

# Cancer Awareness Talk

## ICPAK 2014

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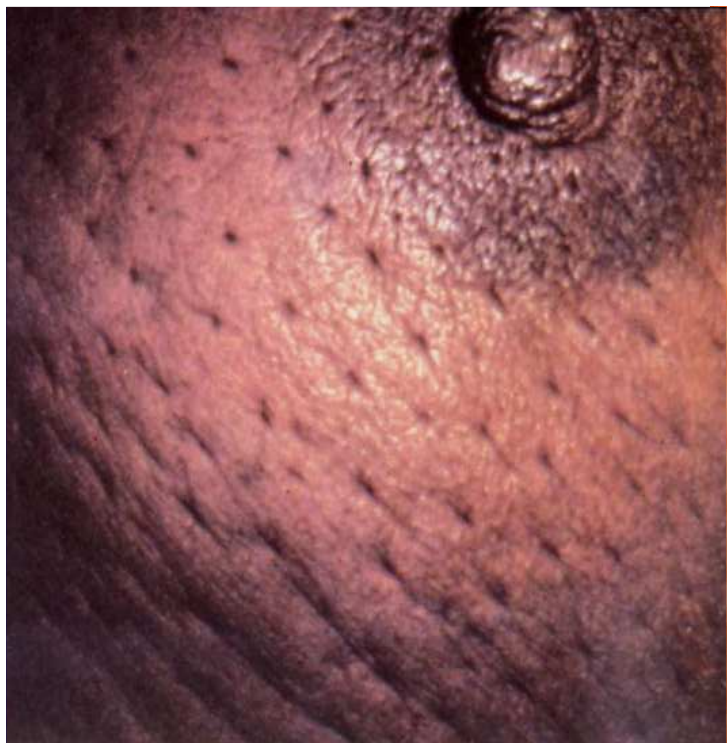
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peau d'orange





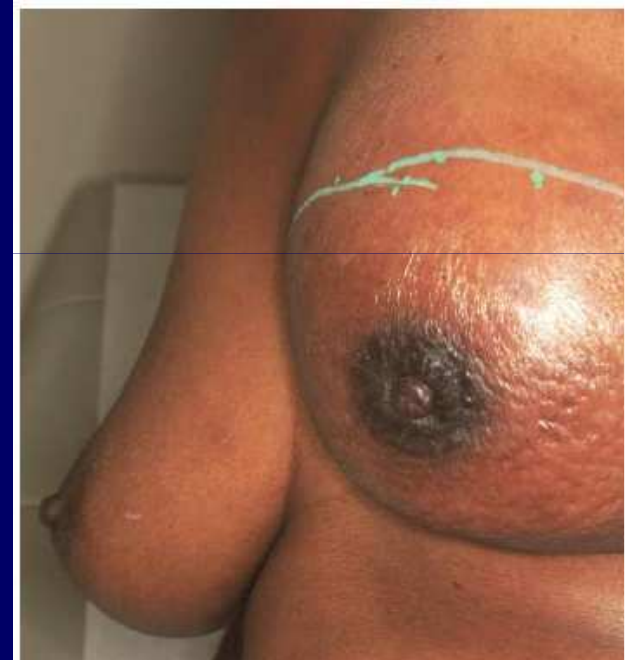
# Signs of locally advanced Breast Cancer



