

# Getting Prepared for the Cancer Tsunami with the Grey Tsunami



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# Global Cancer Tsunami and Developing Countries

## Society in Transition



# Disclosure slide

- ☑ I have no potential conflict of interest to report for this Talk
- All Views and Opinion EXPRESSED are My Personal and not related to any Organization or Board I am associated with.
- I do believe that my views are liable to change which is desirable and necessary.



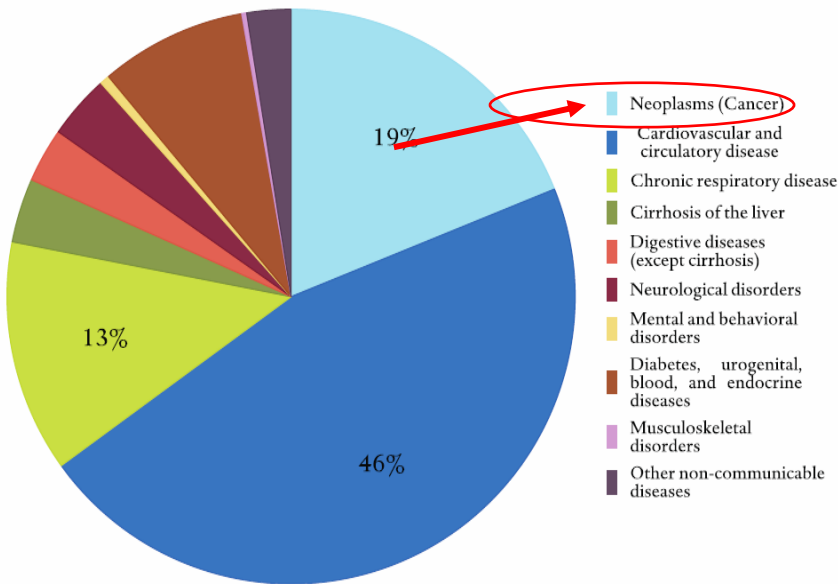
# The World in Next 35 Years

- **Population** **9.5 Billion by 2050**
- **Fossil Fuel Resources** **80% Reduction by 2050**
- **Rain Forests** **45% Reduction by 2050**
- **Life Expectancy** **Closer to 100 years**
- **Urban Population** **More than 60% globally**

# Are NCDs an emerging crisis in LMICs countries?

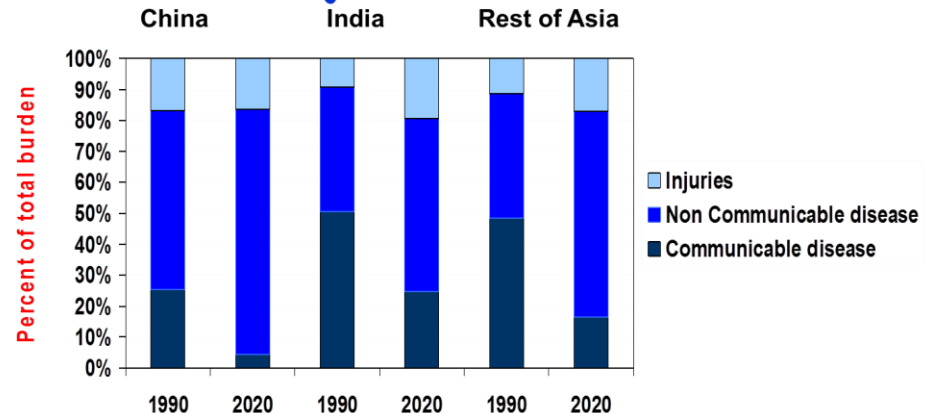
## Causes of NCD deaths in LMICs

NCD Deaths in All Low- and Middle-Income Countries: 2013



## Epidemiologic transition

### Current & Projected Burden of Diseases



(Murray & Lopez, 1990)

# Three socio-economic groups



30 %



Savita kirloskar / Reuters



5 %



65 %

# Globocan 2008

## Cancer Incidence and Deaths

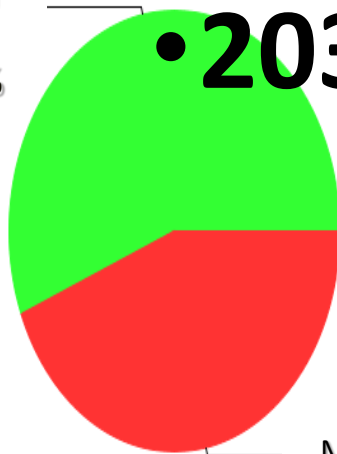
Less Developed versus More Developed Countries

