



# ***Food Security and Nutrition in the Perspective of the SDGs***

**Richard J. Deckelbaum MD, CM, FRCP(C)  
Departments of Pediatrics and Epidemiology  
Institute of Human Nutrition, Columbia University**

# The SDGs – 2015

(Courtesy of Richard Horton)

**END POVERTY**

**END HUNGER**

**ENSURE HEALTHY LIVES**

**ENSURE QUALITY EDUCATION**

**ACHIEVE GENDER EQUALITY**

**ENSURE WATER/SANITATION**

**ENSURE ENERGY FOR ALL**

**PROMOTE ECONOMIC GROWTH**

**BUILD INFRASTRUCTURE**

**REDUCE INEQUALITY**

**MAKE CITIES RESILIENT**

**SUSTAINABLE CONSUMPTION**

**COMBAT CLIMATE CHANGE**

**CONSERVE OCEANS**

**PROTECT ECOSYSTEMS**

**PROMOTE PEACE AND JUSTICE**

**REVITALISE PARTNERSHIPS**

**3.1 Maternal mortality**

**3.2 Newborn/child mortality**

**3.3 Infectious diseases**

**3.4 NCDs/mental health**

**3.5 Substance use/alcohol**

**3.6 Injuries**

**3.7 Sexual/reproductive health**

**3.8 Universal health coverage**

**3.9 Pollution**

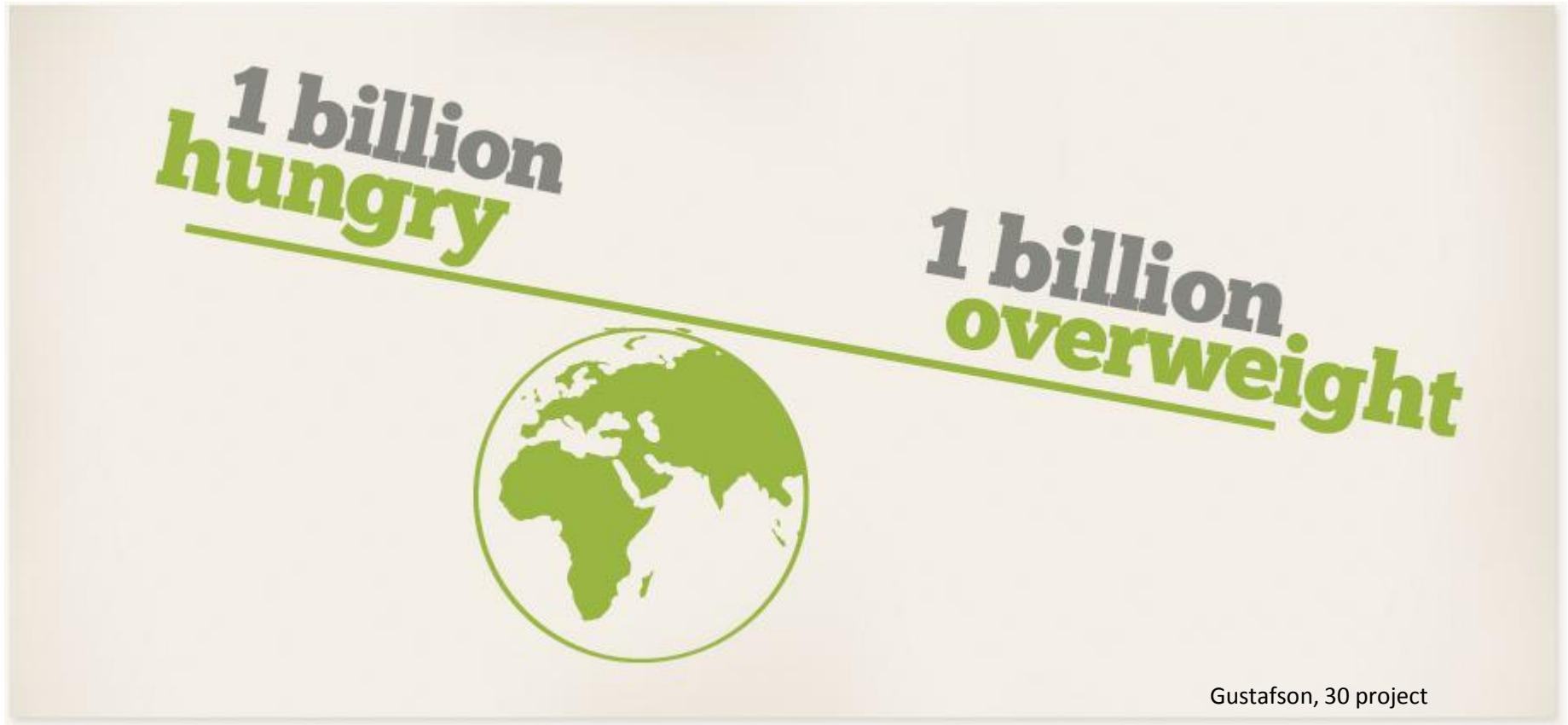
**3.a FCTC**

**3.b R&D/access to medicines**

**3.c Financing and workforce**

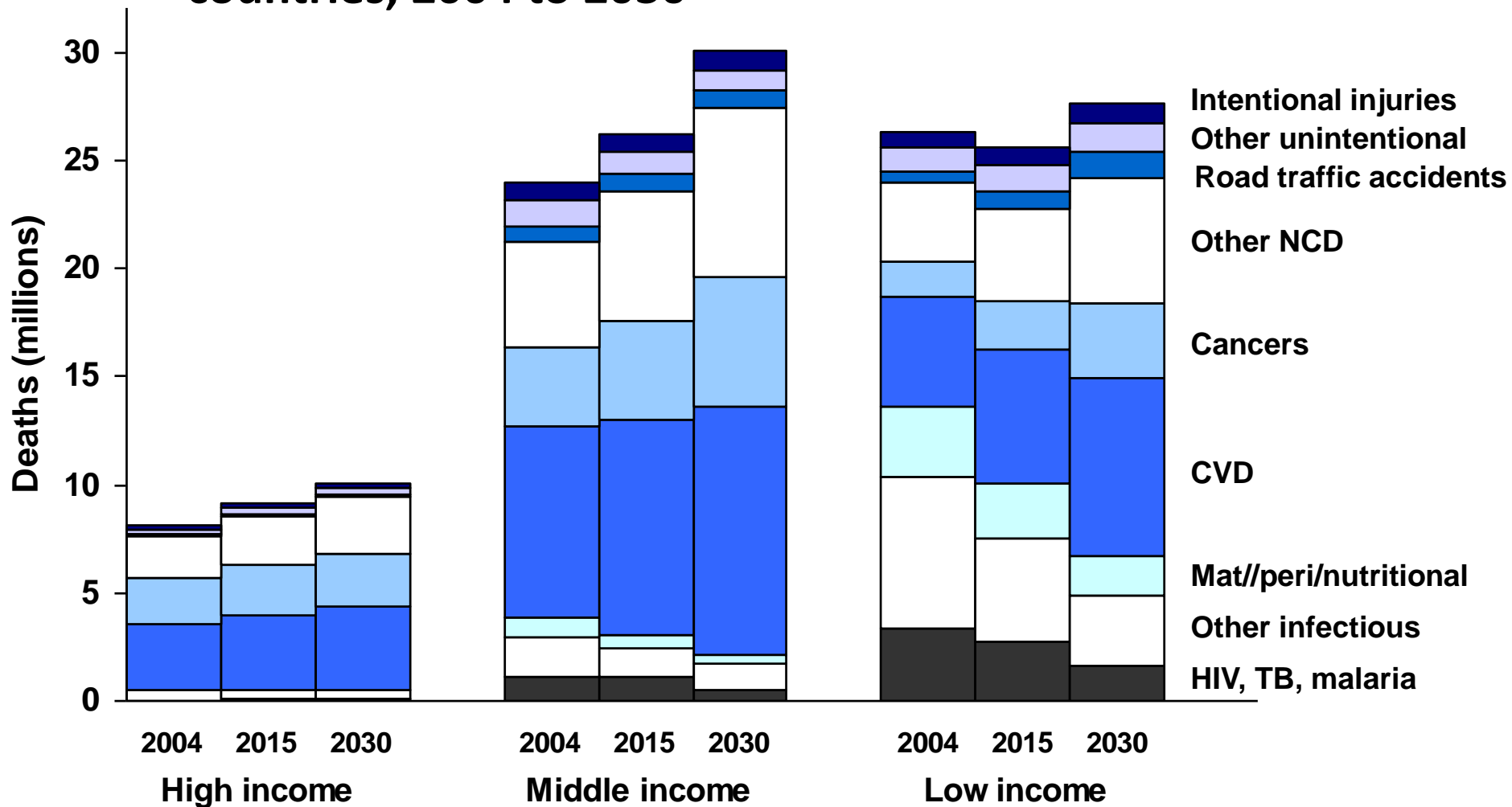
**3.d Early risk detection**

# The “Double Burden”



**ONE GLOBAL ISSUE!**

# Projected deaths by cause in high, middle, and low income countries, 2004 to 2030



# The Bill, Please

(for 5 chronic diseases for 20 years)

