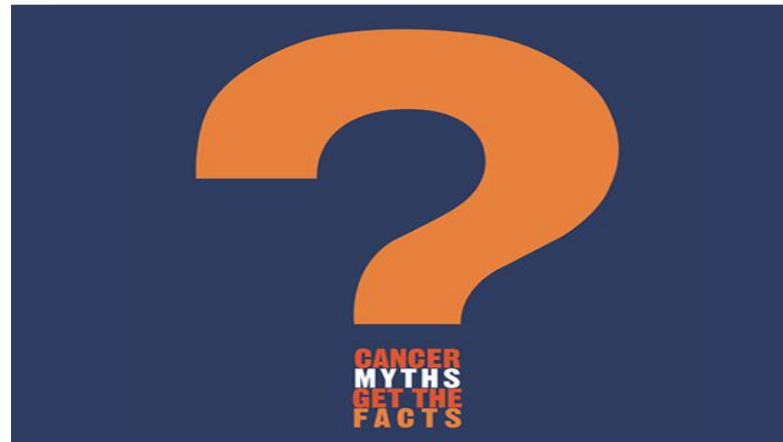


CANCER – DID YOU KNOW?

There are many myths out there. On 4 February 2013 get the facts.



General Cancer Awareness: “Myths and Misconceptions”

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College of Health Sciences, University of Zimbabwe

Cancer Association 28 February 2013

Objectives

- Define Cancer
- Common Cancers in Zimbabwe
- Causes of Cancer
- Treatment of Cancer
- General Myths and Misconceptions
- Conclusions

CANCER – DID YOU KNOW?

MYTH 1:
CANCER
IS JUST A
HEALTH
ISSUE

MYTH 2:
CANCER
IS A DISEASE
OF THE WEALTHY,
ELDERLY AND
DEVELOPED
COUNTRIES

MYTH 3:
CANCER
IS A DEATH
SENTENCE

MYTH 4:
CANCER
IS MY
FATE

CANCER – DID YOU KNOW?

There are many myths out there. On 4 February 2013 get the facts.

DEFINITIONS

- **MYTH:** A myth is a story that may or may not be true. Myths are generally **very old**. **No records or other proof** that they happened. Some myths may have **started as 'true' stories** but as people told and re-told them, they may have changed some parts.
- **MISCONCEPTION:** A **view or opinion that is incorrect because based on faulty thinking or understanding**. (misapprehension – misunderstanding)

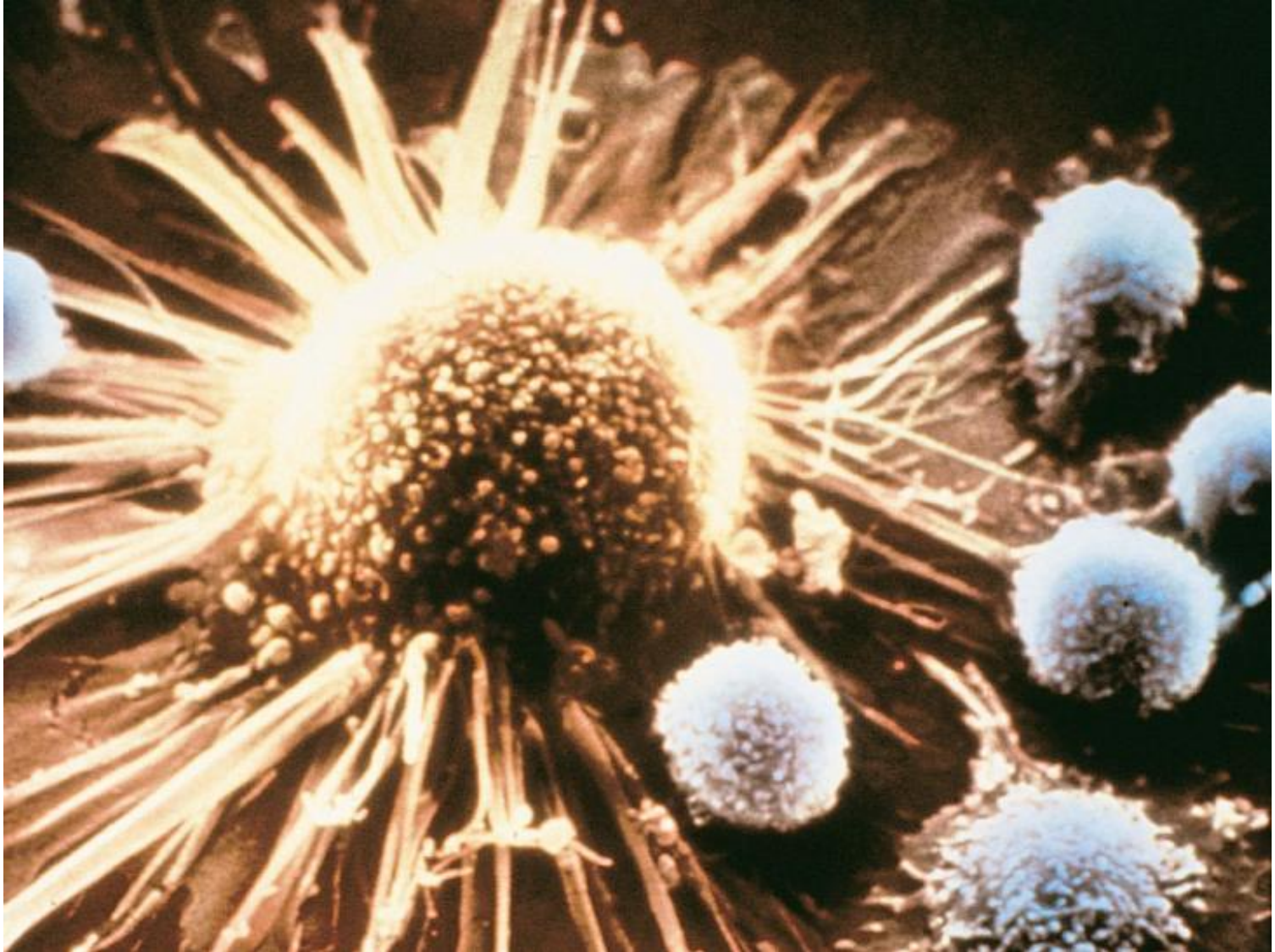
DEFINITIONS

- **BELIEF:** An acceptance that **a statement is true** or that something exists. Something one accepts as true or real; a firmly held opinion or conviction. (faith - trust – confidence)
- **FACT:** A thing that is indisputably the case. Information used as **evidence or as part of a report or news article.** (reality - deed - actuality - truth - case – circumstance)
- **TRUTH:** The quality or state of being true: That which is true or **in accordance with fact or reality:** (verity - reality – fact)

WHY SO MANY MYTHS AND MISCONCEPTIONS AROUND CANCER??

- **Still an evolving area**: research still being carried out to answer questions that we still have
- Not **enough general awareness/ lack of education**; people getting information from their communities ie prev experiences friends and loved ones
- **Newer treatments** now available but still people refer to the past experiences
- **Diverse** disease, different cancers mean different things to different people.

What is Cancer ?

