

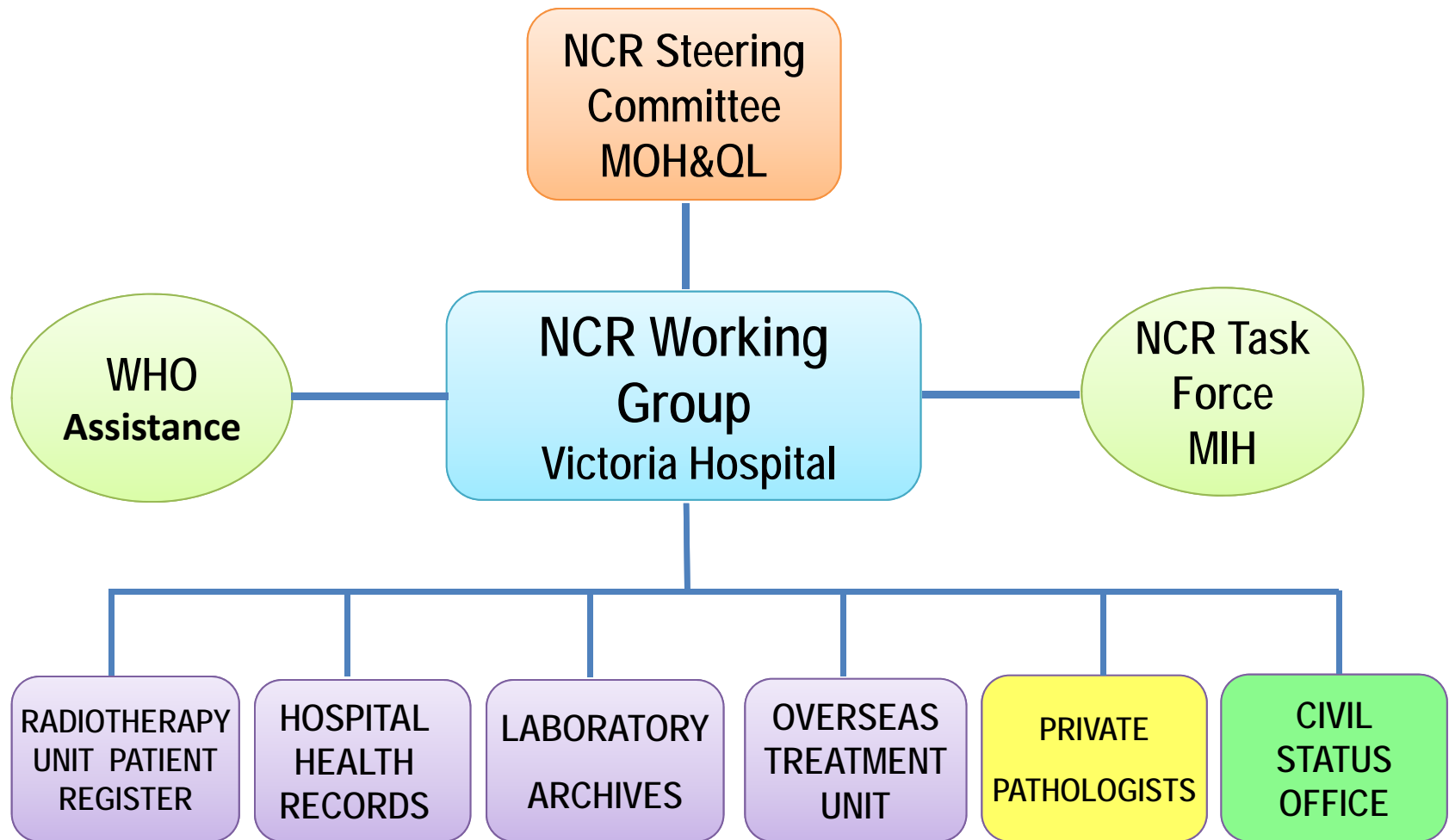
EPIDEMIOLOGY OF BREAST CANCER IN MAURITIUS

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National Cancer Registry Coordinator**

