

# Presentation and Survival from Breast Cancer in Sub-Saharan Africa

Nixon Niyonzima  
Uganda Cancer Institute



**FRED HUTCH**  
CURES START HERE®



**Uganda Cancer Institute**  
"Research is Our Resource"

# Uganda Cancer Institute

- Established in 1967
  - Comprehensive centre
  - Medical oncology
  - Gyn-Oncology
  - Surgical Oncology
  - Paediatric Oncology
  - Palliation
  - Research and training
  - Laboratory
  - Radiation Oncology
- Four regional centres
- East Africa Centre of Excellence



# Overview of Breast Cancer in Africa

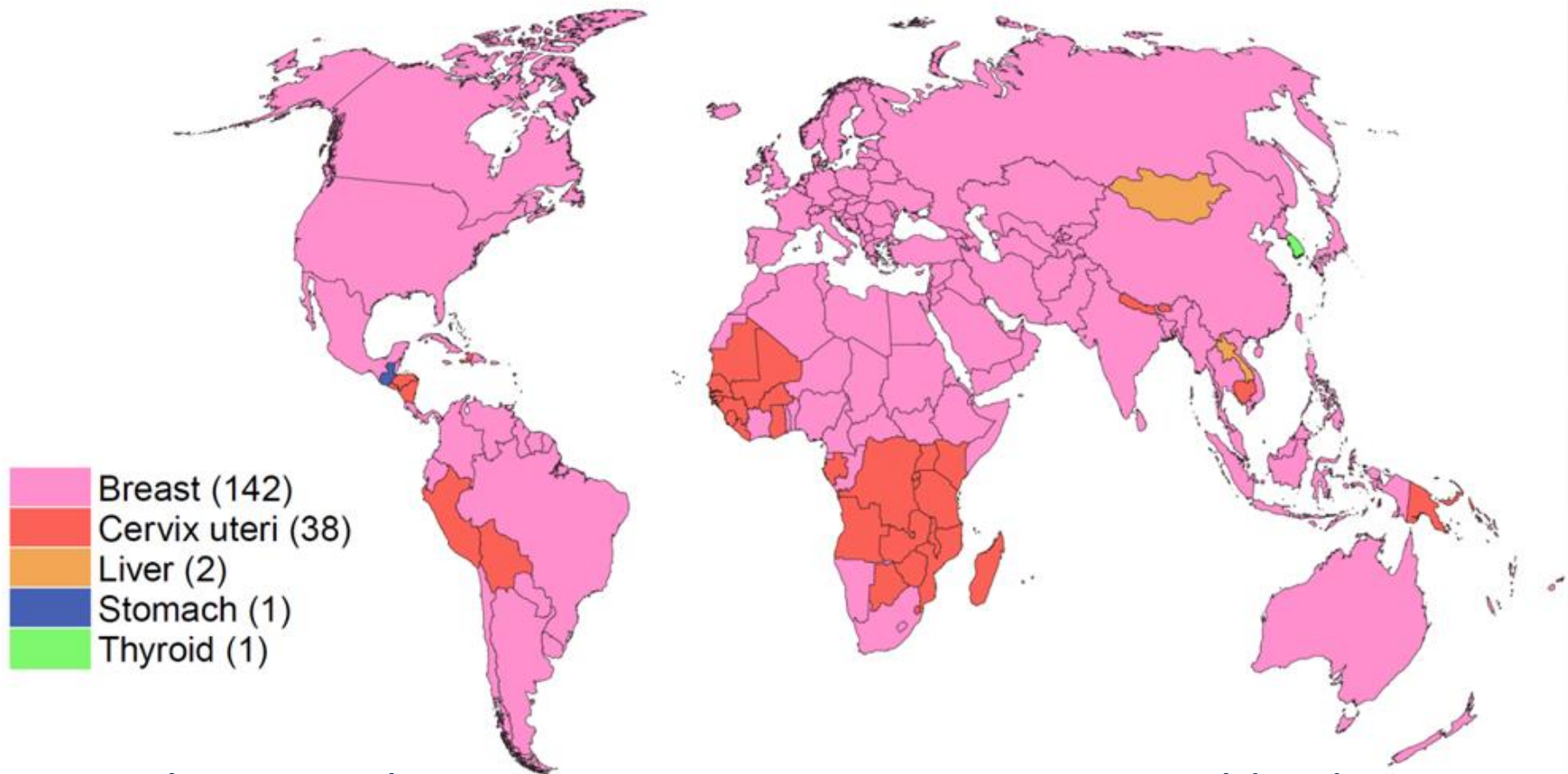


# Breast cancer in SSA

---

- Second commonest cancer in SSA after cervix
- Second leading cause of cancer associated mortality, again after Ca cervix)
- In Uganda, accounts for 21% of all cancer related mortality in women
- Increasing incidence in many SSA countries
- High rates of triple negative disease in SSA
- Advanced stage presentation in many African countries
- Poor survival in many SSA countries

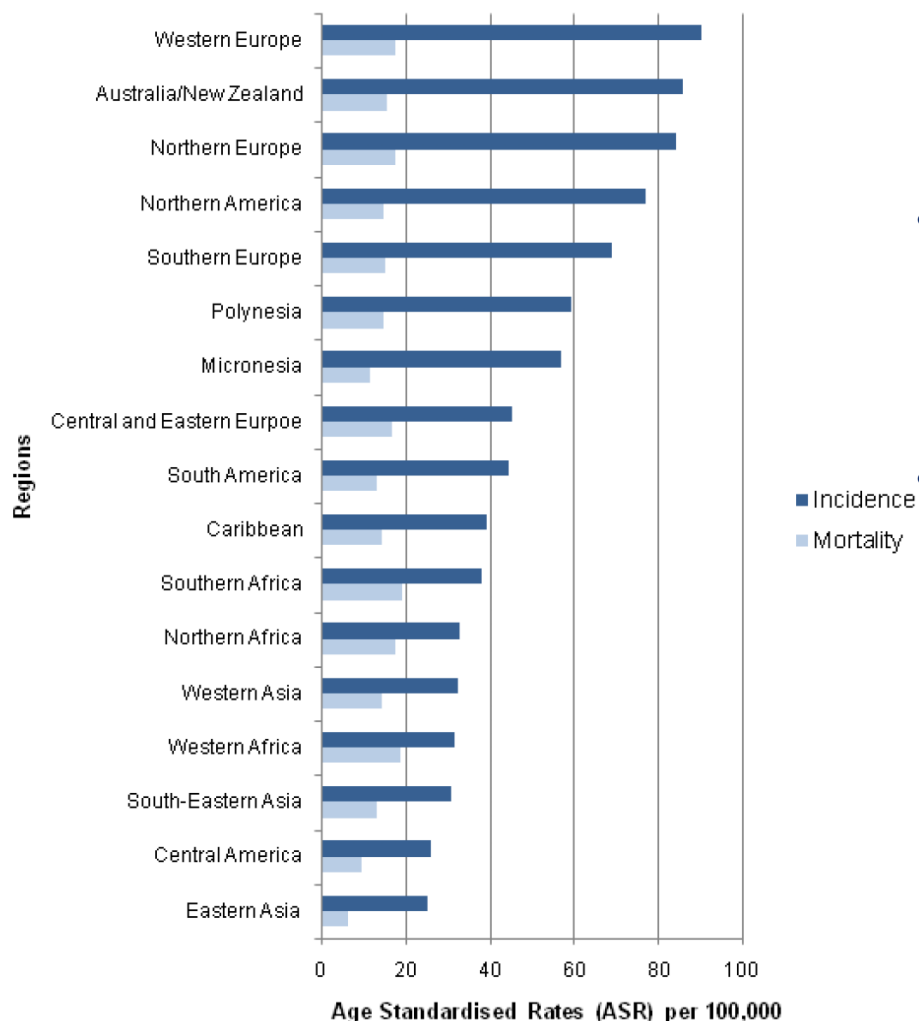
# Global Burden of Breast Cancer



- Ca breast is the commonest cancer in women worldwide
- Second commonest cancer in SSA after Ca cervix