Ulceration



Skin nodules



Inflammation and edema

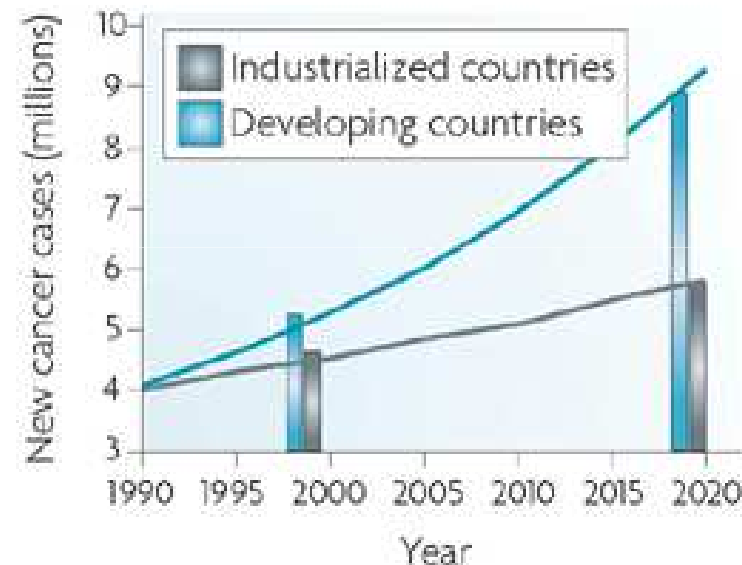
## Cancer Fatality Rates by Income Group

Cancer Site	Low Income	Lower/Middle Income	Upper Income	High Income
Breast	56.3	44.0	38.7	23.9
Cervix	68.4	58.6	48.2	32.6
Colorectal	70.5	62.4	60.1	42.4
Lung	91.3	87.1	92.5	82.2
Oral Cavity	55.4	54.2	47.6	27.7
Stomach	82.0	80.1	81.3	59.1
Hodgkin's Lymphoma	53.3	42.6	41.3	17.4
Testicular cancer	41.4	37.5	24.1	5.1

**Economist Intelligence Unit, 2009**

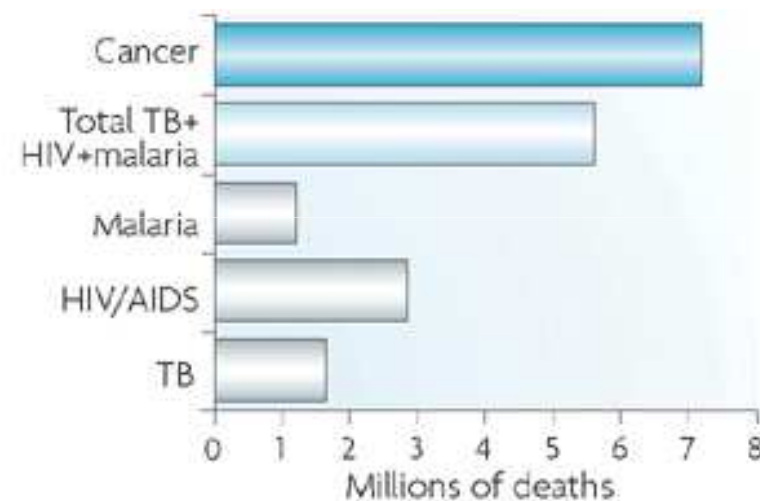
# Impact of Cancer in Africa

- WHO predicts 16 million new cancer cases per year in 2020
  - 70% of these will be in the developing world
- In the developing world:
  - 1/3 cancers potentially can be prevented
  - Another 1/3 are treatable if detected early



# Impact of Cancer in Africa

- Cancer is set to become the newest epidemic in the developing world
- In 2002
  - Cancer was 13% of global mortality burden
  - More than HIV/AIDS, TB and malaria combined



## Role of American Society of Clinical Oncology in Low- and Middle-Income Countries

Joynt D. Pearl, Matthew D. Galsky, Anne B. Chaggar, Doug Pyle, and David A. Asch

Joynt D. Pearl, Northwestern University, Chicago, IL; Matthew D. Galsky, Mount Sinai School of Medicine, New York, NY; Anne B. Chaggar, Yale University, New Haven, CT; Doug Pyle, American Society of Clinical Oncology, Alexandria, VA

The American Society of Clinical Oncology (ASCO) has a long history of providing leadership in the field of cancer care. In 1962, ASCO was founded by a group of physicians who were concerned about the quality of cancer care in the United States. Over the years, ASCO has grown to become the largest professional society in the world, with over 15,000 members and a global reach. ASCO's mission is to improve the quality of cancer care for all patients, regardless of where they live. This article discusses the role of ASCO in low- and middle-income countries (LMCs) and the challenges that ASCO faces in these regions.