**1970 – 15% LMIC**

Cancer Incidence

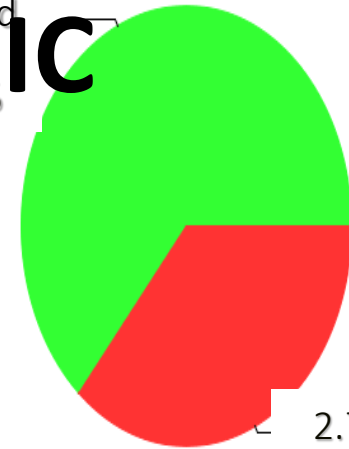
Cancer Deaths

Less Developed  
7.1 million; 56%



More Developed  
5.6 million; 44%

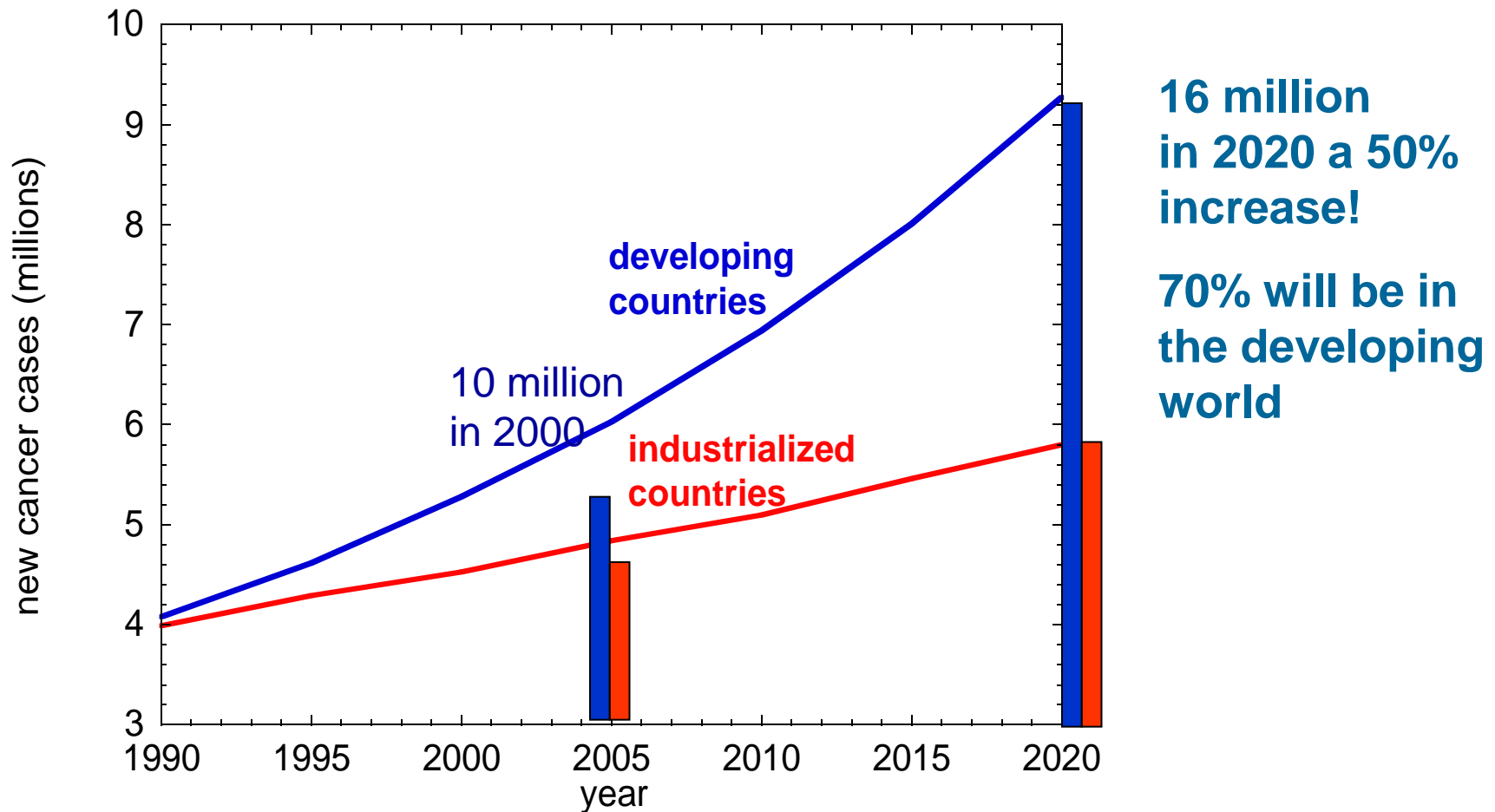
Less Developed  
4.8 million; 64%