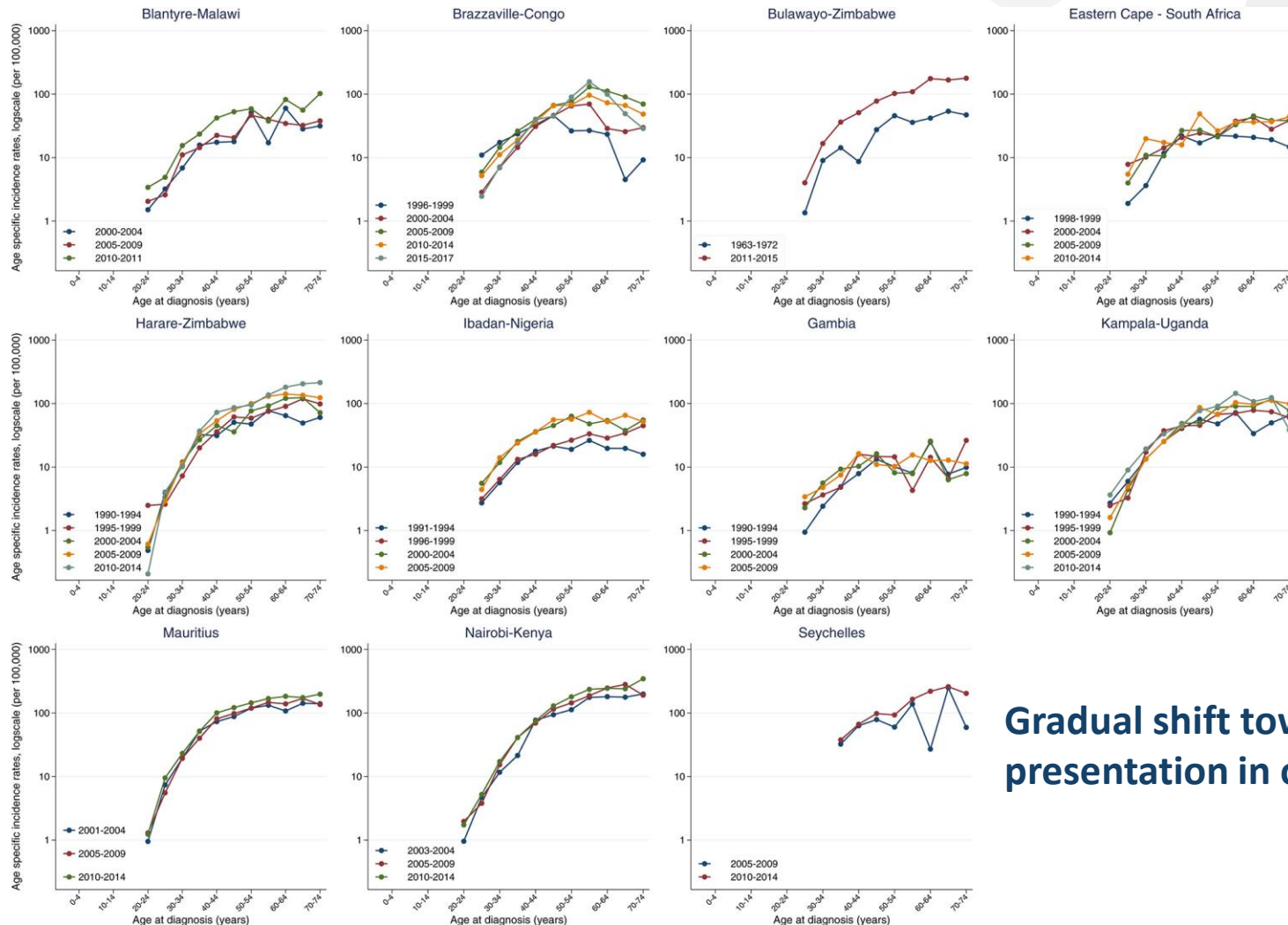
# Global Burden of Breast Cancer

**Breast Cancer Incidence and Mortality, all ages**



- There is a reported low incidence of breast cancer in SSA but some of this may be due to low diagnosis.
- In SSA, a large percentage of the patients who are diagnosed with breast cancer die from breast cancer.

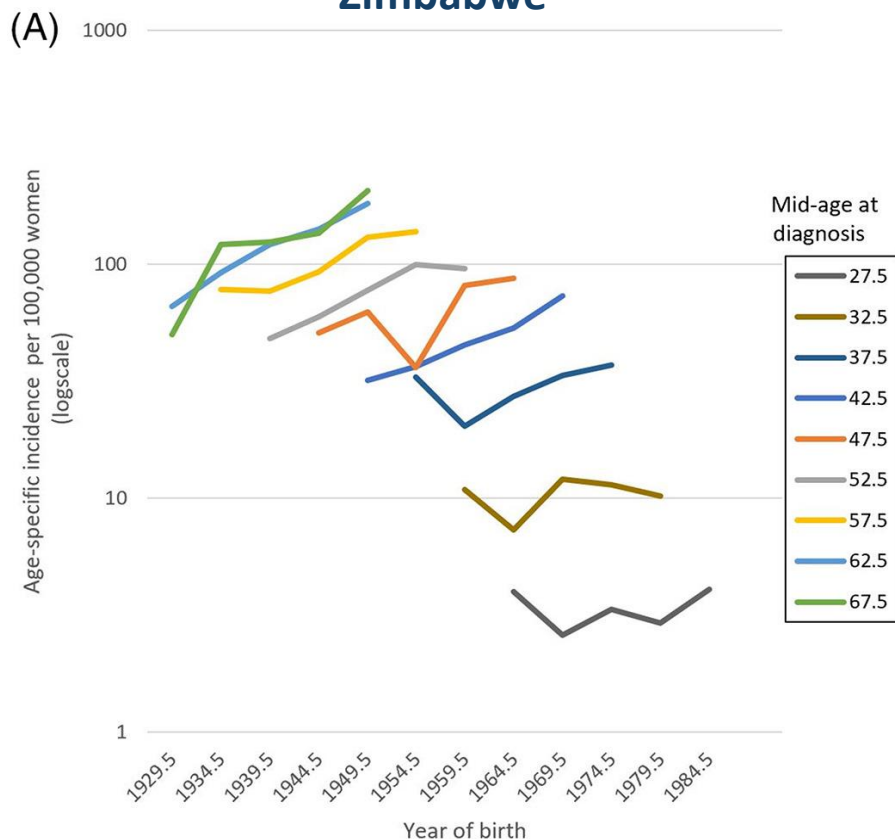
# Time trend analysis of Age Specific incidence rates



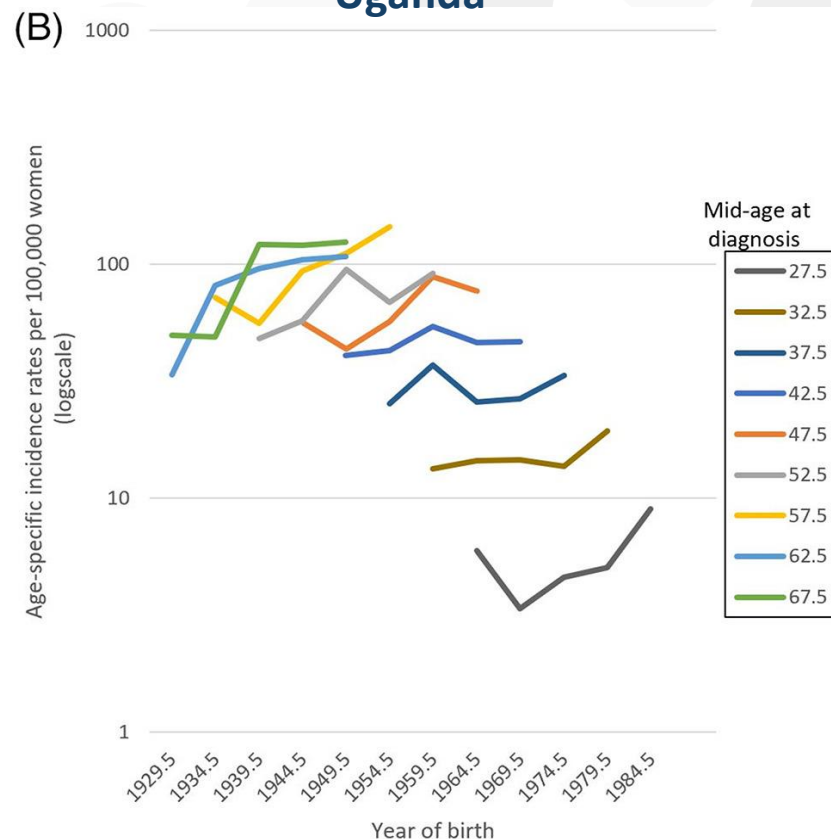
**Gradual shift towards increased presentation in older women**

