

**Institute for Health Metrics and Evaluation**

## Understanding Trends in Global Health

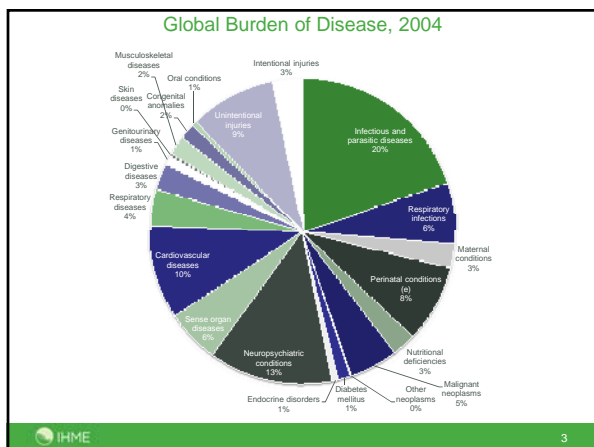
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 Professor of Global Health  
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UNIVERSITY OF WASHINGTON

### Outline

- ➔ Global Health Context
- Trends
- Key Drivers
- New Monies
- Major Intervention Strategies
- Accelerating Progress

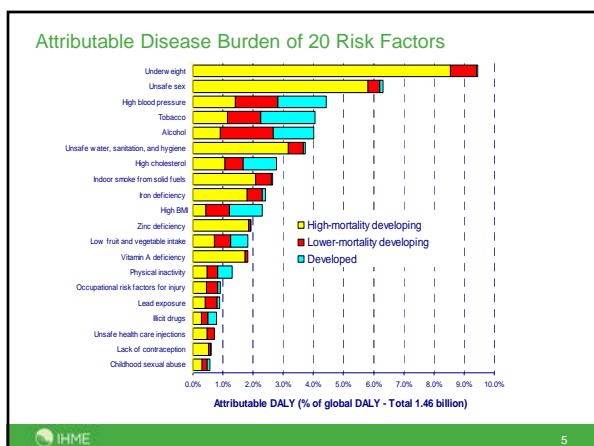
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### Leading Causes of the Global Burden of Disease 2004, Percent of Global DALYs

1	Respiratory infections	6.4%
2	Diarrhoeal diseases	4.8%
3	Unipolar depressive disorders	4.3%
4	Ischaemic heart disease	4.1%
5	HIV/AIDS	3.8%
6	Cerebrovascular disease	3.1%
7	Prematurity and low birth weight	2.9%
8	Birth asphyxia and birth trauma	2.7%
9	Road traffic accidents	2.7%
10	Neonatal infections	2.7%
11	Maternal conditions	2.6%
12	Nutritional deficiencies	2.5%
13	Tuberculosis	2.2%
14	Malaria	2.2%
15	Chronic obstructive pulmonary disease	2.0%

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### Global Burden of Disease 2010

