

# **Social Determinants of Noncommunicable Diseases**

## **Reflections and Research Questions**

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6 May 2013

RESCAP-MED Symposium, Istanbul, Turkey

# NCD Causal Framework

## Determinants

- “Causes of the causes”:
  - Income
  - Education
  - Early Childhood
- Globalization
- Demography

## Risk Factors

- Modifiable
  - Behavioral
  - Biological
- Non-modifiable
  - Genetics

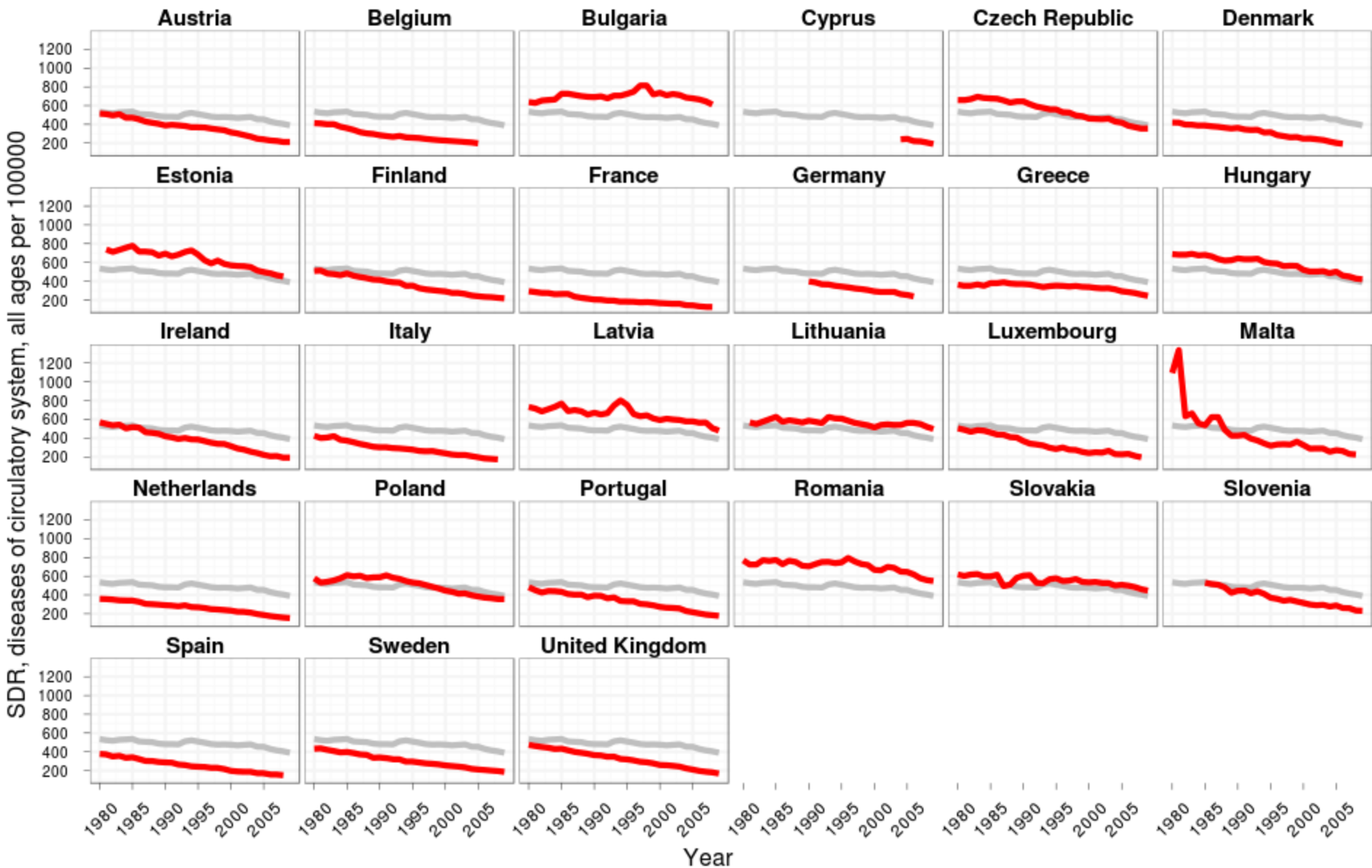
## Diseases / Conditions

- CVD
- DM
- Cancer
