

# **S.T. LEE LECTURE (2010)**

## **GLOBAL POLICY RESPONSE TO CHRONIC (NON-COMMUNICABLE) DISEASES: FROM APATHY TO ACTION**



**Prof K Srinath Reddy**

**President**

**Public Health Foundation of India &**

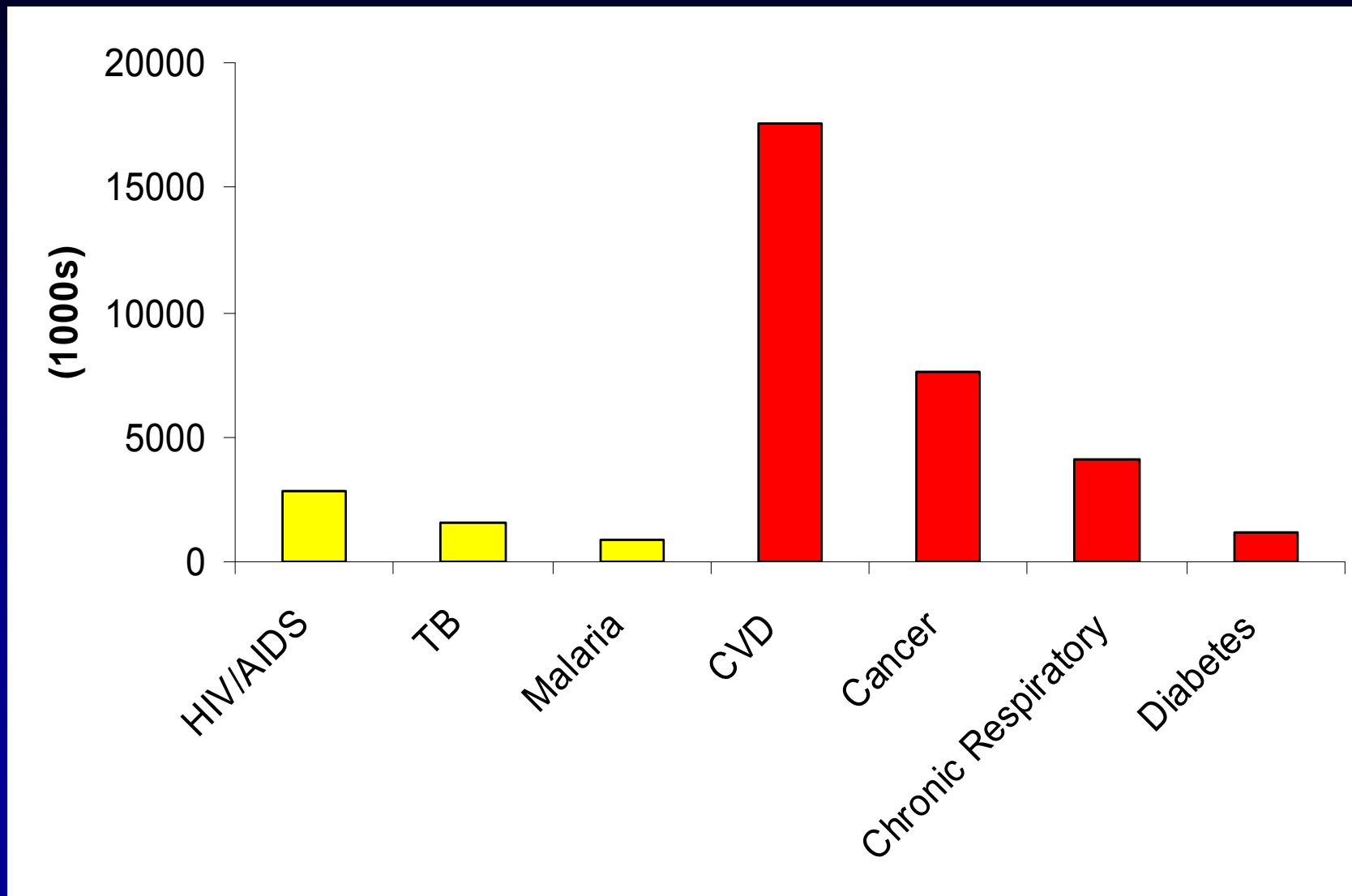
**Professor of Cardiology**

**All India Institute of Medical Sciences, New Delhi**

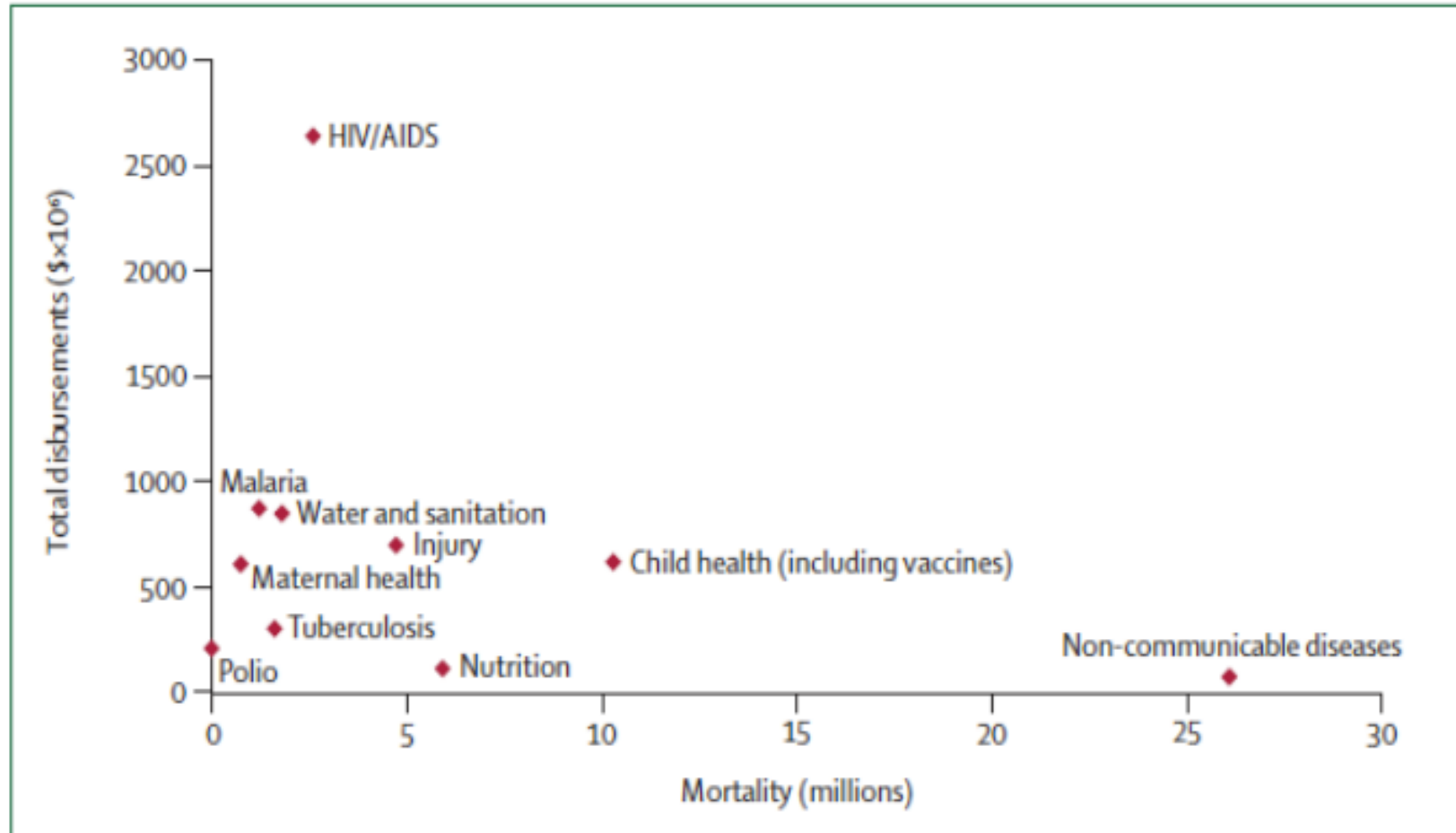
## **Q. ARE NCDs NEGLECTED DISEASES AT THE GLOBAL LEVEL?**

