

# Breast cancer control in the 3<sup>rd</sup> world

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- Third world not considered a geographic region but socio-economic
- 'Third world' exists in many countries of the world
- Leaders of the poorest countries do not belong to the 3<sup>rd</sup> world in the healthcare of their families

# Less-developed regions face a heavier cancer burden

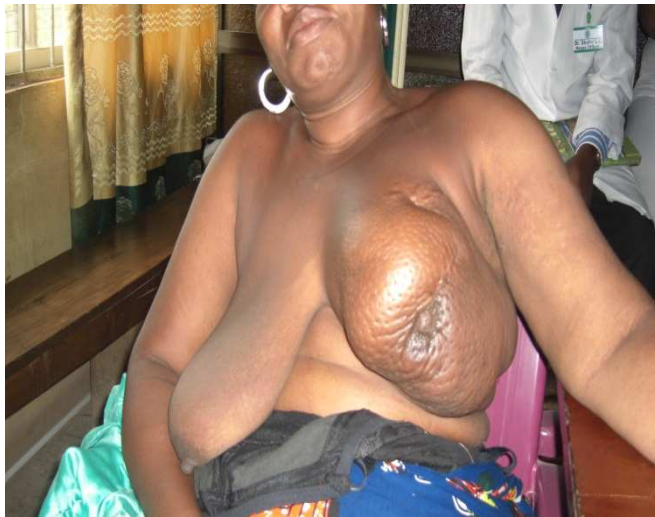
- GLOBOCAN 2008 demonstrates that a higher proportion of the cancer burden occurs in less developed regions of the world, both in terms of cancer incidence (56% of new cancer cases in 2008 occur within developing regions) and cancer mortality (63% of cancer deaths).

- *<http://globocan.iarc.fr/>*

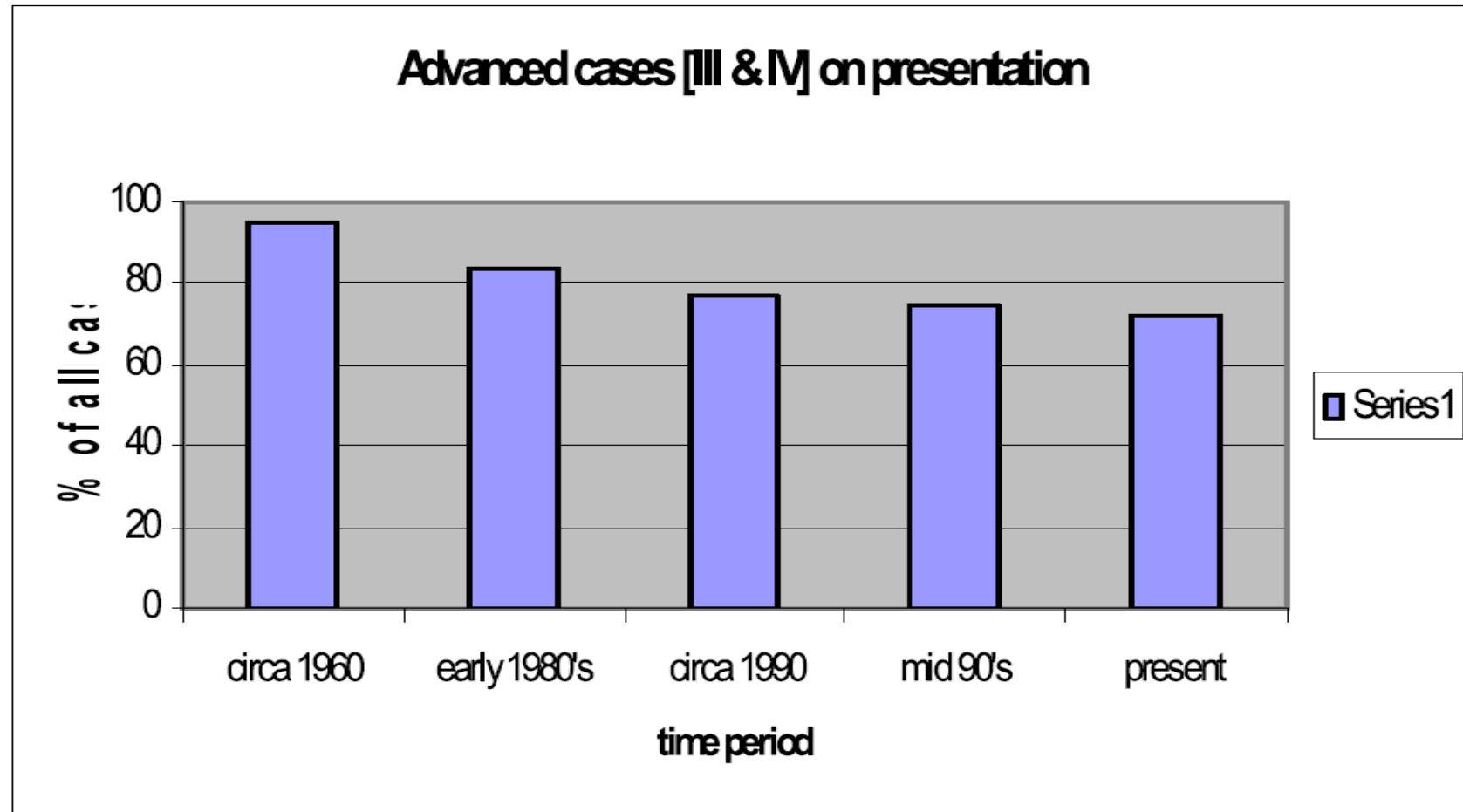
- Breast cancer death rates have been dropping steadily since 1990, because of earlier detection and better treatments.
- American Cancer Society