# Age Specific breast cancer incidence rates by birth

**Zimbabwe**



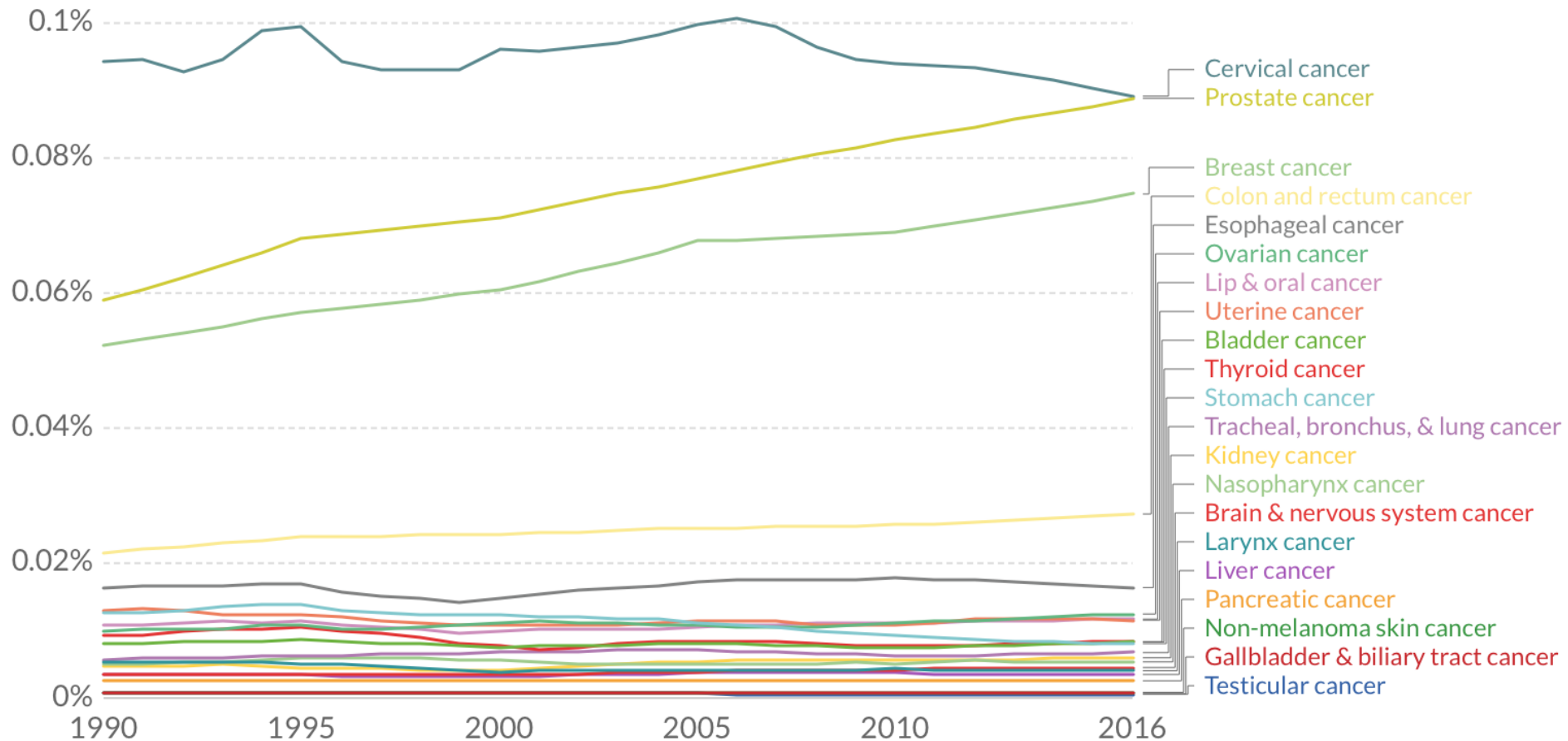
**Uganda**



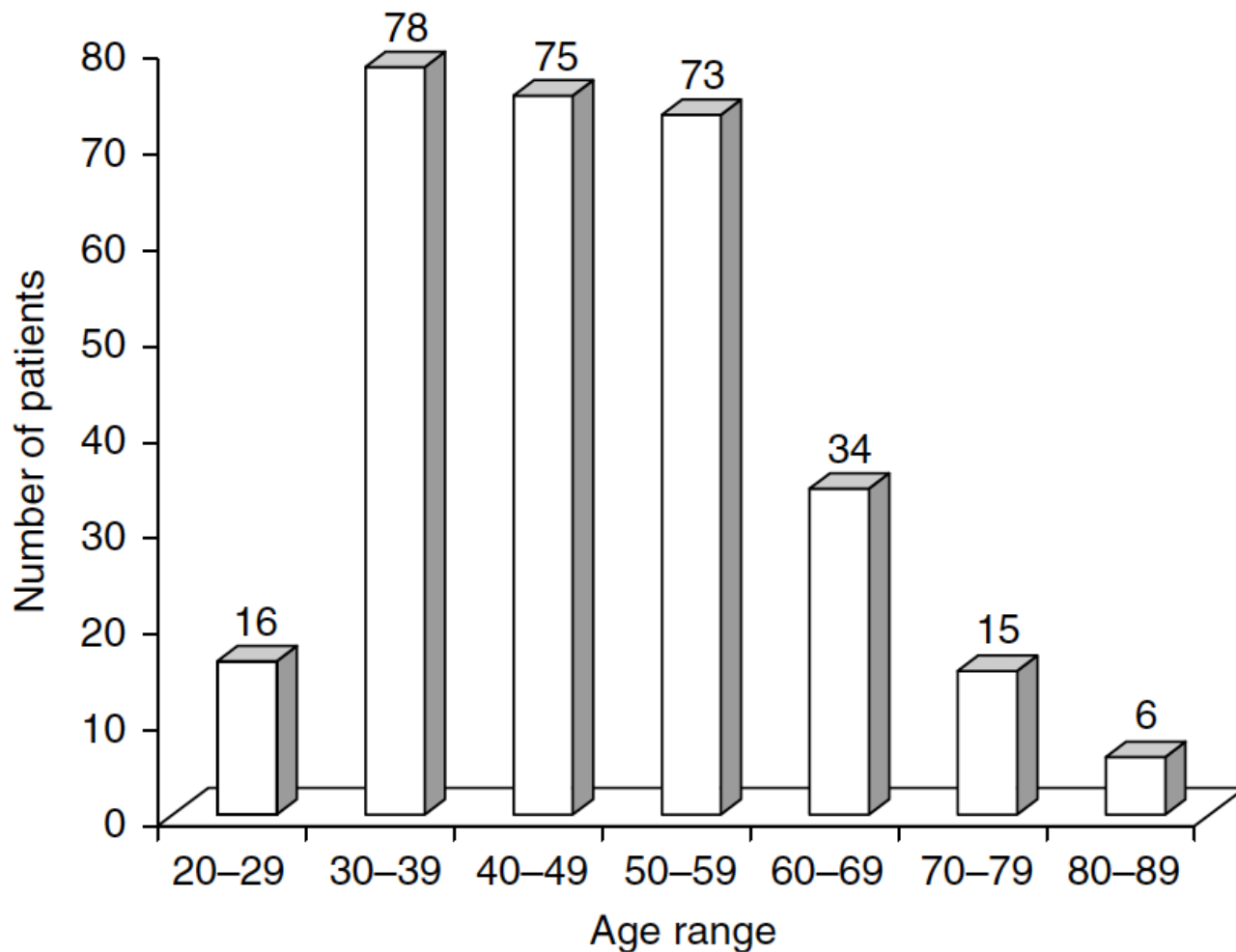
- In both Uganda and Zimbabwe, the highest incidence of breast cancer is in those aged 45 and above