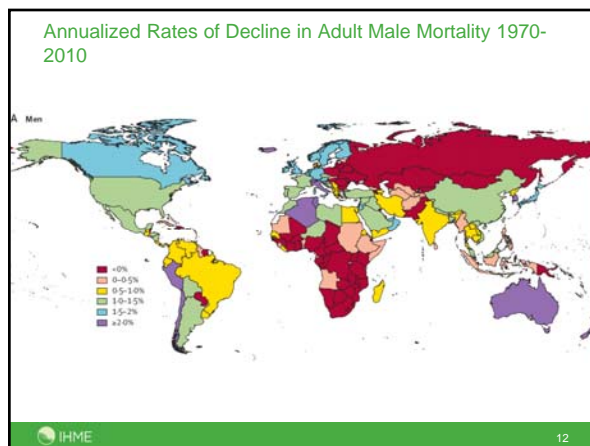
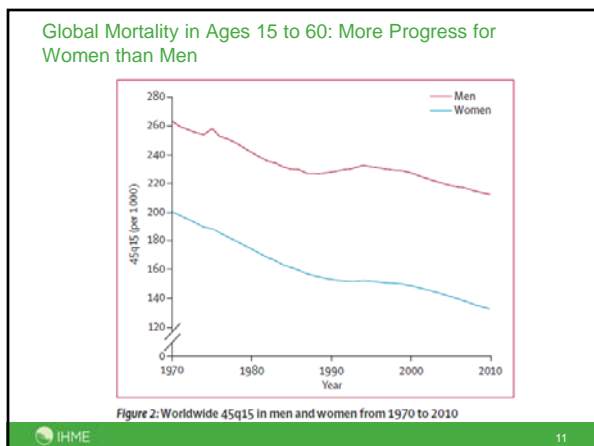
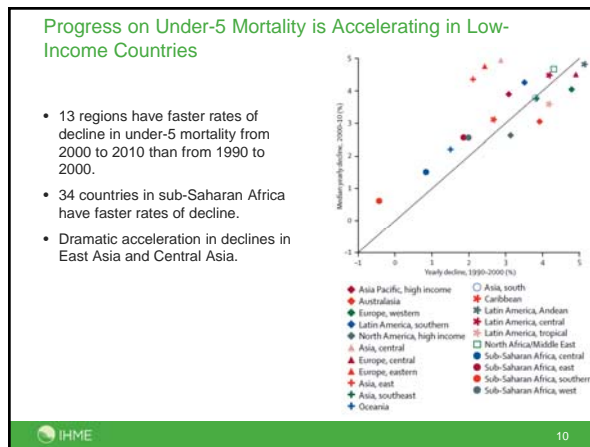
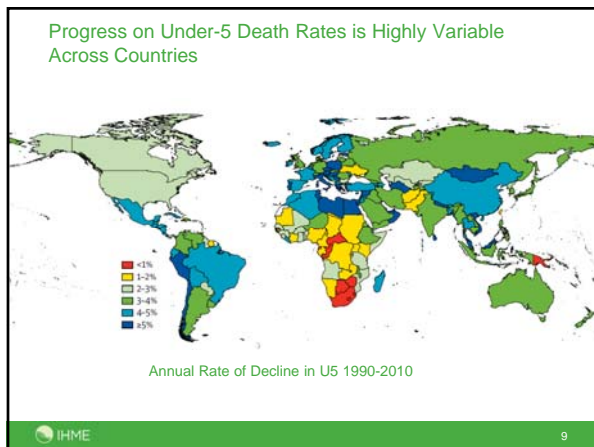
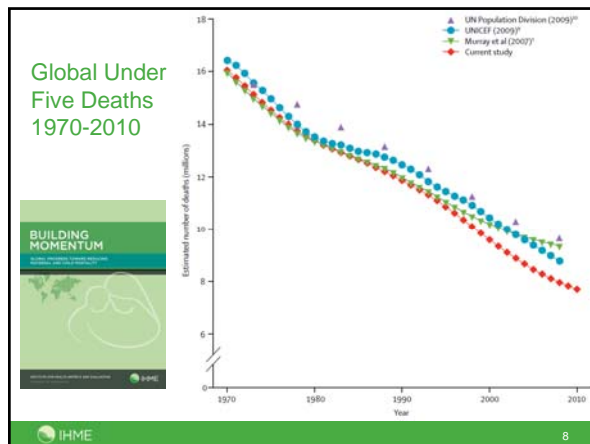
1. Collaboration of 800+ investigators coordinated by the Institute for Health Metrics and Evaluation, WHO, University of Queensland.
2. 240+ diseases, 40+ risk factors, 21 regions
3. Systematic reviews of published data and systematic analysis of survey and other data sources for incidence, prevalence, case-fatality and mortality.
4. Results in 2011

