WCS 16 Aug 17

Presidential Address

Cheng-Har Yip FRCSGlasg FRCSEd FACS (Hon)

President, Breast Surgery International 2015-2017
Professor Emeritus, University of Malaya, Kuala Lumpr
Consultant Breast Surgeon, Ramsay Sime Darby Healthcare
Lead Clinician, Cancer Research Malaysia

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Breast Surgery International
ISS/SIC

My journey to become a breast surgeon

1985 – *FRCS from UK*

1986 – *Lecturer in General Surgery in University of Malaya, surgeon in general (means that I do everything) with special interest in paediatric surgery*

1989 – *breast surgery training in UK*

1990 – *back to Malaysia – doing general surgery (including breast surgery) and paediatric surgery*

1992 – *had my first child and gave up paediatric surgery*

1993 – *promoted to associate professor and started breast surgery unit in University of Malaya, doing general surgery and breast surgery in University of Malaya*

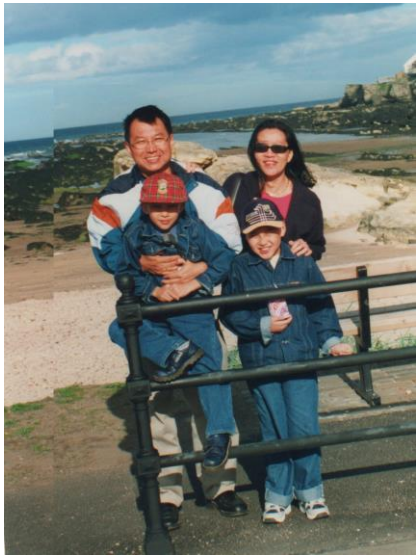
2000 – *promoted to professor*

2012 – *Retired from University of Malaya and started a breast surgery service in a private hospital*

My family

1997

2004



2001

2010

My career

My mentors

Prof K Somasundaram

Prof Sam Leinster

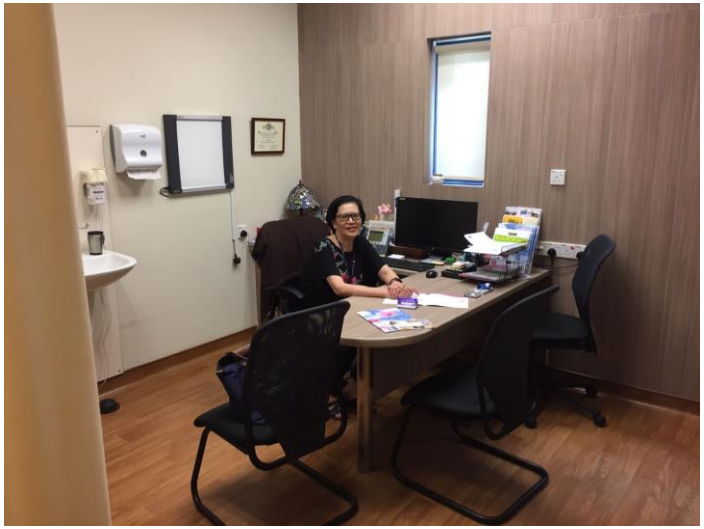
Prof Sir Patrick Forrest

My career


APOCP
ASIAN PACIFIC ORGANIZATION
FOR CANCER PREVENTION
Cancer Council
13-14 APRIL 2016 BRISBANE AUSTRALIA

My retirement –Sept 2012

Where I am working now……



Setting up the breast unit in University of Malaya

1993-1996

Breast Clinic database - non-dedicated service- General Surgeons performing surgery and chemotherapy