# Advanced stages at presentation

- Unlike trends elsewhere a majority of 3<sup>rd</sup> world cancer is still discovered at advanced stages



## Anyanwu SNC; Temporal trends in breast cancer JECCR 2008



# Worse biologic behaviour

- Higher proportion of Triple negative lesions.
- More basal-type lesions identified for same stage of disease
  - Olopade et al JCO 2009
- **?Is the biology different**
  - **Need for more basic research**

# Poor patient acceptance of recommended treatment

- Of breast cancer study patients
  - 30% refused biopsy
  - 10% did not return for biopsy reports
  - 48% declined mastectomy offered
  - 28% completed neo-adjuvant chemo
  - 39% completed adjuvant chemo
  - Less than 10% had radiotherapy
    - Anyanwu et al . The Breast Journal 2011 [in press]



# Poor facilities

- Staffing [surgeons, medical oncologists, pathologists, oncology nurses etc]
- Long delays in accessing diagnosis and treatment including hormone assays
- Absence of radiotherapy [Nigeria with 6 machines for 150 million]
- Poor provision of chemo drug and hormones
- Low availability and poor acceptance of conservative surgery

# Reasons for higher mortality

- These reasons have been linked to
- ignorance
- Superstition and influence of spiritual beliefs
- self-denial
- fear of mastectomy
- limited knowledge of cancer and its causes
- lack of health insurance
- a need for secrecy.

# Impediments to conservative surgery

- Poor radiotherapy services
- Lack of expertise
- Advanced disease on presentation
- Concerns with loco-regional recurrence
- Follow-up post mastectomy easier for rural women living far from hospital
- Inability to afford subsequent treatment after initial funds for surgery

What can be done?

# Downstaging

- Earlier discovery using
  - Training of health staff in hospitals and rural clinics and public awareness campaigns with posters and pamphlets resulted in significant downstaging [60-35%] of advanced lesions over 5yrs
- Screening services targeting poor communities in Harlem resulted in > 50% decline in advanced cases over 10 years
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- Oluwole et al JACS 2003
- Devi et al Annals of Oncology Advance 2007

# Educational policies

- Physician
- Other healthcare workers
- Public enlightenment
- Involvement of survivor groups
- ***Cue could be taken from effective HIV control measures***

# Practice-based changes

- Evidence-based?
  - BHGI resource allocation methods a good template
- Adaptation of workable treatment suitable to environment.
- Less invasive diagnostic measures with quicker results
- More conservative surgery
- Provision of cheaper [unbranded] chemo and hormones
  - Industry to support [HIV good model]
- Hospice services
- Targeted treatment subsidies [ eg Radiotherapy, Chemotherapy and Hormone therapy]
  - ***Good results from in Ethiopia [Reeler et al Clin Oncol 2008]***

# Health system changes

- Allocation of funds for cancer [cancers are currently not in MDG's]
- Up and down referral systems [need for improvement]
- Patient navigation services
- Radiotherapy units ? Cheaper Cobalt machines
- Comprehensive healthcare philosophies
- ?Health insurance



# Life style changes

- Diet-Weight
- Exercise
- Reproductive
- Exogenous Hormones

*Dr. Cuzick : 2009 CTBC-AACR, San Antonio Breast Cancer Symposium*

# Preventive studies

- ASBD Advisor 2009 suggests preventive studies using
    - Family history
    - Reproductive/hormonal factors
    - Benign pathology (AIDH)
    - Mammographic density
  - As facilities improve may include
    - Radiographic features
- Estrogen levels
- Methylation patterns in serum
- Nipple aspirates/needle biopsies
- Proteomics

# International collaborations

- BHGI
- SLACOM
- ICC3
- ESMO
- ASCO
- AORTIC
  - Need to assist, train and empower colleagues like the BHGi-Ghana collaboration