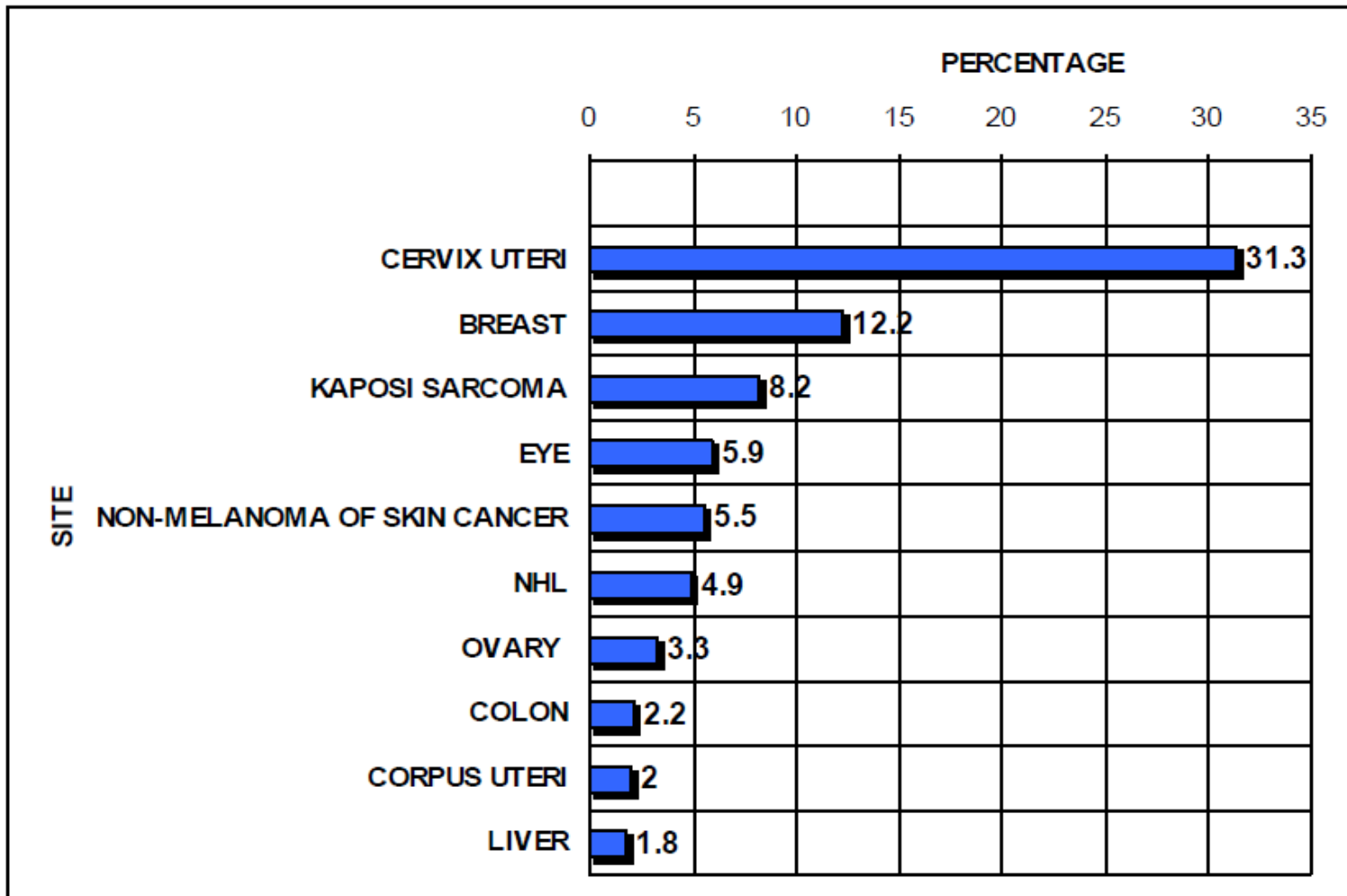


Cancer is ...

- The uncontrolled growth of cells/tissues of the body
- Result of underlying genetic abnormality (mutation)
- Ability to invade surrounding structures and other organs
- More than 200 cancers
- Named according to cell or organ of origin eg skin cancer, breast cancer