1998

In-house radiotherapy services

1999

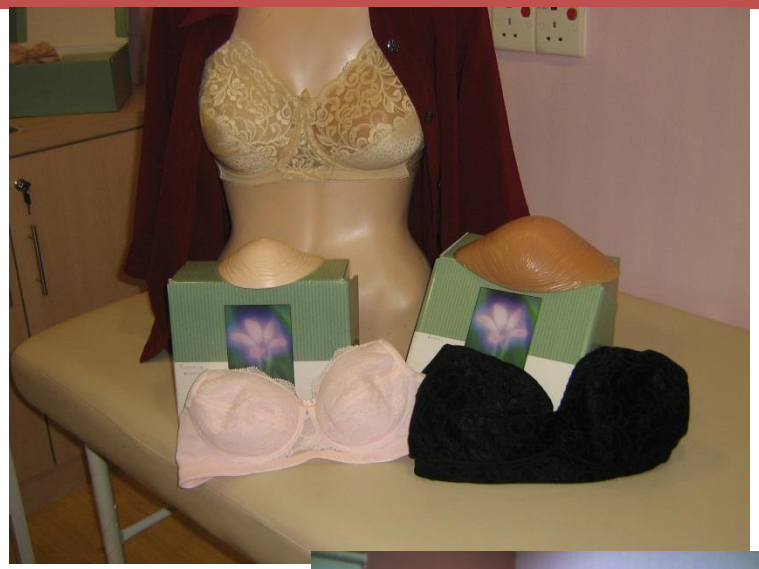
Daycare Oncology chemotherapy service

Support Services

1993- Survivor Support-BCWA

2003- Breast Care Nurse sanctioned

2005-Breast Cancer Resource Centre



2007- Free basic prosthesis kit

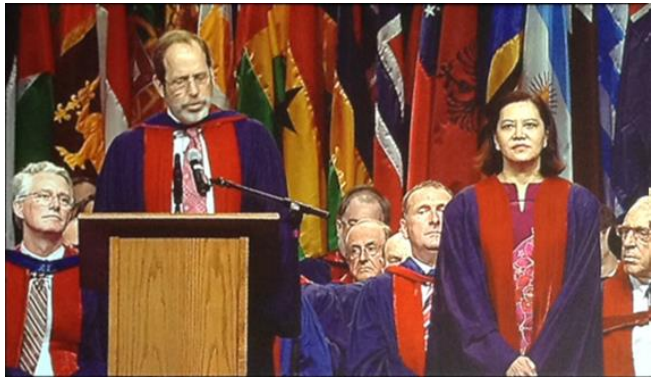
2007-Psychooncology services

2007- Palliative care consultancy

Current services in UM

- Well developed service
- Oncoplastic surgery
- Sentinel lymph node biopsy
- Intraoperative radiotherapy
- Support services

The Breast Health Global Initiative



MISSION STATEMENT

The Breast Health Global Initiative (BHGI) strives to develop, disseminate and foster the implementation of evidence-based, economically feasible, and culturally appropriate "Guidelines for International Breast Health and Cancer Control" to improve breast health outcomes for middle and low income countries with limited health care resources.

Resource stratification (Breast Health Global Initiative)

- **Basic level - core resources absolutely necessary for any breast health programme**
- **Limited level - these are second tier resources or services which would produce a major improvement in outcome**
- **Enhanced level - these third-tier resources or services are optional and may produce minor improvements in survival.**
- **Maximal level - these are high-level resources that may not even be affordable in high-resource countries.**

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The BREAST HEALTH GLOBAL INITIATIVE

Breast conserving therapy: limited or enhanced?

Treatment Resource Allocation: Stage II Breast Cancer					
Level of resources	Local-regional treatment		Systemic treatment (adjuvant)		
	Surgery	Radiation therapy	Chemotherapy	Endocrine therapy	Biological therapy
Limited	Breast conserving surgery§ Sentinel lymph node (SLN) biopsy with blue dye†	Postmastectomy irradiation of chest wall and regional nodes for high-risk cases§§			***
Enhanced	SLN biopsy using radiotracer† Breast reconstruction surgery	Breast-conserving whole-breast irradiation as part of breast-conserving therapy§	Taxanes	Aromatase inhibitors LH-RH agonists	Trastuzumab for treating HER-2/neu positive disease***

§ Breast conserving surgery can be provided as a limited-level resource, but requires breast conserving radiation therapy. If breast conserving radiation is unavailable, patients should be transferred to a higher level facility

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My research

- Started with a research grant of USD50 000 in 1996 to study epidemiology of breast cancer in Malaysia and later obtained a USD5 million grant in 2010 from the Ministry of Education
- Started a database in 1993, now with around 8000 cases
- Research collaboration with other universities
- Currently around 200 publications with an H index of 27 (ISI)
- Research mainly on breast cancer in Asia – outcomes, pathology and genetics, and now on disparities

Breast Cancer Incidence and mortality in Asia

Region/Country	World Bank Classification	Incidence		Mortality		MI Ratio
		Cases	ASR	Cases	ASR	
World		1676633	43.3	521817	12.9	0.3
For comparison						
USA	HI	232714	92.9	43909	14.9	0.16
United Kingdom	HI	52399	95	11679	17.1	0.18
Australia	HI	14710	85	2968	14	0.16
East Asia						
Japan	HI	55710	51.5	13801	9.8	0.19
South Korea	HI	17140	52.1	2274	6.1	0.12
China	UMI	187213	22.1	47984	5.4	0.24
Mongolia	LMI	125	9.4	50	4.2	0.45
North Korea	LI	5707	36.8	2340	14.3	0.39

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South East Asia						
Singapore	HI	2524	65.7	628	15.5	0.24
Brunei	HI	83	48.6	18	11.3	0.23
Malaysia	UMI	5410	38.7	2572	18.9	0.49
Thailand	UMI	13653	29.3	5092	11	0.38
Indonesia	LMI	48998	40.3	19750	16.6	0.41
Laos	LMI	472	19	222	9.3	0.49
Philippines	LMI	18327	47	6621	17.8	0.38
Vietnam	LMI	11067	23	4671	9.9	0.43
Timor-Leste	LMI	108	32.6	52	16.4	0.5
Cambodia	LI	1255	19.3	585	9.3	0.48
Myanmar	LI	5648	22.1	2792	11.3	0.51