**Medical Update Group conference
UOM, Reduit, 30th April 2013**

Epidemiology of breast Cancer :
Medical Update Group, UOM, April 2013

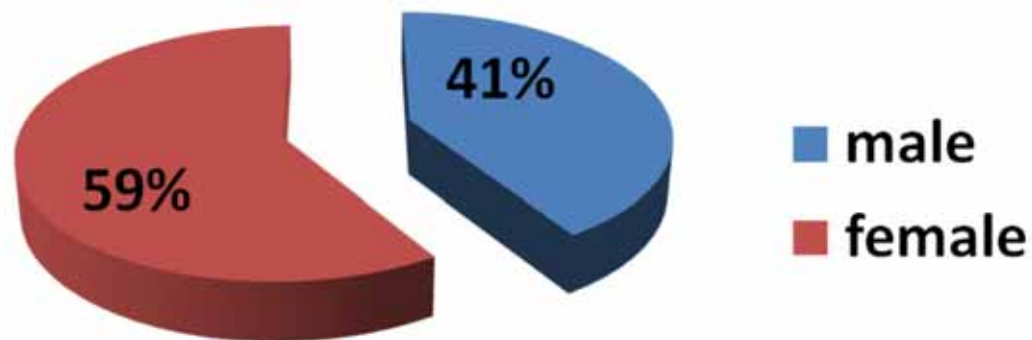
National Cancer Registry of Mauritius



Cancer incidence for 2006-2010

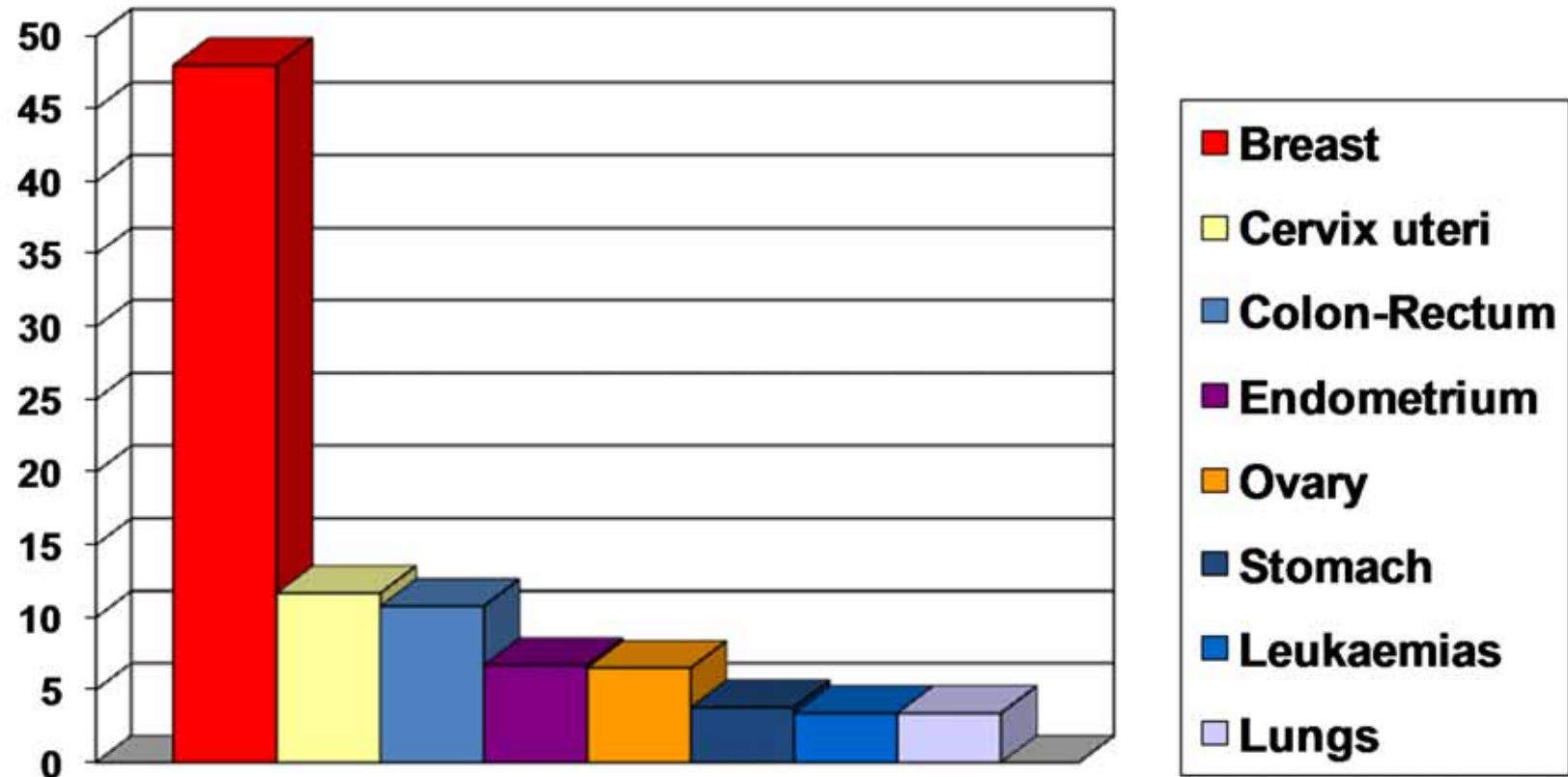
Mauritius

	Males	Females
Number	3247	4822
Percentage	41%	59%
Crude incidence rate	103.8	150.3
ASR W	108.4	128.9