# Cancer Trends in Uganda

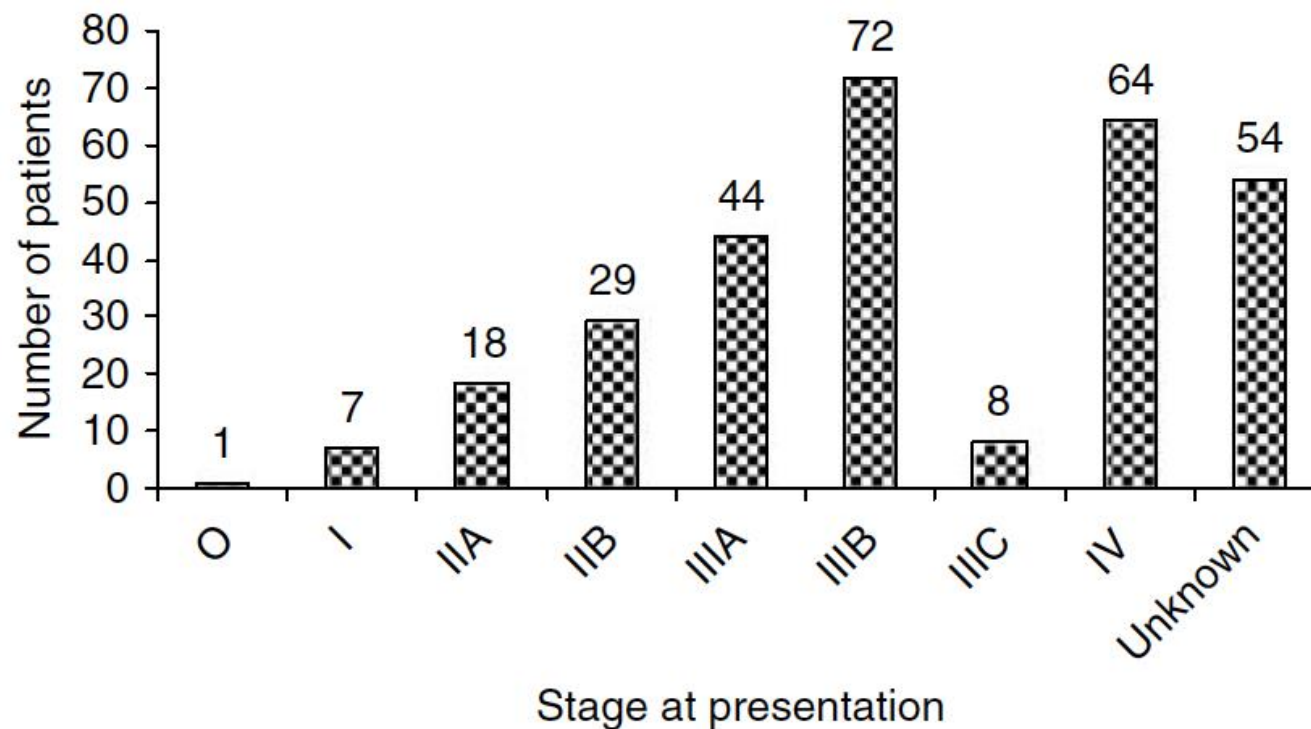


# Age Presentation of Ca Breast in Uganda



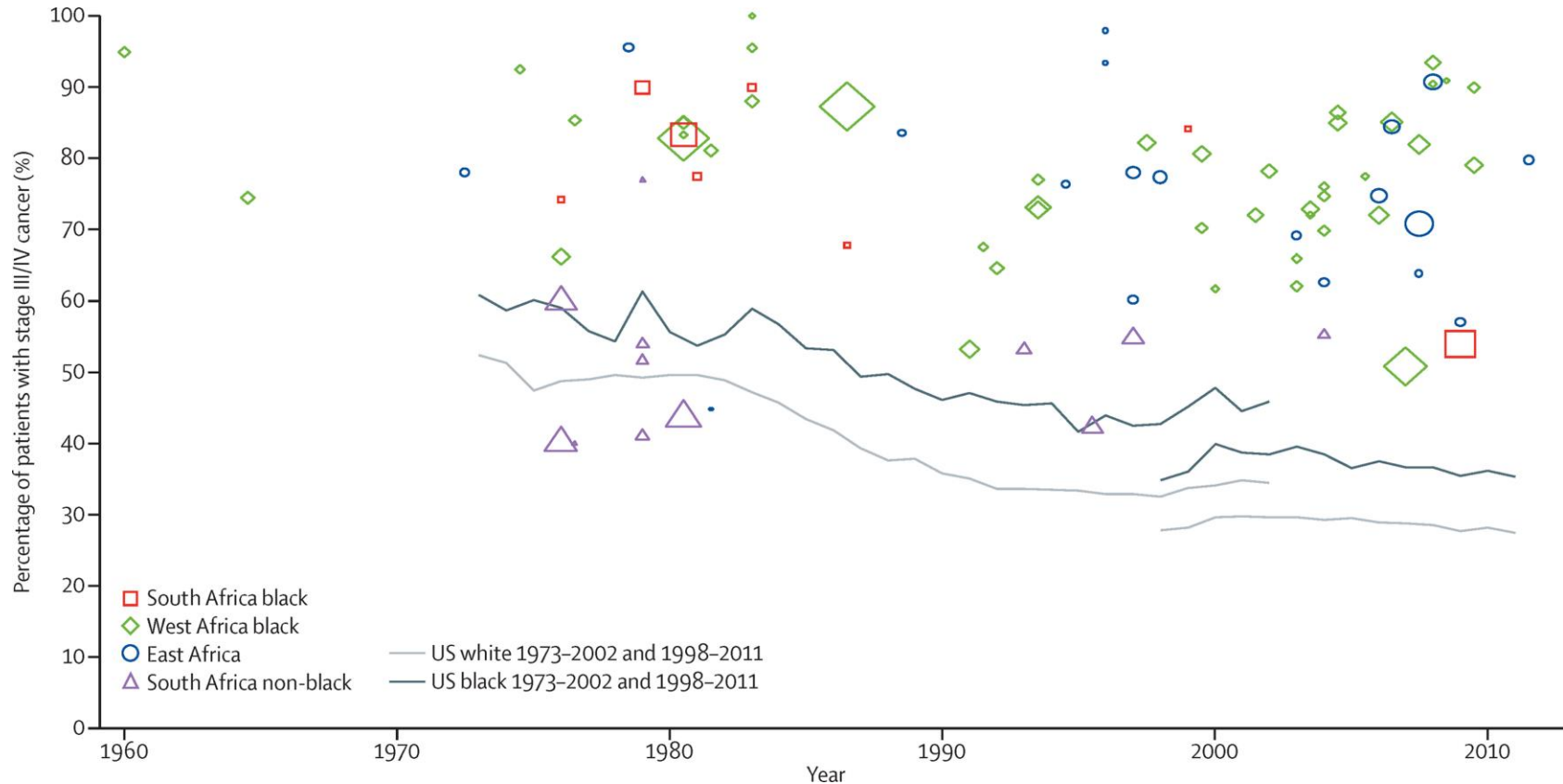
Gakwaya, 2008

# Patients present with advanced stage



- An estimated 77-90% of all breast cancers present with stage III/IV disease

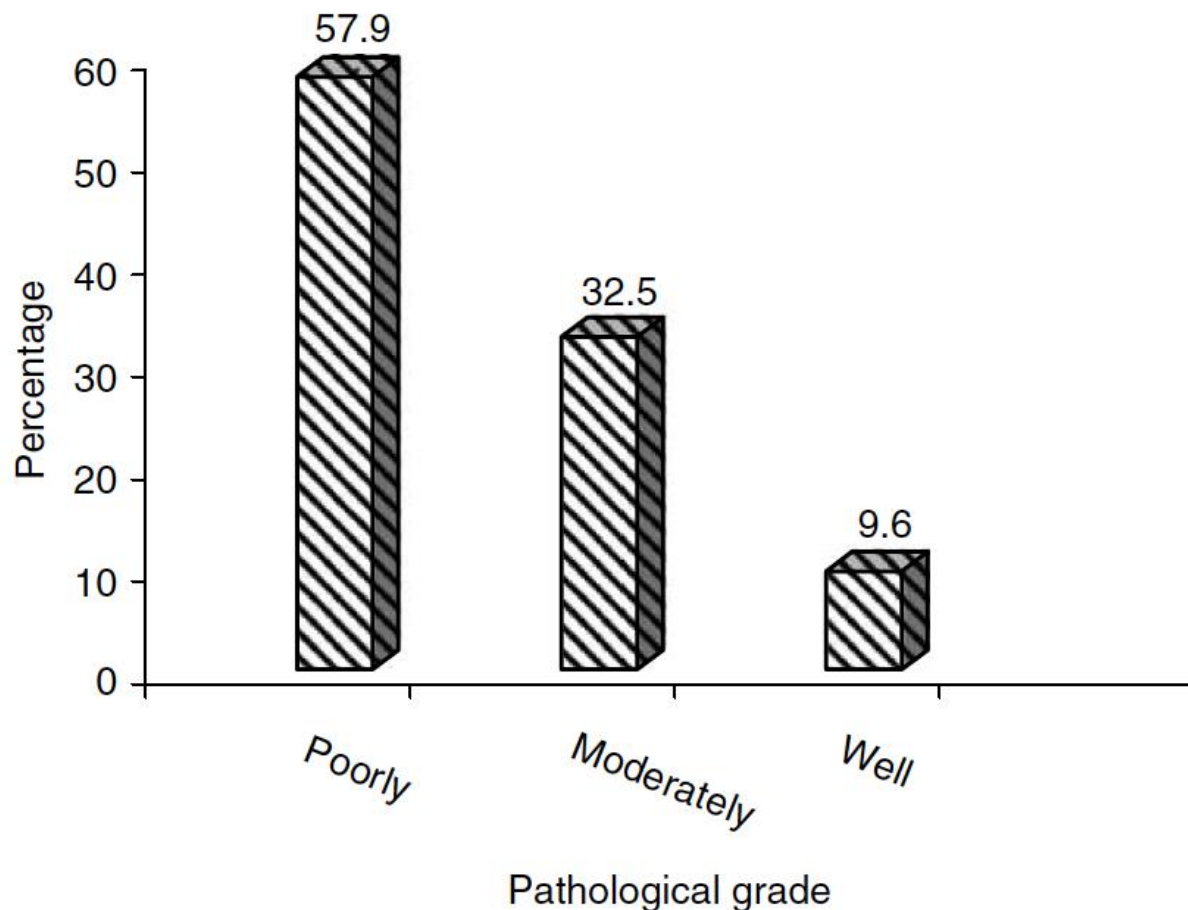
# Patients present with advanced stage



- Over 50 years, there has been no significant downstaging of breast cancer presentation in SSA