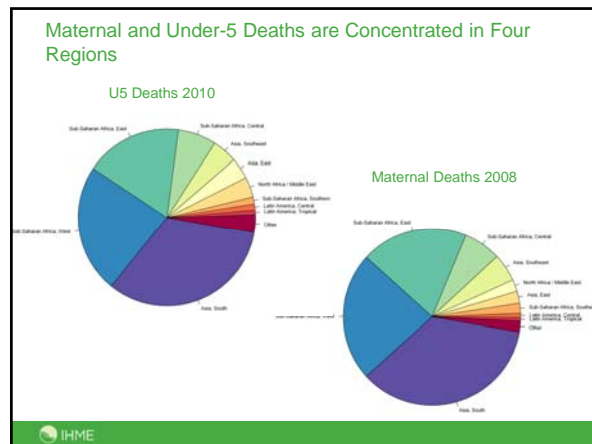
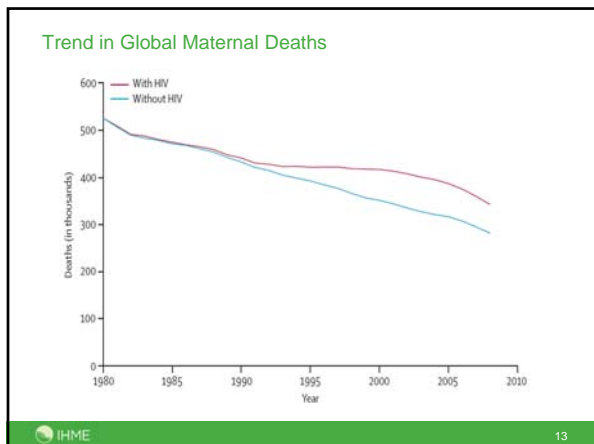
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**Outline**

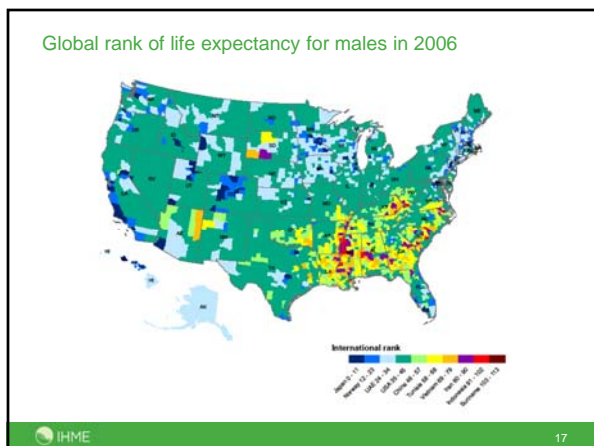
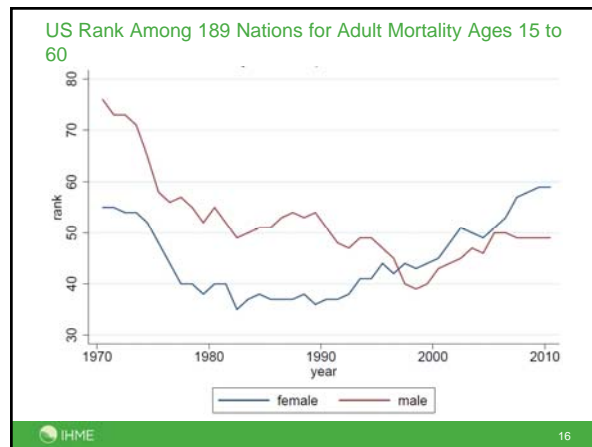
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- ### Comparing Progress for Under 5 Mortality, MMR and Adult Mortality
1. Median rates of decline Child (3%) >MMR (2.5%) >Women (1%) >Men (0.5%)
  2. Rates of decline all slowed in 1990s and increased in 2000s.
  3. Maximum rates of decline 8% for Child and MMR
  4. Maximum rates of decline 3% for Women and Men.
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### Big Drivers of Health Trends

Negative Trends:

1. HIV Epidemic
2. Tobacco
3. Alcohol and social dysfunction in Eastern Europe and Central Asia
4. Obesity

Positive Development Trends:

5. Rising levels of income
6. Rising educational attainment, especially in women

Global Health Action

7. Expanding set of public health and medical interventions
8. Development Assistance for Health

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### UNAIDS 2009 Assessment

Global estimates 1990-2008

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### Tobacco Consumption Per Capita

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### Obesity

1. Where available, data shows nearly linear increase in obesity in all regions.
2. Central America, Middle-East recording the highest levels and rates of increase.
3. Mortality impact may be attenuated through interventions on blood pressure and cholesterol.
4. Diabetes and its sequelae will be a global epidemic.