- Do they get attention at the policy level?**
- Do they get the resources they need from funding agencies?**

# GLOBAL DEATHS BY CAUSE 2004



Preventing chronic diseases : a vital investment : WHO global report 2005



**Worldwide Mortality (2001) Versus Disbursements (2005) of World Bank, US Government, Bill & Melinda Gates Foundation, Global Fund to fight HIV/AIDS, Tuberculosis and Malaria (Sridhar and Batniji, 2008).**

**“What aspects of a situation are made most salient so as to promote a particular problem definition, causal interpretation, moral evaluation and/or treatment recommendation? What context do we place around information and how do these change the way people make decisions and attribute responsibility for events?”**

*(Will Freidman, 2008).*

# A Framework for Determinants of 'Issue Attention' in Global Health

- (i) The collective strength of the actors mobilising around an issue;
- (ii) The ideas they use to portray and position the issue;
- (iii) The issue characteristics that pertain to inherent features of the issue; and
- (iv) The nature of the political context or features of the environment that individuals confront as they seek to advance attention of the issue, including other actors who do not work on the issue

*(Jeremy Shiffman, 2010)*

# **HOPE**

**After years of neglect, NCDs are finally receiving attention from national and global policy makers.**

# **DOUBT**

**Will this attention be followed by resource allocation at a level commensurate with the needs?**

# **APPREHENSION**

**Even if resource flow increases, will it go mainly to curative care and prevention remains neglected?**

# WHY THE LONG NEGLECT?

- **Lack of Information**  
(On: Disease Burdens; Economic Impact)
- **Lack of Awareness**
- **Lack of Advocacy**
- **Lack of Resources**
- **Competing Priorities**
- **False Perceptions**

# **FALSE PERCEPTIONS (MYTHS)**

- **Problem only of HIC**

**In LMIC**

- **Only rich are affected**
- **Only urban elites are affected**
- **Only elderly are affected**
- **Mainly men are affected**

## 23 LMIC

80% of global mortality burden due to chronic diseases is from the developing countries

As the working age population expands, and if high death rates continue, the burden of chronic disease will rest on the shoulders of workers

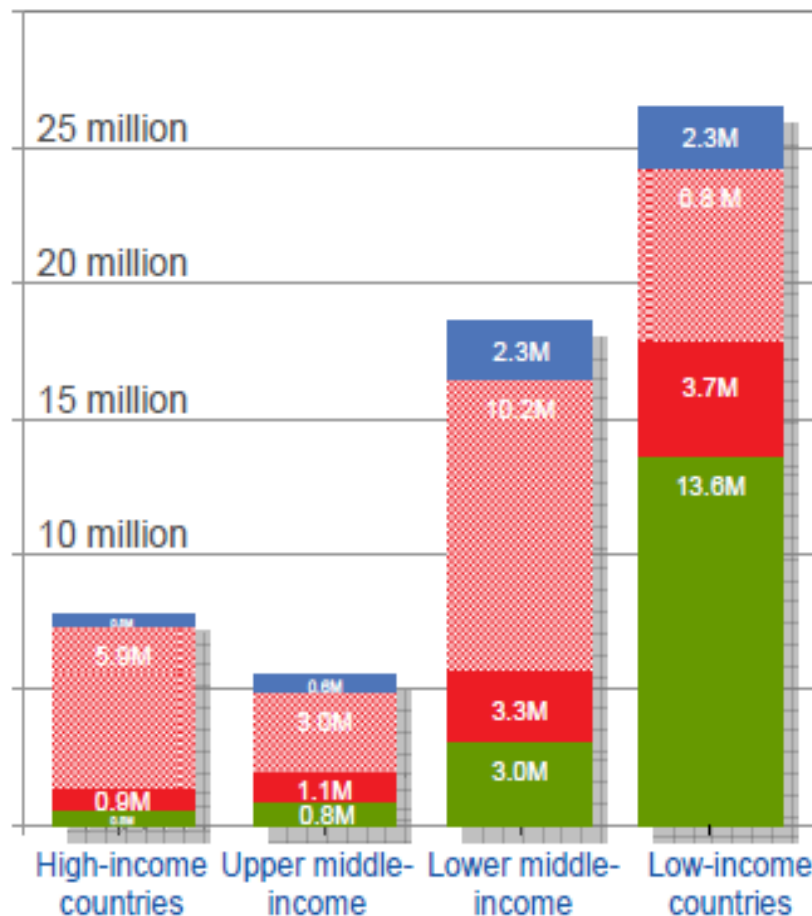
Chronic diseases account for 50% of total disease burden in these countries

US\$84 billion of economic production will be lost from heart disease, stroke, and diabetes alone in these 23 countries between 2006 and 2015

*(Abegunde D et al, Lancet 2007)*

## 90% of world's people who die prematurely from noncommunicable diseases live in developing countries

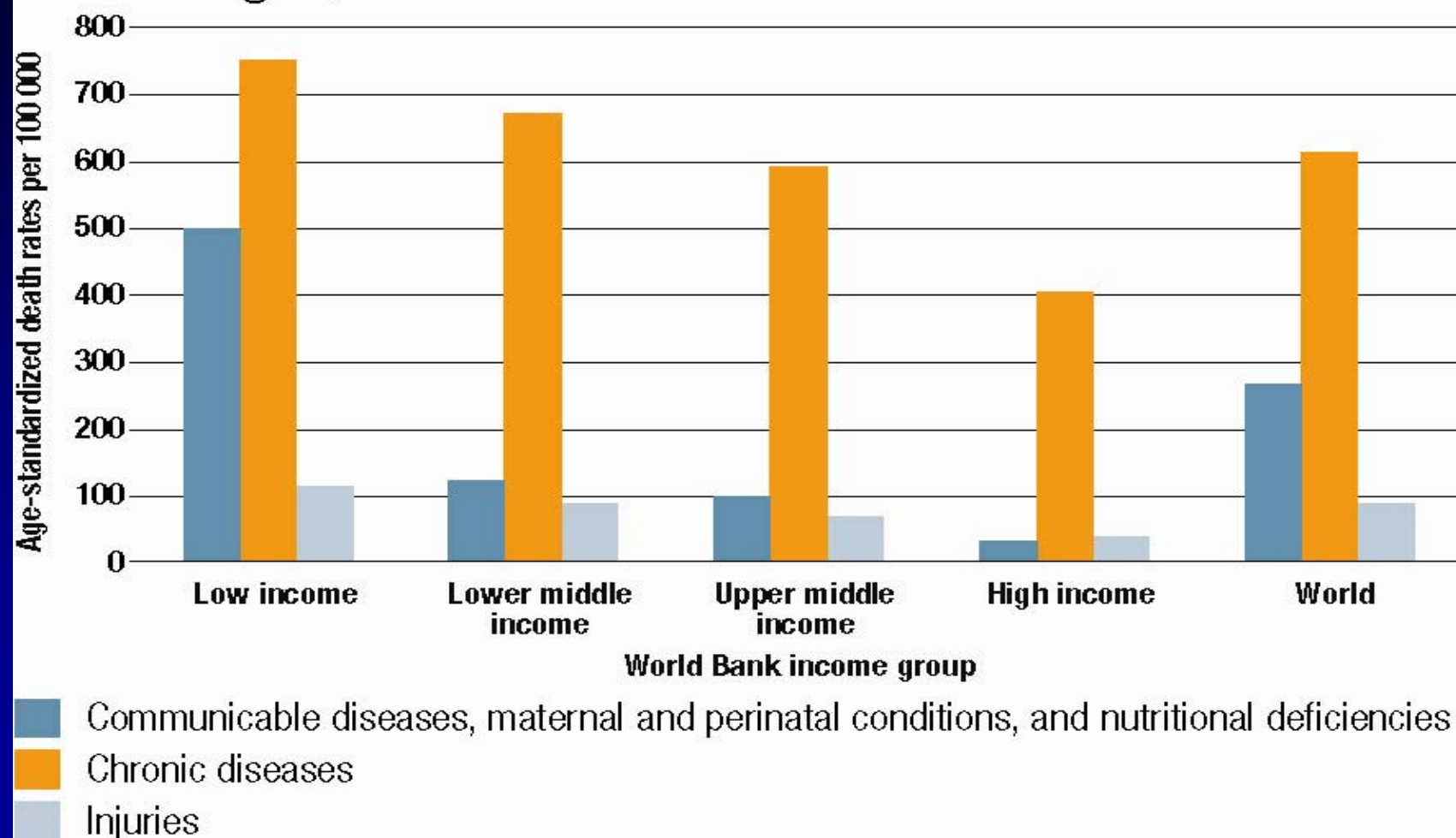
Total number of deaths (2004)