### Barriers to Cancer Control in LMCs:

- Lack of infrastructure
- Poorly trained and limited workforce
- Patient care costs
- Insufficient palliative care
- Insufficient Deficits
- Education Deficits

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# Five-year Relative Survival (%)\* during Three Time Periods By Cancer Site

Site	1975-1977	1996-2002	% Change
• All sites	50	66	16
• Prostate	69	100	31
• Rectum	49	66	17
• Non-Hodgkin lymphoma	48	63	15
• Leukemia	35	49	14
• Colon	51	65	14
• Breast (female)	75	89	14
• Melanoma	82	92	10
• Lung and bronchus	13	16	3
• Pancreas	2	5	3

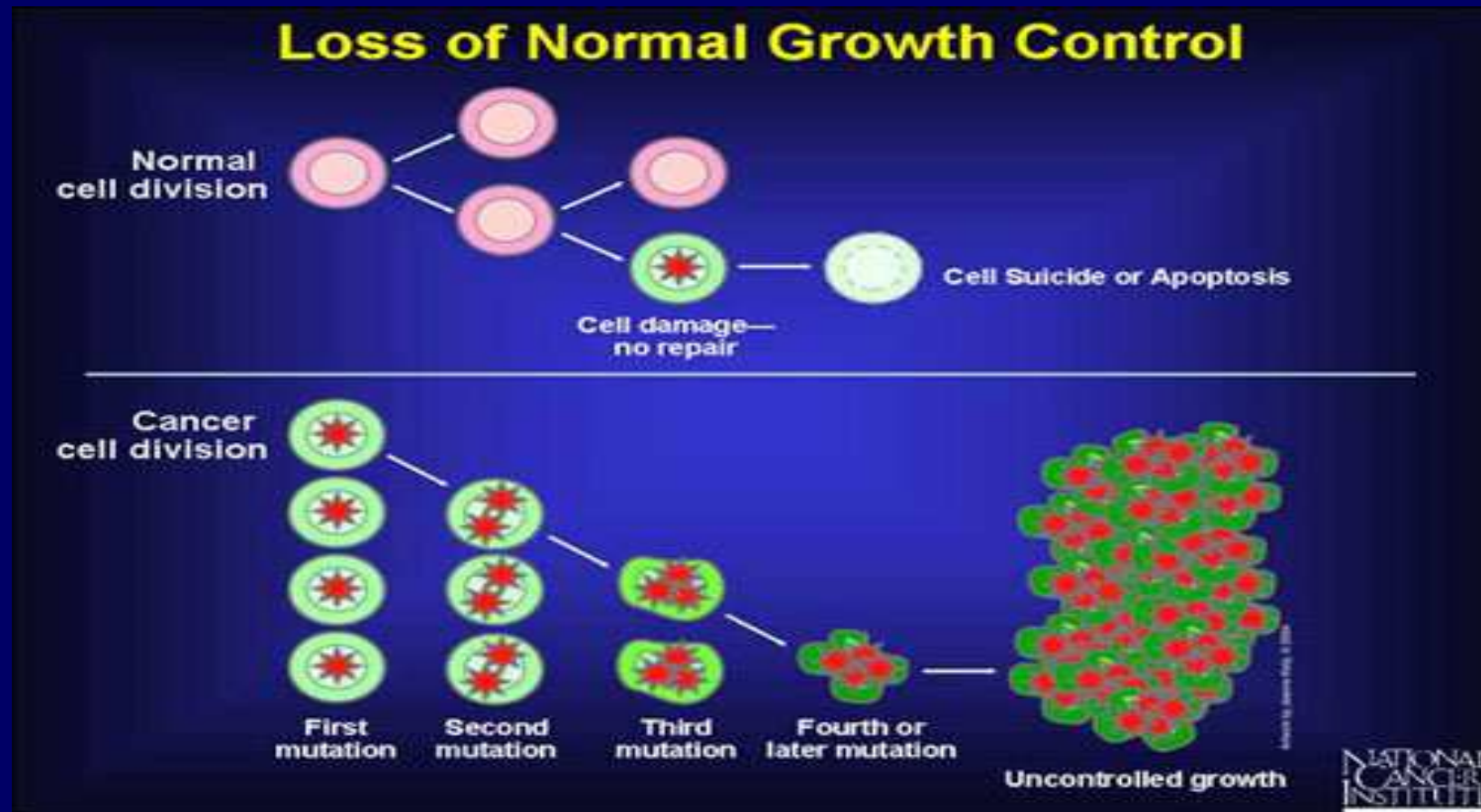
\*5-year relative survival rates based on follow up of patients through 2003.