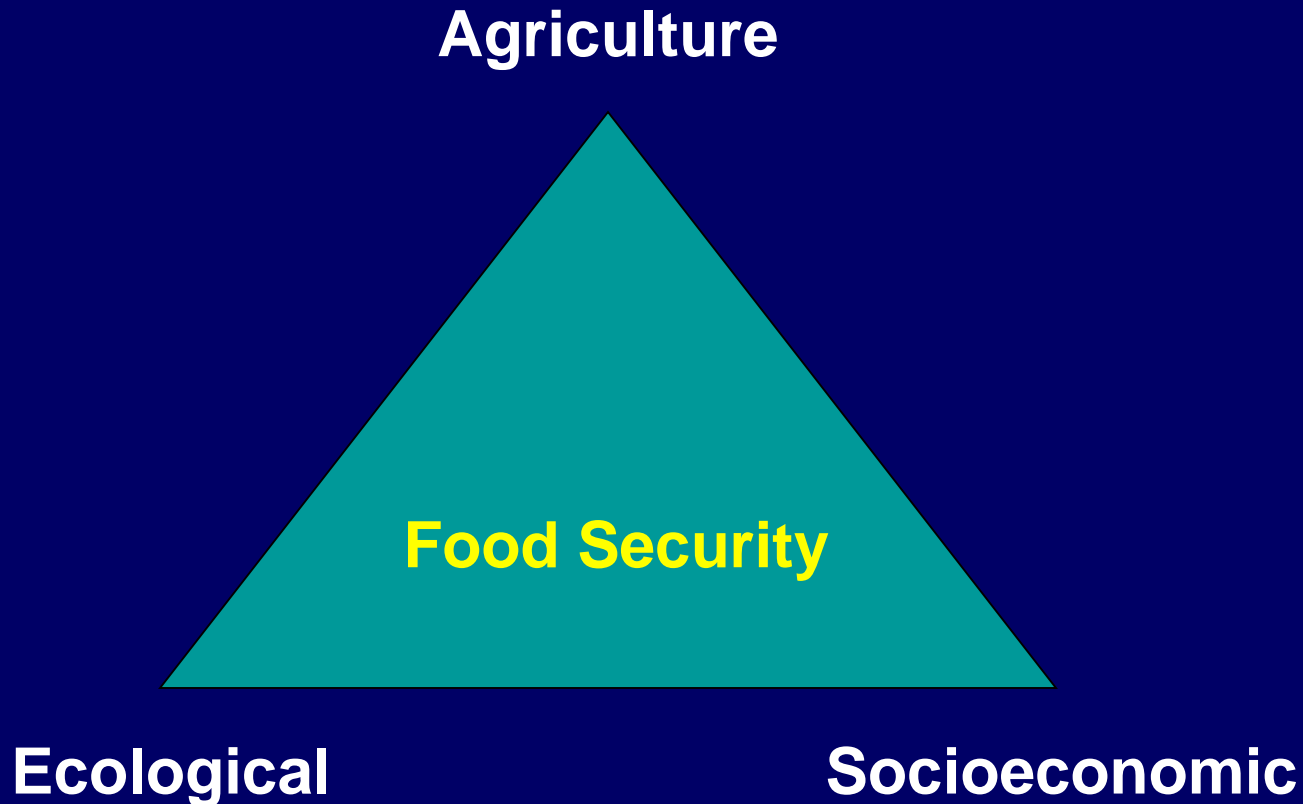
N.B. These numbers are TRILLIONS

Table 14: The anticipated economic toll of NCDs is staggering  
 Economic burden of NCDs, 2011-2030 (trillions of US\$ 2010), based on EPIC model 1<sup>12</sup>