Breast Cancer Incidence and Mortality in Asia

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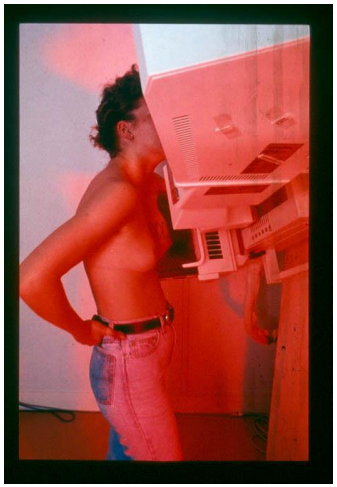
Australia	HI	14710	85	2968	14	0.16
South Asia						
Maldives	UMI	41	31.6	14	11.5	0.36
India	LMI	144937	25.8	70218	12.7	0.49
Pakistan	LMI	34038	50.3	16232	25.2	0.5
Sri Lanka	LMI	3955	30.9	1361	10.3	0.33
Bhutan	LMI	13	4.6	5	1.8	0.39
Bangladesh	LI	14836	21.7	7142	11	0.51
Nepal	LI	1716	13.7	865	7.2	0.52

Survival from breast cancer depends on:

Early Detection



AND

Treatment

Late presentation in developing countries are very common

Ignorance and poor education

Geographical isolation and inadequate access to medical care

Absence of screening programme

Social and cultural barriers

Financial problems

Traditional Treatment

Presentation of Breast Cancer in Malaysia

Author (ref)	Institution	No	Stg 0 (%)	Stg 1 (%)	Stge 2 (%)	Stg 3 (%)	Stg 4 (%)	Mean tumour size (cm)	Mean Age
Penang Cancer Registry 2004-2008	Penang	1091	NA	23.5	46.1	17.3	13.1	NA	NA
Hisham etal 200	HKL 1998-2001	774	NA	40		60		**5.4**	50
Taib etal 2011	UMMC 1993-97	423	NA	17.3	48.7	17.5	16.6	**4.5**	49
	UMMC1998-2002	965	NA	21.5	48.8	17.7	12	**4.4**	49
Leong etal 2007	Queen Elizabeth Hosp KK	186	4.8	12.9	30.1	36.6	15.6	NA	51
Ibrahim etal 2012	HKL 2005-09	868	NA	14.6	43.8	25.6	16.0	**5.0**	NA

Yip CH, Bhoo-Pathy N, Teo SH. A review of breast cancer research in Malaysia. Med J Malaysia 2014;69(Supp A):8-22.

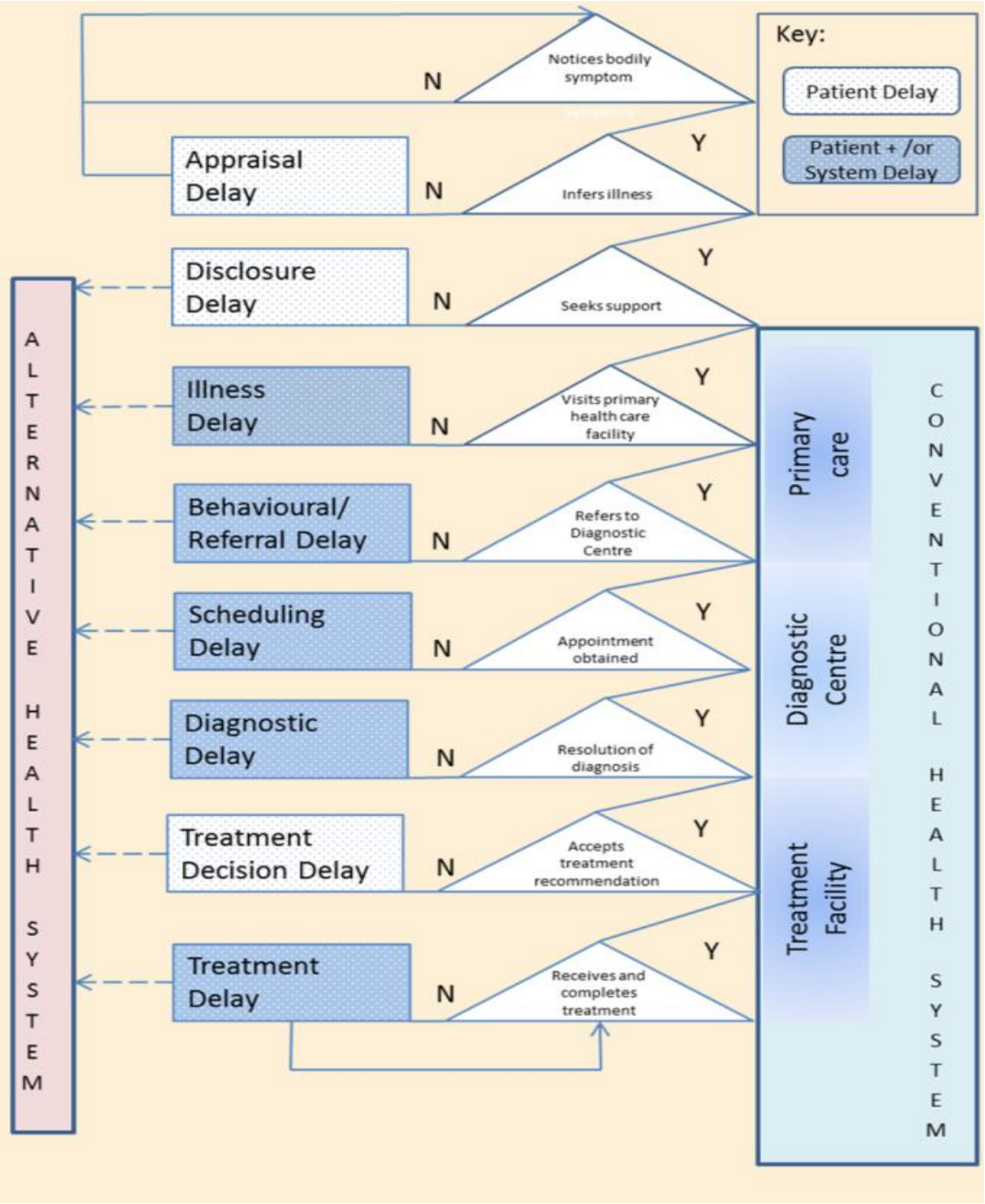
Survival of breast cancer in different institutions in Malaysia