Cancer Burden in Zimbabwean Females

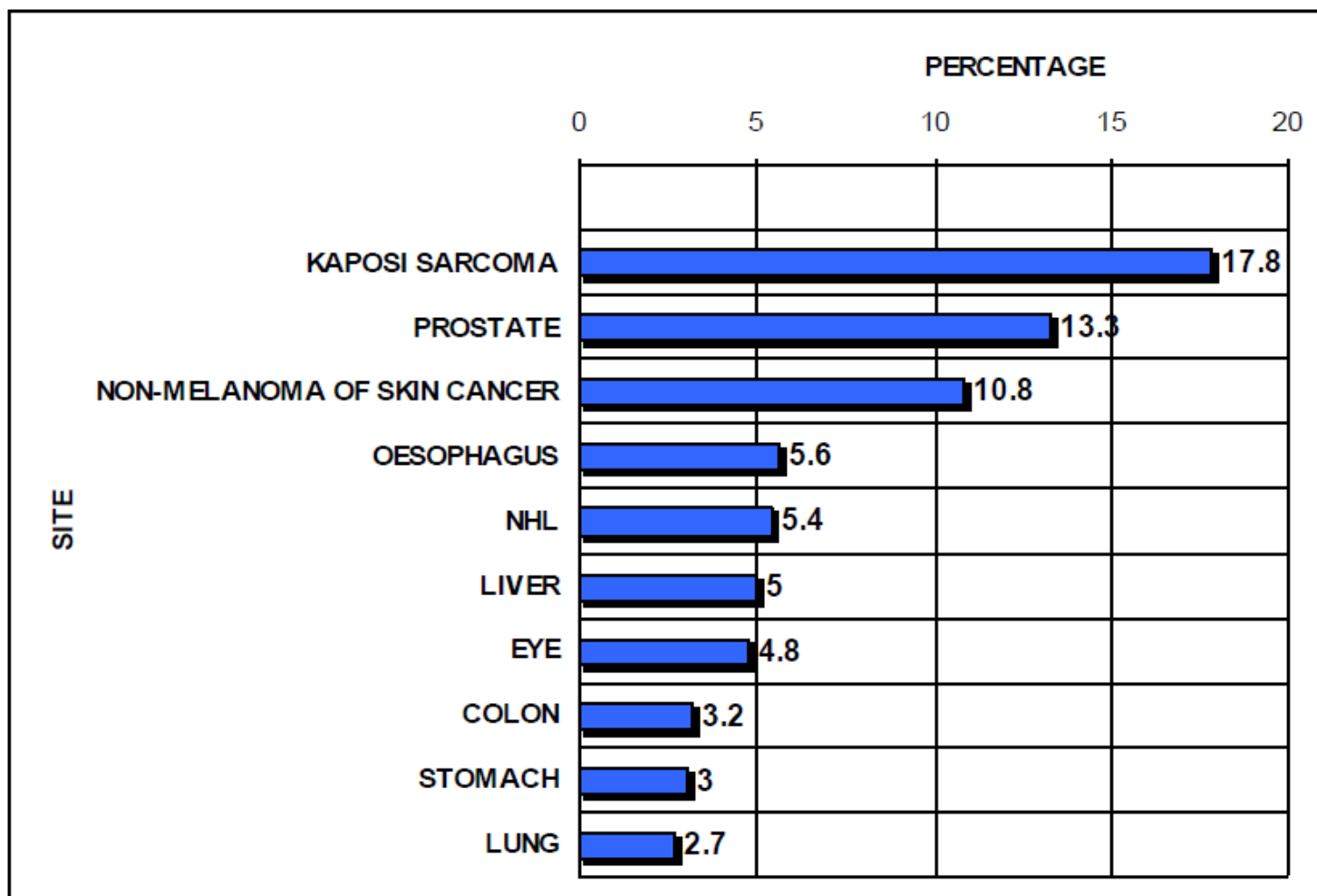
2009: All Zimbabweans: Females



Zimbabwean Males

MOST COMMON CANCERS

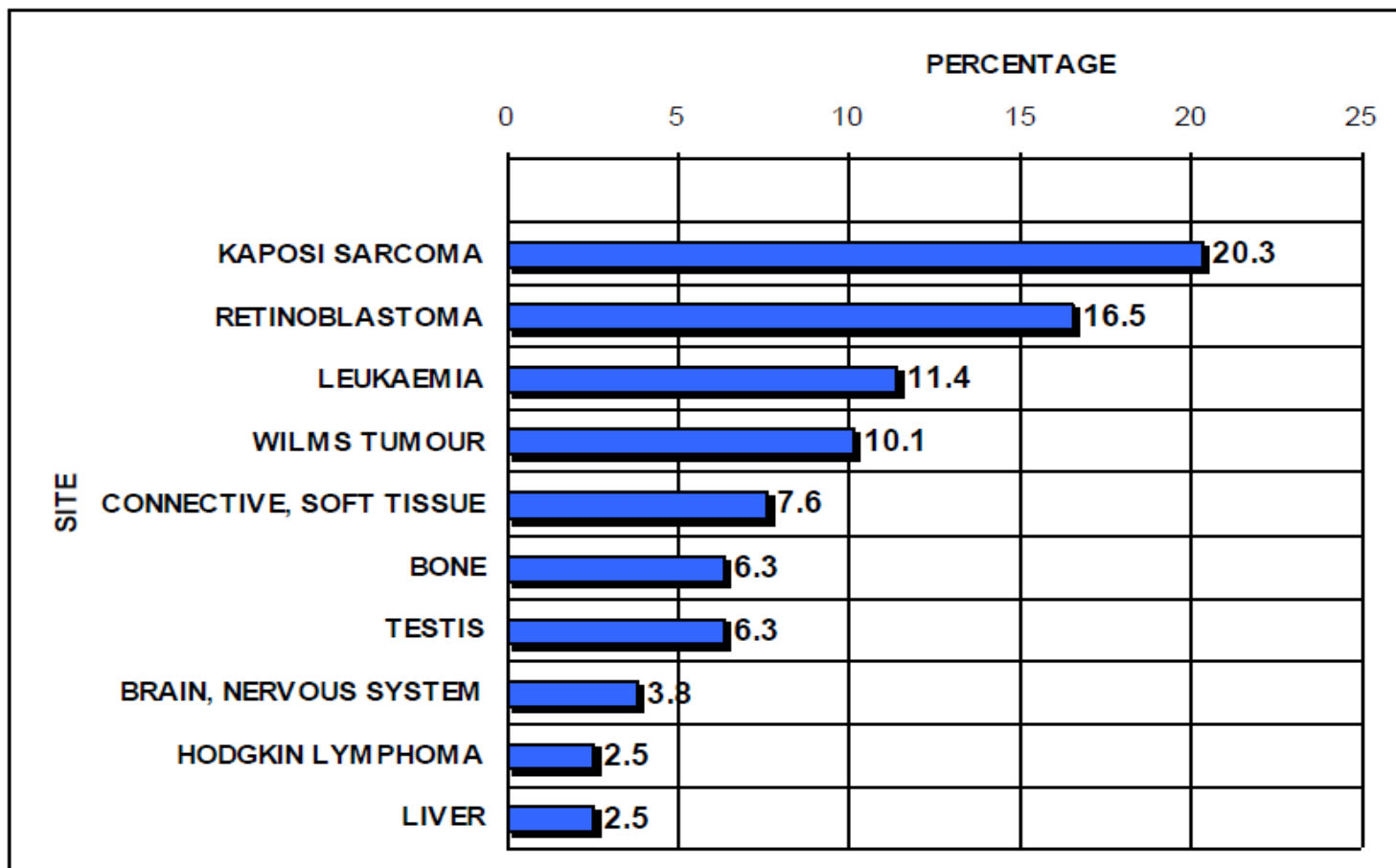
2009: All Zimbabweans: Males



Childhood Cancers- Boys

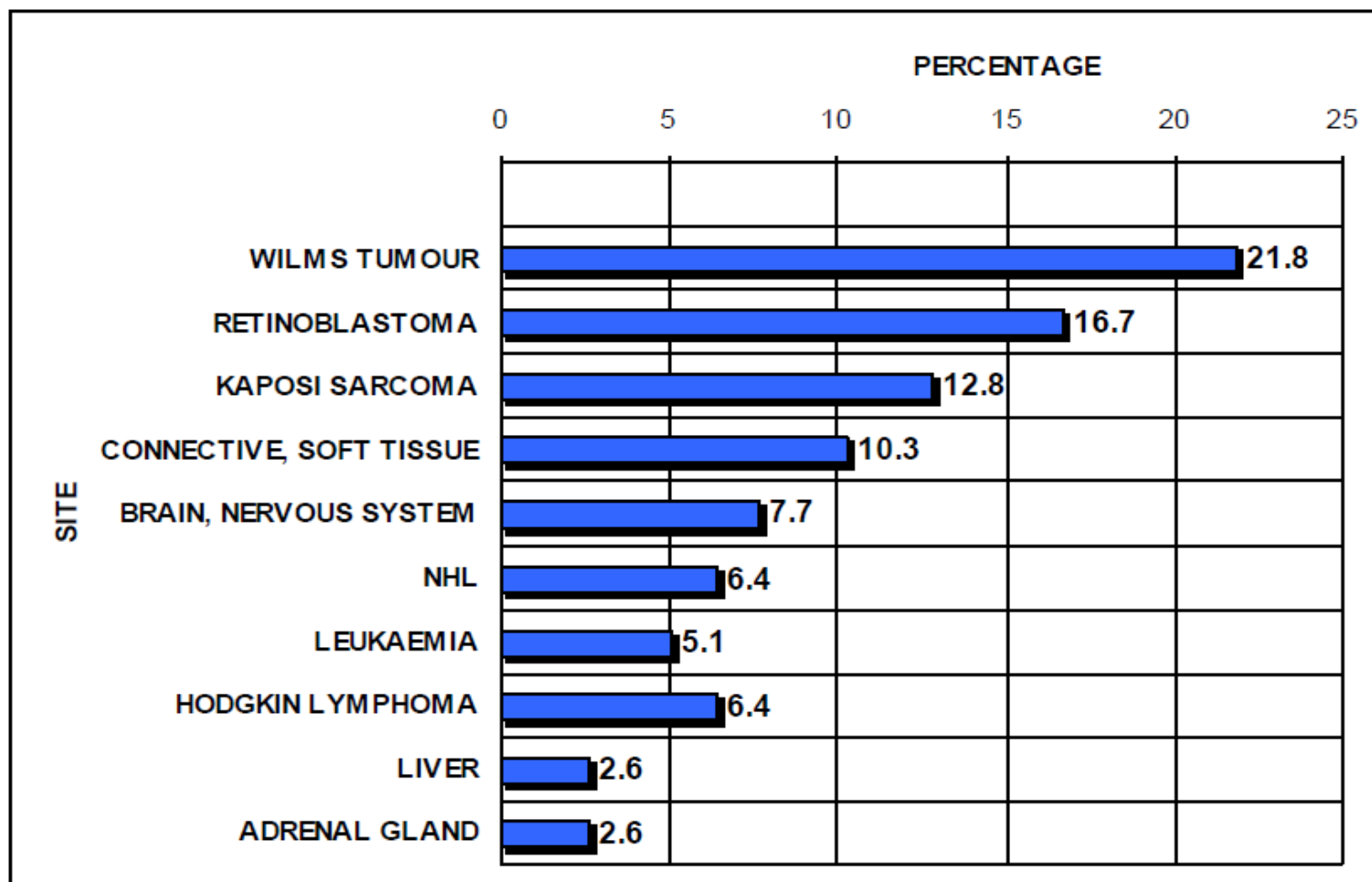
MOST COMMON CANCERS

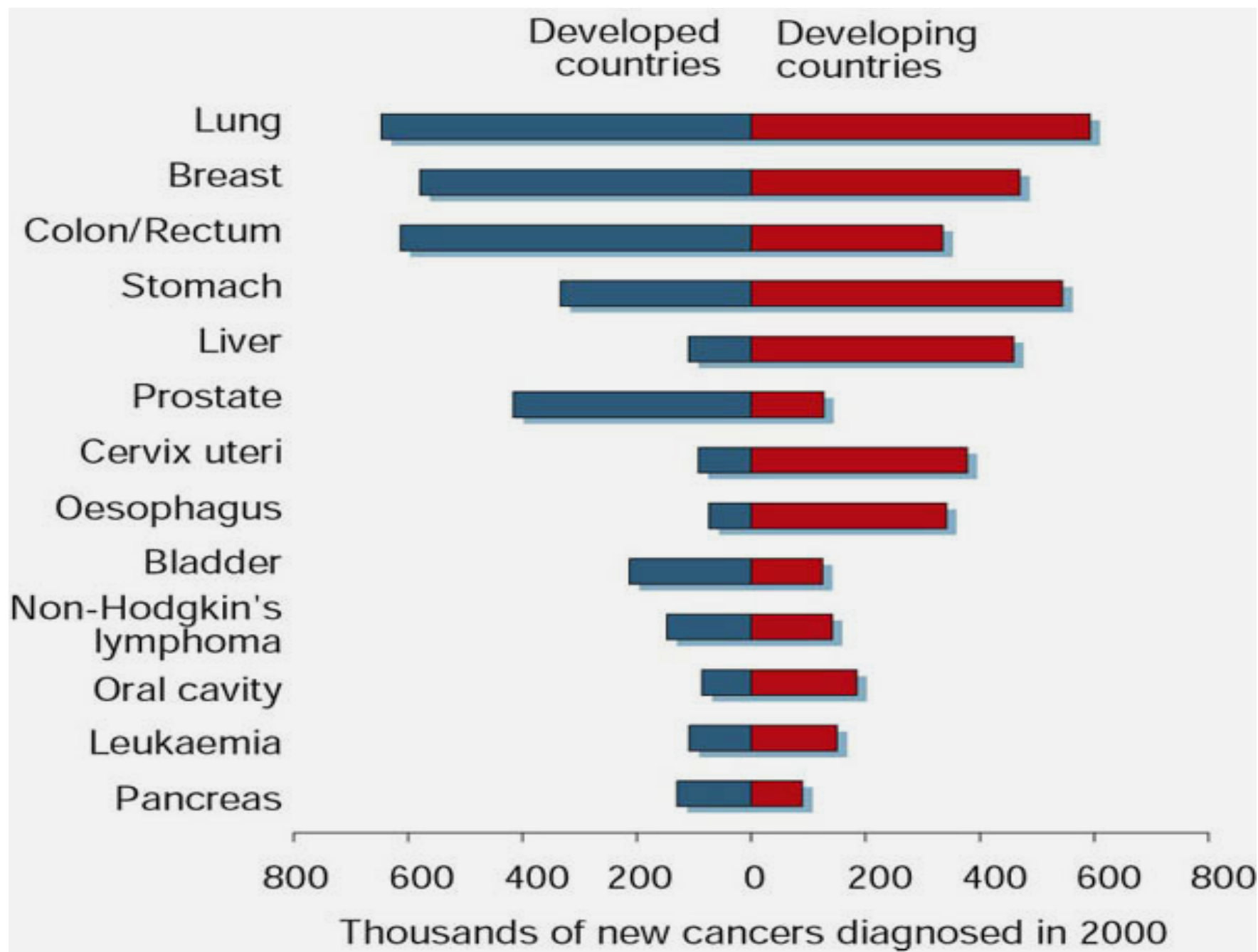
2009: Paediatrics: All Zimbabweans: Boys