- CRD

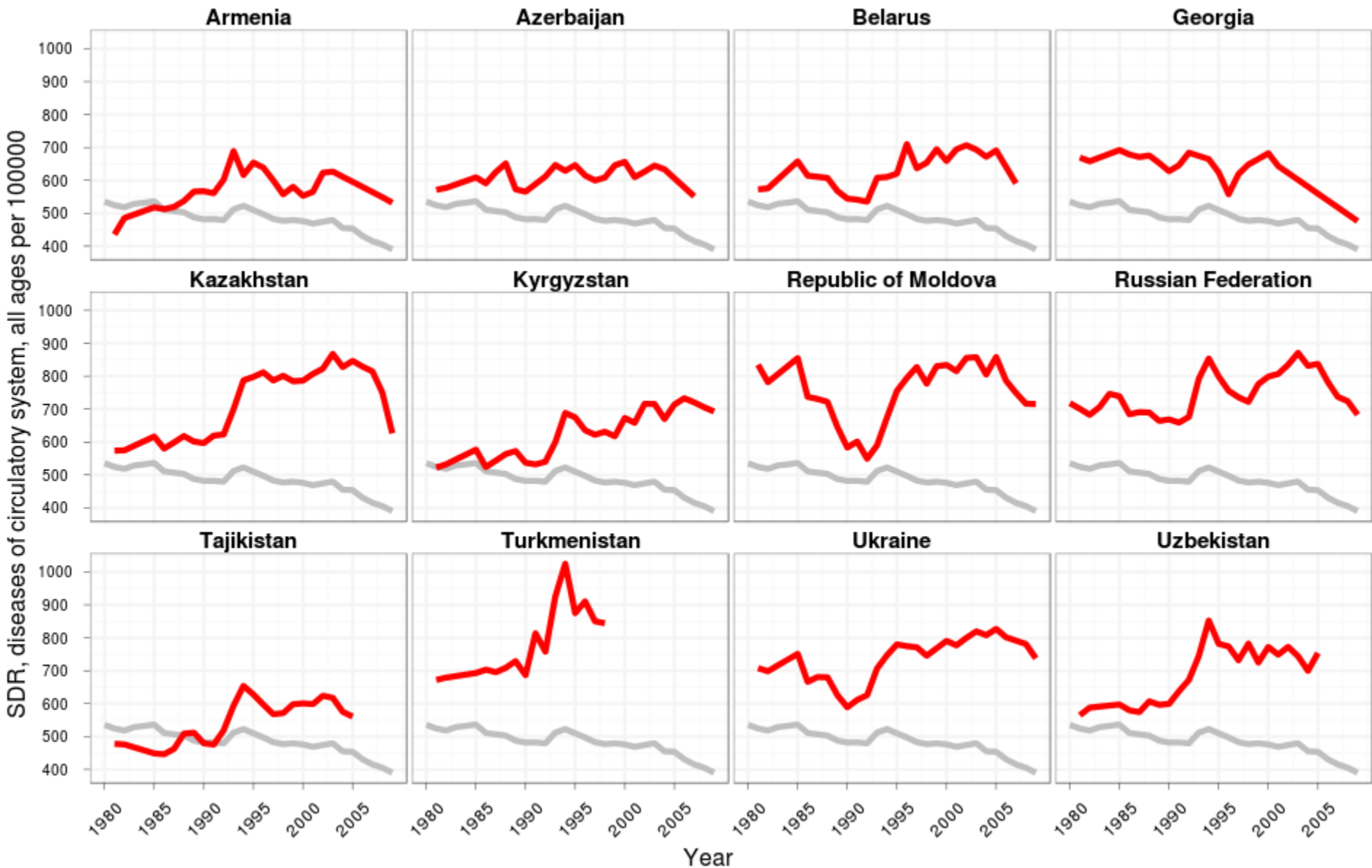
## Outcomes

- Mortality
- Morbidity
- Poverty and other social consequences

# Reduction of Circulatory Mortality (EU)



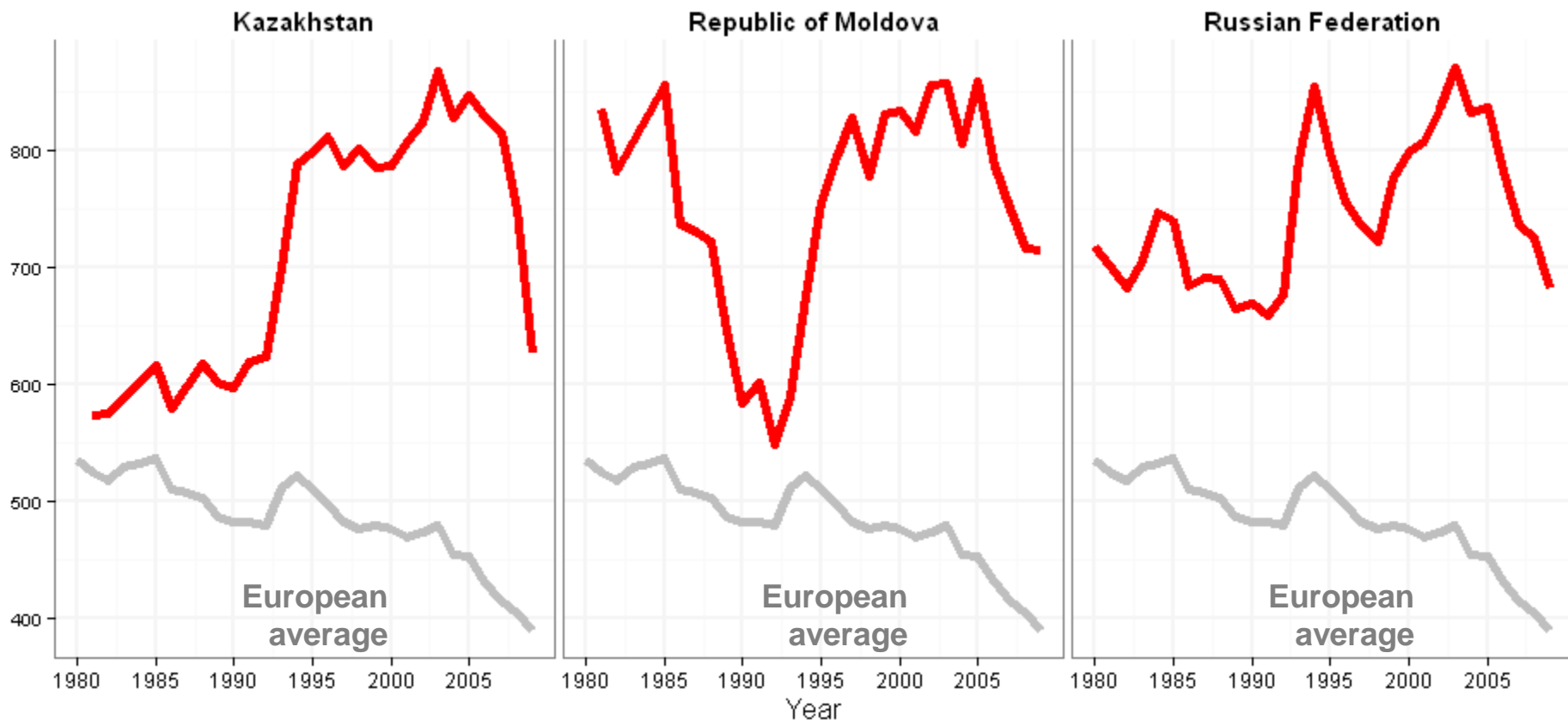
# Reduction of Circulatory Mortality (CIS)