Author (Ref)	Institution	No	Overall 5 year OS	Stage 1 (%)	Stage 2, %	Stage 3, %	Stage 4, %
Taib etal 2011 (11)	UMMC 1993-97	423	58.4 (54-63)	81.7	72.4	39.9	12.8
	UMMC 1998-2002	965	75.7 (73-79)	95.2	87.5	55.6	18.7
Ibrahim etal 2012 (12)	HKL 2005-09	868	43.5	58 (54.2-61.8)	52.7 (50.2-55.1)	39 (35.8-42.6)	19.8 (17-22.7)
Abdullah etal 2013 (116)	Data from, NCR, National Registration Dept 2000-2005	10 230	49.4 (NA)	NA	NA	NA	NA
Saxena etal (8)	UMMC 1993-2007	3320	69 (67-71.1)	93 (91.9-94.1)	79 (77.8-80.3)	52 (49.4-54.6)	12 (6.8-17.1)
	NUH Singapore 1993-2007*	2141	80 (79-80.9)	98 (97-99)	85 (83.7-86.3)	66 (62.5-69.6)	23 (16.6-29.5)

Reasons for late presentation

- **Fatalism** is a major problem. Coping mechanisms towards fatalistic outcomes like denial and avoidance contribute to the phenomenon.
- **Belief in alternative therapy** as an active form of treatment and a more acceptable option of treatment.
- **Decision making -** Lack of individualistic and autonomous decision making, with women playing the role of a dutiful wife and daughter was observed. Women need sanctioning to see a doctor.
- Financial problems

Nur Aishah Taib, Cheng-Har Yip, Wah-Yun Low Recognising Symptoms of Breast Cancer as a Reason for Delayed Presentation in Asian Women - The Psycho-socio-cultural Model for Breast Symptom Appraisal: Opportunities for Intervention. Asian Pacific J Cancer Prev, 12, 1-8



Delay in treatment decision making

Taib NA, Yip CH, Low WY. A Grounded Explanation of Why Women Present with Advanced Breast Cancer. World J Surg. 2014;38(7):1676-84.

Joss-stick burns

Traditional treatment

Cuts

Barriers to early detection

- 34 year old lecturer from a local university
- Married with 4 children aged 2 to 7 years old
- Right breast lump for 4 years on traditional medicine
- Poor education and poverty are not the only barriers to early detection of breast cancer

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Barriers to Treatment

Access

Quality

Timeliness

Compliance

Barriers to receiving adequate cancer treatment

- Financial
- Non-financial

  Distance to a cancer centre,

  Language,

  Fear and distrust of health care providers

  Difficulties getting through the appointment systems

The ACTION Study Group *BMC Medicine* (2015) 13:190
DOI 10.1186/s12916-015-0433-1

BMC Medicine

Medicine for Global Health

RESEARCH ARTICLE Open Access

Catastrophic health expenditure and 12-month mortality associated with cancer in Southeast Asia: results from a longitudinal study in eight countries

The ACTION Study Group

Abstract

Background: One of the biggest obstacles to developing policies in cancer care in Southeast Asia is lack of reliable data on disease burden and economic consequences. In 2012, we instigated a study of new cancer patients in the Association of Southeast Asian Nations (ASEAN) region – the Asean CosTs In ONcology (ACTION) study – to assess the economic impact of cancer.

Methods: The ACTION study is a prospective longitudinal study of 9,513 consecutively recruited adult patients with an initial diagnosis of cancer. Twelve months after diagnosis, we recorded death and household financial catastrophe (out-of-pocket medical costs exceeding 30 % of annual household income). We assessed the effect on these two outcomes of a range of socio-demographic, clinical, and economic predictors using a multinomial regression model.

Results: The mean age of participants was 52 years; 64 % were women. A year after diagnosis, 29 % had died, 48 % experienced financial catastrophe, and just 23 % were alive with no financial catastrophe. The risk of dying from cancer and facing catastrophic payments was associated with clinical variables, such as a more advanced disease stage at diagnosis, and socioeconomic status pre-diagnosis. Participants in the low income category within each country had significantly higher odds of financial catastrophe (odds ratio, 5.86; 95 % confidence interval, 4.76–7.23) and death (5.52; 4.34–7.02) than participants with high income. Those without insurance were also more likely to experience financial catastrophe (1.27; 1.05–1.52) and die (1.51; 1.21–1.88) than participants with insurance.

Conclusions: A cancer diagnosis in Southeast Asia is potentially disastrous, with over 75 % of patients experiencing death or financial catastrophe within one year. This study adds compelling evidence to the argument for policies that improve access to care and provide adequate financial protection from the costs of illness.