Childhood cancers - Girls

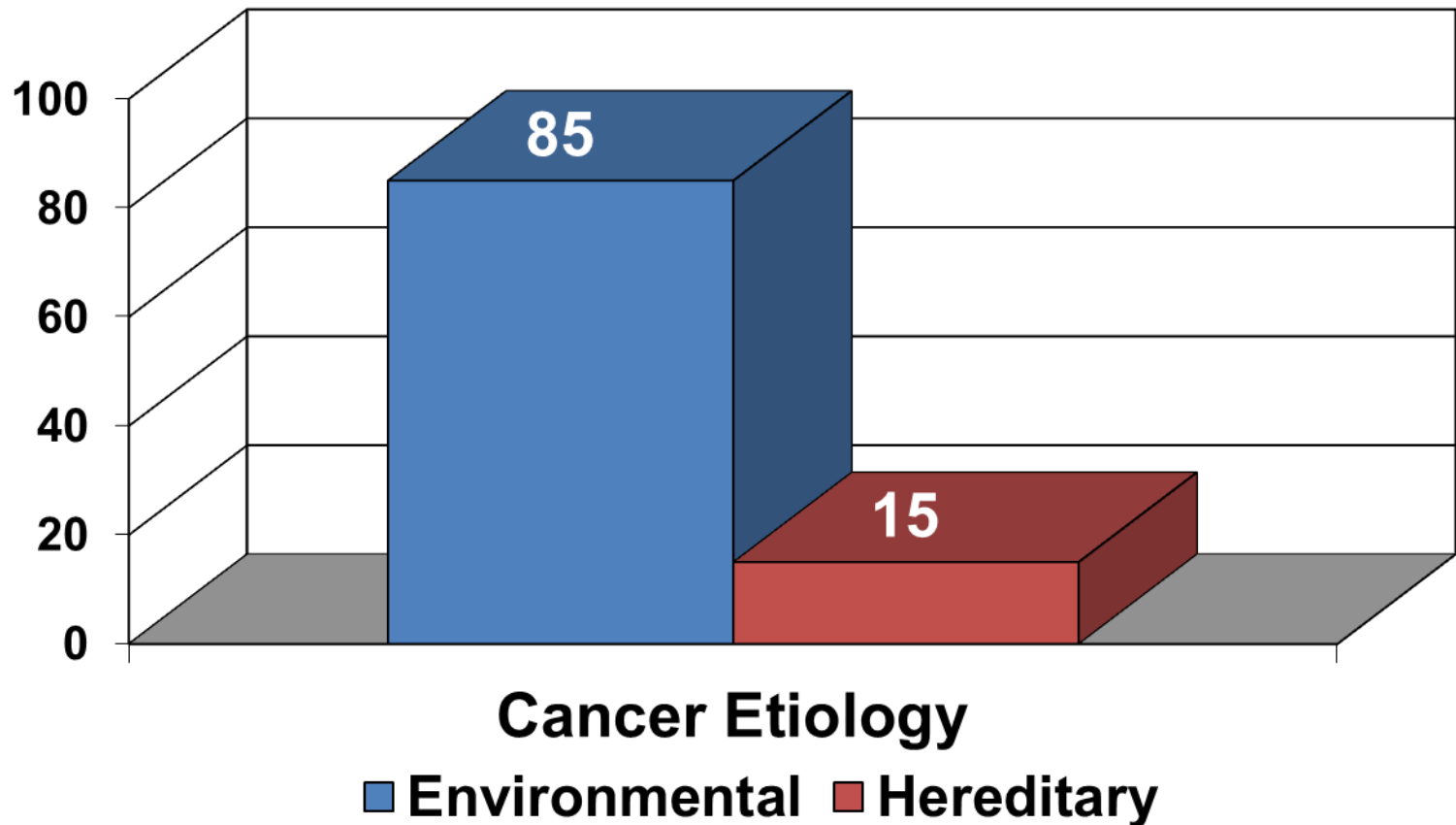
2009: Paediatrics: All Zimbabweans: Girls





What Causes Cancer?

- 80-90% of cancers no identifiable cause
- Multifactorial (Environmental and Hereditary)



Risk Factors & Risk Reduction

- Nearly all cancers of the lung, bladder, mouth and skin could be prevented
- 50-75% of cancer deaths are related to personal behaviors or habits
- 30% or more of all cancer deaths related to cigarette smoking
- 30% of all cancer deaths in the U.S. are related to poor nutrition & inactivity leading to obesity
- Risk may be reduced by increasing consumption of fruits & vegetables and limiting high-fat foods
- Source: *Cancer Trends Progress Report - 2005 Update*, National Cancer Institute, NIH, DHHS, Bethesda, MD, December 2005, <http://progressreport.cancer.gov>.

Lifestyle Factors



Risk Factors for Cancer Development

- Avoidable/ factors that can be controlled
- VS
- Factors that cannot be changed

Preventable Causes of Disease

- ❑ Biological factors and Behavioral Factors
- ❑ Environmental factors
- ❑ Immunologic factors
- ❑ Nutritional factors
- ❑ Genetic factors
- ❑ Services, Social factors, and Spiritual factors

[JF Jekel, Epidemiology, Biostatistics, and Preventive Medicine, 1996]

Factors that can be controlled

- **Lifestyle factors:**
 - Smoking tobacco: cigarette smoke > 200 carcinogens (lung, cervical, bladder, ...)
 - Alcohol: avoid or limit to 1 to 2 units a day
 - Physical exercise: 30min at least 3 days/week
 - Chronic stress



The Smoker's Body

Every 6.5 seconds someone dies from tobacco use, says the World Health Organization. Research suggests that people who start smoking in their teens (as more than 70 percent do) and continue for two decades or more will die 20 to 25 years earlier than those who never light up. It is not just lung cancer or heart disease that cause serious health problems and death. Below, some of smoking's less publicized side effects – from head to toe.

1. Psoriasis Smoking seems to increase the risk of developing psoriasis, a persistent itchy skin condition that causes red, scaly patches all over the body.

2. Cataracts Smoking is a leading cause of cataracts, a clouding of the eye's lens that causes blurry vision. In severe cases, the lens has to be removed and replaced with an artificial one. Smoking also increases the risk of cataracts in the eyes.

3. Wrinkling Smoking promotes the production of free radicals, which attack and damage the skin's collagen fibers, leading to wrinkles. Smoking also causes the skin to become discolored and aged.

4. Hearing loss Smoking is a leading cause of hearing loss, particularly in the middle ear. Smoking also causes the eardrum to become inflamed and infected.

5. Cancer Smoking is a leading cause of cancer, particularly lung cancer. Smoking also causes cancer in the mouth, throat, esophagus, stomach, pancreas, liver, bladder, and kidney. Smoking also causes cancer in the bones, particularly in the spine.

6. Tooth decay Smoking is a leading cause of tooth decay, particularly in the upper teeth. Smoking also causes the gums to become inflamed and infected, leading to periodontitis and tooth loss.

7. Emphysema Smoking is a leading cause of emphysema, a lung disease that causes the lungs to become inflamed and damaged. Emphysema causes shortness of breath and chest pain.

8. Osteoporosis Smoking is a leading cause of osteoporosis, a bone disease that causes the bones to become weak and brittle. Smoking also causes the bones to become discolored and aged.

9. Heart disease Smoking is a leading cause of heart disease, particularly coronary artery disease. Smoking also causes the heart to become enlarged and weakened.

10. Stomach ulcers Smoking is a leading cause of stomach ulcers, a condition that causes the stomach lining to become inflamed and damaged. Smoking also causes the stomach to become discolored and aged.

11. Discoloured fingers Smoking is a leading cause of discoloured fingers, a condition that causes the fingers to become yellowed and stained. Smoking also causes the fingers to become brittle and cracked.

12. Cervical cancer and miscarriage Smoking is a leading cause of cervical cancer and miscarriage. Smoking also causes the cervix to become inflamed and infected.

13. Deformed sperm Smoking is a leading cause of deformed sperm, a condition that causes the sperm to become misshapen and unable to fertilize an egg. Smoking also causes the sperm to become discolored and aged.

14. Buerger's disease Smoking is a leading cause of Buerger's disease, a rare condition that causes the blood vessels in the hands and feet to become inflamed and blocked. Smoking also causes the hands and feet to become discolored and aged.

15. Premature aging Smoking is a leading cause of premature aging, a condition that causes the body to become aged and frail. Smoking also causes the body to become discolored and aged.