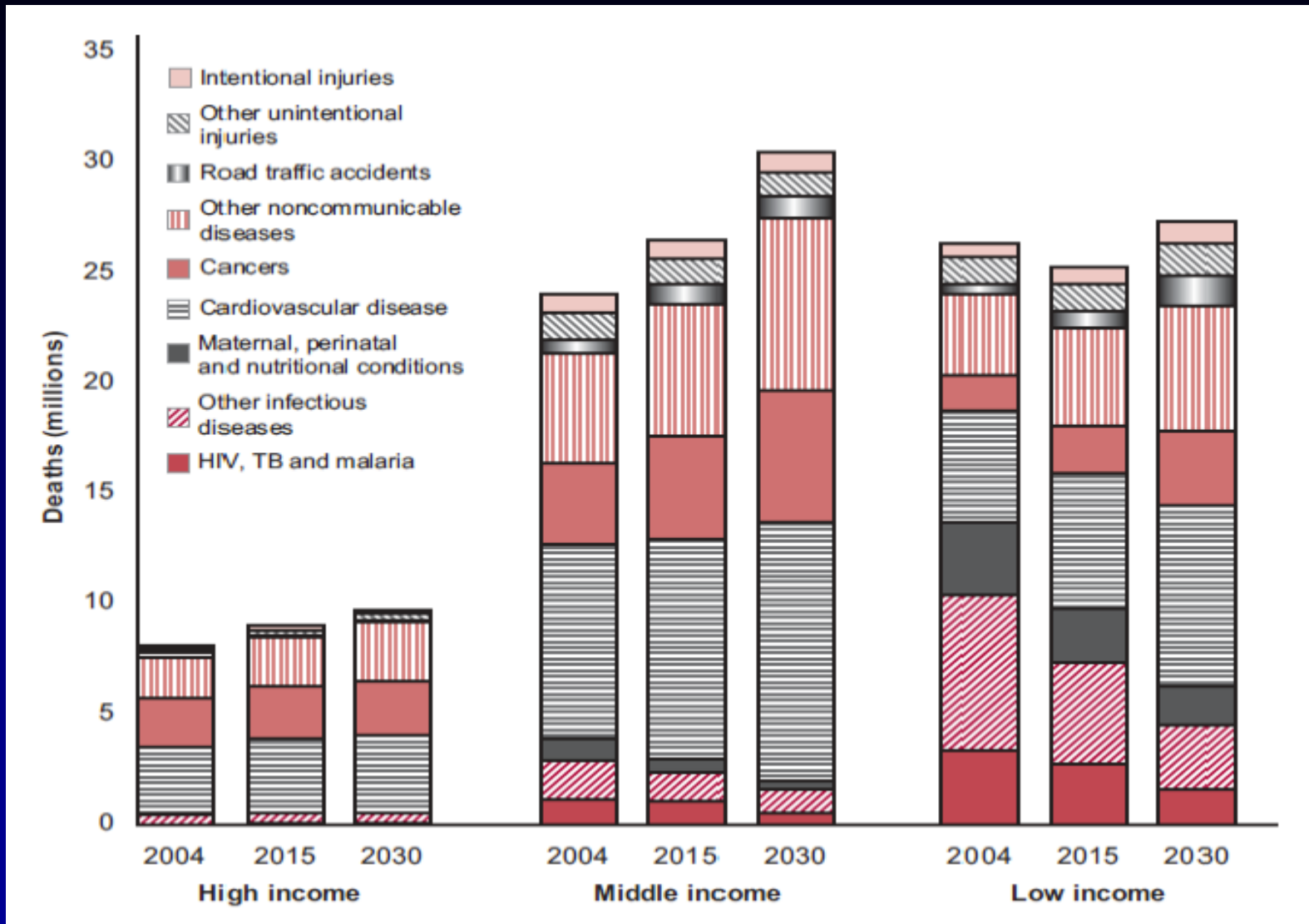
**Annually, 8.1 million premature deaths from noncommunicable diseases occur in developing countries**

- Group III - Injuries
- ▨ Group II - Other deaths from noncommunicable diseases
- Group II - Premature deaths from noncommunicable diseases (below the age of 60), which are preventable
- Group I - Communicable diseases, maternal, perinatal and nutritional conditions

## Projected main causes of death by World Bank income group, all ages, 2005



Source: WHO Global Report: Preventing Chronic Diseases: a vital investment, 2005.  
[http://www.who.int/chp/chronic\\_disease\\_report/en/index.html](http://www.who.int/chp/chronic_disease_report/en/index.html)



**Projected global numbers of deaths by cause for high-, middle- and lowincome countries (WHO, 2008)**

**These Are Recent Estimates – Not  
New Information!**

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**GLOBAL BURDEN OF DISEASE STUDY  
(1990-1994)**

**PROVIDED DATA ON THE HIGH (1990) AND  
PROJECTED RISE (2020) OF NCDS IN LMIC**

**YET .....**

- **Policy Response was Mute**
- **Resource Allocation Was Low**
- **NCDs Found No Place**

**in the**

- **Millennium Development Goals of 2000!**

**POVERTY AND NCDs –  
A TALE OF TEN YEARS  
(1999-2009)**

# The World Bank Stand on NCDs (1999)

**Article Title:** The burden of disease among the global poor  
**Authors:** Gwatkin DR, Guillot M, Heuveline P  
**Publication:** Lancet 1999; 354: 586-89  
**Method:** Comparison of disease burdens in the richest 20% and poorest 20%

“A faster decline in communicable diseases would decrease the poor-rich gap in 2020, but under an accelerated rate of overall decline in non-communicable diseases, the poor-rich gap would widen”

## **GWATKIN et al 1999: Concluding Paragraph**

“Caution is needed before policy-makers embrace the current shift in emphasis from communicable diseases among the young toward non-communicable disorders at older ages. Such a shift is no doubt justifiable from an overall global perspective, but the figures developed here suggest that the shift turns away from the diseases of greatest importance for the world’s poor, and turns toward those of less importance for the poor and of greater importance for the rich.”