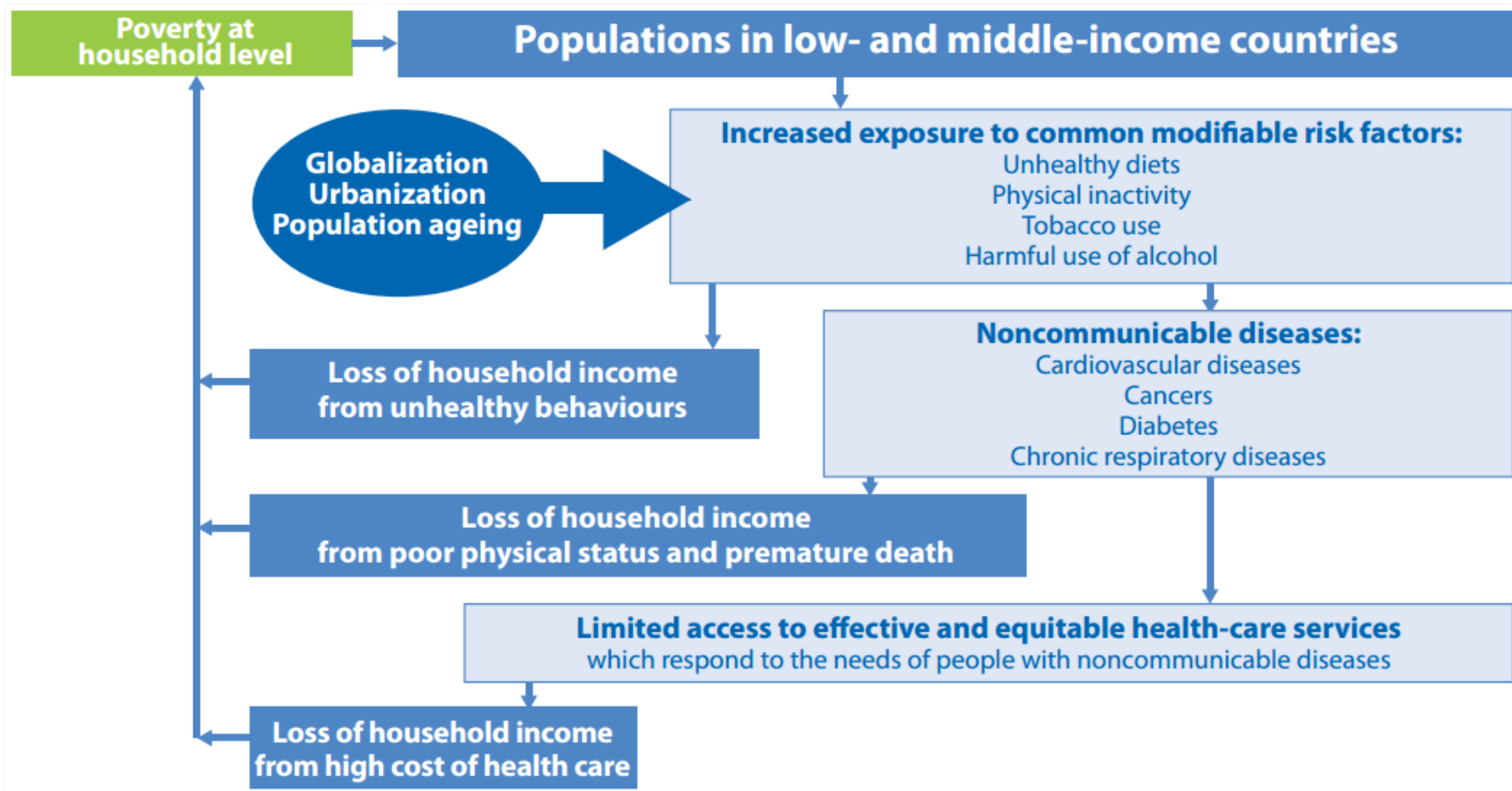


<http://dl.dropbox.com/u/77053/motionchart/newdata.html>

# Reduction of Circulatory Mortality

SDR, diseases of circulatory system, all ages per 100000





[http://www.who.int/nmh/publications/ncd\\_report\\_full\\_en.pdf](http://www.who.int/nmh/publications/ncd_report_full_en.pdf)



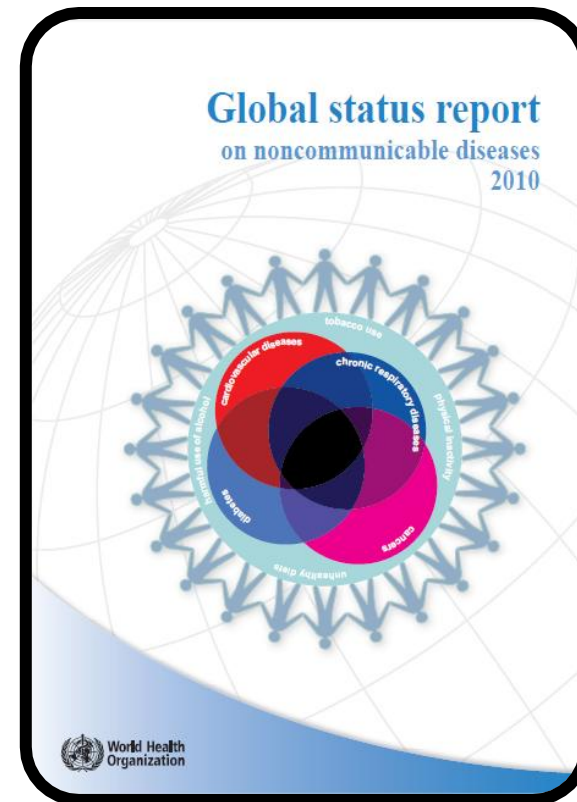
Picture source: Daikreig at <http://www.flickr.com/photos/daikrieg/1294053038/>