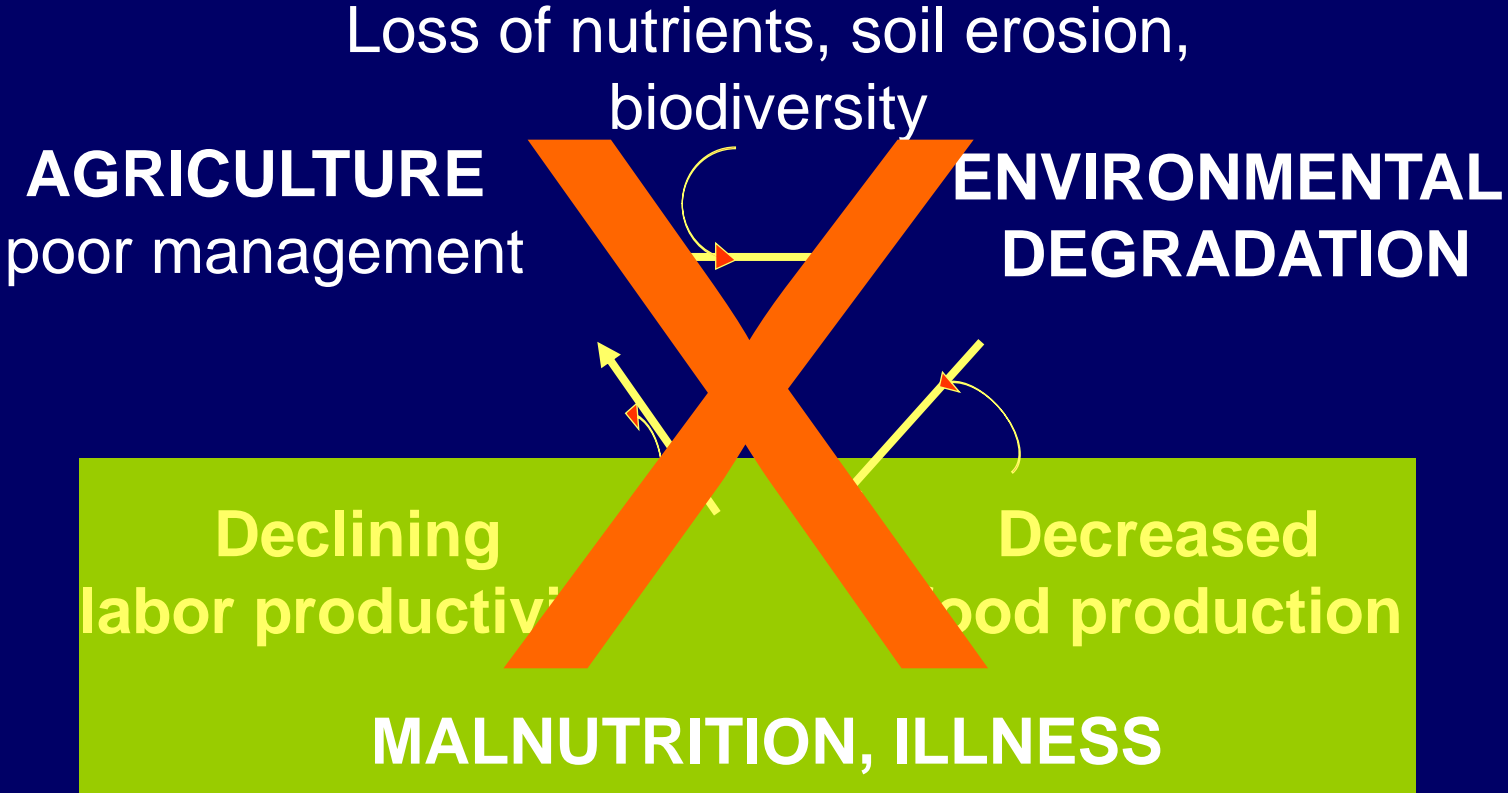
Country income group	Diabetes	Cardiovascular diseases	Chronic Respiratory diseases	Cancer	Mental Illness*	Total
High	0.9	8.5	1.6	5.4	9.0	25.5
Upper-middle	0.6	4.8	2.2	2.3	5.1	14.9
Lower-middle	0.2	2.0	0.9	0.5	1.9	5.5
Low	0.0	0.3	0.1	0.1	0.3	0.0
<b>LMIC</b>	<b>0.8</b>	<b>7.1</b>	<b>3.2</b>	<b>2.9</b>	<b>7.3</b>	<b>21.3</b>
<b>World</b>	<b>1.7</b>	<b>15.6</b>	<b>4.8</b>	<b>8.3</b>	<b>16.3</b>	<b>46.7</b>

\*The numbers for mental illness were obtained by relating the economic burden of all other diseases to their associated number of DALYs. Then the burden for mental illness was projected using the relative size of the corresponding DALY numbers to all the other conditions.

# ***Intersectoral Approaches Needed!!***



# Health, Agriculture, Environment, Poverty



# Econutrition



**Human behavior, lifestyle, physical activity, work, livestock, ....., .....**



# ***African Nutritional Sciences Research Consortium (ANSRC) The Rationale***

- Build local capacity for science – linking health with nutrition, agriculture, and “biotechnology”
- Use graduates for TOT –trainers of trainers,...and students
- Economic development with scientific development
- Diminish “brain drain”
- Bring African universities into the respected group of top science training institutions





**What are the  
costs of doing  
nothing??????**



**(Leeder, S)**