Main sites of cancer in females

ASRW Mauritius 2006 -2010

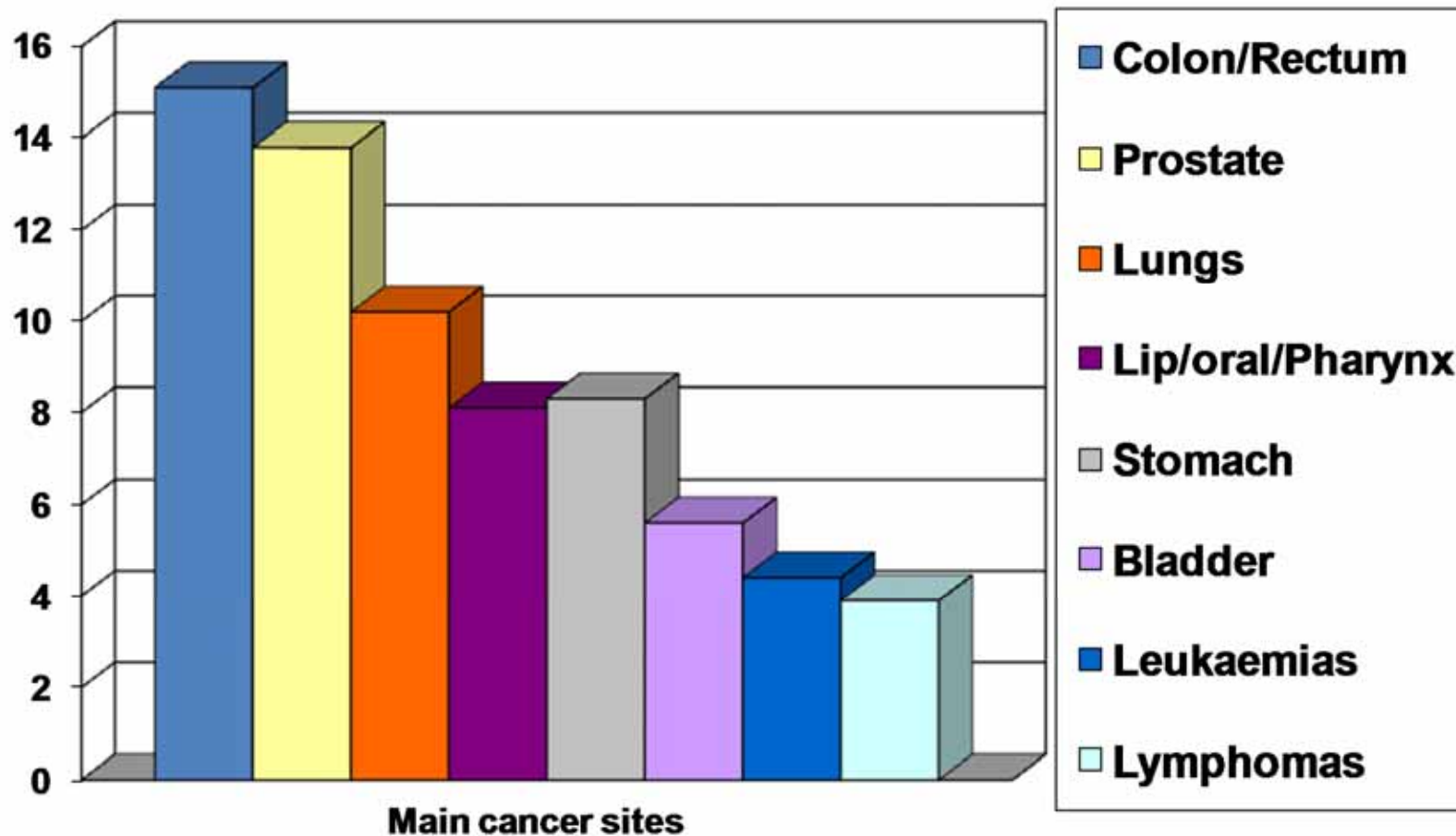


Main cancer sites

Epidemiology of breast Cancer :
Medical Update Group, UOM, April 2013

Main sites of cancer in males

ASRW Mauritius 2006 -2010



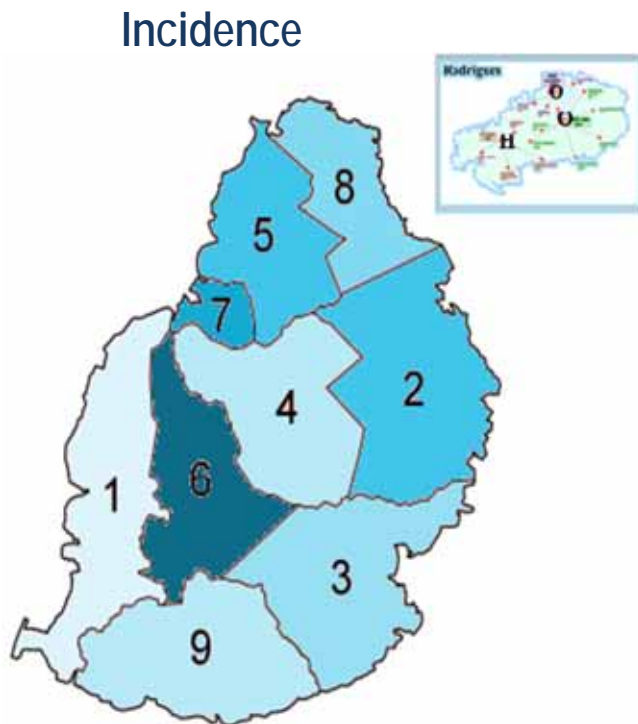
Age distribution of new cases of BC Mauritius, 2006 -2010

	No.	%	Age-specific Inc. rate / 10 ⁵
< 30 years	19	1.1%	1.3
30 – 49 years	591	34%	60.5
50 – 65 years	705	41%	142.7
> 65 years	417	24%	162.4
TOTAL	1732	100%	

BC incidence by district of residence

Mauritius 2006 - 2010

Observed over expected ratio (O/E ratio)



	District	Inc.
7	Port-Louis	1.42
6	Pl. Wilhems	1.24
2	Flacq	0.85
5	Pamplemousses	0.85
3	Grand Port	0.9
8	Riv. du Rempart	0.75
9	Savanne	0.85
4	Moka	0.7
1	Black River	0.61
	Rodrigues	0.71