16. Infertility Smoking is a leading cause of infertility, a condition that causes the body to be unable to conceive a child. Smoking also causes the body to become discolored and aged.

17. Depression Smoking is a leading cause of depression, a mental health condition that causes the body to become discolored and aged. Smoking also causes the body to become discolored and aged.

18. Anxiety Smoking is a leading cause of anxiety, a mental health condition that causes the body to become discolored and aged. Smoking also causes the body to become discolored and aged.

19. Sleep apnea Smoking is a leading cause of sleep apnea, a condition that causes the body to become discolored and aged. Smoking also causes the body to become discolored and aged.

20. Chronic bronchitis Smoking is a leading cause of chronic bronchitis, a lung disease that causes the body to become discolored and aged. Smoking also causes the body to become discolored and aged.

21. COPD Smoking is a leading cause of COPD, a lung disease that causes the body to become discolored and aged. Smoking also causes the body to become discolored and aged.

22. Lung cancer Smoking is a leading cause of lung cancer, a deadly disease that causes the body to become discolored and aged. Smoking also causes the body to become discolored and aged.

Need help quitting? Visit [WhyQuit.com](http://www.whyquit.com)

More detailed PDF versions in English, Spanish & French can be downloaded at the World Health Organization's website at: http://www.who.int/tobacco/research/smokers_body/en/



DIET

- Adopt healthy diet
 - High fibre, low fat and white meat
 - Plenty fruit and vegetables
 - Coloured vegetables, antioxidants (carrots, tomatoes, pumpkins, beetroot)
 - Vitamins and minerals eg Vitamin E, zinc and selenium



Cont. DIET

- Avoid processed food and preserved foods eg salt fried foods
- Proper storage of foods eg peanuts, maize (aflatoxin/fungus contamination can occur if crop drying is delayed and moist storage of crops and insect or rodent infestations facilitate mold invasion)
- Drink plenty of water, at least 1.5litres a day
- Obesity is a risk factor for cancer development
- Use of BMI (Body mass index) as a guide
- Obesity BMI > 30
- Weight in kg/ Height in metres squared

Sunlight Exposure

- Light skinned individuals eg caucasian and albinos
- Increased risk of skin cancers

Infectious Agents

- Viruses eg HPV (cervix) and HBV (liver cancer)
- HIV infection
- Bilharzia and bladder cancer
- H-pylori and stomach cancer

Miscellaneous Factors

- Use of hormone replacement therapy for menopausal symptoms (uterine body and breast cancer)
- Not having children
- Having children late after age of 30 years
- Not breast-feeding
- Having unprotected sex and multiple sexual partners

Environmental Carcinogens

- A cancer-causing agent
- Three main types:
 - Chemical
 - Physical (radiation)
 - Biological (especially virus)

Human carcinogens - environmental

- Aflatoxins
- Asbestos
- Benzene
- Cadmium
- Coal tar
- Creosote
- DDT
- Polycyclic aromatic hydrocarbons
- Radon
- Solar radiation

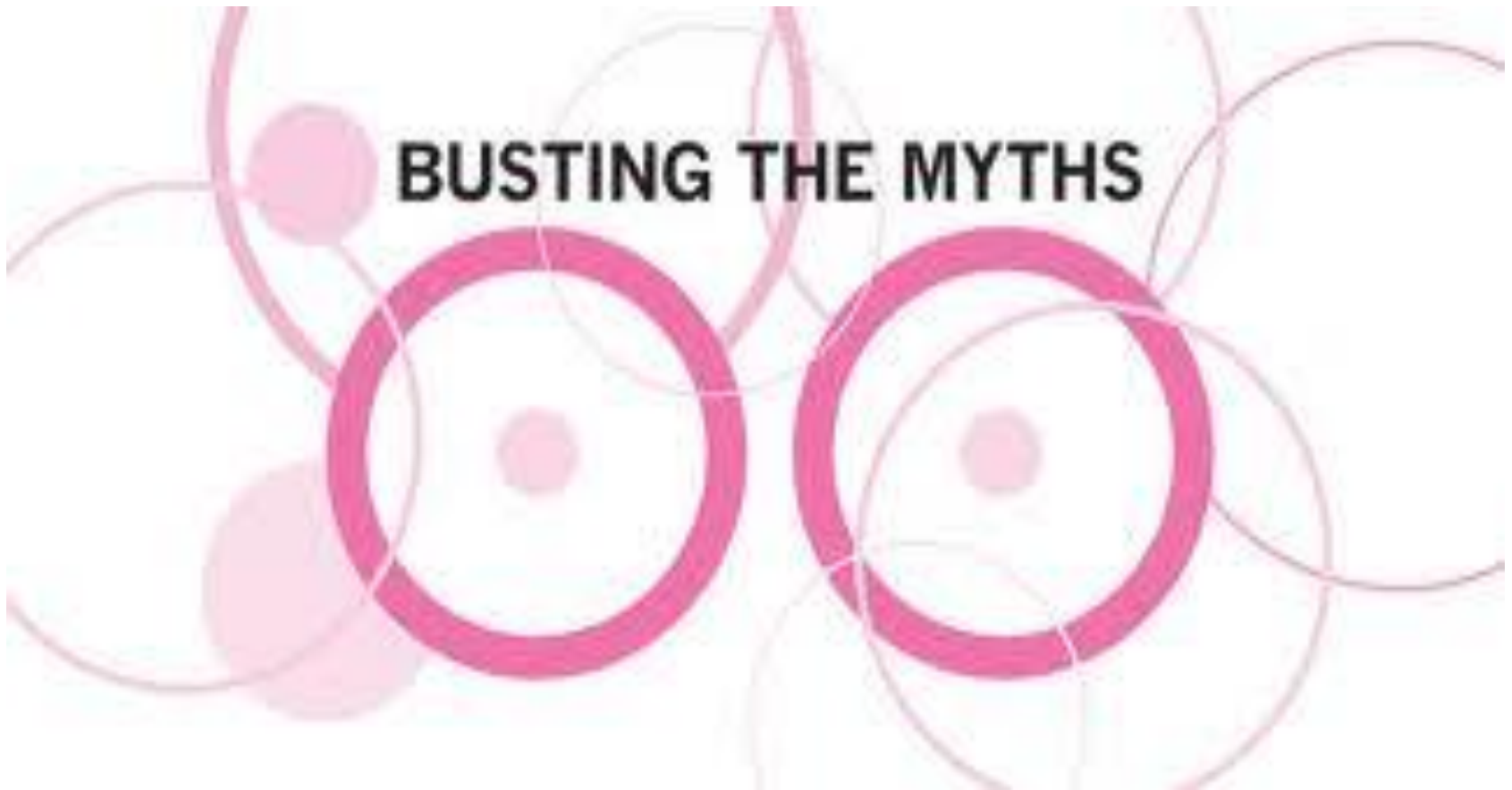
Human carcinogens - drugs/therapeutic agents

- Adriamycin (doxorubicin)
- Androgenic steroids
- Chlorambucil
- Cisplatin
- Cyclophosphamide
- Cyclosporin A
- Diethylstilbestrol
- Ethylene oxide
- Melphalan
- Tamoxifen

Unavoidable Risk Factors

- Sex
- Advanced age
- Family history (inherited genes)
- Race
- Reproductive history eg early menses and late menopause

Myths and Misconceptions





CANCER RESEARCH

Myths and Misconceptions

- I don't have any symptoms so I cannot have cancer. I was told that cancer is painful.
- I have cancer because I was bewitched
- **Blame: Oneself** (lifestyle factors eg smoking/ alcohol drinking/ obesity/ not exercising/ food intake)/ not undergoing screening
- **Blame others** eg parents (genetic), failure to undergo appropriate vaccines as a child, food taken in as a child, environment one grew up in; blame infections on partner eg HIV/HPV; workplace/ government eg contaminated water etc

If I find a lump in my breast, I have cancer.



80% of lumps in women's breasts are caused by benign (noncancerous) changes, cysts, or other conditions.

Only women with a family history of breast cancer are at risk.



70% of women diagnosed with breast cancer have no identifiable risk factors for the disease.

I'm too young to get breast cancer



25% of women with breast cancer are younger than 50 years old.

Wearing an underwire bra increases my risk of getting breast cancer.



National Cancer Institute and the ACS have refuted the claim that non-bra-wearers get breast cancer less often.

Men cannot get breast cancer.



Each year it is estimated that approximately **1,700** men will be diagnosed with breast cancer. **450** will die.

Wearing antiperspirant increases my risk of getting breast cancer.



The National Cancer Institute is not aware of any conclusive evidence linking the use of underarm antiperspirants or deodorants and the subsequent development of breast cancer.

A mammogram can cause breast cancer to spread.



Radiation doses are regulated by the FDA and are fairly low; equivalent to the amount the average person receives from naturally occurring sources over 3 months.