Economic Impact of Cancer in 9513 SEA Patients at One Year Following Cancer Diagnosis

	GDP per capita, US$ [1]	Total cancer incidence, per 100,000 person-years [2]	Participants at baseline, N	Outcome at one-year following cancer diagnosis				
				Financial catastrophe, % (95%CI)	**Economic hardship, %(95%CI)** [3]	Poverty, % (95%CI) [4]	Death, %	Lost to follow-up, n
Overall	**-**	**-**	**9513**	**48**	**33**		**29**	**2726**
Cambodia [5]	1 084	140.4	206	2	57		93	148
Myanmar	1 198	140.5	1178	50	29		45	183
Laos [5]	1 708	141.8	101	20	12		80	45
Vietnam	2 052	140.4	1916	68	31		25	426
Philippines	2 843	140.0	909	51	33		36	249
Indonesia	3 515	133.5	2335	44	42		37	1238
Thailand	5 561	137.5	1206	24	16		26	148
Malaysia	10 830	143.6	1662	**45**	**45**		**12**	289

Other barriers within the system – problems with the health staff

- Getting referred to a cancer specialist.
- Doctors may lack current information on treatment, have difficulty communicating with patients, or have insufficient staff to coordinate care and provide all the services patients need
- Lack of a patient navigation programme

Access to radiotherapy in low and middle income countries in Asia

Country *	Access to Radiotherapy
East Asia	
China	36.1%
North Korea	5.2%
Mongolia	35.5%
South East Asia	
Cambodia	4.7%
Indonesia	8.7%
Malaysia	**78.9%**
Myanmar	7.9%
Philippines	26.4%
Thailand	39.6%
Vietnam	21.3%
South Asia	
India	36.3%
Pakistan	21.4%
Bangladesh	11.2%
Sri Lanka	39.6%
Nepal	23%

*No data for Maldives, Bhutan, Laos and Timor Leste

Datta NR, Samiei M, Bodis S. Radiation therapy infrastructure and human resources in low- and middle-income countries: present status and projections for 2020. International journal of radiation oncology, biology, physics. 2014 Jul 1;89(3):448-57.

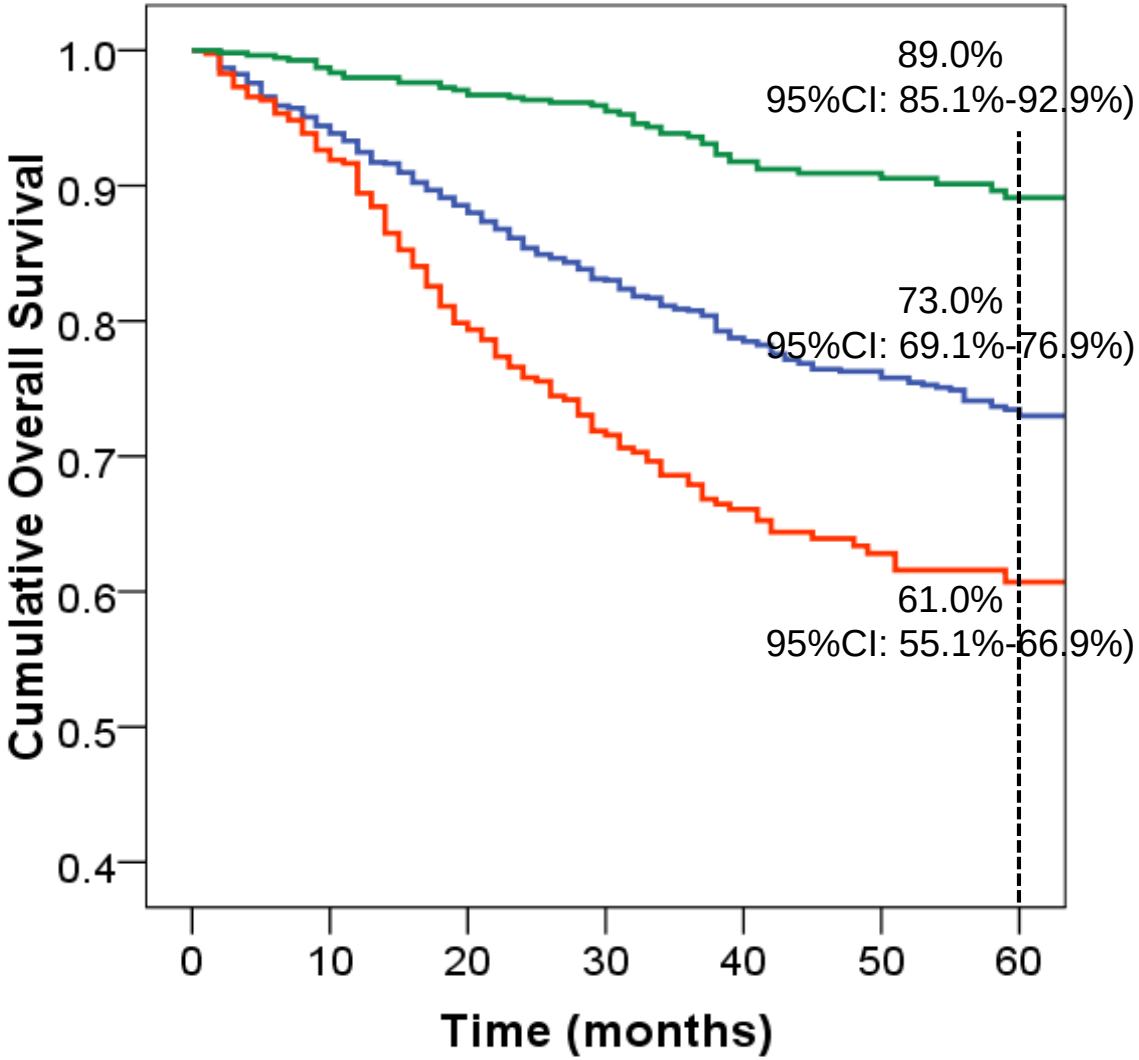
In Malaysia, almost 80% of the population has access to radiotherapy, but the centres are geographically distributed more on the west coast of Malaysia, hence large areas in the East coast and in Sabah and Sarawak are left with no facilities