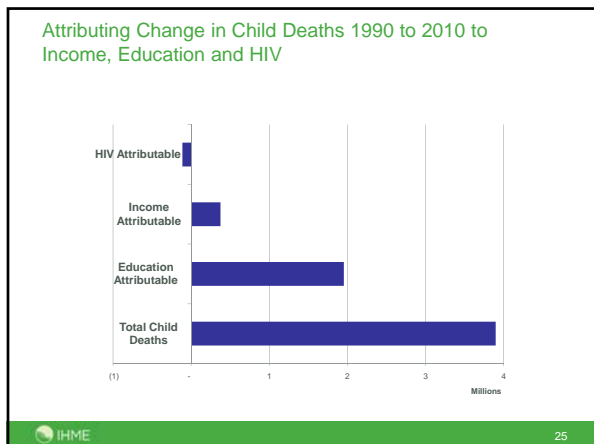
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### Trends in Measured Obesity

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### Change in Average Years of Schooling of Women of Reproductive Age 1990 to 2009

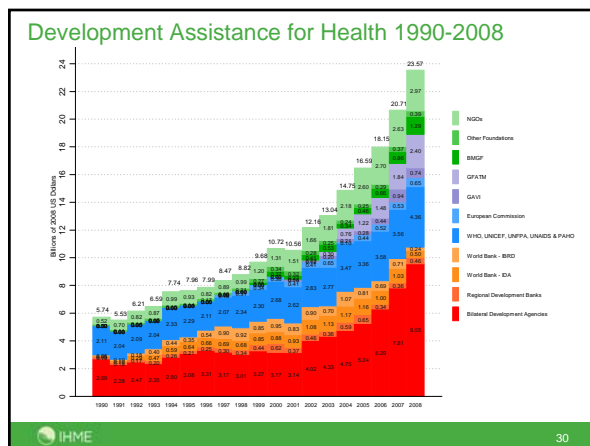
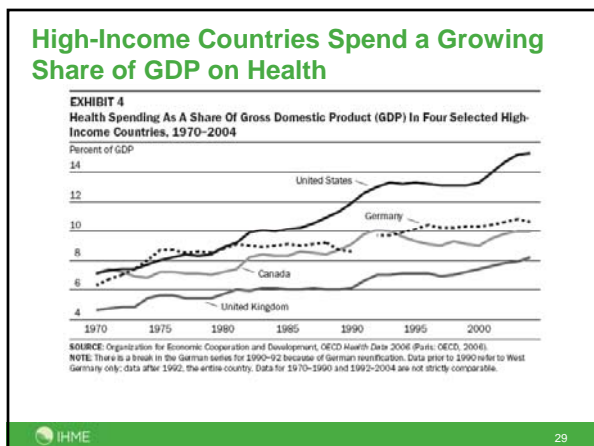
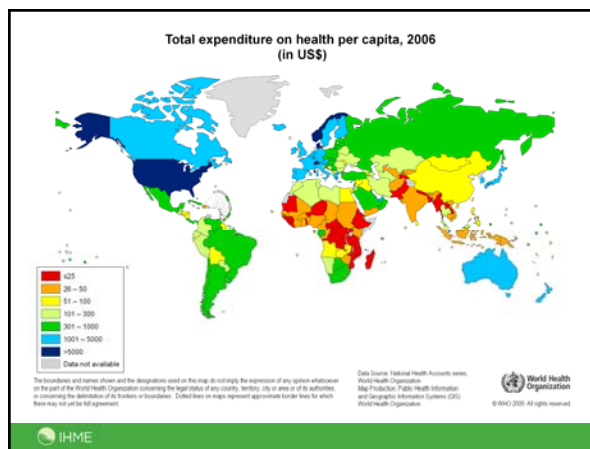