Myths and Misconceptions

Breast cancer myths and misconceptions

- **Radiation:** a woman who is treated with radiation could have a high risk on her family or nursing her baby
- **Breast size:** there is a misconception that bigger breasts could get breast cancer more than smaller ones
- **Breast implants:** plastic surgeries of the breasts like breast implants encourage breast cancer

Cellphones



- **No research evidence** of increased cancer risk esp brain cancer.
Radiofrequency waves, low e-m frequency. Cancer higher energy eg ionizing radiation
- Studies ? Assoc with length of time on phone and how close to the body

True or False: Laptops Cause Cancer?

False

- **Laptops-** no evidence; lower E-M frequency than cellphones
- **Males and infertility** due to overheating when used on the laps, heat to testicles



MICROWAVES AND CANCER

Quick Fact

The type of radiation emitted by microwave ovens is non-ionizing. This means that it doesn't contribute to your chance of getting cancer like x-rays, ultraviolet light, etc. do. Outside of potential burn risks, experiments done with rodents have yet to show any major adverse effect to prolonged exposure to microwaves at the 2.45 GHz range seen in most microwave ovens, even with continual low level exposure.

Truth or False?

- Is it true that the powder or chemical which falls off when we scratch juice cards is carcinogenic?
- **ANS:** Scientists - may lead to cancer because the grey panel coating on scratch cards contains **heavy metals**- silver nitric oxides, cadmium and aluminum.
- If you scratch a mobile card, the dangerous chemicals get deposited in your fingernails. If you sit down to eat food without properly washing your fingernails, these chemicals can enter your body and cause cancer.
- **Never scratch mobile recharge coupons with fingernails, use a coin, pin or key.**



Tampons and Cancer

- **Emails and flyers circulating state that tampons cause cancer. They read that tampons contain asbestos, dioxin, and other synthetic fibers that can cause cancer in women.**
- **ANS:** In fact, tampons do not even contain asbestos. The FDA maintains that there is no asbestos in the tampon or as part of the manufacturing process.
- Dioxin was previously used in tampons in the past, and at very low amounts. Today, dioxin is not contained in tampons.
- The bottom line is that when used properly, tampons are safe to use.



Myths and Misconceptions

Prevention and Risk factors

- Cancer is my fate – there is nothing that can be done to prevent it
- Can I get cancer from someone else (Is it infectious)?
- Is cancer an opportunistic disease? What is the link between cancer and infections such as HIV, HPV and HBV?
- How does diet and alcohol intake increase the risk of getting cancer?
- Is cancer inherited?

Cont: Prevention and Risk Factors

- Is it true that if you are exposed to stressful situations over a long period of time, you will be at a higher risk of getting cancers?
- Does everyone have cancer cells/ abnormal cells lying dormant?
- Is it true that prolonged use of contraceptives increases your chances of developing women cancer such as breast and cervical cancer?

Cancer Screening

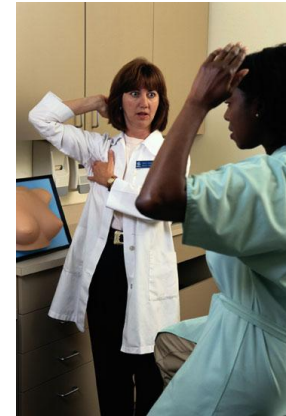
- Use of special tests and procedures in people who do have **no symptoms** to DETECT cancer EARLY
- Cancer formation averages 5 to 10years
- Therefore long window of opportunity for early detection!!

Breast Cancer Screening

- Breast Self Examination
- Clinical breast Examination
- Mammography

Breast Self Examination

- Know your breasts
- Monthly exam of the breasts and underarm area
- May discover any changes early
- Begin at age 20, continue monthly



When to do BSE

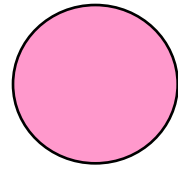
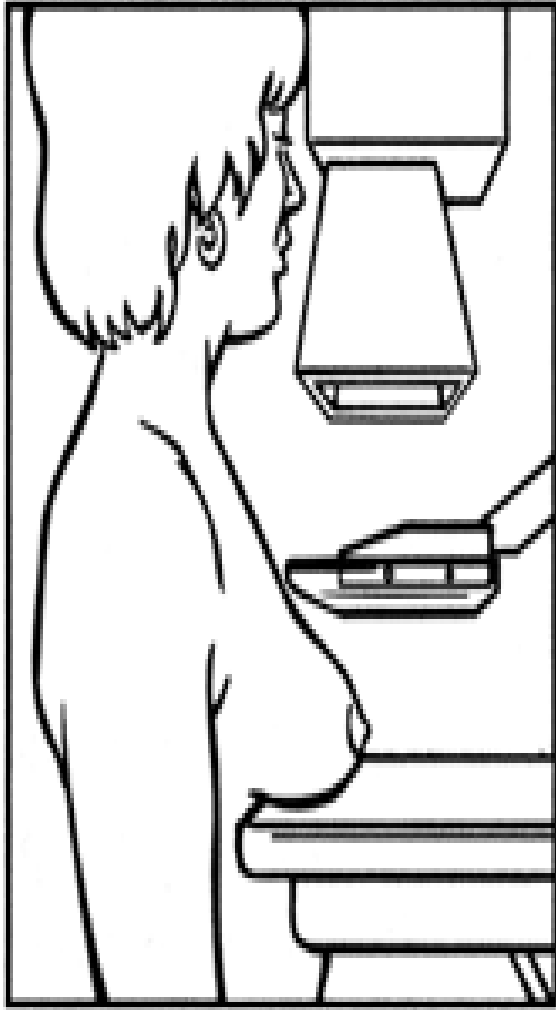
- Menstruating women- 5 to 7 days after the beginning of their period
- Menopausal women - same date each month
- Pregnant women – same date each month
- Takes about 20 minutes
- Perform BSE at least once a month
- Examine all breast tissue



Clinical Breast Examination

- Twice a year visit for breast examination-nearest health practitioner
- Mammography, annually from 40 years

Mammography



Average-size lump found by woman practicing occasional breast self-exam (BSE)



Average-size lump found by woman practicing regular breast self-exam (BSE)



Average-size lump found by first mammogram

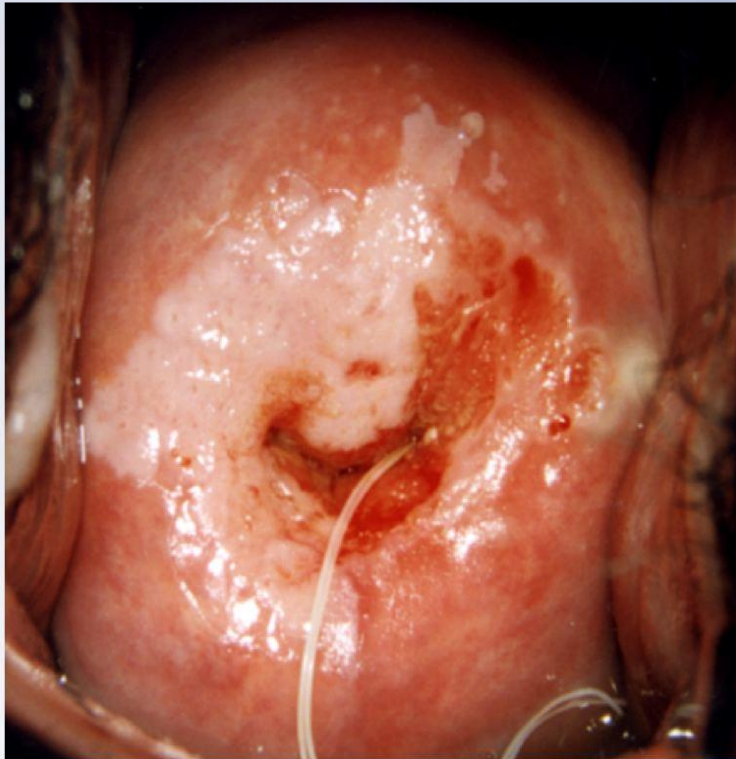


Average-size lump found by getting regular mammograms

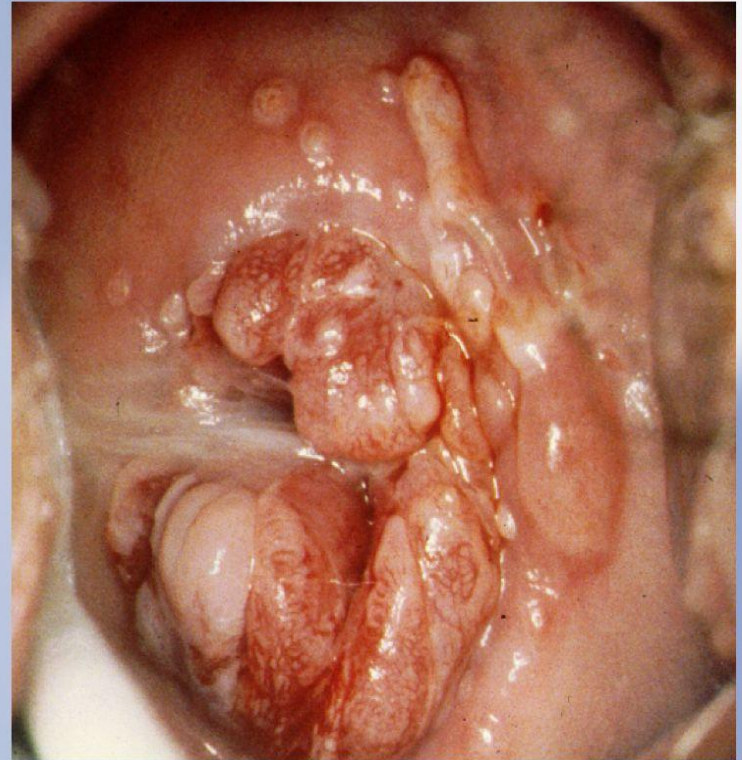
Cervical Cancer Screening

- Pap Smear: commencement average age 21 years
- Annual for at least 3 years, thereafter intervals at discretion of doctor
- VIA (visual inspection under acetic acid)