Performance measures – auditing outcomes

- Lim GC, Aina EN, Cheah SK, Ismail F, Ho GF, Tho LM, Yip CH, Taib NA, Chong KJ, Dharmaratnam J, Abdullah MM, Mohamed AK, Ho KF, Ratnavelu K, Lim KM, Leong KW, Wahid IA, Lim TO. Closing the global cancer divide – performance of breast cancer care services in a middle income developing country. BMC Cancer. 2014 Mar 20;14(1):212.
- G. F. Ho, N. A. Taib, R. K. Pritam Singh, C. H. Yip, M. M. Abdullah & T. O. Lim What If All Patients with Breast Cancer in Malaysia Have Access to the Best Available Care: How Many Deaths Are Avoidable? Global Journal of Health Science; Vol. 9, No. 8; 2017

1. While breast cancer surgery was accessible, the other 3 modalities (radiation, chemo and hormonal therapies) were more problematic. High cost trastuzumab was inaccessible
2. Of the 2572 deaths due to BC reported by GLOBOCAN12, 1299 (50%) were avoidable. Of these avoidable deaths, 647 (50%) were attributable to late stage presentation while 652 (50%) were due to lack of access to optimal treatment.

Discrepancies in breast cancer survival in 3 hospitals within 25 km of each other



Log rank test:
A and B: p<0.001
A and C: p<0.001
B and C: p<0.001

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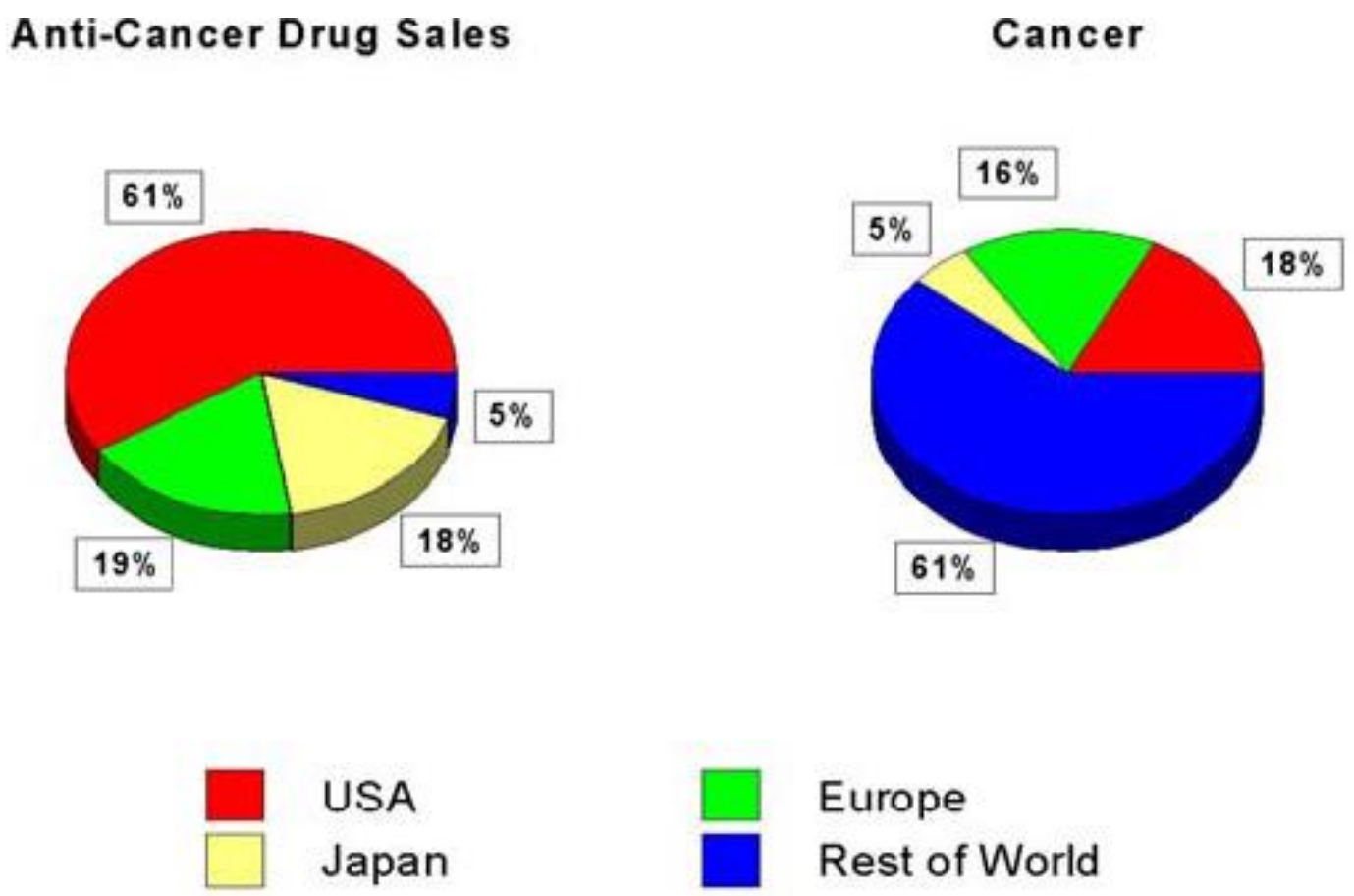
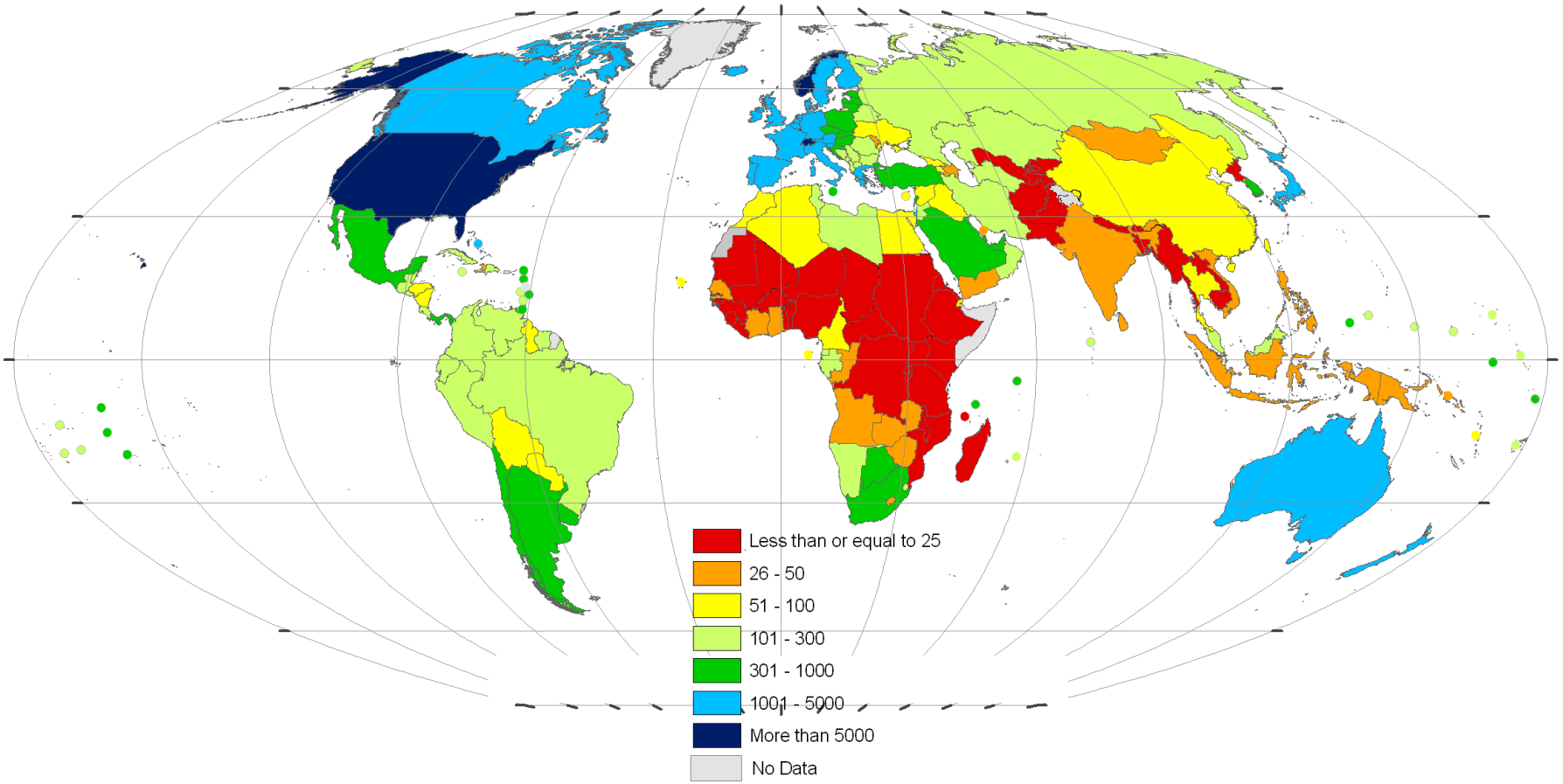
Equity of access world wide

- 70% of the world’s cancers are in developing countries which have only one-third of the world’s total radiation facilities
- 15 African nations and several Asian countries have no radiotherapy machine at all