Breast Cancer Mortality

Female cancer deaths Mauritius 2011

	All cancers	BC only
Number	510	130
%	100 %	25.5 %
Crude Mortality rate	81.5	20.8
ASR W	60.3	15.5

Cancer Mortality in females Mauritius 2011

Site	New cases	%	ASR World /10 ⁵
Breast	130	25.5	15.5
Colon-rectum	52	10.2	5.8
Cervix	41	8.0	4.9
Lungs	36	7.1	4.1
Ovary	31	6.1	3.9
All sites	510	100 %	60.3

M/I ratio for female BC Mauritius 2001-2010

	New cases	Deaths	M/I
2001-2004	1066	374	0.35
2005-2008	1239	404	0.33
2009-2010	759	237	0.31
<i>All sites</i>		<i>0.74(M)</i>	<i>0.45(F)</i>

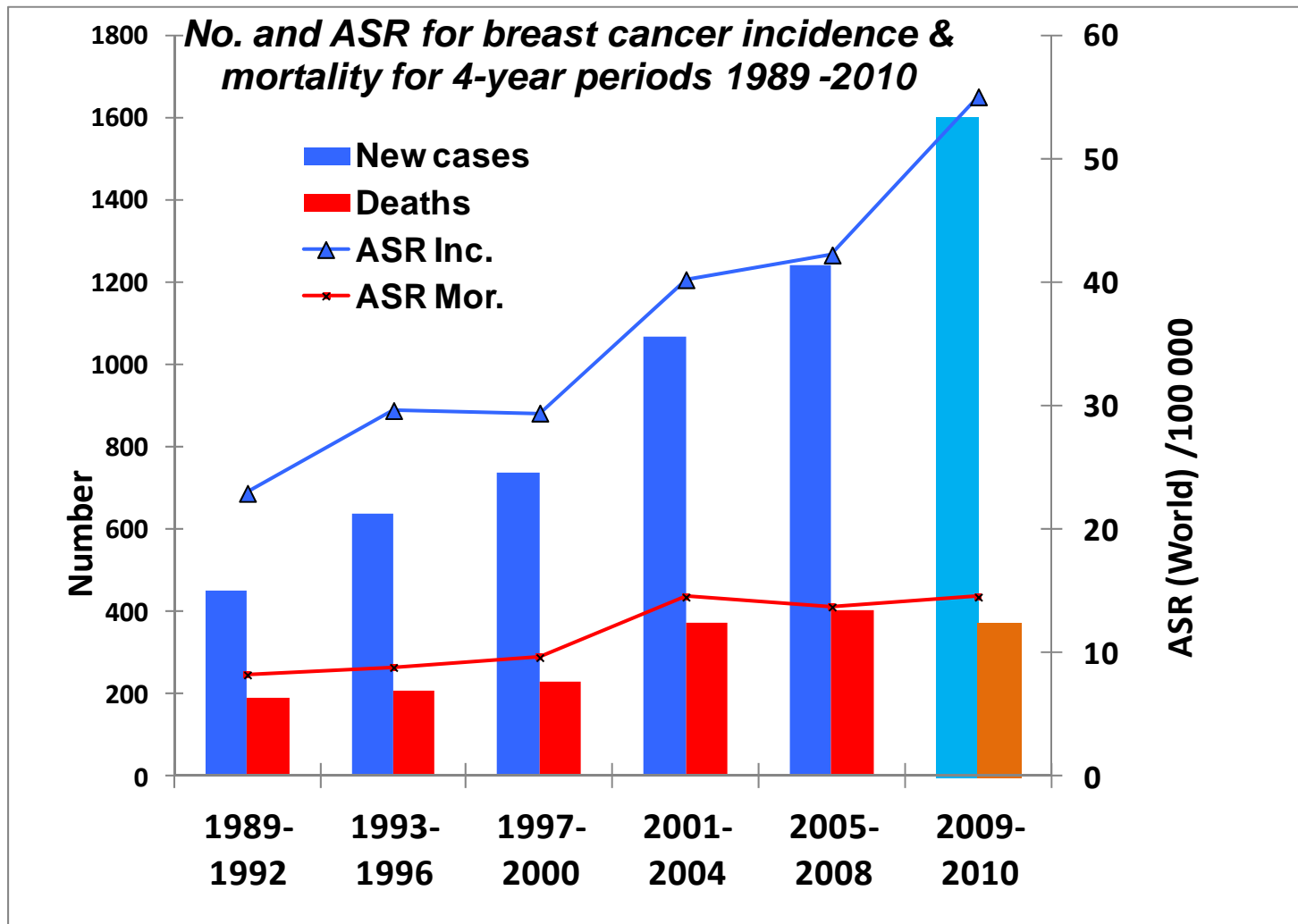
BC 10 year survival study, RT unit

Stage	No.	%	Died	Survival
0	5	3.3%	0	100%
1	23	15%	4	83%
2	87	58%	18	79%
3	29	19%	12	59%
4	7	4.6%	7	0%
<i>Unknown</i>	<i>18</i>		<i>8</i>	<i>56%</i>
Total	169	100%	49	71%