## **REBUTTAL: A LONE VOICE FROM LMIC**

**Article Title:** The burden of disease among the global poor  
(Letter to the Editor)

**Author:** K. Srinath Reddy

**Publication:** Lancet 1999; 354: 1477

**Posers:** What about the middle 60% - they are from LMIC?  
What about tobacco which is mainly a problem of the poor?

**“Epidemics of non-communicable diseases will increasingly burden the poor, and more importantly, the rising costs of clinical care for those with noncommunicable diseases will adversely affect the ability of less-developed countries to deal with the unfinished agenda of communicable diseases. The control of communicable diseases and the prevention of non-communicable diseases must proceed simultaneously.”**

# REBUTTAL: THE CONCLUDING PARAGRAPH

“The only way to bridge the rich-poor gap in health is to ensure equitable global development and speedy redressal of poverty in less-developed countries (including release from the debt trap), and not through an artificial moratorium on public-health efforts to contain non-communicable diseases. Will the World Bank help to address these real priorities?”

# **THE WORLD BANK'S FULL REPORT (1999)**

**“Communicable diseases matter much more than non-communicable conditions for poor groups within society”**

**“Any shift of emphasis in global disease priorities from the unfinished [communicable disease] to the emerging [noncommunicable] disease agenda would represent a move away from the problems that are most important for the poor”.**

**- Gwatkin DR et al**

# THE LANCET WRITES AN EDITORIAL

**Article Title:** A manipulated dichotomy in global health policy

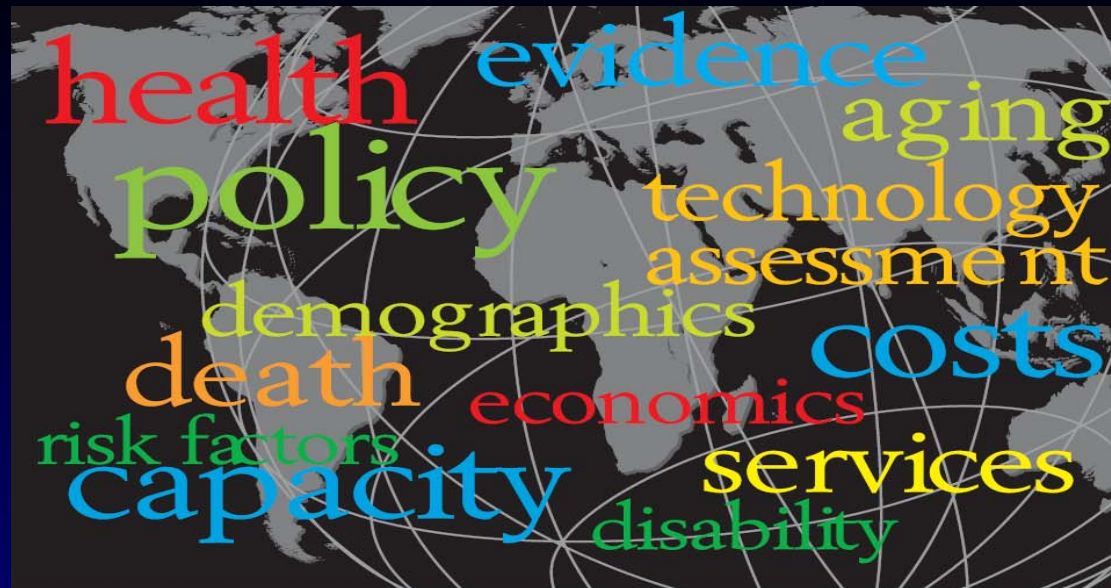
**Publication:** Lancet 2000; 355:1923

“Gwatkin et al concluded that if the world focused on reducing the burden of non-communicable disease, the gap between rich and poor would widen.”

“These views were widely reported in the medical press. But they provoked a strong refutation in *The Lancet's* columns from Srinath Reddy at the All India Institute of Medical Sciences. He argued that, by ignoring the middle 60% of the world's population who live mostly in less-developed regions, Gwatkin et al's calculation “subverts the efforts of less-developed countries to address important policy issues related to global determinants of non-communicable diseases”, such as tobacco.”

## **THE LANCET'S CONCLUDING PARAGRAPH**

“The most disquieting aspect of this obfuscation is that the World Bank is now buttressing a beleaguered World Trade Organisation, and both institutions are opposing the health agenda set out by WHO. This deepening rift among international agencies reveals a betrayal by the Bank of its much-vaunted conversion to a programme of sustainable global development. WHO needs strong supporters if its goals are to be realized against the forces of small-mindedness and big tobacco.”



DIRECTIONS IN DEVELOPMENT  
Human Development

# Public Policy and the Challenge of Chronic Noncommunicable Diseases

## **The World Bank on NCDs (2007)**

**“To what extent do NCDs affect the poor? The answer depends to some extent on the country and the indicator of the NCD burden that is considered. However, in all countries and by any metric, NCDs account for a large enough share of the disease burden of the poor to merit a serious policy response.”**

**WITHIN COUNTRIES**  
**THE LEVEL OF URBANIZATION**  
**DETERMINES THE**  
**PATTERN OF SOCIAL GRADIENT**  
**REVERSAL FOR NCD RISK FACTORS**

*(Reddy KS et al, PNAS, 2007)*

# SES GRADIENT:ORDER OF REVERSAL FOR CVD RISK FACTORS

Tobacco

Blood Pressure

Plasma Cholesterol

↓ Physical Activity

Obesity

Health Transition 

# China: Stroke & Poverty

OOB from Stroke pushed 37% of patients and their families below the poverty line; 62% without insurance went into poverty

# **ECONOMIC IMPACT OF NCD ON HOUSEHOLDS**

**“Many studies tend to underestimate the real cost of non-communicable diseases to individual people and their families, which can cause a household to slip below the poverty line”.**

**“Although these effects of poor health are not unique to NCDs, the longer duration of chronic disease makes the financial costs heavier than in the case of acute illness”.**

