

# Multi-sectoral and Interdisciplinary Responses to Health and Well-being

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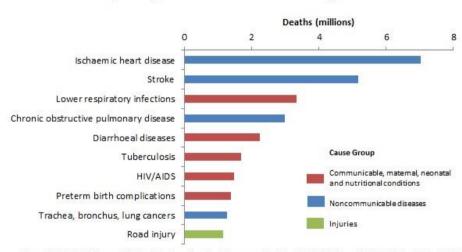






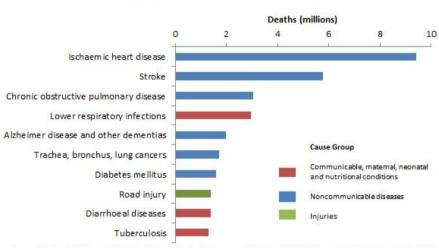
## Global causes of mortality

Top 10 global causes of deaths, 2000



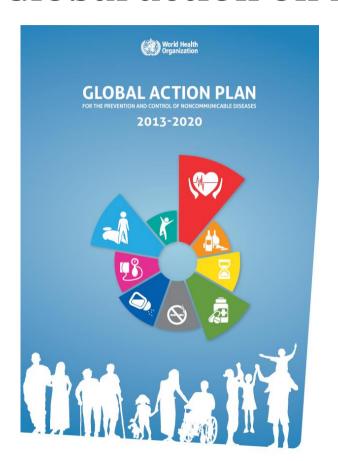
Source: Global Health Estimates 2016: Deaths by Cause, Age, Sex, by Country and by Region, 2000-2016. Geneva, World Health Organization; 2018.

Top 10 global causes of deaths, 2016



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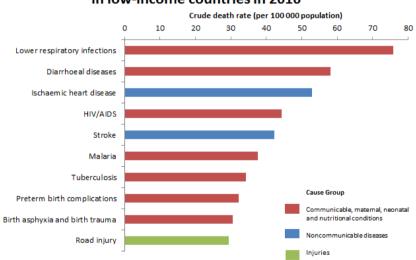
### Global action on non-communicable disease



World Health Organisation plan for co-ordinated global action to tackle non-communicable disease

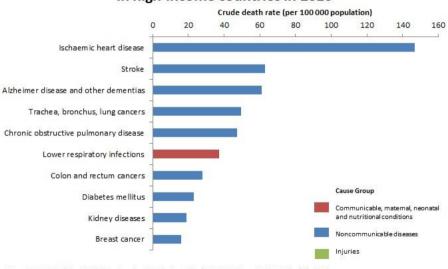
## **Global causes of mortality**

### Top 10 causes of deaths in low-income countries in 2016



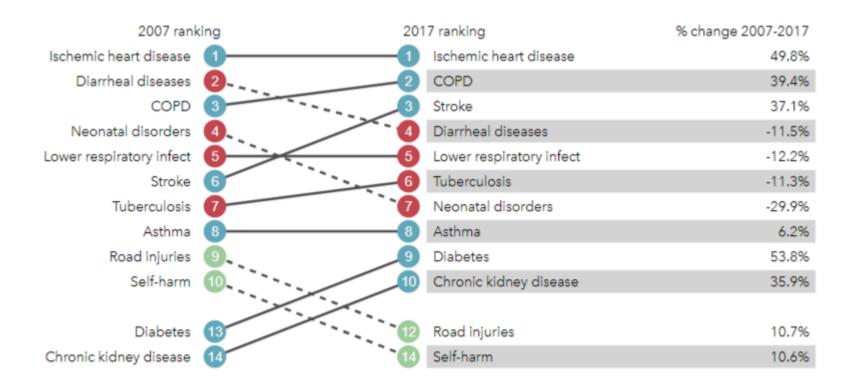
Source: Global Health Estimates 2016: Deaths by Cause, Age, Sex, by Country and by Region, 2000-2016. Geneva, World Health Organization; 2018.
World Bank list of economies (June 2017). Wesnington, DC: The World Bank Group; 2017 (https://datahelpdesk.worldbank.org/knowledgebase/articles/905119-world-bank-country-and-lending-groups).