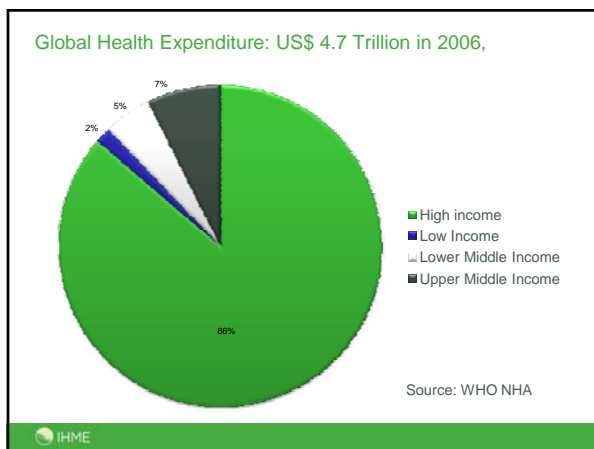
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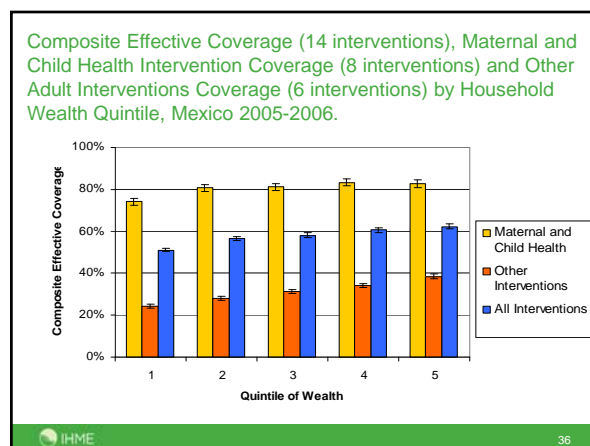
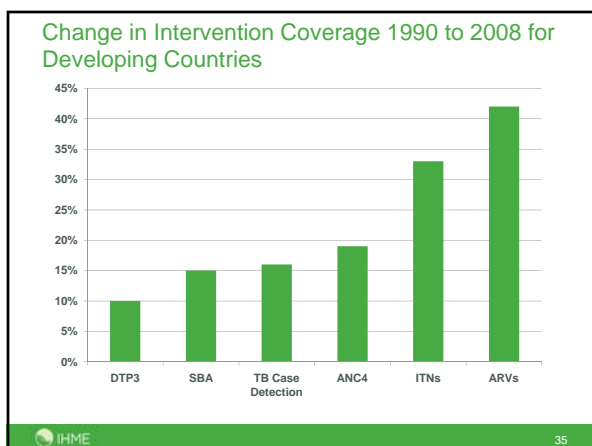
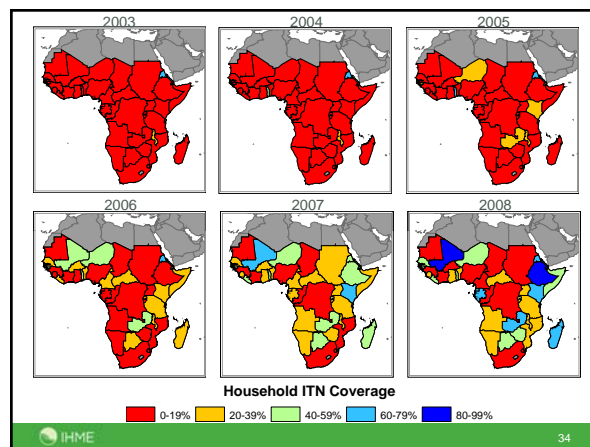
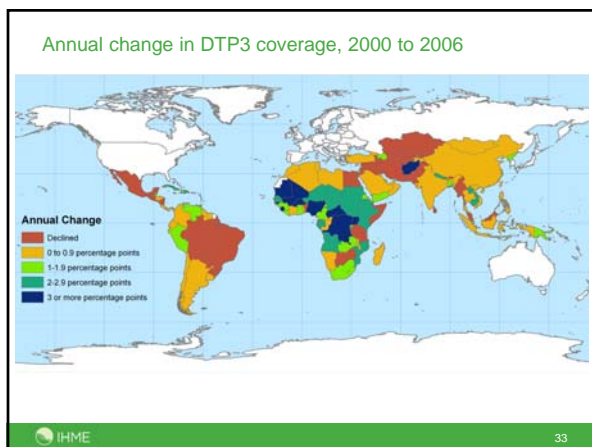
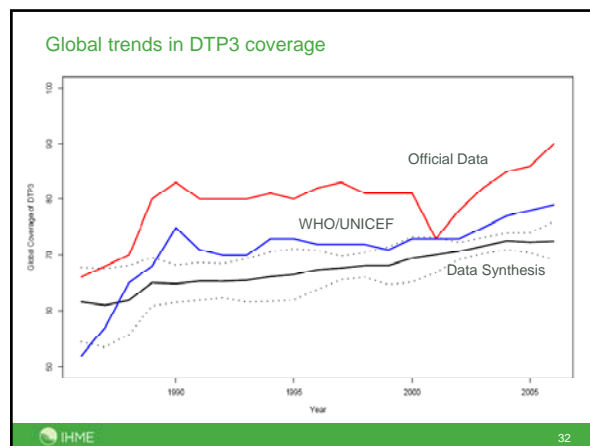
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### Policies Strategies for Health Systems