*- Joy Phumaphi,*

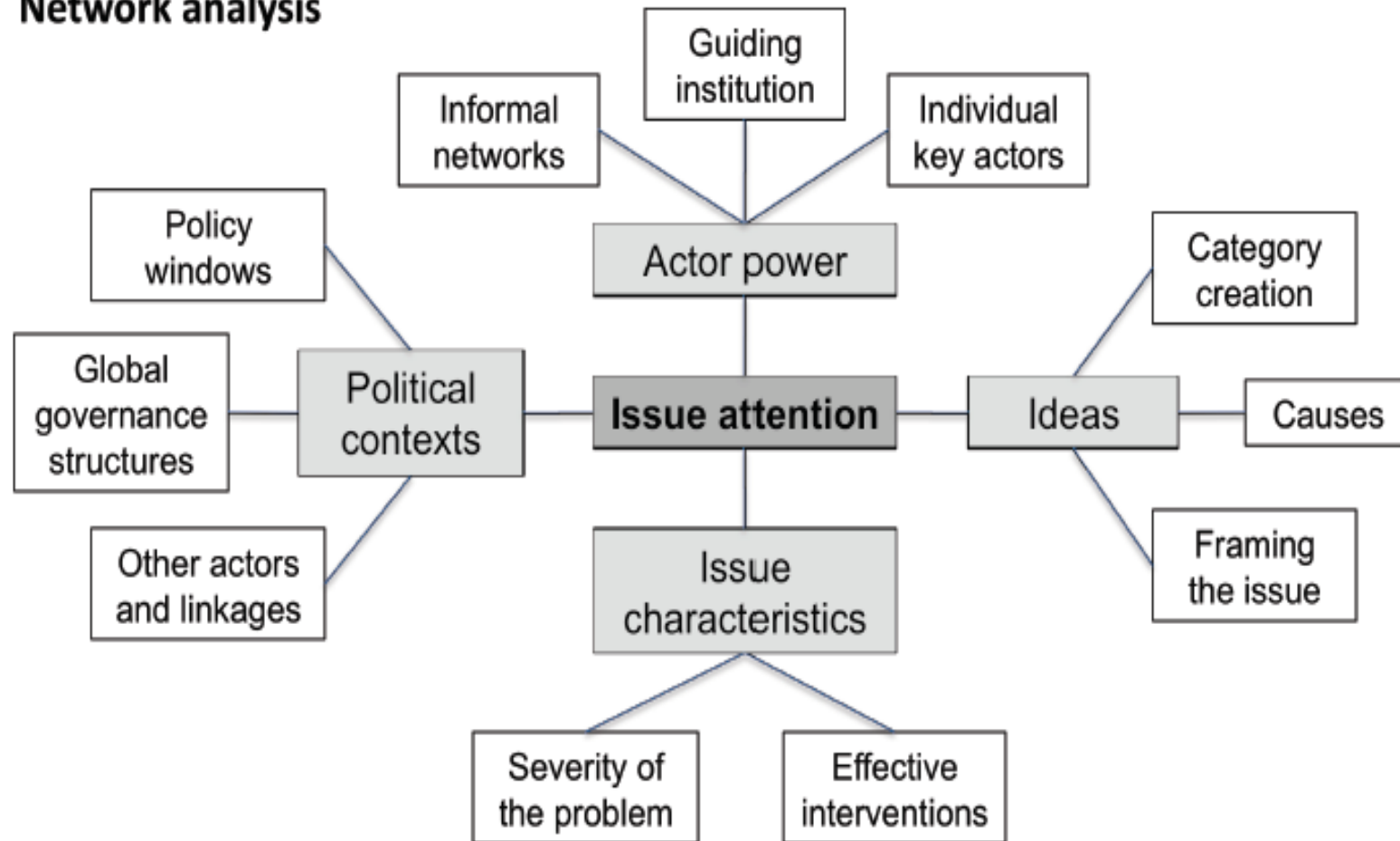
*Vice President of World Bank's Global Development Network (2007)*

# **NOW .....**

- **A momentum appears established**
- **ECOSOC meeting (2009)**
- **UN Secretary General's Meeting (2009)**
- **World Health Assembly Resolution (2010)**
- **UN General Assembly Special Session  
(UNGASS 2011)**

“Cancer, diabetes, and heart diseases are no longer the diseases of the wealthy. Today, they hamper the people and the economies of the poorest populations even more than infectious diseases. *This represents a public health emergency in slow motion.*” Mr Ban Ki-Moon, United Nations Secretary-General. Concluding remarks at UN Forum on Global Health. 2009

## Network analysis



**Network Analysis of Relationships Between the Central Global Theme of Issue Attention, The Four Basic Themes and Their Determinants**  
*(Lisa Manning, 2010)*

# **RESEARCH TO POLICY**

## **(Marshalling The Evidence)**

### **Examples Include:**

- **Economic Assessment (Race Against Time; OXHA reviews)**
- **A vital Investment (WHO, 2005)**
- **Lancet Special Series (2007; 2010)**
- **MPOWER Report on Tobacco Control (WHO, 2008)**
- **IOM Report (2010)**

# **EVIDENCE AMPLIFIED BY ADVOCACY**

- **Advocacy By Civil Society**
  - Global NGO Alliance
  - Tobacco Control Movement
- **Advocacy By Influential Groups:**
  - World Health Organization
  - World Economic Forum
  - Business Councils
  - Health Care Industry

# **BIG MONEY SPEAKS!**

- THE WORLD ECONOMIC FORUM HAS RATED NCDS AT NO.3 AMONG TOP 10 THREATS TO GLOBAL ECONOMY (2009; 2010)**

- US BUSINESS COUNCIL FOR THE UN HOLDS A BRIEFING FOR UN DIPLOMATS (APRIL 2010)**

# **HEALTH CARE INDUSTRY IS INTERESTED**

- **As incomes rise in MICs, more drugs and devices can be sold.**
- **As more governments adopt financing mechanisms for universal health coverage, NCD Care can be public/insurance financed.**

# **IT IS NOT ACCIDENTAL THAT...**

**•RECENT SPURT IN FUNDING FOR NCD RELATED INITIATIVES HAS COME FROM INDUSTRY**

- **Oxford Health Alliance**  
(Novo Nordisk; Pepsi)
- **Ovations Programme**  
(United Healthcare)
- **World Diabetes Foundation**  
(Novo Nordisk)
- **Global NGO Alliance**  
(Medtronic Foundation)
- **Other Funding From Pharma Industry**

# **FOOD INDUSTRY'S RESPONSE: PROACTIVE OR PREEMPTIVE?**

- **Regulatory Activism in HIC; will it set the trend for LMIC?**
  - **Salt (UK)**
  - **Trans-Fats (NY; Denmark)**
  - **Labeling (Many Countries)**
- **Tobacco Control Laws/Litigation feared as precedents as Obesity gains global attention**

# **FOOD INDUSTRY REPOSITIONS ITSELF**

- Voluntary Agreements (US Accord To Withdraw Soft Drinks From Schools; Ongoing Discussion with WHO for Global Extension)**
- PepsiCo announces health friendly goals for product modification**

# **PepsiCo Unveils Global Nutrition, Environment and Workplace Goals**

## **March 22, 2010**

- Increasing the whole grains, fruits and vegetables, nuts, seeds and low-fat dairy in its product portfolio
- Reducing the average sodium per serving in key global food brands in key markets by 25 percent by 2015
- Reducing the average saturated fat per serving in key global food brands in key markets by 15 percent by 2020
- Reducing the average added sugar per serving in key global beverage brands in key markets by 25 percent by 2010
- Display calorie count and key nutrients on food and beverage packaging by 2012
- Eliminate the direct sale of full sugar soft drinks to primary and secondary schools around the globe by 2012

# **WILL RESOURCE FLOWS TO NDC PREVENTION AND CONTROL INCREASE?**

- **More Money For Tobacco Control (Bloomberg; Gates; Countries Implementing FCTC)**
- **More Money For NCD Research (NIH; UK MRC; Global Alliance for Chronic Diseases; Wellcome Trust)**
- **More Money For NCD Advocacy**

# **FUNDING IS LIKELY TO INCREASE FOR DISEASE CONTROL**

- **BP Control**
- **Diabetes Care**
- **Drug Based Prevention of CVD**
- **Cancer Detection & Treatment**
- **Treatment of Asthma**

# **CHALLENGES REMAIN**

- **Will NCD Prevention and Control be Adequately Integrated Into the proposed Health System strengthening reforms**
  - **Vertical vs. Horizontal vs. Diagonal Approaches**
- **Will Prevention Oriented Policy And Community Level Actions be supported politically and financially?**