More Developed  
2.7 million; 37%

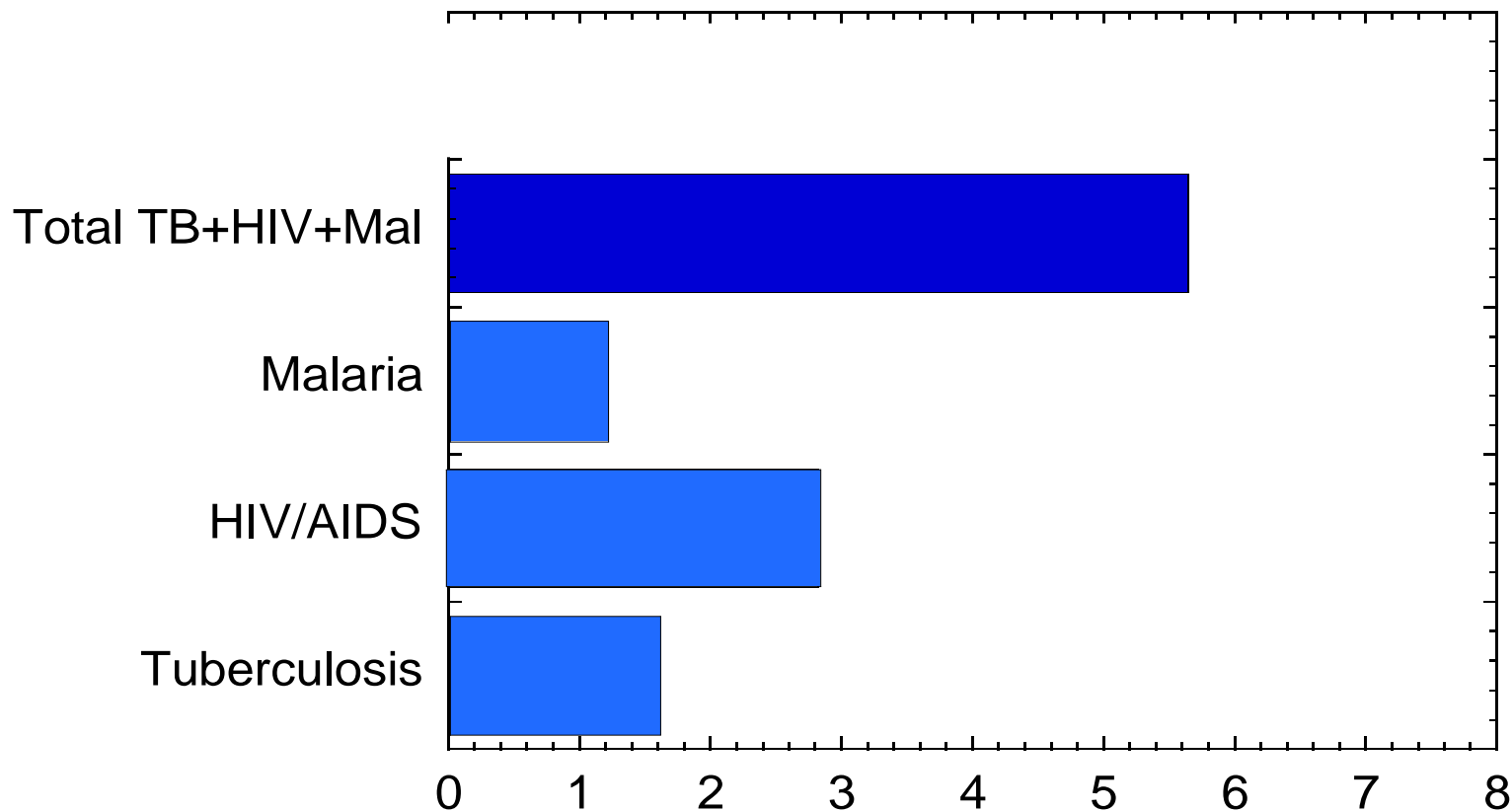
**• 2030 – 70% LMIC**

# Worldwide annual new cases of cancer



WHO (2003)

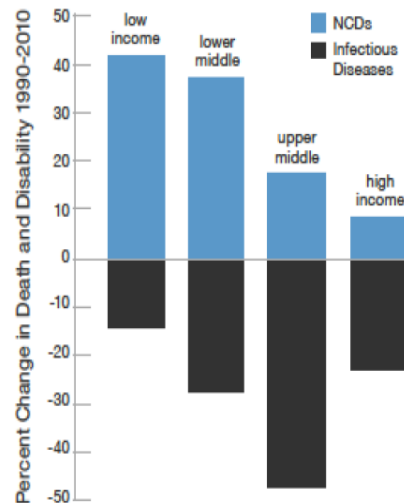
# Millions of deaths in 2002



WHO  
(2003)