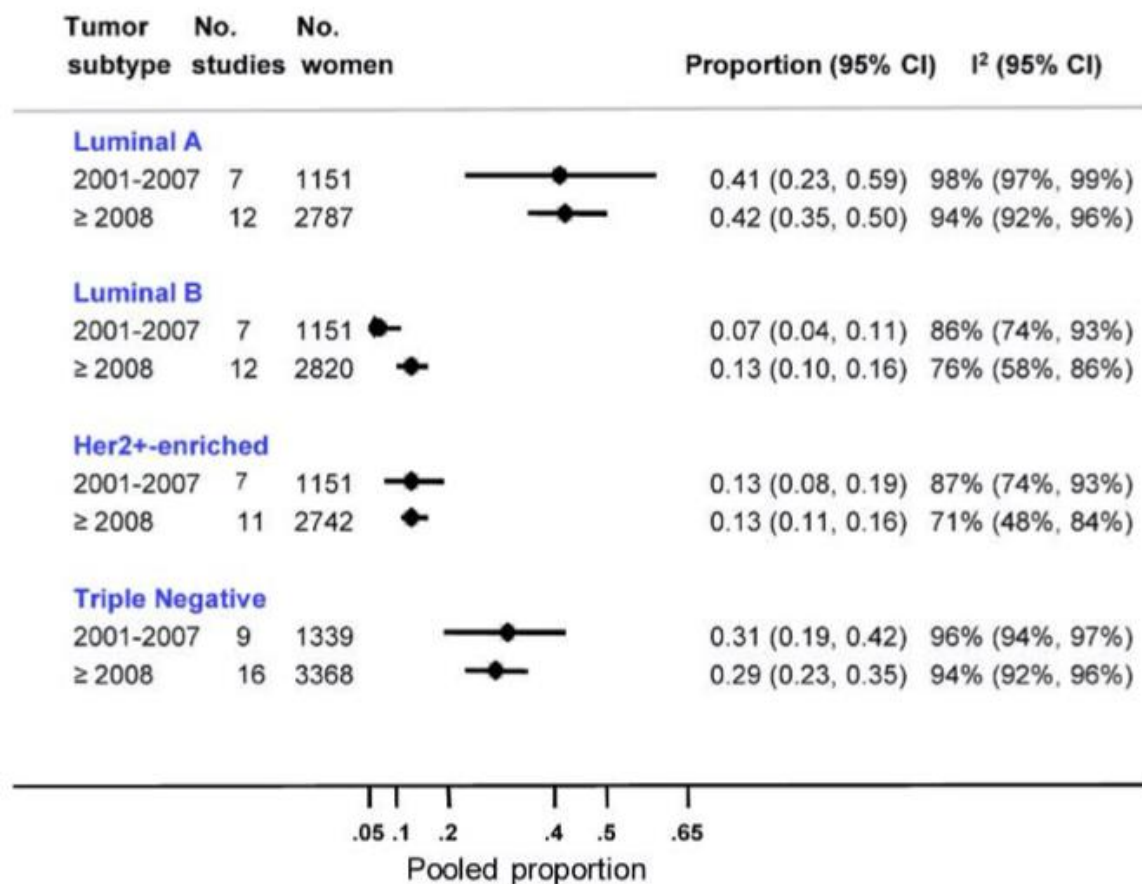
# Most cancers present with aggressive tumors



