

# ***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)

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

# ***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°, 2°, 3° services with referral system

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

**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>	<b>183</b>	<b>12,963</b>
<i>Maternity homes</i>	<b>14</b>	<b>50</b>
<i>Nursing homes</i>	<b>16</b>	<b>539</b>
<i>Hospice</i>	<b>3</b>	<b>22</b>
<i>Ambulatory care centers</i>	<b>63</b>	<b>98</b>
<i>Medical clinics</i>	<b>7,146</b>	
<i>Dental clinics</i>	<b>1,867</b>	

## *Admission, Outpatient Attendances (2015)*

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

# ***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?***

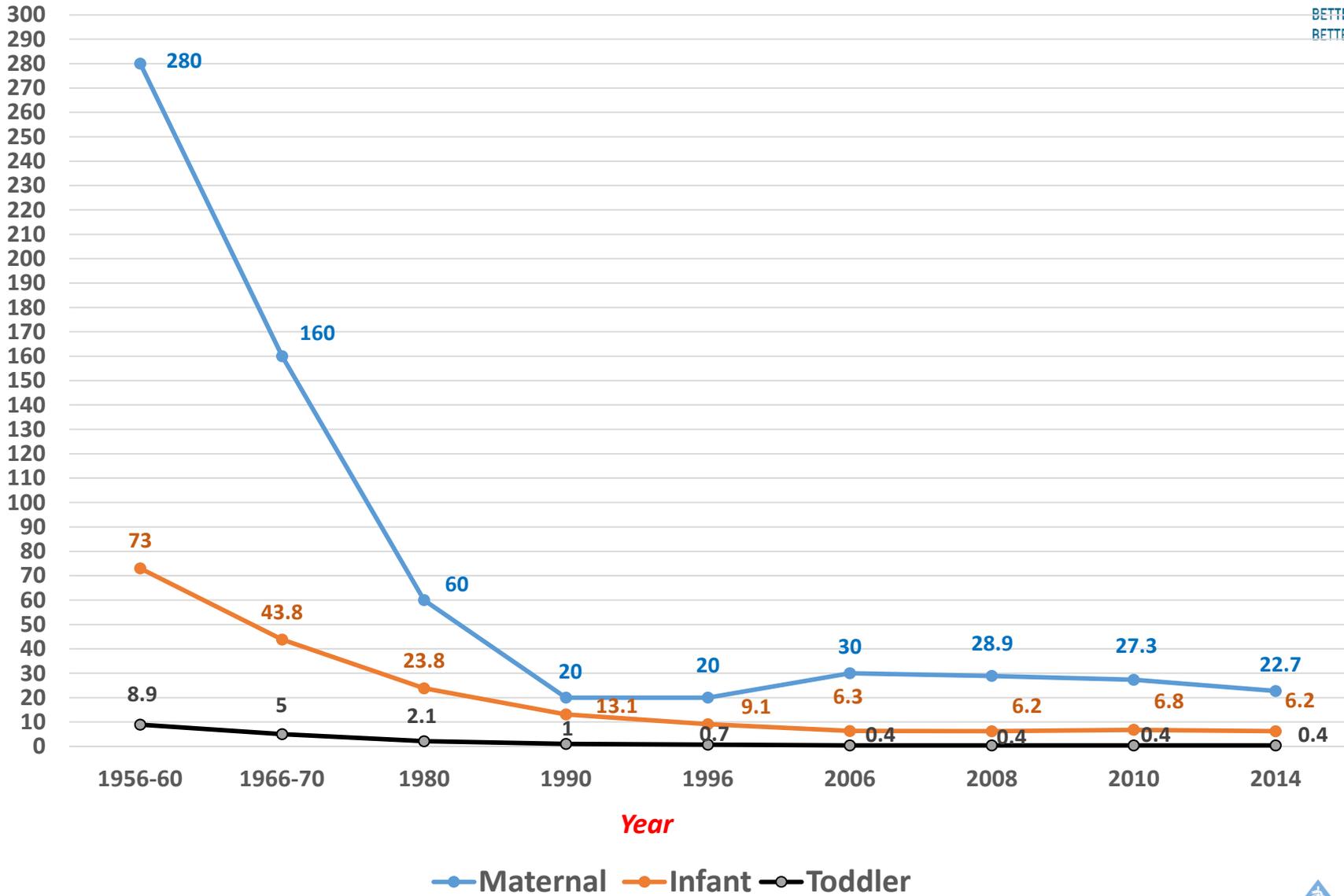
## Malaysia, Selected Vital Statistics

<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

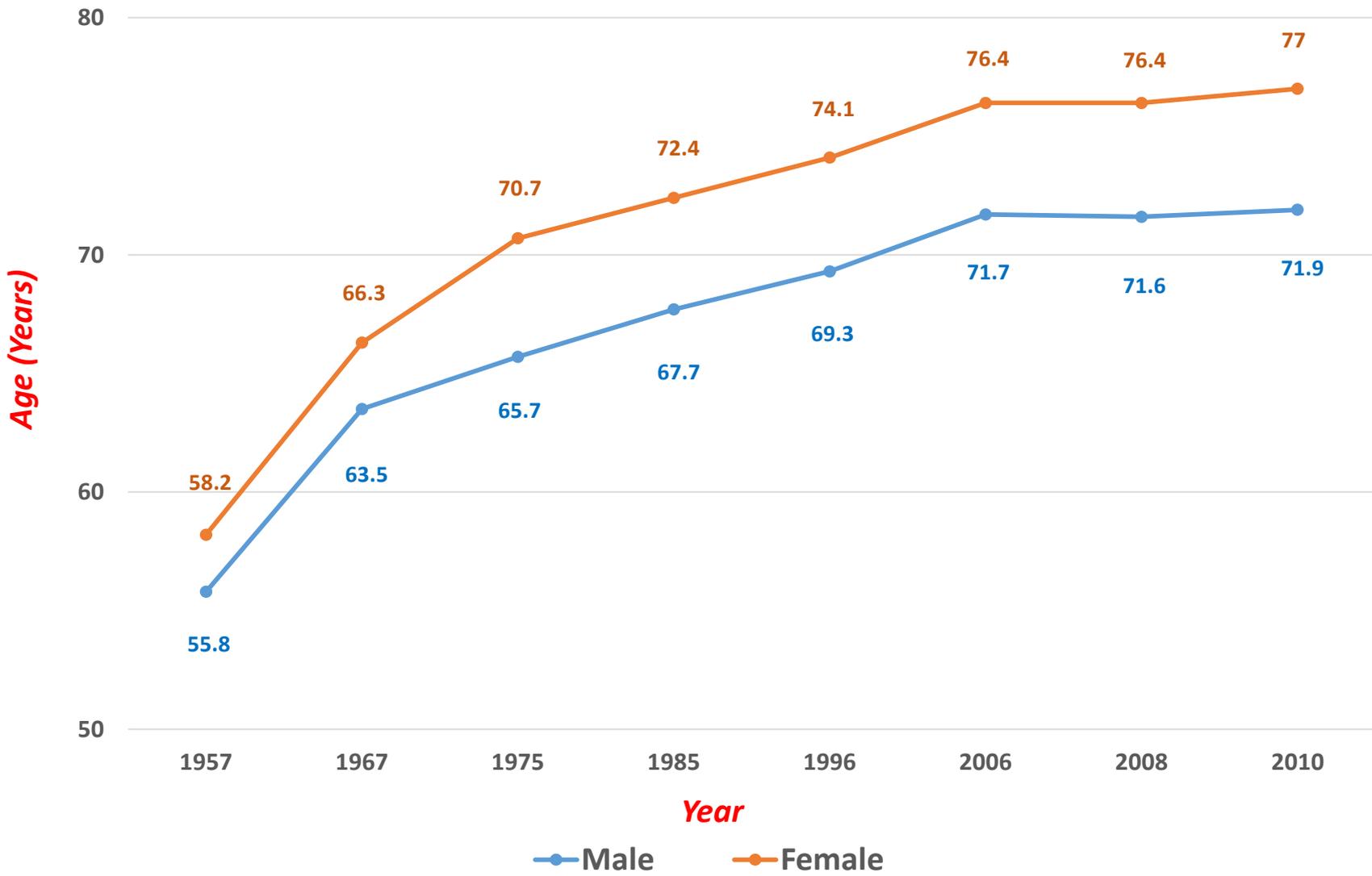
- **AB Suleiman, M Jegathesan (Eds)**  
**Health in Malaysia, 1999**
- **Health facts, MOH (2015)**

# 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***

<b><i>Obesity Prevalence</i></b>	<b><i>%</i></b>
1996	4.4
2006	14
2011	15.1
2015	17.7
<b><i>Overweight</i></b>	<b><i>%</i></b>
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***