**WILL NCD PREVENTION AND  
CONTROL BE LEFT TO THE  
'MARKET'**

**OR**

**WILL A COMPREHENSIVE  
FRAMEWORK EMERGE FOR MULTI-  
LEVEL ACTION?**

GLOBAL → NATIONAL → COMMUNITY → FAMILY → INDIVIDUAL

L

Development

*(stage and speed)*

Distribution

*(equity)*

Demand- Supply

*(trade)*

Perceptions

*(cultural)*

Priorities

*(socio-economic)*

Pathways

*(availability, access)*

Beliefs

Behaviours

Biology

# THE HEALTH OF

PERSONS



PEOPLE



POPULATIONS



CALLS FOR DIFFERENT LEVELS OF ACTION

# DETERMINANTS

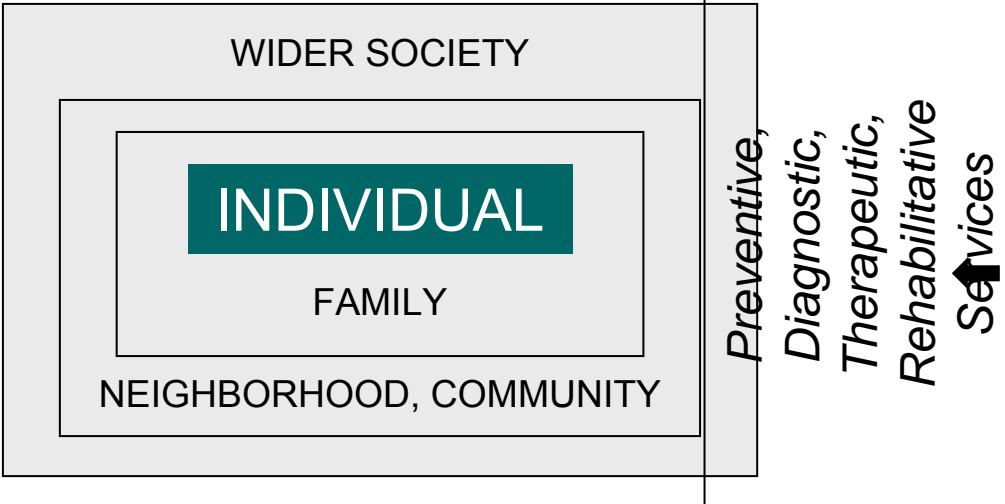
- Globalization
- Demographic Change
- Social Determinants
- Health Inequities
- Education
- Cultural and Social Norms

- Biological Risk
- Behavioral Risk

## POLICY APPROACHES (Global; National; Local)

- Financial
- Legal
- Regulatory
- Trade

*Environment To Enable Individuals To Make and Maintain Healthy Choices*



*Enhancement of Knowledge, Motivation, and Skills of Individuals*

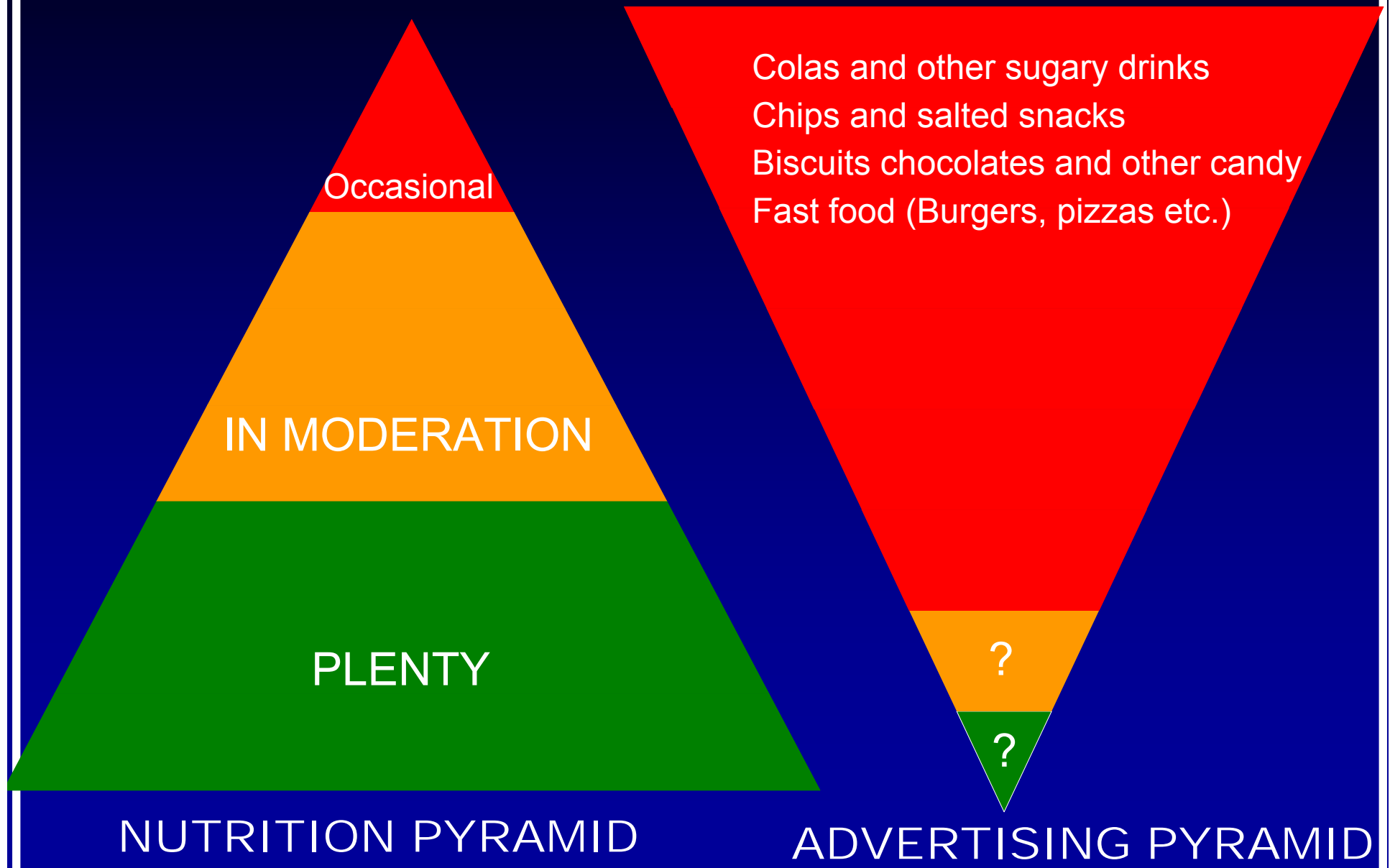
- Media
- Community Interventions
- Settings Based

## HEALTH COMMUNICATION

- Health Workforce
- Drugs & Technologies
- Quality of Care
- Access to Care
- Systems Infrastructure