- Less than 10% of cancers are well differentiated

# Breast cancer Receptor expression in SSA by year

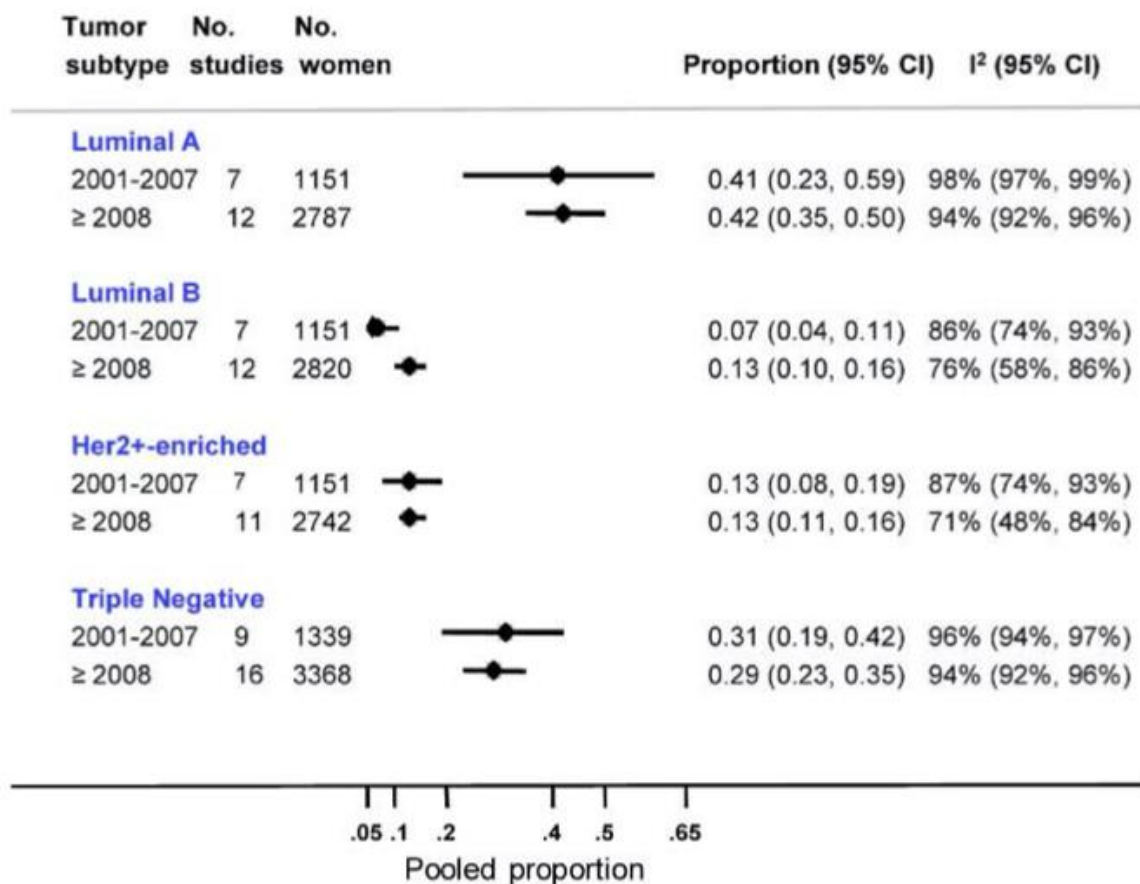
## Year of diagnosis



- Significant proportions of TNBC
- No appreciable change over years

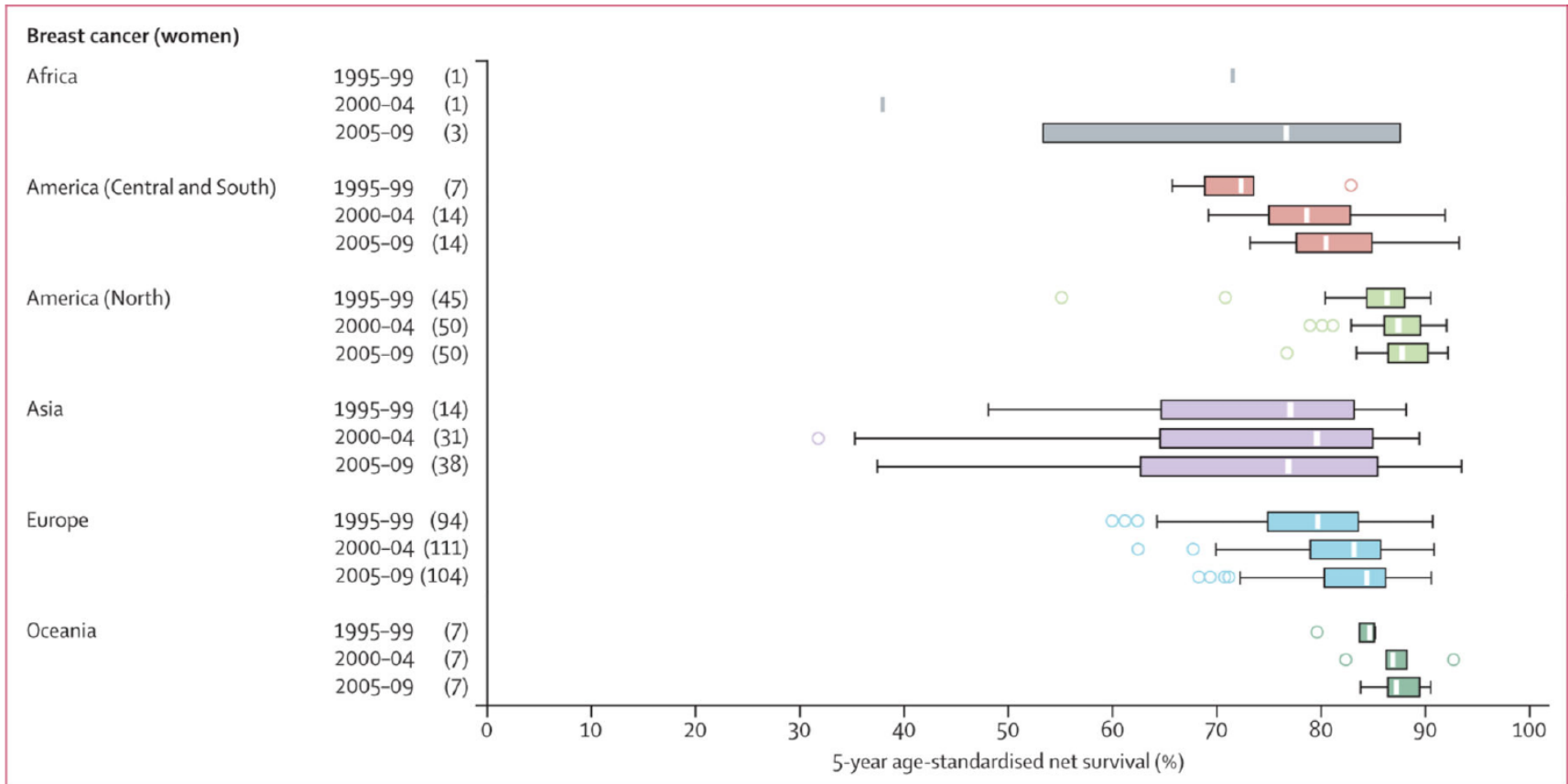
# Breast cancer Receptor expression in SSA by year

## Year of diagnosis



- Significant proportions of TNBC
- No appreciable change over years

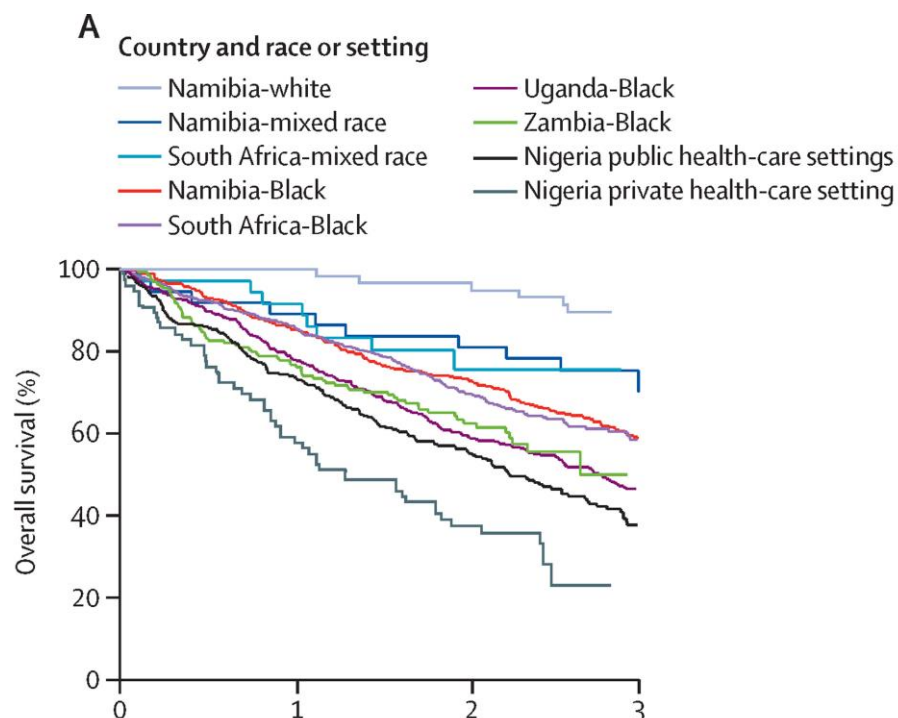
# Breast cancer survival in SSA



- Comparative survival from breast cancer in Africa is poor compared to other regions