Development of Cervical Cancer



High-grade Precursor



Invasive Cancer

Takes 10 years on average



Cervical cancer vaccine

- HPV vaccine: prevent development of cervical cancer by up to 90%
- Vaccinate young children (females 9 to 13 years)
- Cervarix (HPV 16, 18) and Gardasil (6, 11, 16, 18)
- Older women but not as efficacious

Screening/Early Detection Techniques

- **Ovarian Cancer**
- Annual pelvic exam should be performed to *try* and detect an ovarian mass.
- CA-125 not accurate for screening ALL women for ovarian cancer.
- Pelvic ultrasound with vaginal probe may become routine in combination with the CA-125

HIV related cancers

- KS, NHL, Eye (squamous cell conjunctiva)
- Immunosuppression – poor control of infectious cancer causing agents
- Poor immune surveillance
- NB- a diagnosis of these not necessarily mean HIV positive

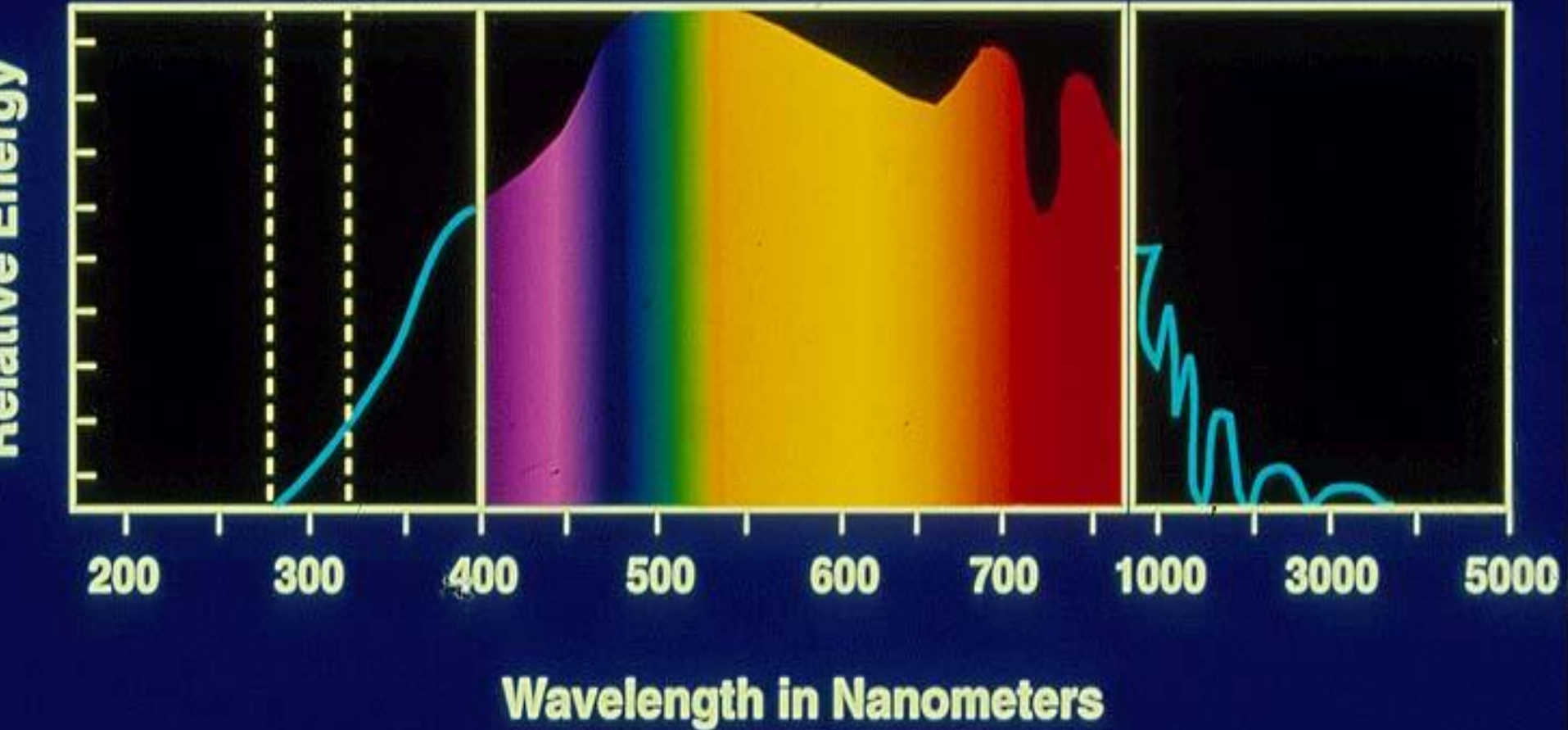
Kaposi's Sarcoma



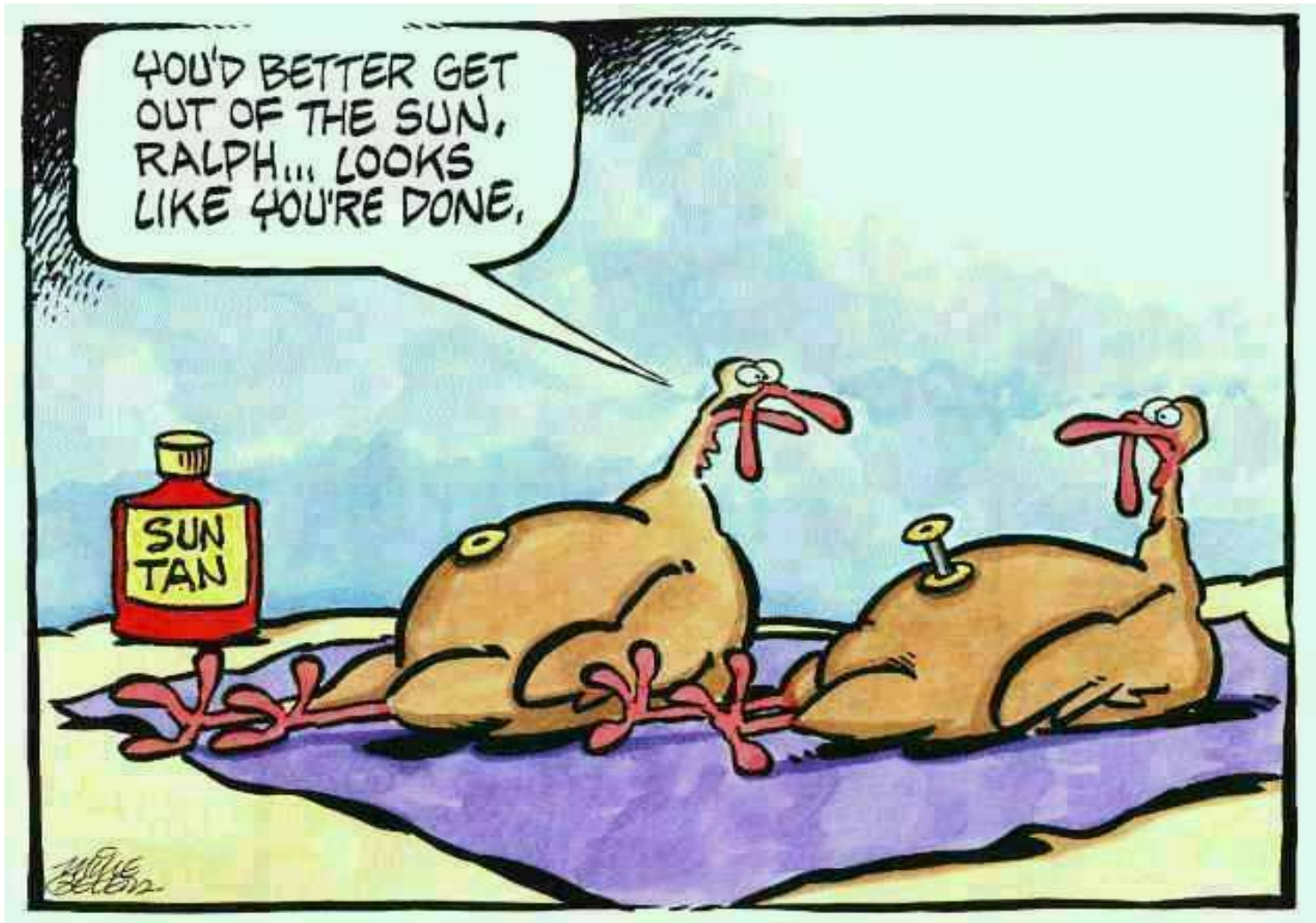
SKIN CANCERS

- Light skinned; albinos, non-black females (caucasian)
- Risk mainly midday ie 10am to 3pm
- Use of SLIP/SLAP/SLOP
 - **SLIP** on a long sleeved shirt or long skirts or slacks
 - **SLAP** on a hat
 - **SLOP** on sun-protector cream
- Look out for any changes in a pre-existing mole or non-healing ulcer.