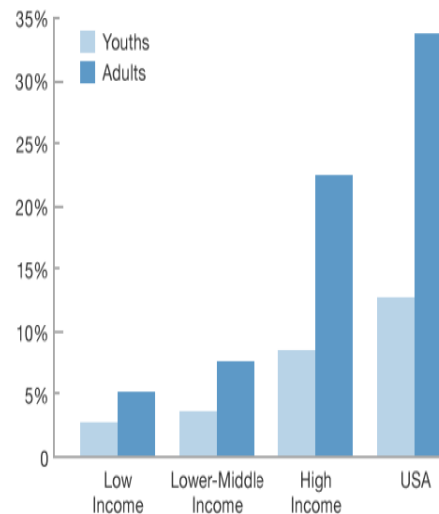
# Not Merely a By-product of Success & Unhealthy Lifestyles

Rise of NCDs exceeds decline of infectious diseases in developing countries



Source: Institute for Health Metrics and Evaluation, Global Burden of Disease Study (2010)

Rates of obesity are rising, but still relatively low in developing countries



Source: Institute for Health Metrics and Evaluation, Overweight and Obesity Viz.

NCDs will inflict  
**\$21.3** trillion  
in losses  
in developing countries  
over the next two decades

Source: Bloom et al., World Economic Forum (2011)

# Cancer Care and Control: A Call to Action

Farmer P et al, Lancet, August 2010

Health Policy



## Expansion of cancer care and control in countries of low and middle income: a call to action

*Paul Farmer, Julio Frenk, Felicia M Knaul, Lawrence N Shulman, George Alleyne, Lance Armstrong, Rifat Atun, Douglas Blayney, Lincoln Chen, Richard Feachem, Mary Gospodarowicz, Julie Gralow, Sanjay Gupta, Ana Langer, Julian Lob-Levyt, Claire Neal, Anthony Mbewe, Dina Mired, Peter Piot, K Srinath Reddy, Jeffrey D Sachs, Mahmood Sarhan, John R Seffrin*

*Lancet* 2010; 376: 1186-93

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See *Editorial* page 1117

See *Perspectives* page 1135

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Substantial inequalities exist in cancer survival rates across countries. In addition to prevention of new cancers by reduction of risk factors, strategies are needed to close the gap between developed and developing countries in cancer survival and the effects of the disease on human suffering. We challenge the public health community's assumption that cancers will remain untreated in poor countries, and note the analogy to similarly unfounded arguments from more than a decade ago against provision of HIV treatment. In resource-constrained countries without specialised services, experience has shown that much can be done to prevent and treat cancer by deployment of primary and secondary caregivers, use of off-patent drugs, and application of regional and global mechanisms for financing and procurement. Furthermore, several middle-income countries have included cancer treatment in national health insurance coverage with a focus on people living in poverty. These strategies can reduce costs, increase access to health services, and strengthen health systems to meet the challenge of cancer and other diseases. In 2009, we formed the Global Task Force on Expanded Access to Cancer Care and Control in Developing Countries, which is composed of leaders from the global health and cancer care communities, and is dedicated to proposal, implementation, and evaluation of strategies to advance this agenda.

# The Cancer Care Delivery System is in Crisis

**Cancer care is often not as patient-centered, accessible, coordinated, or evidence based as it could be.**

# Global Grey Tsunami and Developing Countries

## Society in Transition



# Elderly Population-Facts!

- World population of 6.1 billion at the dawn of 21<sup>st</sup> century is likely to become **9.3 billion in 2050** (UN 2004).
- Global aged population from **595 million to 2 billion** – a four fold rise-by 2050!
- In terms of proportion -10% in 2000, 15% by 2025, rising to **21.6% by 2050**.
- **80+ would be fastest to grow**
- 80% are in rural areas
- 40% are below poverty line
- 73 per cent are illiterate.
- 90 % of the old people have no official social security .



# Cancer and the Elderly

- By 2030, 20% of the population will be over the age of 65
- 60% of people diagnosed with cancer are 65 years or older
- 70% of all cancer deaths occur in those 65 and older
- 25% of elderly patients with distress will go unnoticed
- Coping with cancer at older ages is particularly difficult because of other life cycle events and losses
- Retirement, widowhood, death of peers
- Loss of hearing, sight, and mobility.



# What's so special about growing old?





- Decreasing life expectancy
- Increasing comorbidity (competing causes of mortality)
- Increasing cognitive and functional impairment
- Increasing frailty
- Altered pharmacokinetics/dynamics as well as homeostasis
- Limited oncology evidence base

# What's different about older patients?

- Heterogeneity of health status
- Under-reporting of symptoms
- Atypical presentation of common illnesses
- Increased importance of social support
- Increased rates of adverse effects to medications and therapies
- Different goals of therapy