## HEALTH CARE DELIVERY

# COMMUNICATION TO CONSUMERS; MIS-MATCH BETWEEN SCIENCE AND COMMERCE



# INTERNATIONAL AGENCIES; TRANS-NATIONAL TRADE AND MEDIA

GLOBAL COVENANTS, COMMERCE & COMMUNICATIONS

NATIONAL POLICY  
FRAME WORK

Political, Economic, Social  
Motivators

MOULDING  
THE  
MARKETS

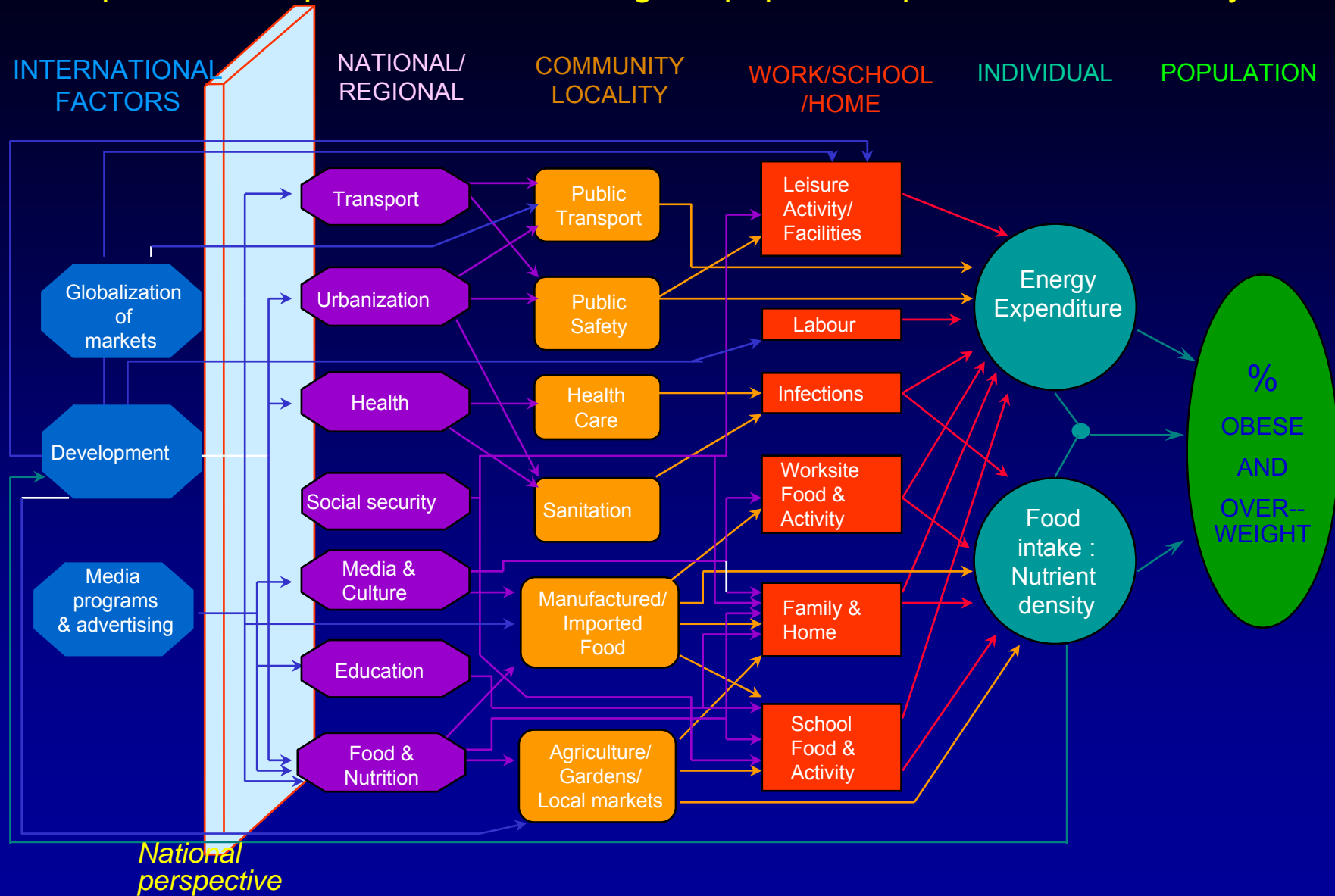
CONSUMER  
CONCIOUSNESS

Health Professionals,  
Civil Society; Media

INDUSTRY PRACTICES

Private-Public Partnerships; Health Dividend

# Societal policies and processes influencing the population prevalence of obesity



Modified from Ritenbaugh C, Kumanyika S, Morabia A, Jeffery R, Antipathies V. IOTF website 1999: <http://www.ietf.org>

# CATALYSING ACTION AT POLICY LEVEL

**Q.** What will make policymakers act through multi-sectoral policy interventions for NCD Prevention and Control of NCDs?

**A.** A combination of Evidence Based Advocacy and Rights Based Advocacy

(Lessons From The Tobacco Control Movement)

# Policy Needs: Interdisciplinary Research

Enlightened policy needs

Aided by

- |  |   |  |
|--|---|--|
| <b>Scientific credibility</b><br>(evidence & rationale?)               | → | <b>Biomedical &amp;<br/>Epidemiological research</b> |
| <b>Financial feasibility</b><br>(cost effective? affordable?)          | → | <b>Health economics<br/>research</b>                 |
| <b>Operational stability</b><br>(sustainable? scalable?)               | → | <b>Health systems research</b>                       |
| <b>Political viability</b><br>(is the community ready &<br>receptive?) | → | <b>Social sciences research</b>                      |

# **TO ACHIEVE GREATER IMPACT ...**

**THE GLOBAL MOVEMENT FOR NCD  
PREVENTION AND CONTROL MUST  
ENGAGE AND INTEGRATE WITH THE  
BROADER MOVEMENT FOR**

- **HEALTH SYSTEMS STRENGTHENING**
- **SUSTAINABLE DEVELOPMENT**

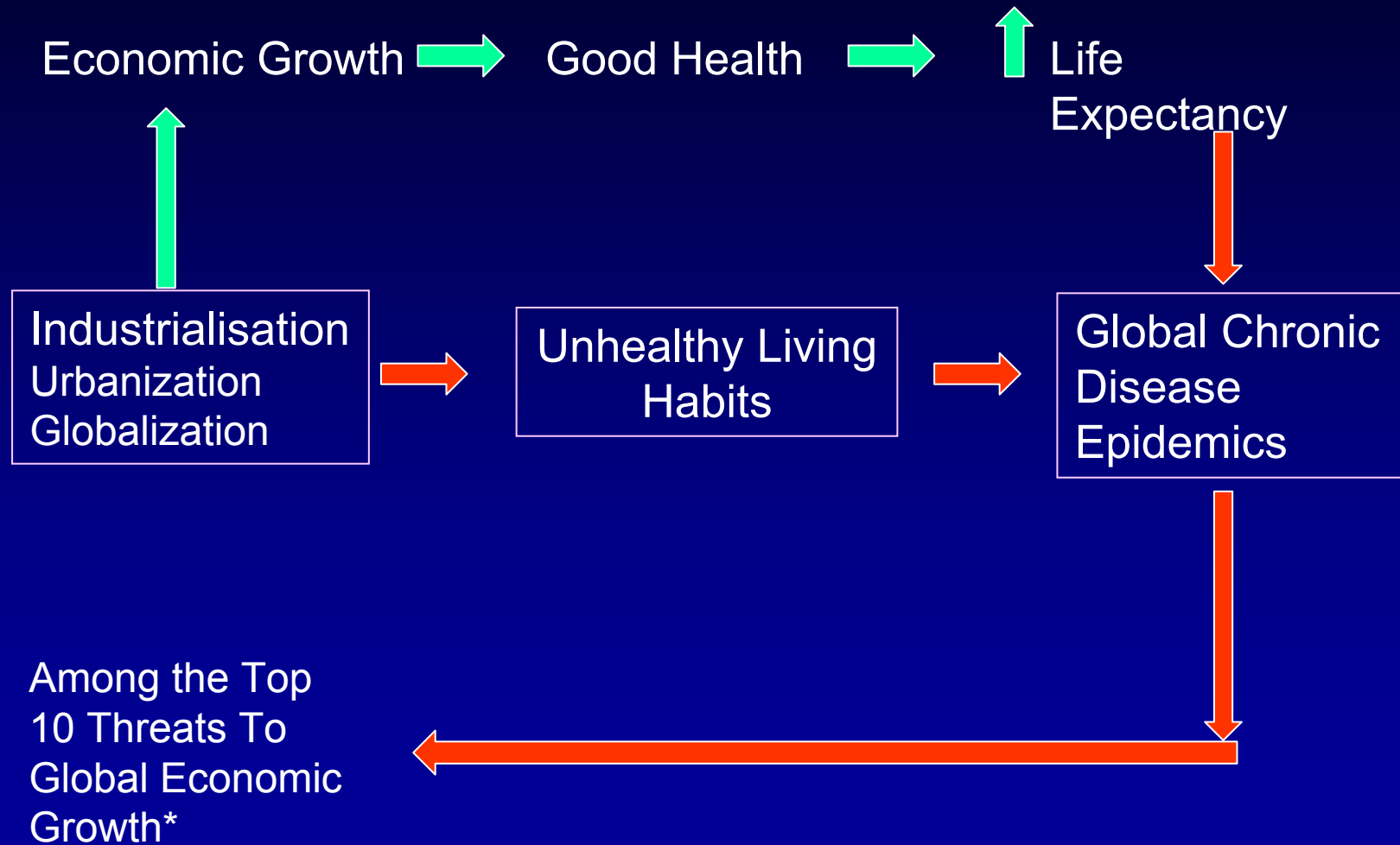
# INTEGRATING PREVENTION & CARE INTO HEALTH SERVICES