### Top 10 causes of deaths in high-income countries in 2016



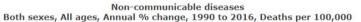
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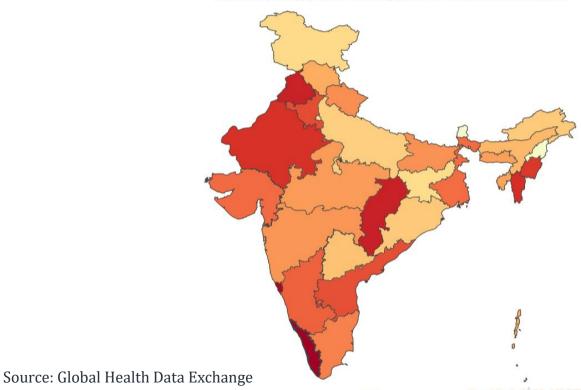
## **India: causes of mortality 2007-2017**



Source: Global Health Data Exchange

### Non-communicable disease mortality 1990-2016

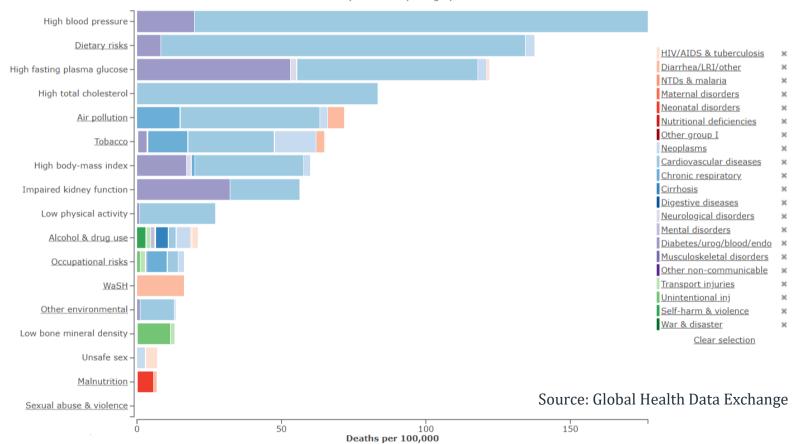




-0.012 -0.010 -0.008 -0.006 -0.004 -0.002 0.000 0.002 0.004 0.006 0.008 0.010 0.012 **1** 

## Risk factors for mortality, Kerala, 2016

Kerala, Both sexes, All ages, 2016



## **Key challenges**

- Cardiovascular disease and diabetes cause most deaths
- They have no single cause
- Major risk factors include:
  - High blood pressure
  - Diet
  - High blood sugar
  - High cholesterol
  - Air pollution
  - Tobacco
  - Obesity
  - Impaired kidney function
  - Low physical activity

### Global action on non-communicable disease





A 25% relative reduction in risk of premature mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases.



At least  $10\,\%$  relative reduction in the harmful use of alcohol, as appropriate, within the national context.



A 10% relative reduction in prevalence of insufficient physical activity.



A 30% relative reduction in mean population intake of salt/sodium.



A 30% relative reduction in prevalence of current tobacco use in persons aged 15+ years.



A 25% relative reduction in the prevalence of raised blood pressure or contain the prevalence of raised blood pressure, according to national circumstances.



Halt the rise in diabetes and obesity.



At least 50% of eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes.



An 80% availability of the affordable basic technologies and essential medicines, including generics, required to treat major noncommunicable diseases in both public and private facilities.

# **Key challenges**

- Health programmes have tackled communicable diseases (e.g. diarrhoea)
  - Clean water
  - Sanitation
  - Hand washing (health education programme)
  - Child malnutrition
- A health programme approach may not be appropriate for noncommunicable disease due to:
  - Multiple risk factors
  - Risk factors are intrinsically tied to familial, social, economic and cultural norms

## High blood pressure

- Biggest risk factor for cardiovascular disease and diabetes
- Causes:
  - Diet high salt, not enough fruit or vegetables, too much alcohol
  - Lifestyle inactive, overweight
  - Older age
  - Family history
- Reducing blood pressure:
  - Reduce salt and alcohol intake; eat more fruit and vegetables
  - Take more exercise; lose weight

