) | 22,992 (23.8%) |
| Total no. of patients | 54,440 | 48,774 | 51,026 | 96,694 |
| With HbA1c | | | | |

21.4% of patients treated on insulin in 2012

Nearly Half Malaysia's Population Overweight or Obese

Datuk Seri Dr Subramaniam, Health Minister

Malay Mail online, Feb 3, 2016

| <i>Obesity Prevalence</i> | <i>%</i> |
|----------------------------------|-----------------|
| 1996 | 4.4 |
| 2006 | 14 |
| 2011 | 15.1 |
| 2015 | 17.7 |
| | |
| <i>Overweight</i> | <i>%</i> |
| 2015 | 30 |

BMJ Study (2014) :

Malaysian was rated highest in Asia for obesity

What if all patients with Breast Cancer in Malaysia have access to the best available care : How many deaths are avoidable ?

GF Ho, NA Taib, RK Pritam Singh, et.al

Global Journal of Health Science 2017, 9:8:32-39

Avoidable death :

The difference between number of deaths estimated by GLOBOCAN12 for Malaysia and the expected number of deaths if all patients with Breast Cancer had experienced the age-ethnic-stage specific survival outcomes in a leading private cancer center in Malaysia.

Annual number (%) of deaths that would be avoidable if all patients with Breast Cancer have access to the best available care in Malaysia.

| Estimates | Results |
|--|-------------|
| Observed number of BC deaths (Mobs) reported by Globacan 2012 | 2572 |
| 1. Estimated number of deaths due to background population mortality | 260 |
| 2. Estimated number of excess deaths | 2312 (100%) |
| Estimated number (%) of excess deaths despite best care | 264 (12%) |
| Estimated number (%) of excess deaths that would be avoidable | 2048 (88%) |
| Estimated number of avoidable excess deaths | 2048 (100%) |
| 1. Number (%) attributed to lack of early diagnosis | 1167 (57%) |
| 2. Number (%) attributed to lack of treatment | 881 (43%) |

- ***Avoidable deaths : 2048 (88%)***
 - 1167 (57%) – late presentation***
 - 881 (43%) - lack of access to optimal treatment***
- ***Cancer care services - clear need for improvement***

How Public and Private Reforms Dramatically Improved Access to Dialysis Therapy in Malaysia

Teck Onn Lim, Adrian Goh, Yam-Ngo Lim, Zaki Morad Mohamad Zaher, Abu Bakar Suleiman

Health Affairs, 2010; 29:12:2214-2222

- ***Between 1990 – 2005, dialysis treatment rates in Malaysia increased more than eightfold. (Treatment rates comparable to developed countries)***
- ***This was due to Malaysian Govt's large scale purchase of dialysis services from highly competitive private sector.***

Public Financing for dialysis

1999

- **MOH - developed more public dialysis units; matching capital grants to NGOs providing dialysis treatments**
- **SOCSSO (Social Security) – dialysis included as rehabilitative therapy**

2000

- **Baitumal (Islamic Social Welfare) – subsidized dialysis for poor Muslims**

2001

- **Government provided subsidies for public patients in private facilities (money following the patient)**

2005

- **Total spending on dialysis : 1.72% of healthcare spending (2.6% of public spending, 1% of non public spending)**
- **Public spending on dialysis : 67.3% of total spent on dialysis treatment.**

- ***Number of Patients receiving dialysis :***

1990 : 836

2005 : 13,385

- ***Number of For-profit and NGO dialysis facilities :***

1990 : 15

2005 : 243

Provided 62% of dialysis treatments in 2005

- ***Large increases in training of nephrologists and dialysis nurses in public facilities***
- ***Cost of private dialysis **decreased** 45% between 1990 and 2005***
- ***Mortality outcomes comparable to that in United States.***

- ***Mix of public and private care with public funding support enabled wide access to dialysis treatment***
- ***Competition from private and NGO provides reduced cost of dialysis by 45% between 1990 and 2005***
- ***Policy decisions that enabled such achievements with dialysis treatment has not been repeated with other medical services.***

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Transformation of Healthcare in Malaysia

- ***Current structure, organization and delivery system, no longer suitable for current and future challenges in health***
- ***Seven major studies since 1985 in planning health reform, made various recommendations. Philosophy behind major recommendations :***
 - ***Prepaid system for healthcare for all***
Pooling of risk, pooling of funds
Employers, employees, self employed contribute to Health Fund
Govt. contribution – public workers and pensioners, elderly, disabled
Health fund – not for profit
Public health – government responsibility

Transformation of Healthcare in Malaysia

- ***Greater investment*** in health – result in better quality in access and delivery of healthcare services
- ***Good outcomes*** – improve health status of our population
- ***Lower costs*** of care over longer term
- ***Role of MOH in provision of healthcare services – mainly purchasing of healthcare services and ensuring healthcare services are appropriate, safe, good quality.***

Transformation of Healthcare in Malaysia

Community Engagement

- ***More effectiveness in health promotion, disease prevention and early detection of diseases***
- ***Patient-centered – in all aspects***
- ***Maximize value in use of hospitals.***
 - ***As much care as possible outside hospitals***
- ***Align incentives – for more productive health outcomes.***

Transformation of Healthcare in Malaysia

Health Insurance

- ***Mixture of :***
 - ***public insurance : private insurance : out-of-pocket payments***
 - ***balance? how to structure?***
- ***Attitude towards coverage :***
 - ***catastrophic health events, chronic diseases***
 - ***cosmetic surgery***
 - ***minor ailments***
 - ***“life style” health issues***
- ***Role of the market***
 - ***funding, insurance***
 - ***service provision***
- ***Innovations in managing the health system.***

THANK YOU