SOLAR SPECTRUM



Sun Tanning



Skin Cancer – Basal cell cancer



Prostate Cancer Screening

- All men 50+ should undergo screening annually

Available Screening Methods;

- Digital Rectal Examination (DRE)
- Prostate Specific Antigen Tests (PSA)

Confirmation Tests

- Trans-rectal Ultrasound (TRUS)
- Biopsy

Testicular Cancer

- Accounts for only 1% of all tumors in males
- Most common form of cancer in males aged from 15 – 45 years
- Screening= regular self testicular examination

Screening/Early Detection Techniques

- Colon/Rectum- Third most common cancer in both men and women
- **Beginning at Age 50:**
- **Stool blood test annually**
- **Digital rectal exam annually**
- **Sigmoidoscopy**
- **Colonoscopy**

Lung Cancer

- Leading cause of cancer death
- Routine chest x-rays no proven benefit.

Myths and Misconceptions

- I am too young or too old to undergo screening
- Cancer is a disease of the old
- I am too poor or too rich
- Cancer is a disease of white or black people
- If I get screened the doctors are bound to pick up something

Myths: Early Detection and Screening

- “It is pointless to go for cancer screening, if you are told you have cancer, you cannot afford to have the tests done, let alone afford the treatment. So it is better not to know than to die of stress, since you will not be able to do anything about it”.

CANCER TREATMENT

- Surgery
- Chemotherapy
- Radiotherapy
- Hormonal Therapy
- Targetted Therapies



OUTCOME OF TREATMENT

DEPENDS ON CERTAIN FACTORS

- Type of cancer
- Stage of cancer
- Age
- Patient's general condition: physical/psycho-spiritual, emotional
- Resources and support

Management/Treatment

- Cancer is a death sentence
- Is it true that if you are given chemotherapy or go through radiation in treatment you will die earlier since cancer does not want to be disturbed?
- If you are cut/biopsy or have surgery the cancer will spread faster and you will die soon??? “Cancer haidi kubatwabatwa”.

Management/Treatment Cont...

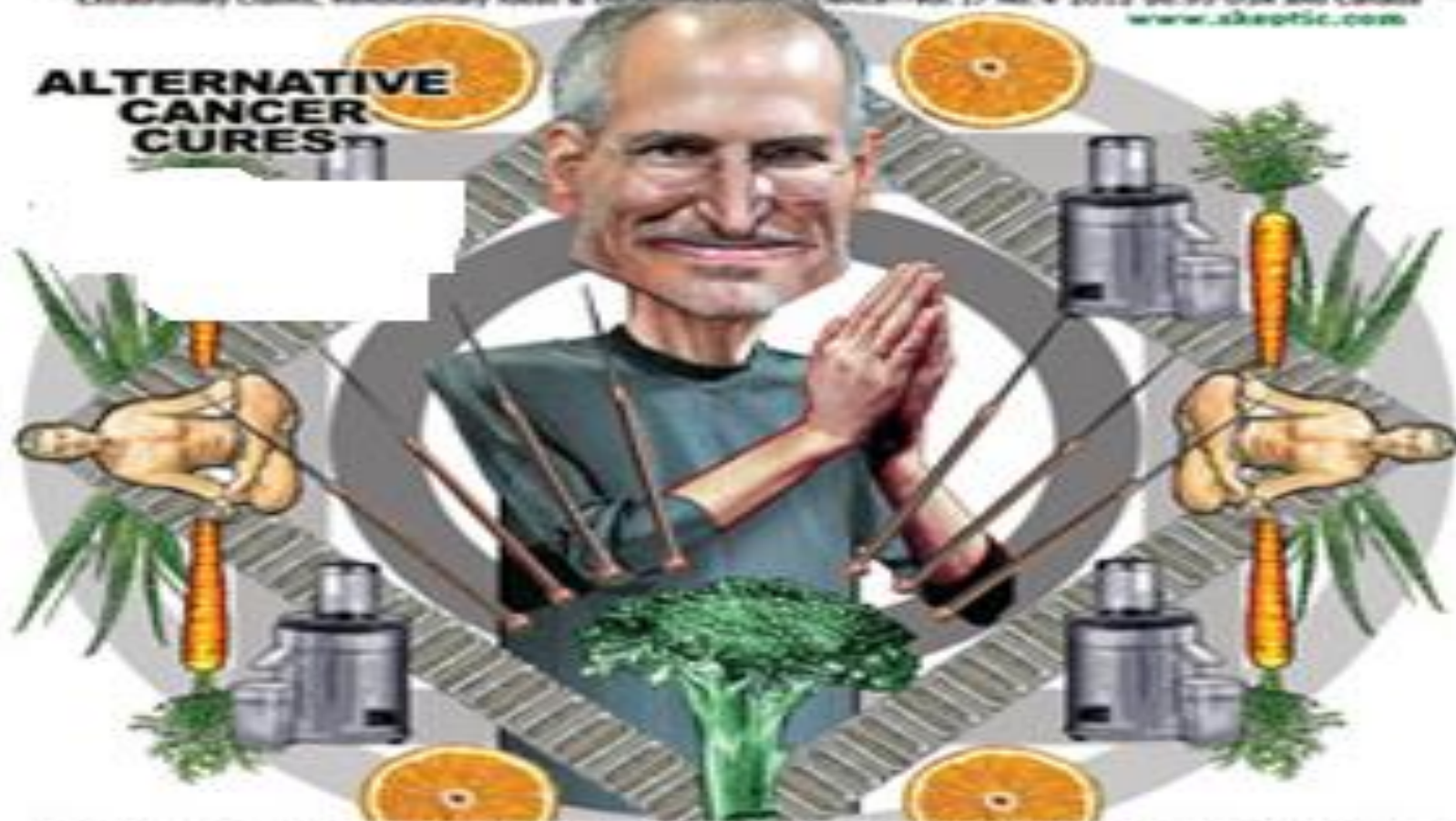
- Cancer causes hair loss
- Can you breast feed when you are having cancer treatment? Or when you have had breast cancer?
- Availability, access and cost of treatment are beyond the ordinary Zimbabwean. What is being done to those who cannot afford treatment?

ALTERNATIVE CANCER CURES • WAS JESUS MARRIED? • PHYSICS & FREE WILL

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**THE
CANCER
CURE
THAT
WORKED!**

**FIFTY YEARS OF
SUPPRESSION**

Preventing Cancer SUMMARY

- 1. Avoid Smoking and create smoke free environments**
- 2. Eat healthy**
- 3. Be physically active**
- 4. Avoid or Limit Your Alcohol Intake**
- 5. Avoid environment and occupational carcinogens**
- 6. Protect your skin and early recognition of skin changes**
- 7. Avoid cancer causing infections**
- 8. Know Your Personal and Family Medical History**
- 9. Stress management**
- 10. Get Screened for Cancer Regularly**

Cancer Prevention Conclusion

- ❑ - 1/3 of cancer deaths can be avoided through prevention and
- ❑ - 1/3 another third can be cured if detected and treated early

PREVENTION SAVES LIFE

CONCLUSION

- A cancer diagnosis **does not** have to mean death
- There is something that we can ALL do to alleviate cancer burden:
 - **PREVENTION**
 - **TREATMENT**
 - **EARLY DETECTION**
 - **PALLIATIVE CARE**
- We must not feel helpless when faced with this a diagnosis of cancer

Further information and assistance

- Dr Nomsa Tsikai 0772275888

E-mail- nomsatsikai@gmail.com

- Cancer Association

707444 or 705522

E-mail- cancer@mweb.co.zw

THANK YOU!!!!