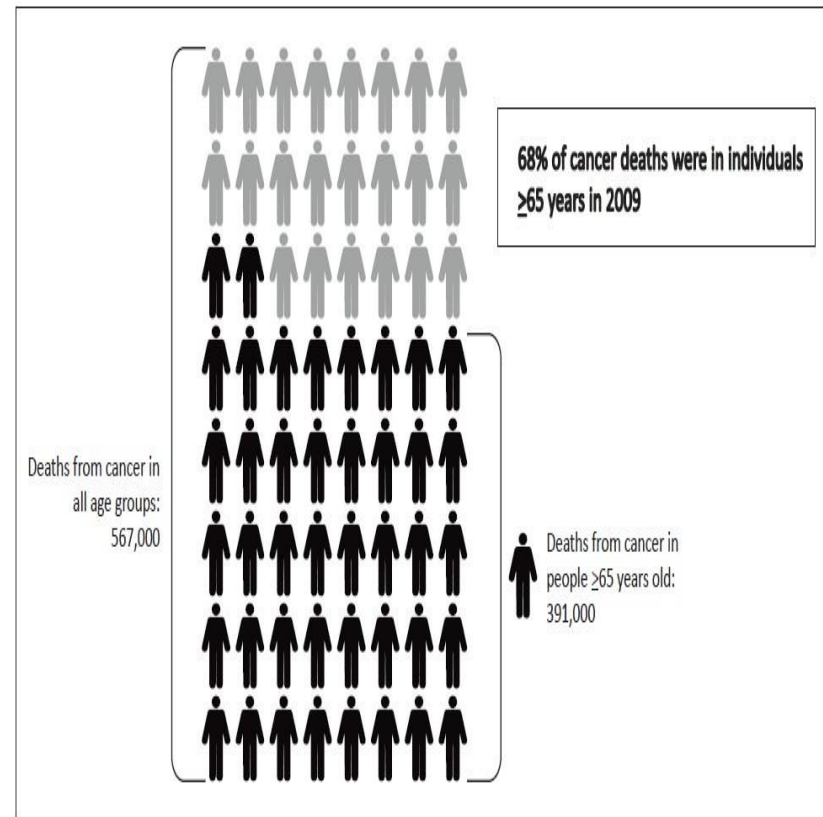
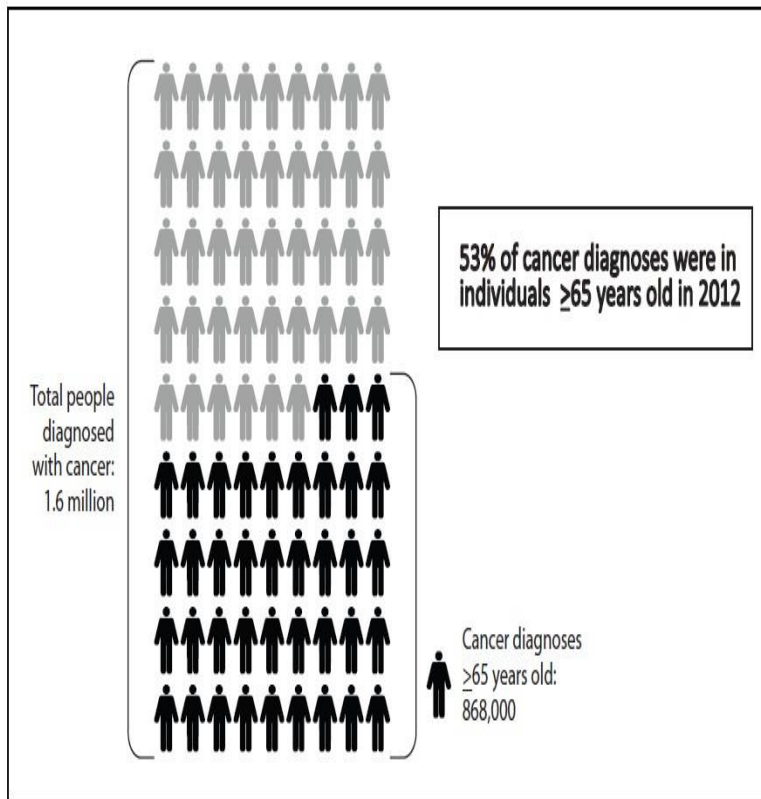