- 1) Efficient production of public health and medical care
- 2) Modulate demand for healthcare as a function of need
- 3) Decrease need for healthcare
- 4) Build stewardship capacity – accountability mechanisms

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### Efficient Production of Public Health and Medical Care

- 1) Select the optimal mix of technologies and service delivery platforms – Disease Control Priorities Network
- 2) Reward providers for gains in health of their clients – or as close to the concept of health gain as possible.
- 3) If 2. is not possible incorporate into rewards to providers quality of provision and avoidance of indication creep.
- 4) Studies of provider efficiency can help identify locally relevant sources of production inefficiency.

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### Demand and Need: Multiple Strategies Required for Modulation

		Need	
		Yes	No
D e m a n d	Y e s	√	↓
	N o	↑	√

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### Demand Without Need

1. Causes include:
  - a) indication creep – use of interventions proven effective for some indications for other unproven indications
  - b) supplier-induced demand
  - c) Consumer demand based on false beliefs
2. Some solutions:
  - a) Increase co-payments for consumers – up to our exceeding 100% of cost if there is risk to the consumer through use of services.
  - b) financial disincentives to providers who provide services with no proven need
  - c) regulation – restricting access to technologies, regulating use of technologies subject to indication creep.

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### Need Without Demand

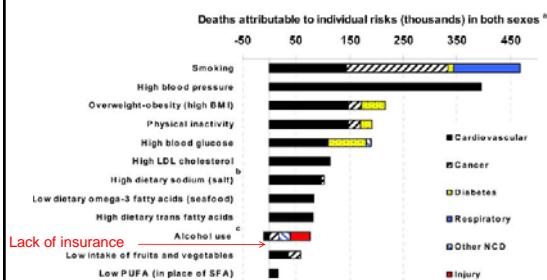
1. Causes include:
  - a) Myopia – undervaluing future health so public health and medical care with long-term benefits are not demanded.
  - b) Consumer beliefs that interventions are ineffective
  - c) Alternative theories of disease causation
  - d) Lack of physical, social or financial access
2. Some solutions:
  - a) Conditional cash transfers ....
  - b) Increasing physical and financial access to services through reform
  - c) Cultural sensitivity training for providers.

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### Decrease Need by Decreasing Disease Incidence

1. Main causes of disease burden and cost in most health systems are non-communicable diseases including cardiovascular diseases, diabetes, cancers, chronic respiratory diseases and digestive system disorders.
2. Key risk factors explain much of the differences in levels and trends in these diseases – public health and primary care interventions targeting these risks are a powerful way to improve health outcomes and decrease the growth of health system costs.

### US Deaths Attributable to Major Risk Factors, 2005



### Stewardship -- Accountability

Critical driver of constructive social transformation is accountable democratic institutions.

Major institutions spending society's resources on public health and medicine should be accountable to the public.

One essential ingredient for enhanced accountability is credible, comprehensible and comparable measurements of resources, coverage of interventions and health outcomes.