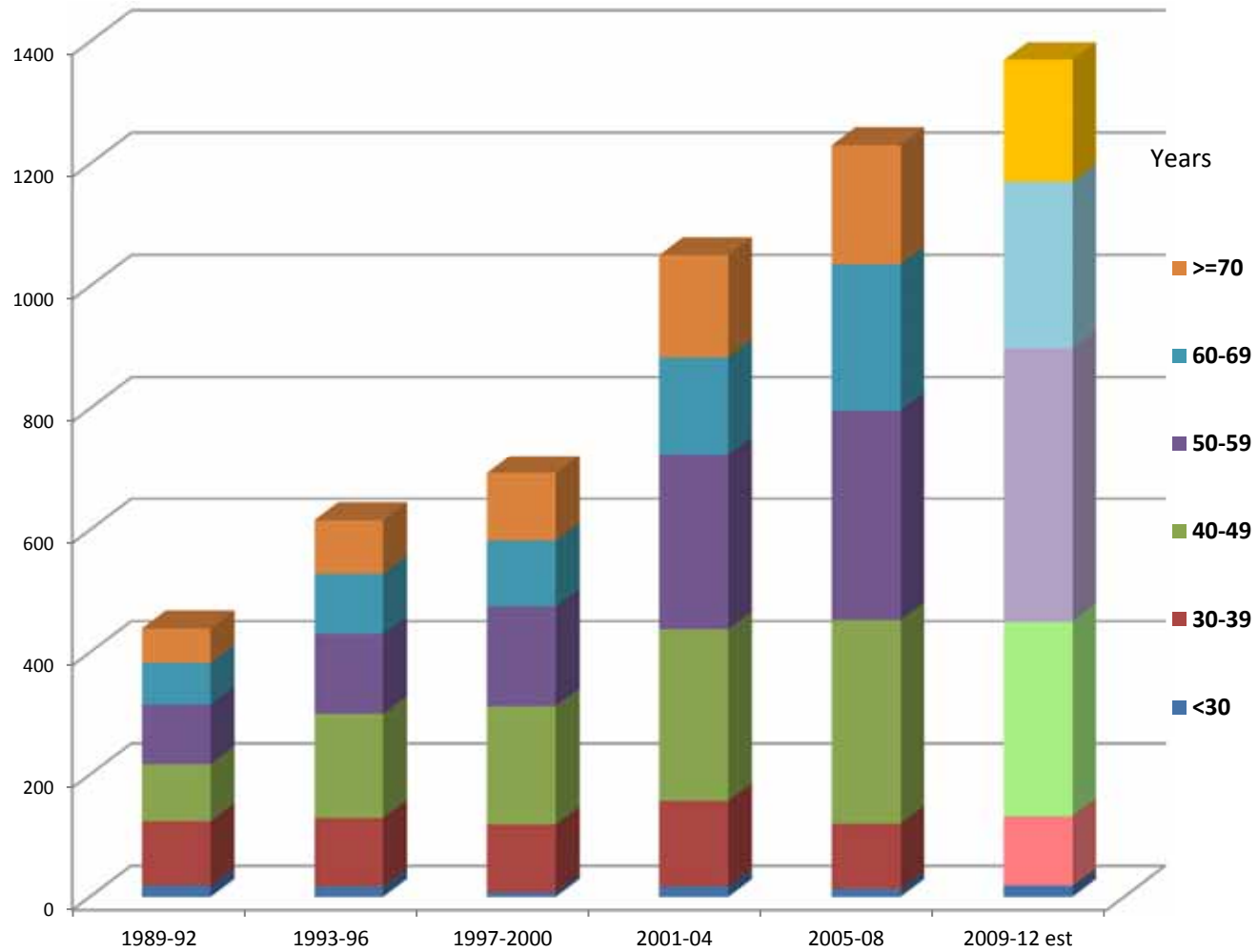
Trends in Breast Cancer Incidence

Female breast cancer trends

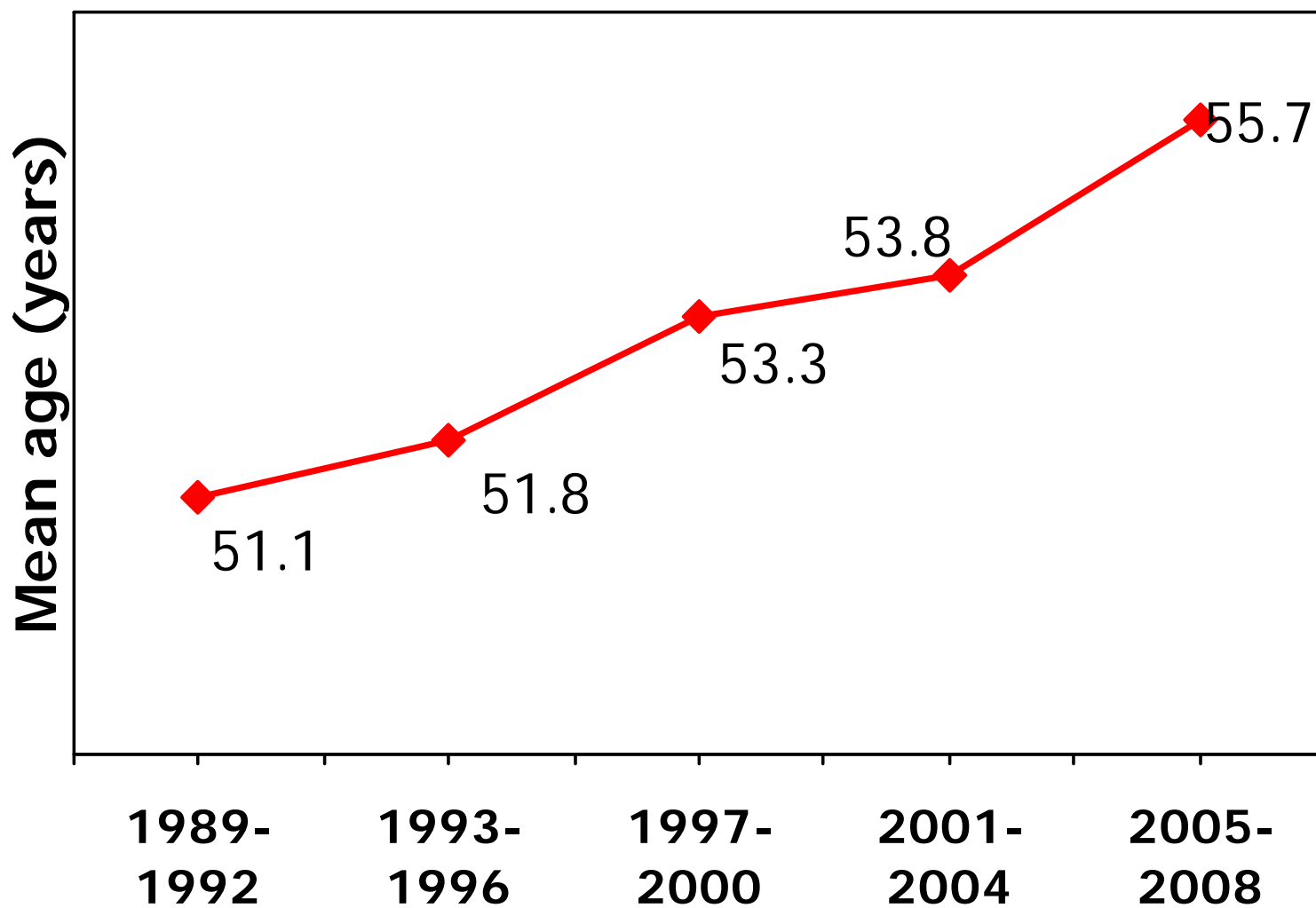
Mauritius 1989-2010



Trends in age distribution of female breast cancer (BC) in Mauritius (Number of new cases)



Trends in Mean Age at diagnosis of female breast cancer for 4-year periods from 1989 to 2008