# Trends Amplifying the Crisis

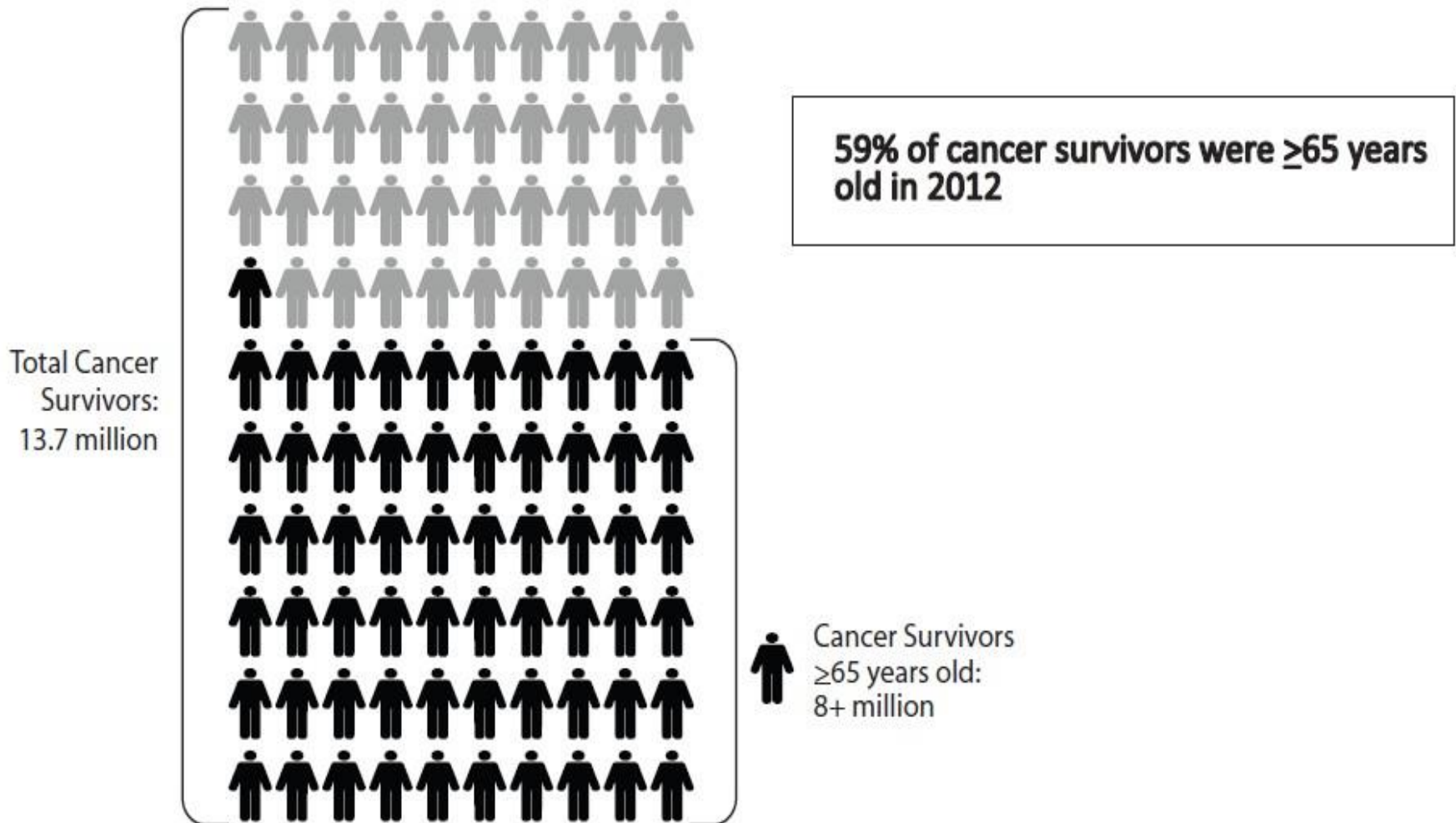
- The aging population:
  - 30%  in cancer survivors by 2022
  - 45%  in cancer incidence by 2030
- Workforce shortages
- Reliance on family caregivers and direct care workers
- Rising cost of cancer care:
  - \$72 billion in 2004  \$125 billion in 2010
  - \$173 billion anticipated by 2020 (39% )
- Complexity of cancer care
- Limitations in the tools for improving quality