Source: Surveillance, Epidemiology, and End Results Program, 1975-2003, Division of Cancer Control and Population Sciences, National Cancer Institute, 2006.

# What is Cancer?

- Cancer is a term used for diseases in which abnormal cells divide without control and are able to invade other tissues. Cancer cells can spread to other parts of the body through the blood and lymph systems
- Cancer is not just one disease but many diseases. There are more than 100 different types of cancer. Most cancers are named for the organ or type of cell in which they start - for example, cancer that begins in the colon is called colon cancer; cancer that begins in melanocytes of the skin is called melanoma

# Cancer growth pattern



# Main Categories of Cancer

- Carcinoma: cancer that begins in the skin or in tissues that line or cover internal organs. There are a number of subtypes of carcinoma, including adenocarcinoma, basal cell carcinoma, squamous cell carcinoma, and transitional cell carcinoma
- Sarcoma: cancer that begins in bone, cartilage, fat, muscle, blood vessels, or other connective or supportive tissue

## Categories cont'd:

- Leukemia: cancer that starts in blood-forming tissue such as the bone marrow and causes large numbers of abnormal blood cells to be produced and enter the blood
- Lymphoma and Myeloma: cancers that begin in the cells of the immune system
- Central Nervous system Cancers: cancers that begin in the tissues of the brain and spinal cord

# Are all tumors, cancerous?

- Not all tumors are cancerous
  - Benign Tumors: Not Cancerous. When removed they do not grow back
  - Malignant tumors: Cancerous. They Invade and spread to other parts of the body (metastasis)



# How do we Control Cancer?

## 1. Cancer Prevention: Actions taken to lower the risk of getting cancer

- Remember: Cancer is not a single disease but a group of related diseases. Many things in our genes, our lifestyle, and the environment around us may increase or decrease our risk of getting cancer

2. Screening

3. Early diagnosis and treatment

4. Palliative care and follow-up/survivorship care.

# What Prevention Measures?

- Changing lifestyle or eating habits
- Avoiding things known to cause cancer
- Taking medicine to treat precancerous conditions or avoid cancer from starting.  
Only for some cancers

## Breast Cancer: Who is at Increased risk?

- Female sex
- Advancing age
- Reproductive factors that increase exposure to endogenous estrogen, such as early beginning of menses and late menopause
- Use of combination estrogen-progesterone hormones after menopause.
- No Child birth
- Obesity
- Alcohol consumption

# Other risk factors

- Women with a family history or personal history of invasive breast cancer
- Women with a history of breast biopsies that show benign disease have an increased risk of breast cancer
- Women with Increased breast density
- Women whose first pregnancy occurs late in life
- Women who use postmenopausal hormones
- Exposure to ionizing radiation
- Women who do not breast-feed have a increased risk of breast cancer
- inheritance of detrimental genetic mutations increase breast cancer risk e.g.. BRCA 1 and BRCA 2

# Cervical Cancer

- Avoid human papillomavirus (HPV) infection- Causes more than 98% of cervical cancer
  - **Barrier protection during sexual intercourse**
  - **Vaccination against HPV-16 and HPV-18**
  - **Avoid Multiple sexual partners or abstinence from sex**
  - screening via regular gynecologic examinations and cytologic test (Pap smear) with treatment of precancerous abnormalities decreases the burden of cervical cancer
  - cigarette smoking, both active and passive, increases the risk of cervical cancer. **Avoid it.**
  - **Others:**
    - **High Parity**
    - **Prolonged use of Contraceptives**