Breast Cancer Pathology

Laboratory Investigations for Breast Cancer

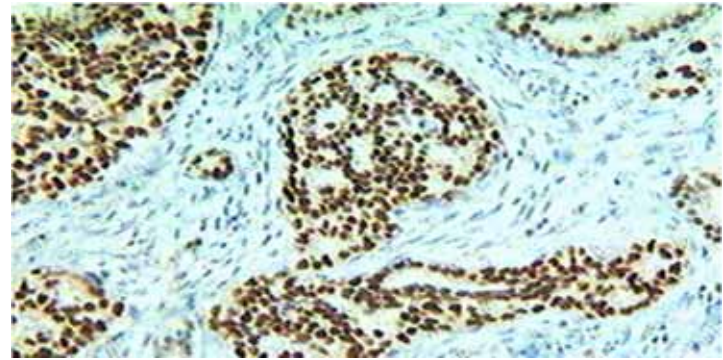
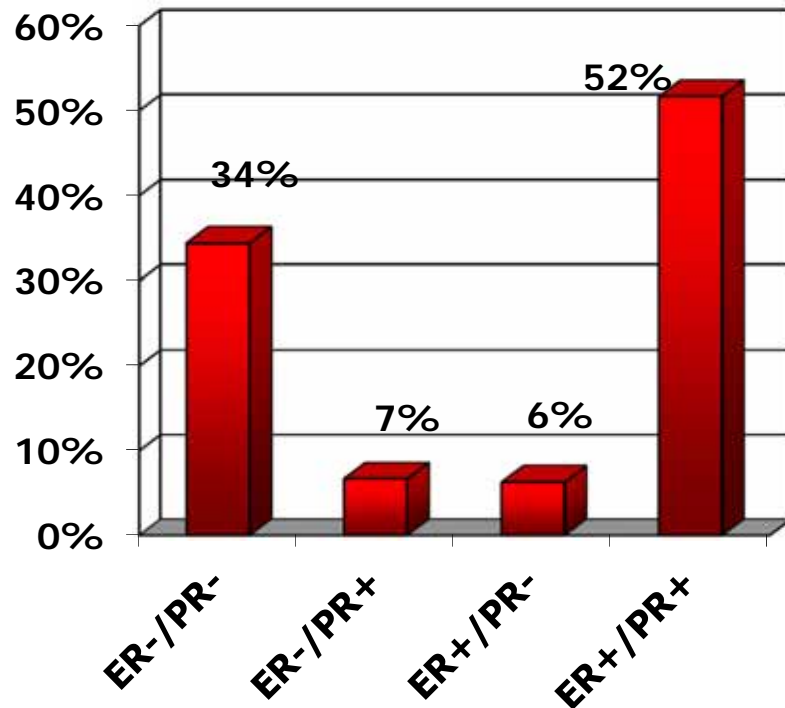
- Cytology (FNAC) ✓
- Biopsy ✓
- Histology ✓
- Tumour Markers ✓
 - Tissue TM : **ER/PR** , **Ki67** , **Her2**
 - Circulating TM : **Ca 15-3** ✓
- Haematology (FBC....) ✓
- Biochemistry (Enzymes....) ✓