# The Majority of Cancer Diagnoses are in Older Adults

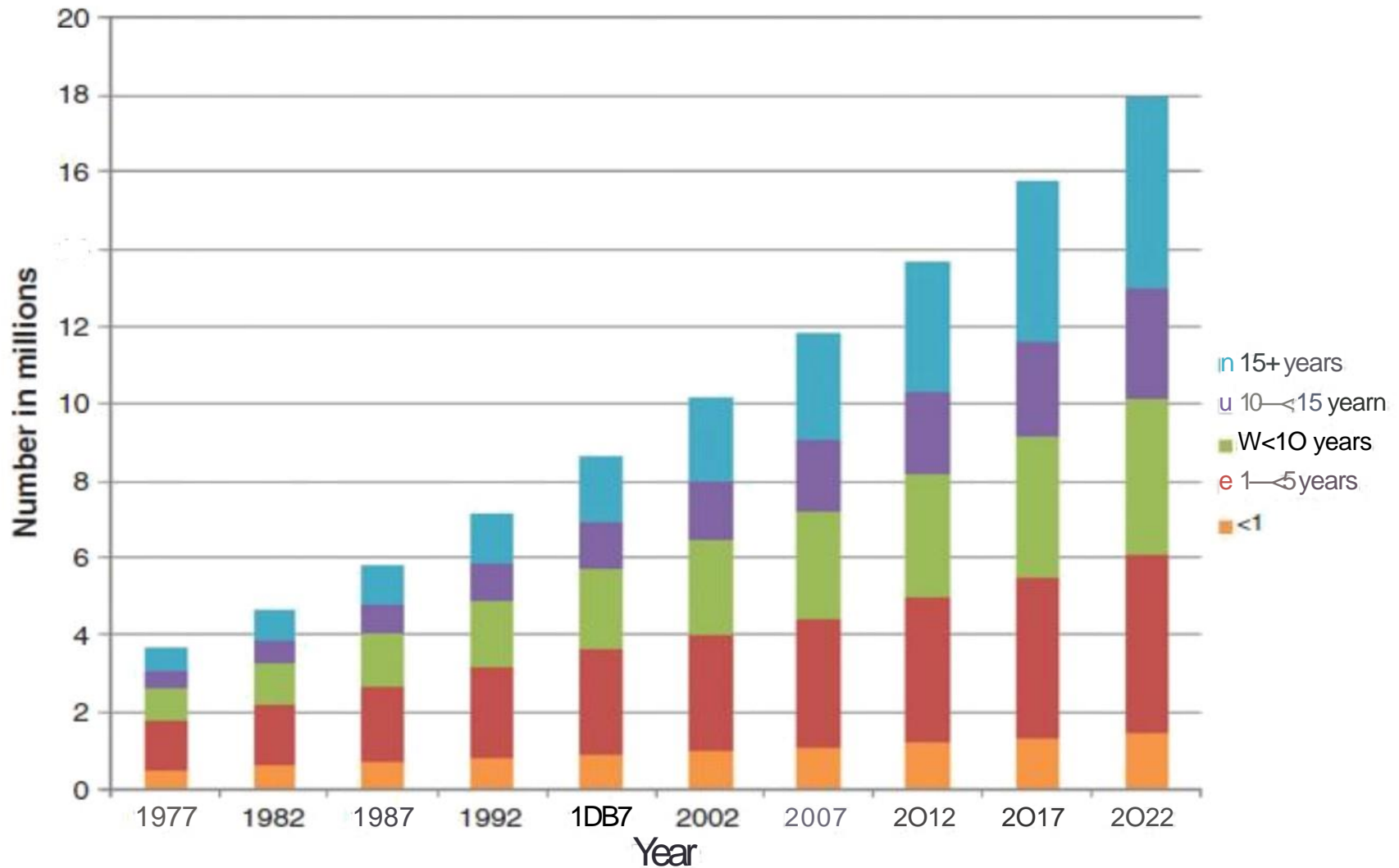
# The Majority of Cancer Deaths are in Older Adults



# The Majority of Cancer Survivors are Older Adults



# 18 Million Cancer Survivors Projected in 2022



# Solutions



# Impediments

- Stigmatization
- Lack of knowledge
- Society Structure/patriarchal/tribal
- Social restrictions
  - Lack of access to detection, particularly for the poorest
  - Low quality primary care services
- Religious beliefs
- Governance



# The Stigma of Cancer

## **Embarrassment**

- Family Embarrassment
- Physician's gender

## **Family relationships, e.g.**

- Male approval

## **Fatalism, e.g.**

- Whatever happens is “Lord's will”

## **Traditional healers consultation, e.g.**

- Belief in traditional medicine efficacy: 39%



# Barriers -- in *ALL* countries Context is everything

Structural violence (Farmer):

- “extreme”. The diffuse and indirect oppressive societal forces whose routine application limits individual choices in the extreme
- Political terrorism
- Racism genocide
- Cultural extremism
- Class discrimination
- Gender discrimination
- gendercide
- Market terrorism
- Religious terrorism
- Poverty