# Prostate Cancer: Who is at Risk?

- Age: increases with age
- Family History: More prostate cancer in families with history of prostate cancer
- Hormones: testosterone therapies
- Race: More in blacks than whites
- Dietary fat: increases the risk
- Genetic mutations/Inheritance: high risk
- High intake of dairy products and calcium-  
Increased risk is very small

# Esophageal Cancer: Who is at increased risk?

- Tobacco Smoking
- Excessive Alcohol drinking
- *Helicobacter pylori* infection
- Gastro-esophageal reflux
- Aflatoxins in foods?
- Genetic
- Diet

# Liver Cancer

- Immunizing individuals against hepatitis B would lead to a decrease in the incidence of hepatocellular cancer

# Screening and Early Detection is Key!

- E.g.: Screening 100 women for breast cancer would cost: Kshs 5,000 x 100 = 500,000 while treating 5 women for breast cancer would cost Kshs. 2,500,000.
- On average it costs the same amount to treat one breast cancer patient with advanced disease as it costs to screen 100 women

# We can Kick OUT Cervical Cancer!

- For cervical cancer: Start with vaccination for HPV for all your daughters (and sons) at ages 8 to 14 or before sexual exposure.
- Also do routine cervical cancer screening for the girls from 3 years after sexual exposure and treat pre-cancerous lesions
- Prevention of HIV infection
- Early diagnosis even to those affected can lead to CURE.

# Take Home

- Avoid fats
- Decrease intake of Red meats
- Alcohol consumption in moderation
- Exercise and avoid Sedentary lifestyles
- Vaccinations for some cancers
- Treat infections e.g. H. Pylori for Peptic Ulcers
- Screening and early diagnosis for all of you, your employees and colleagues



# Beacon Health Services: Medical and Cancer Treatment Center

- Services Offered for both individuals, families and corporate:
  - Vaccination for Cancer Prevention: HBV, HCV, HPV
  - Screening for Cancers: Breast, Cervix, Colon, Prostate
  - Early diagnostics: blood tests, X-rays/CT Scans, tissue biopsies, genetic testing etc
  - Treatment of Cancers: Out-Patient Chemo for all cancers depending on the type and stage of the disease

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- Services Continued:
  - In-Patient cancer care for most hospitals in Nairobi for our patients admitted there e.g. Nairobi West Hospital, Coptic Hospital and Karen Hospitals
  - Assists patients with navigation of cancer care in collaboration with our partners who include: Lancet laboratories, MP Shah Cancer Care Center for radiation services as well as well respected experts in surgery, palliative and hospice care and other specialists.

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- Services Offered:
  - Referrals for carefully selected patients who can benefit immensely to treatments in Centers of excellence outside the country e.g.
    - India i.e. for Bone Marrow Transplant: We work with specific high-excellence centers in India for this procedure for conditions like Leukemia and Multiple Myeloma.
    - U.S.A: We send and receive patients who are to undergo specialized treatments and need local follow-ups of care.
    - South Africa: Depends on the patients choice and costs implications

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- Collaborating Partners:
  - Drug companies: who provide chemotherapy directly to the center to ensure only genuine and effective drugs are used. Also decreases the drug costs to the patient.
  - Insurance Companies: We are looking for more partners so that patients and clients can access our services with minimal financial burden to them
  - Government: We are working towards modalities of PPP

# Contacts

## Beacon Health Services:

Medical and Cancer Treatment Center  
5<sup>th</sup> Avenue, Off Ngong Road, Opp. Traffic  
Police HQs at 5<sup>th</sup> Avenue Office Suites, 3<sup>rd</sup>  
Floor Suite Number 5  
P.O. Box 29801-00100 Nairobi, Kenya.

Contact Person: Barrack Cell: 0725 234 694/ 0771 706 671

Open: M-F 8 AM till 5PM

Sat: 8 AM to 2PM

Beacon Health Services  
[www.bhskenya.com](http://www.bhskenya.com)

Thank you ALL

Questions and Comments are  
Welcome.