Equity of access – world-wide



Total expenditure on health per capita, 2004
(in US$)



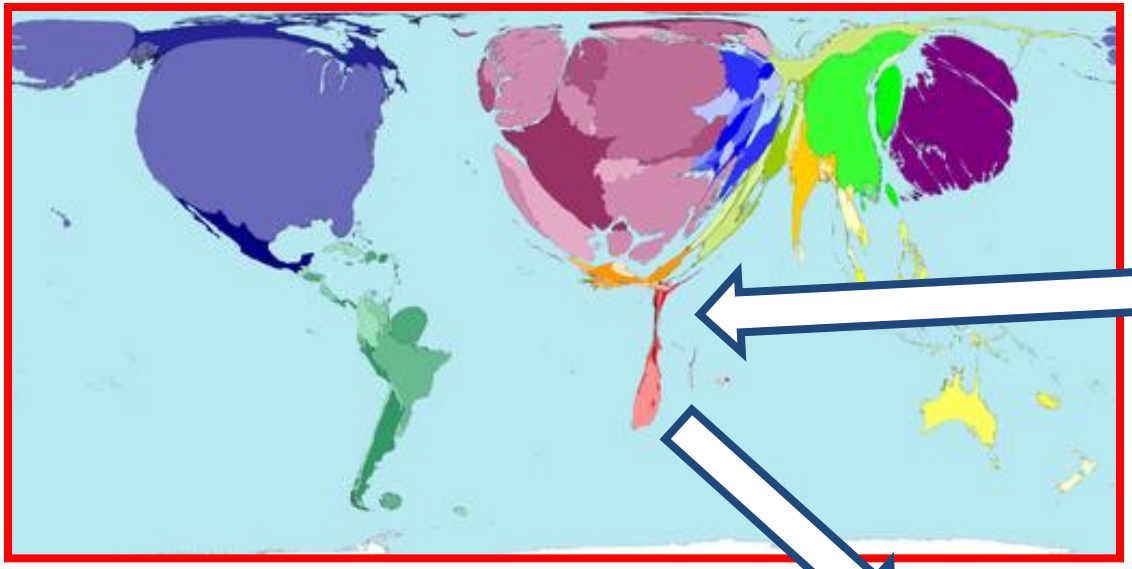
World Health Organization

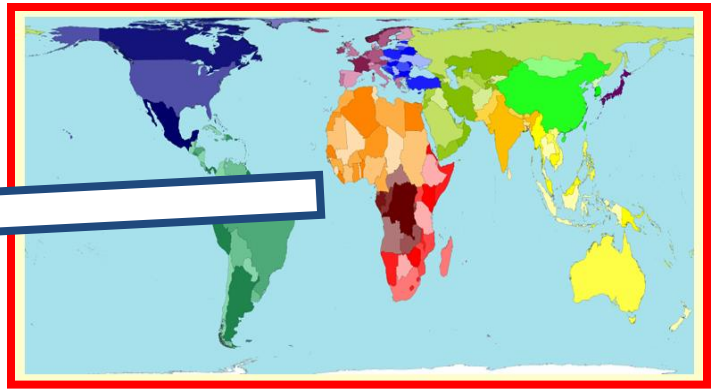
The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: National Health Accounts unit, Evidence and information for policy, World Health Organization

Map Production: Public Health Mapping and GIS
Communicable Diseases (CDS), World Health Organization

Spending Per Capita for Health





Geographic Map

Territory size shows the proportion of worldwide spending on public health services that is spent there. This spending is measured in purchasing power parity.
(from Worldmapper, www.worldmapper.org

Minimal amount spent on health care in LMICs

Source: World Bank, *World Development Report 2004*

If breast cancer survival rates were uniformly as high as the best in the world, 100,000 fewer women would die of breast cancer each year in the developing world.

CLOSING THE GLOBAL GAP IN BREAST CANCER CARE

What can we do?

Breast Surgery International

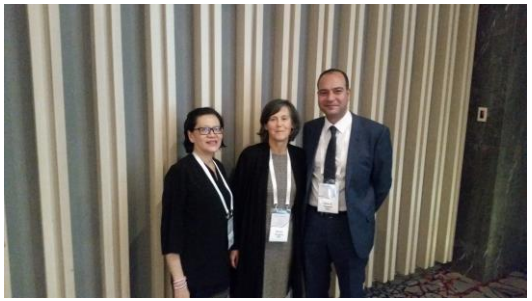
ISS/SIC

To improve breast cancer outcomes in LMICs, Breast Surgery International aims to develop quality breast cancer care through conducting workshops and courses aimed at general and breast surgeons in these countries

Outreach programmes

- Lucknow, India 2016
- Hue, Vietnam 2016
- Kota Baru, Malaysia (with IAES) 2016
- Yangon, Myanmar 2017

Travel funded by BSI and accommodation by the local hosts



For the future…..

- Expand our activities to other countries – Cambodia, Africa
- In house training – BSI surgeon to spend a week in a low resource country to teach breast surgery
- Fellowships for surgeons from LMIC
- More participation in breast cancer control activities – public health oncology, public education, early detection, health policies

AWARENESS

EDUCATION

SUPPORT

ADVOCACY

EMPOWERMENT