### Diet

- Second biggest risk factor for cardiovascular disease and diabetes
- Causes:
  - High salt, trans fats
  - Low fruit, vegetables, omega 3, whole grains, fibre, nuts and seeds, legumes
- Diet is shaped by:
  - Our parents in childhood
  - Socio-economic status income, occupation
  - Family and friends
  - Culture
  - Availability of food, including food prices
- Changing diet is not straight-forward

- WHO Global Action Plan emphasises co-ordinated approach across sectors:
  - Health
  - Agriculture
  - Communication
  - Finance
  - Food
  - Foreign affairs
  - Housing
  - Justice and security
  - Legislature

- Social welfare
- Social and economic developments
- Sports
- Tax and revenue
- Trade and industry
- Transport
- Urban planning
- Youth affairs

### Government policy

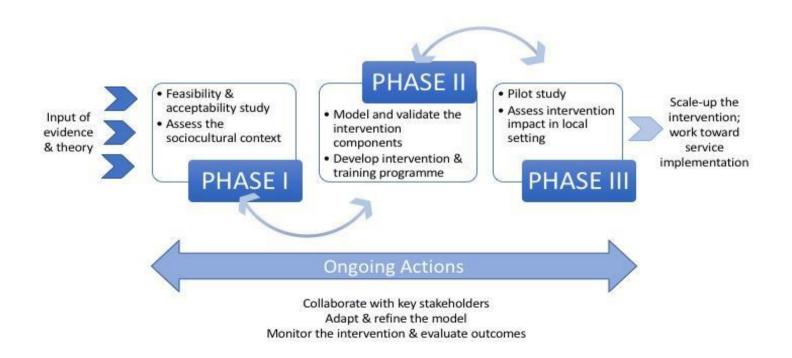
- e.g. UK Sugar tax for childhood obesity
- Introduced April 2018
- Seems to have reduced sugar content in drinks, but impact on childhood obesity not yet known
- 'Sin tax' was introduced in India in 2017



### Behavioural responses

- e.g. social interventions improving healthy eating among adolescents (Aceves-Martins et al 2017)
  - Disadvantaged neighbourhoods in Spain
  - School-based peer-led social marketing intervention improved uptake of fruit and vegetables among adolescent boys and girls
  - Are connections made with primary health care? What about poverty?
  - Could such an approach work in India? Kerala?
  - Cultural adaptation is required

**Cultural Adaptation Framework** 



### But what about....

Social determinants of health

- Age
- Gender
- Employment and working conditions
- Poverty and social deprivation
- Social exclusion
- Early child development
- Access to healthcare
- Family and social networks
- Urbanisation

### But what about....

#### Co-morbidities

- E.g. depression
- Depression is more prevalent in people with cardiovascular disease (CVD)
- CVD is more prevalent in people with depression
- Outcomes are worse in people with CVD and depression, and mortality rates are higher
- Health programmes and interventions targeted on either depression or CVD are less effective in this group

## **UKIERI-funded project**

Is there a role for social workers in primary and secondary prevention of NCDs, particularly where there are co-morbid mental health problems?

- Staff-student exchanges between Rajagiri College of Social Sciences and University of York
- Supported development and training of social work research team
- On-going mentorship and collaborative research in partnership with World Health Organisation and University of Melbourne

### **UKIERI-funded project**

#### Work undertaken so far:

- Scoping review of published literature on social factors in comorbid chronic disease and common mental health problems in India
- Community survey of a local neighbourhood in Cochin
  - Prevalence of hypertension, diabetes, depression and anxiety
  - Prevalence of socio-demographic, behavioural and social risk factors
  - Understanding of social context including social cohesion and networks
- Findings will be revealed later...

## **UKIERI-funded project**

#### Next steps:

- Complete qualitative stakeholder interviews
- Intervention development
- Test feasibility of intervention
- Preparation for piloting and testing in a randomised controlled trial

# **Key considerations**

- Use evidence-based approaches and adapt for local socioeconomic and cultural environment
- Innovate and create new approaches
- Be guided by emerging findings from analysis of qualitative and quantitative data
- Think beyond existing approaches to addressing health problems
- Connect people and bridge across traditional boundaries (e.g. health and social welfare)
- See the big picture problems are complex and inter-connected

### Thank you!

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