# Operationally and practically speaking “barriers” mean NO CHOICE

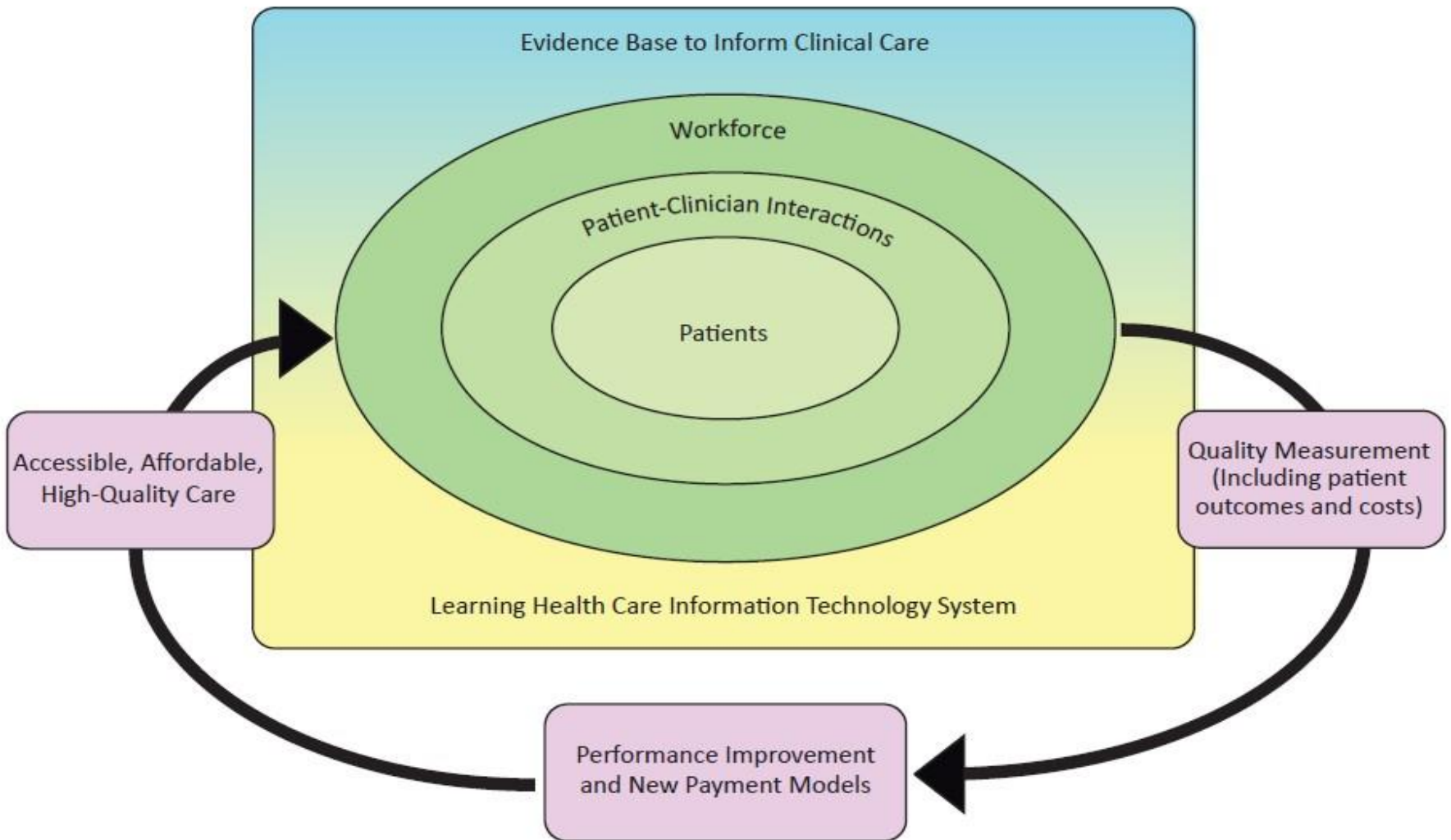
- Interviewed women **KNOW** from early on when they have a serious breast problem.
- But they say I had **NO “CHOICE”**:
  - No **money**”
  - Priorities: feeding, clothing and school supplies for children.
  - No permission from husband, family
  - It is not my place to seek help
  - Getting care is complicated
  - No good solutions anyway

In sum: the issues are HUMAN RIGHTS issues,  
which

need attention if women are to have real choices.

# Conceptual Framework

## A High-Quality Cancer Care Delivery System



# Obstacles to Cancer Control in Less Developed Countries

- Access to care is generally limited
  - Too few tertiary care institutions and limited expertise
  - Expenditure on health care low; cancer can be costly
  - Poor populations with limited education
- Prevention is underemphasized
  - FCTC implementation hindered
  - Limited public education (risks and lifestyle)
    - ☐ Main emphasis on treatment but not early detection
  - Education critical; some cancers can be screened for
    - ☐ Late presentation limits treatment options
- Limited opioid availability for pain control



# Cancer Control: Reducing Morbidity and Mortality

- Prevention (avoidance of exposure to risk factors) most desirable when feasible
  - Not possible for all cancers
  - Will have its impact only after many years
  - Treatment (many cancers are curable)
    - Early diagnosis ensures higher chance of cure for most cancers with simpler, cheaper therapy
- Palliative care (providing physical and mental comfort to patients and families)
  - Access to opioids essential: 80% of patients with advanced cancer require pain control



# Goals of the Recommendations

1. Provide clinical and cost information to patients.
2. End-of-life care consistent with patients' values.
3. Coordinated, team-based cancer care.
4. Core competencies for the workforce.
5. Expand breadth of cancer research data.
6. Expand depth of cancer research data.
7. Develop a learning health care IT system for cancer.
8. A national quality reporting program for cancer care.
9. Reduce disparities in access to cancer care.
10. Improve the affordability of cancer care.



BBC one



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a multidisciplinary approach in a global environment”***



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