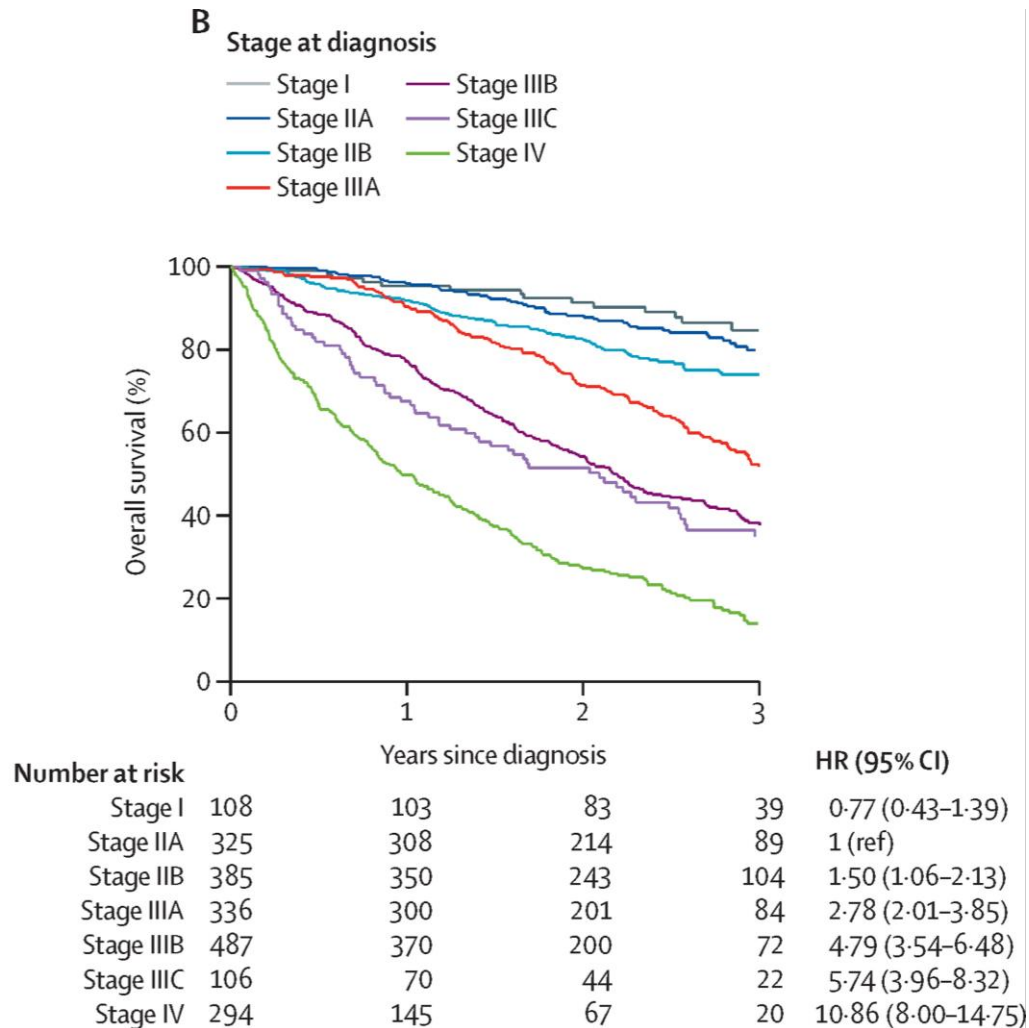


# Breast cancer survival in SSA

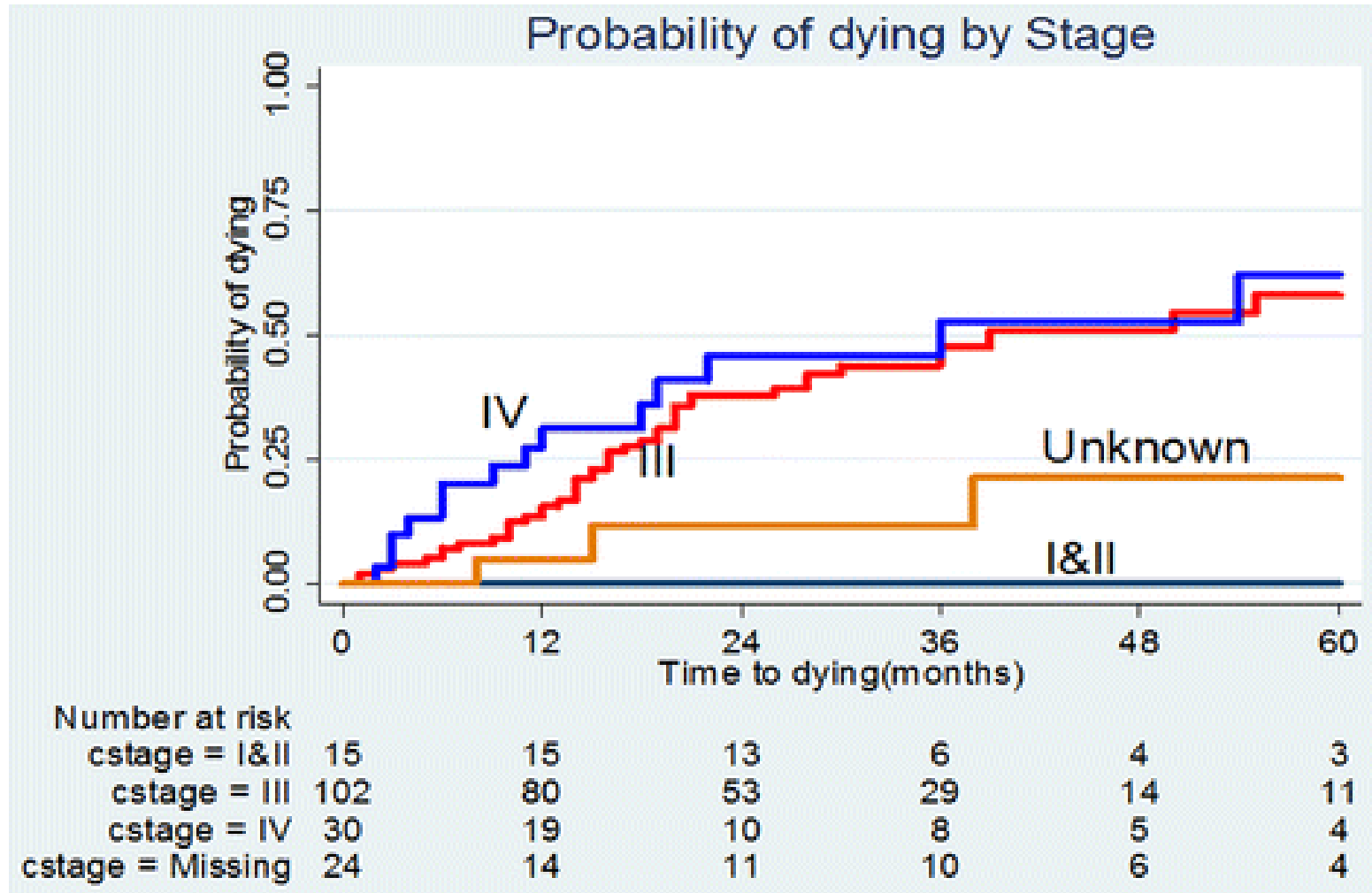


	Number at risk			HR (95% CI)	
	0	1	2		
Namibia-white	60	60	57	41	1.00 (ref)
Namibia-mixed race	37	33	30	14	3.00 (1.09–8.27)
South Africa-mixed race	36	33	16	3	3.02 (1.00–8.71)
Namibia-Black	384	328	279	164	4.49 (1.99–10.12)
South Africa-Black	635	542	259	48	4.98 (2.20–11.27)
Uganda-Black	421	323	233	126	7.02 (3.12–15.81)
Zambia-Black	198	142	70	3	7.17 (3.12–16.50)
Nigeria public health-care settings	309	229	143	45	8.84 (3.91–19.96)
Nigeria private health-care setting	76	45	23	6	14.56 (6.26–33.89)