Pathology workload at CHL concerning BC, 2009-2012

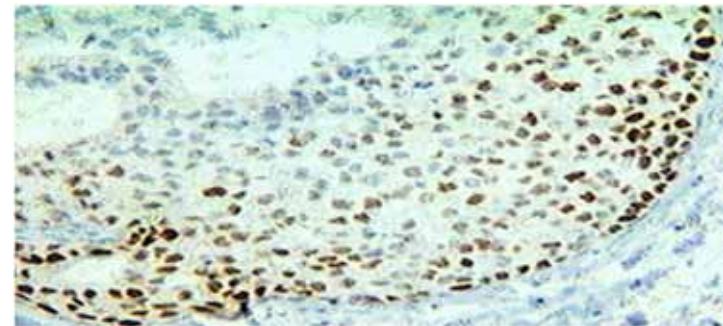
	No of cases	Pos. cases	% pos.
FNA breast	3180	543	17%
Biopsy	3620	655	18%
Lumpectomy	51	25	49%
Mastectomy	751	596	79%

Results : ER/PR assay at CHL

Distribution of hormone receptor status by joint phenotypes.
N= 1150



Estrogen-receptor positive breast cancer stained by IHC with ER-ID5 at the Central Health Laboratory, Candos

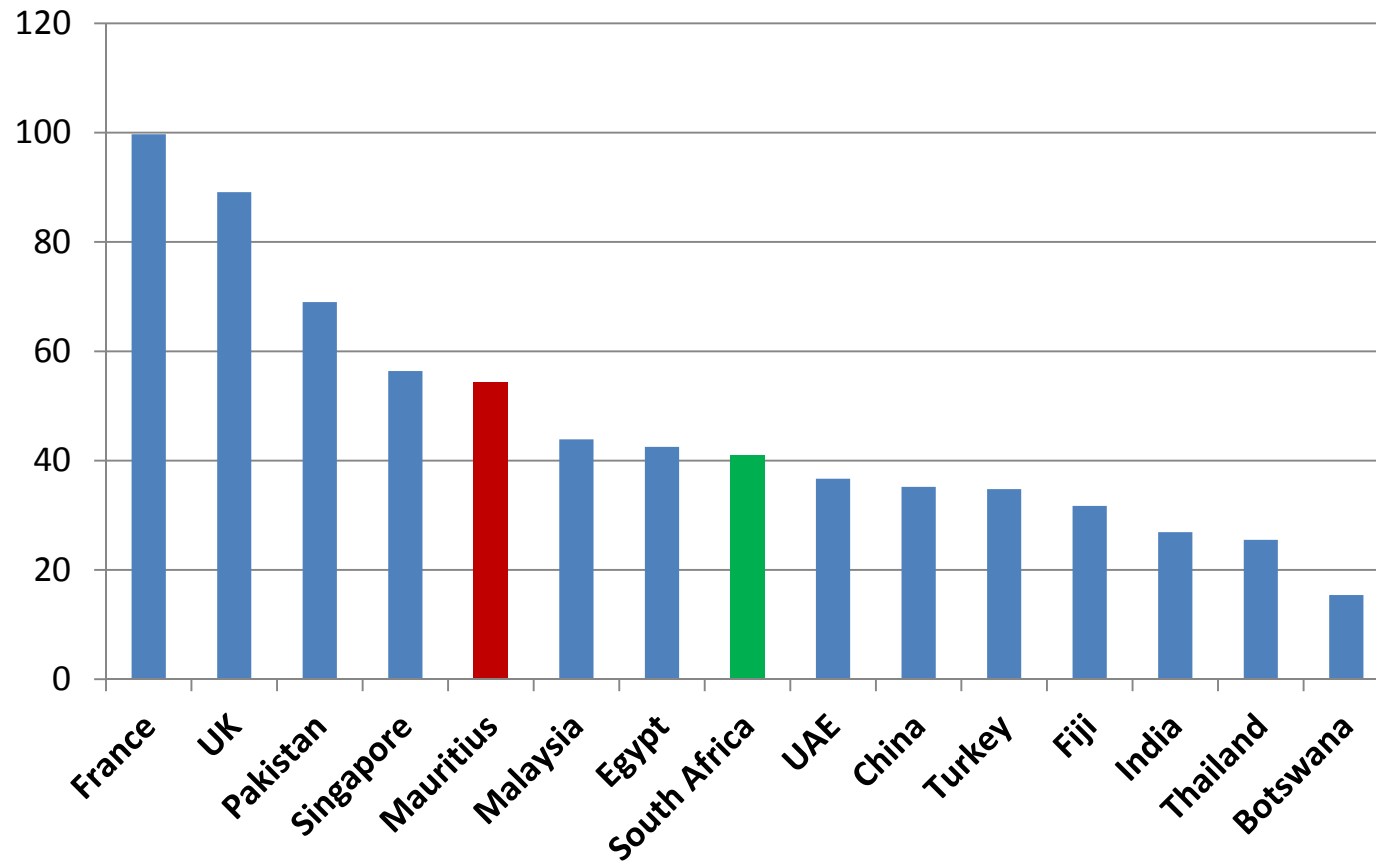


Progesterone-receptor positive breast cancer stained by IHC with Pg-R 636 at the Central Health Laboratory, Candos