- 'Health System' Approach Needed, with focus on primary and secondary care
- Does not exclude an 'NCD Vertical' which is well integrated into the health services
- Reconfiguring health services for chronic care and reorienting health personnel for NCD prevention and control
- Control Programmes get ready buy-in from Ministries of Health who are comfortable with programmes within their domain
- Support also from health professionals, patients, sections of the industry

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Programmes such as Tobacco control, HBP control, Diabetes control, Cancer care are early 'starting' points – ensure cost-effective content

# CHRONIC DISEASE CONUNDRUM: DEVELOPMENTAL DILEMMA?



\* World Economic Forum (2009; 2010)

# THE TRILLION DOLLAR QUESTION

How Then Do We Reconcile The Economic Aspirations of Countries Like India With Protection Of Cardiovascular Health And Prevention of Chronic Diseases?

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*This is where public health meets sustainable development and social justice*

# DEVELOPMENT: CHOICES TO BE MADE

Q. Do we wish to see continued development?

A. Yes, Of Course!

Q. What kind of developmental pattern should we seek?

A. Economic Development – Good!

Economic Development  
With Greater Equity – Better!  
(Inclusive Growth)

Sustainable Development  
With Equity In Key -- Best!  
Human Development Indices

# CONVERGENCE OF CONCERNS

*In The Policy Arena....*

Common Determinants Link

- NCDs and Environment
- NCDs and Zoonotic Pandemics
- NCDs and Food Security
- NCDs and Human Rights

# CONVERGENCE IN RECOMMENDATIONS

- **Chronic Disease Prevention**
- **Protection of Environment**

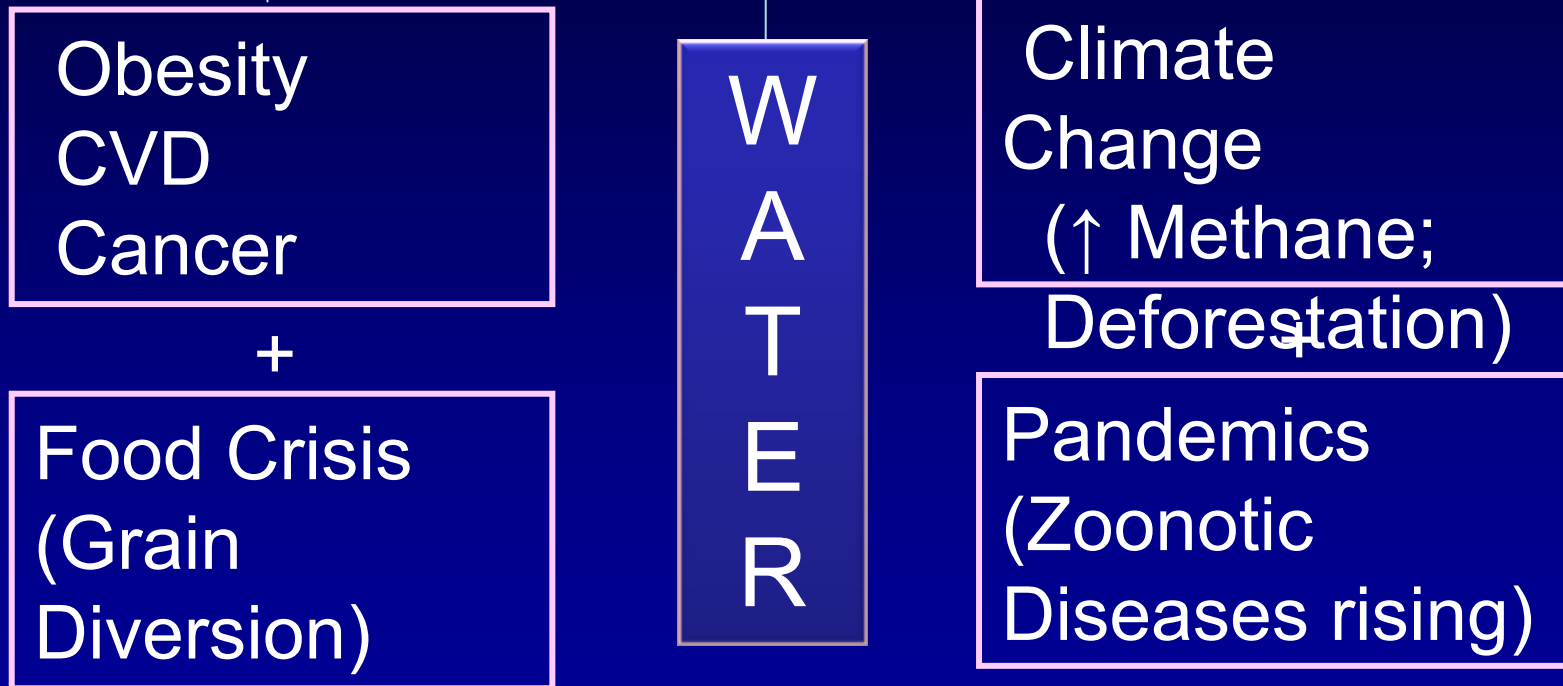
## **Sustainable Development Needs**

- **Urban environments which reduce vehicular congestion, promote physical activity and energy efficiency**
- **Diets which promote appropriate nutrient intake through sustainable consumption patterns at the population level**
- **Removal/Reduction of pollutants & toxic chemicals from the environment**

# **TOBACCO AND THE ENVIRONMENT**

- **Deforestation due to**
  - **'Flue Curing'**
  - **Packaging**
- **Subsoil Water Depletion**
- **Soil Erosion**
- **Pesticide Use**
- **Forest Fires**
- **Litter**
- **Environmental Tobacco Smoke**

# INDUSTRIAL SCALE LIVESTOCK BREEDING



Global Meat Production Will Double From 229 Million Tonnes in 2009 To 465 Million Tonnes In 2050

**Praise without end the go-ahead zeal  
of whoever it was invented the wheel;  
but never a word for the poor soul's sake  
that thought ahead, and invented the  
brake.**

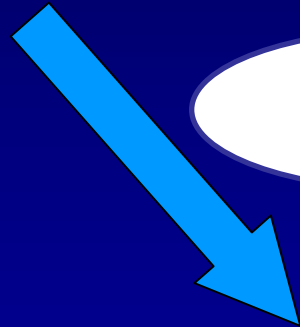
**- Howard Nemerov  
("To the Congress of the United States,  
Entering Its Third Century"), 1989**

**MEDICINE**



20<sup>th</sup> Century

**PUBLIC HEALTH**



21<sup>st</sup> Century

**SUSTAINABLE DEVELOPMENT**