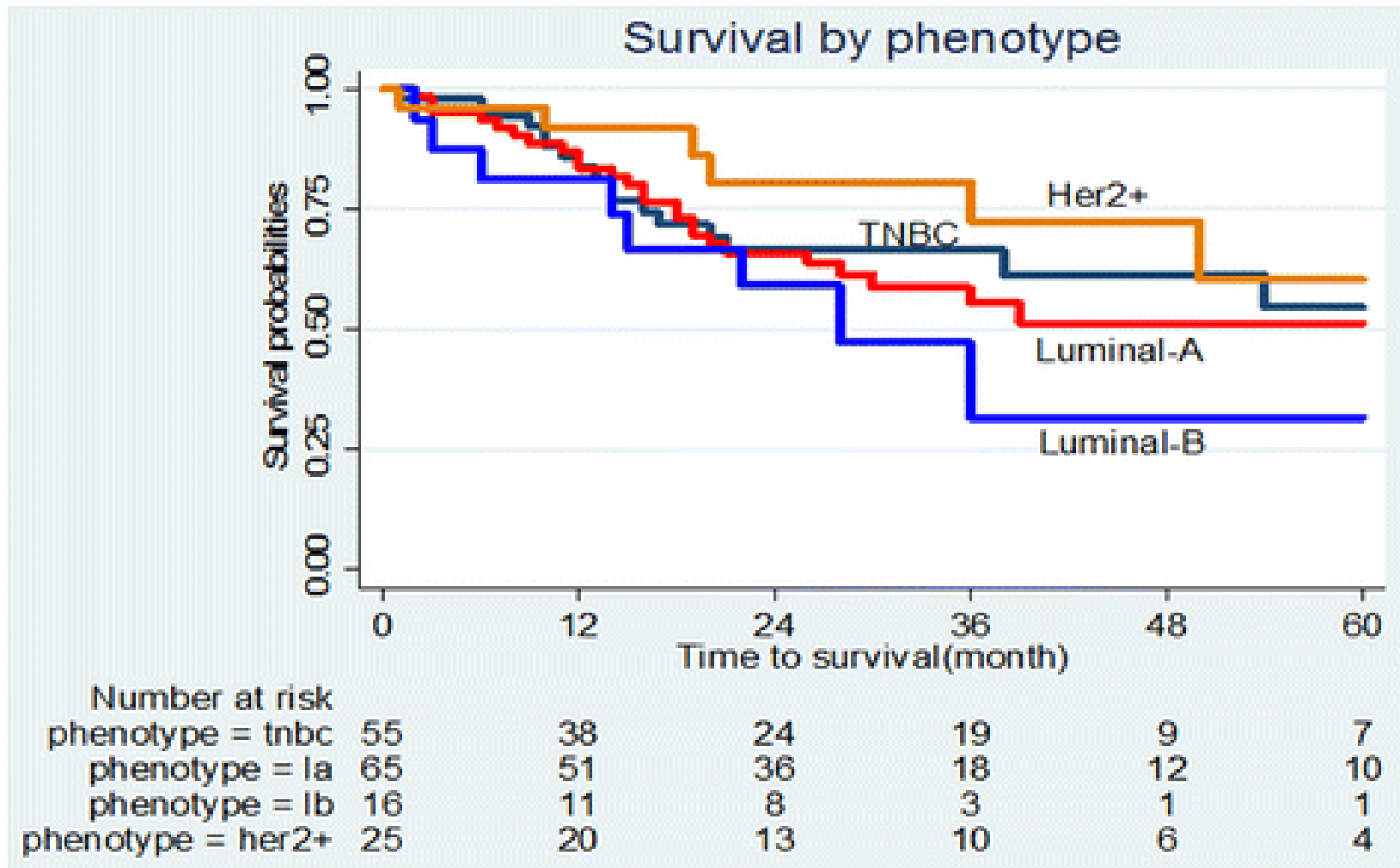
# Breast cancer survival in SSA



# Mortality from Ca Breast in Uganda

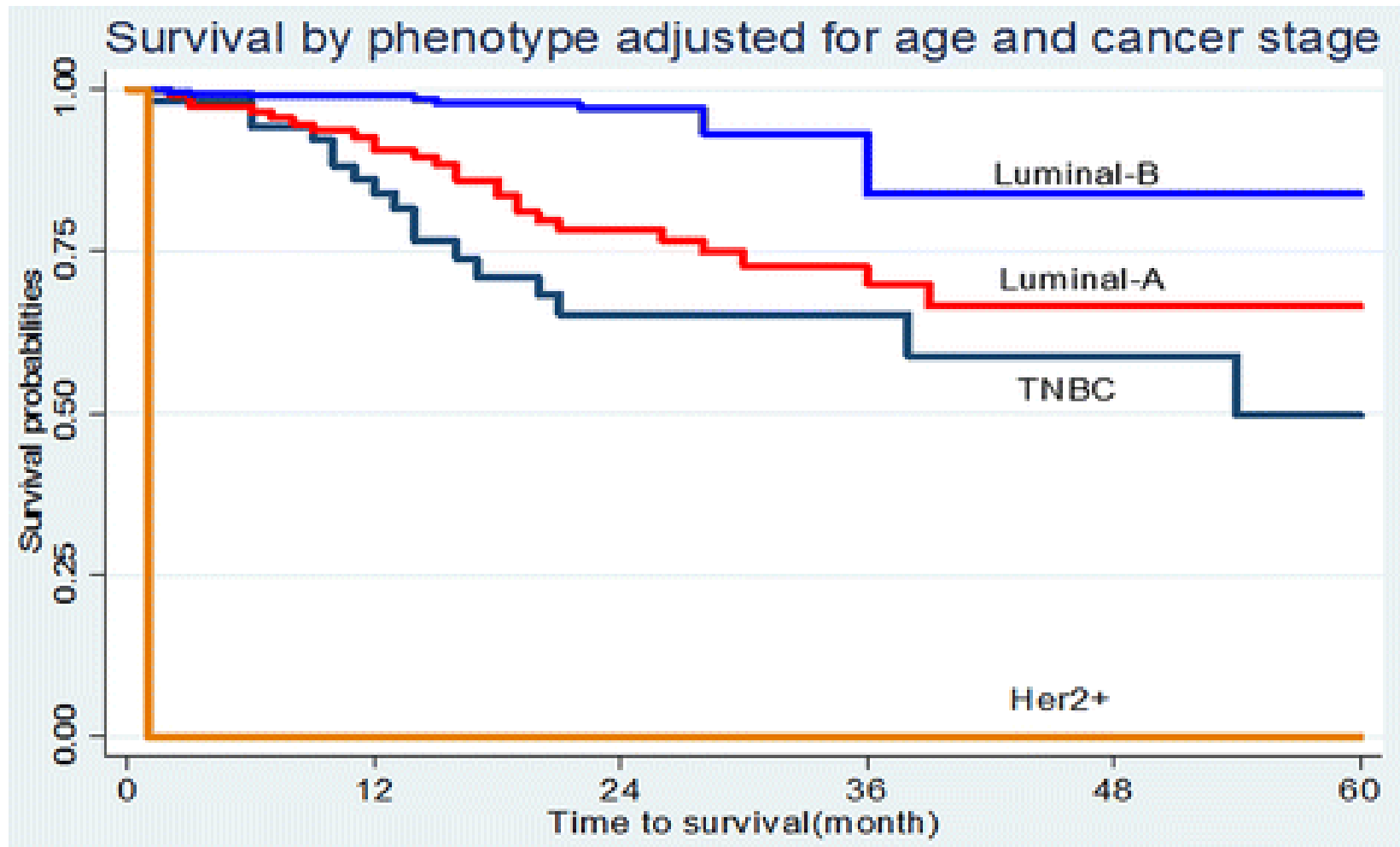


# Survival from Ca Breast in Uganda





# Survival from Ca Breast in Uganda

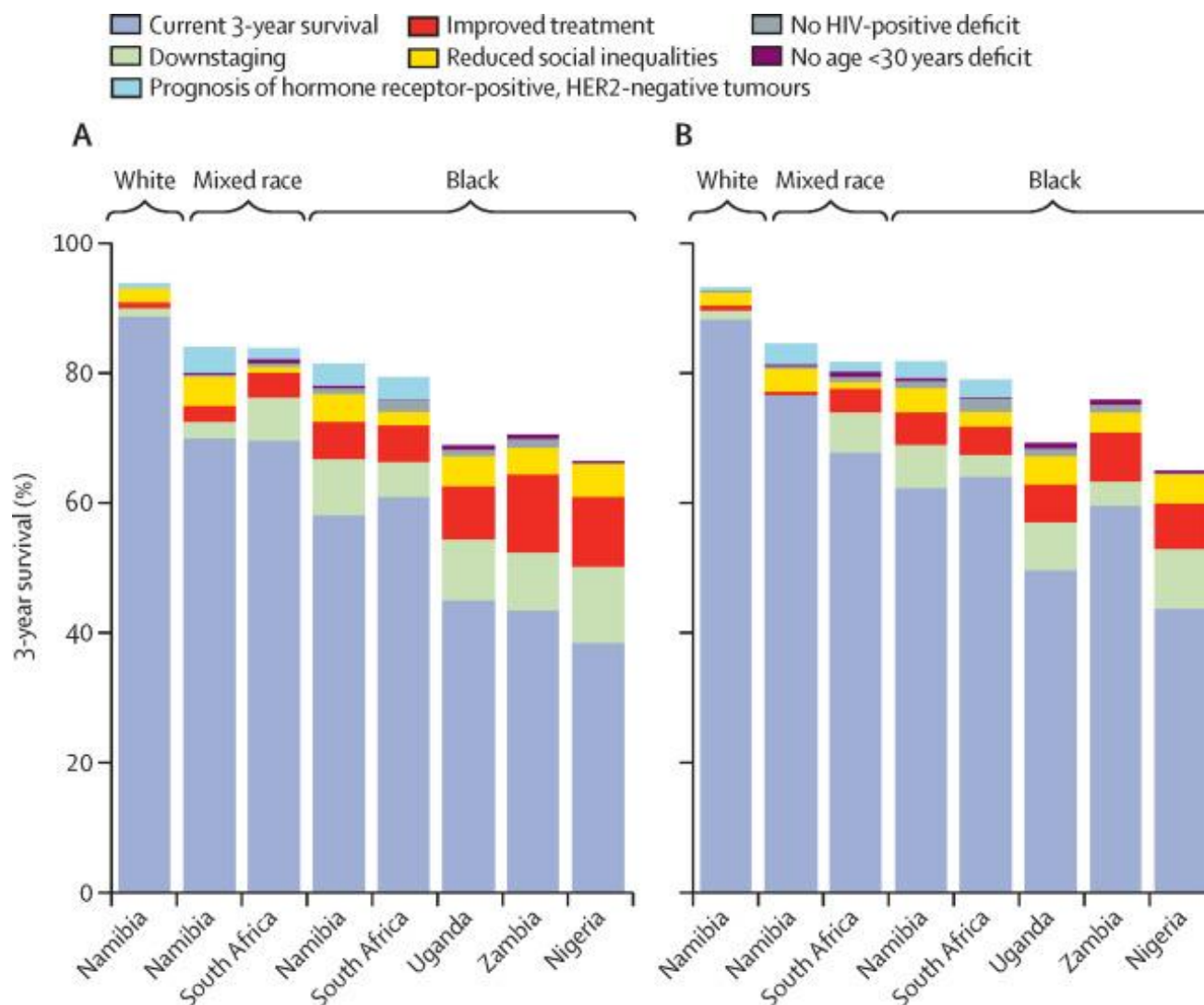


# Key challenges

---

- Access to care
- Staffing challenges (quality and quantity)
- Lack of accessible and affordable diagnostics
- High cost of care
- Overall underinvestment in the health sector
- Knowledge and attitudes
- Inadequate research capacity in most SSA centres

# How can we improve survival from breast cancer in Africa



# THANK YOU



**FRED HUTCH**  
CURES START HERE®



**Uganda Cancer Institute**  
"Research is Our Resource"