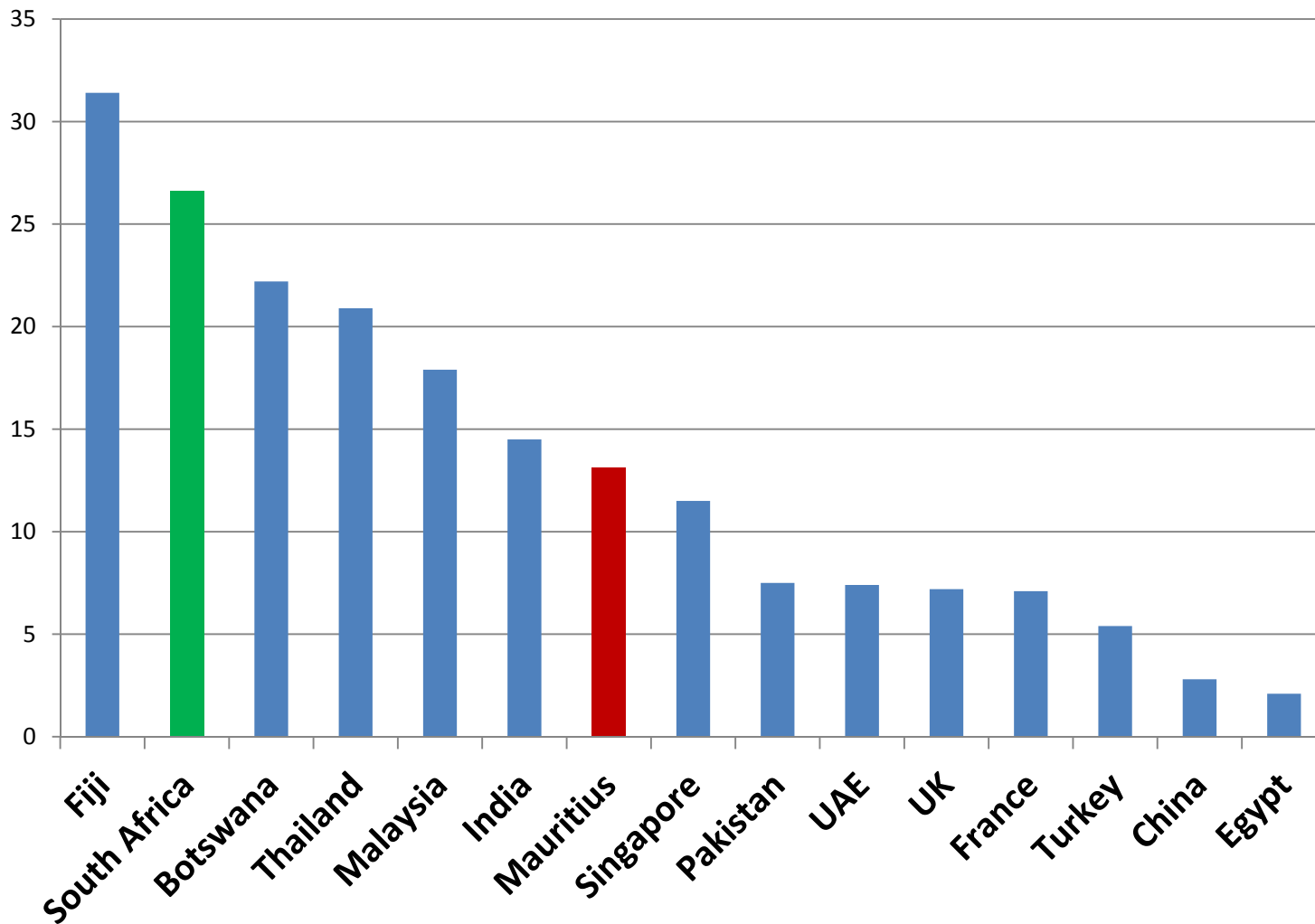
International comparison for BC Incidence

BREAST CANCER INCIDENCE

Age-standardised Rate (ASRW) /100 000



CERVICAL CANCER Age-standardised Incidence /100 000



Acknowledgements

- **Government of Mauritius (MOHQL, CSO)**
- **WHO (Port-Louis, Brazzaville & Geneva)**
- **IACR & IARC (Lyon)**
- **NCRM steering committee, task force & working group staff at HQ, MIH, VH**
- **Private pathologists ++**
- **Doctors, officers & institutions ++**



Thank you

Way forward

- **Improve standardisation of care**
 - Pathology reporting & other lab support
 - Sentinel node
 - BC management
- **Reengineer BC screening program**
- **Support cancer research**
 - BC size & stage survey (ACS)
 - BC biology (Univ. of Hiege) (ER/PR, Ki67, CK5,EGFR...)
 - BC genetic epidemiology (BRCA1, BRCA2...)
- **Consolidate multi-disciplinary team (MDT) approach (surgeon, Radiotherapist, oncologist, pathologist, radiologist....)**