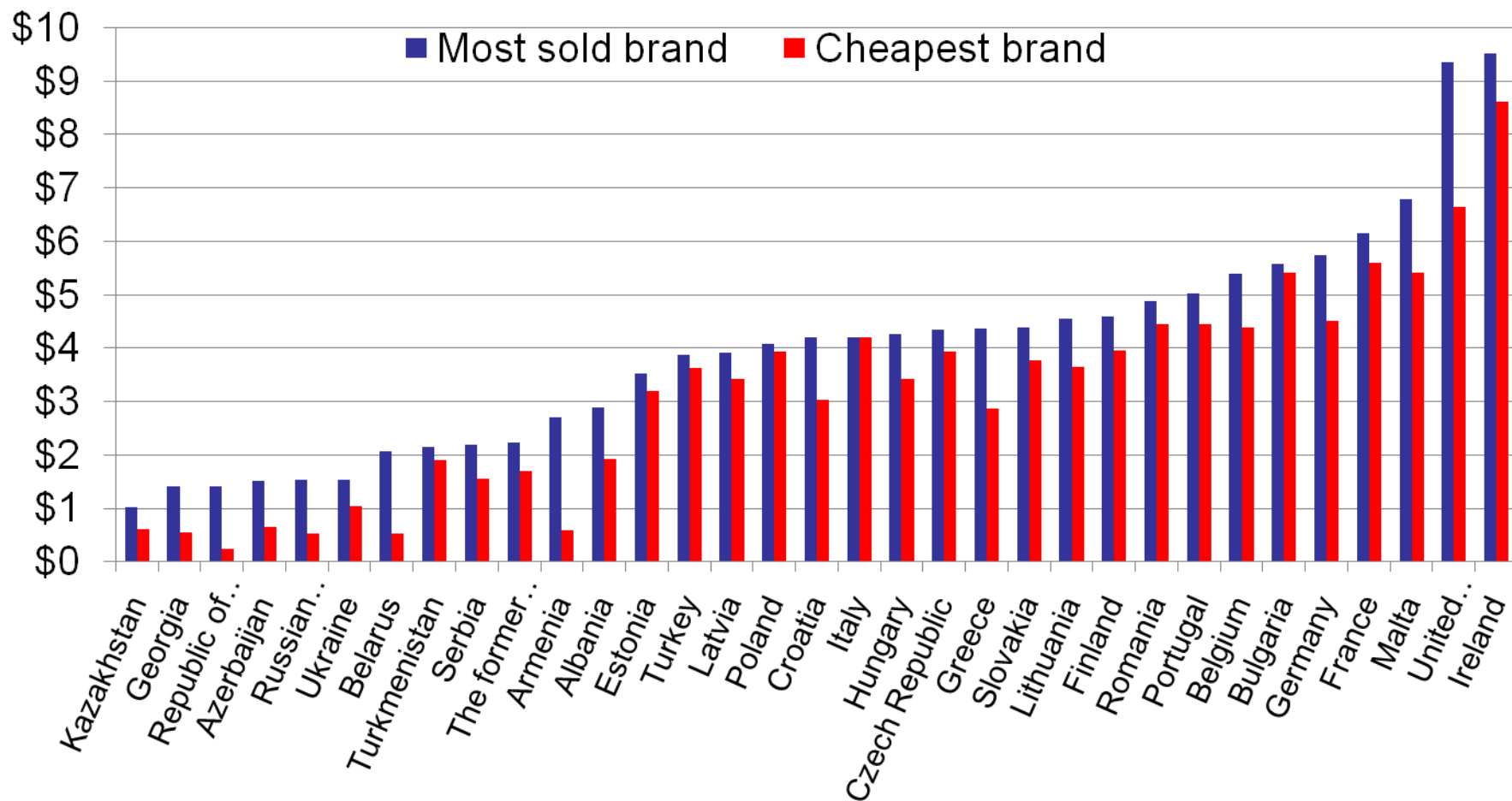
# - Do No Harm

# Best buys package population-based approaches

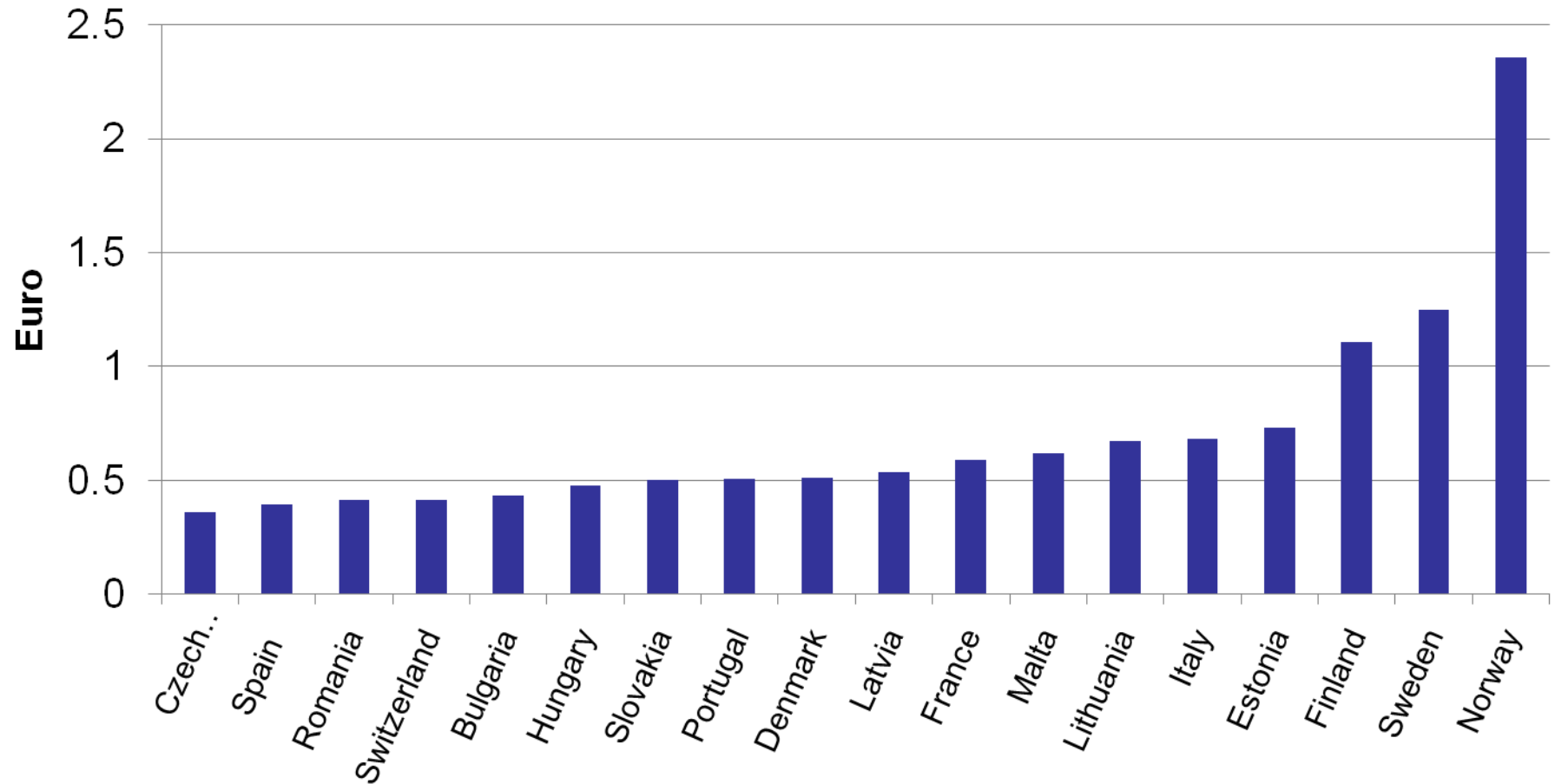
- Smoke-free environments
- Warning about the dangers of tobacco use
- Bans on tobacco advertising
- Raising taxes on tobacco
- Raising taxes on alcohol
- Restricting access to retail alcohol
- Bans on alcohol advertising
- Reducing salt intake and salt content of food
- Replacing trans-fat in food with polyunsaturated fat
- Promoting public awareness about diet and physical activity



# EUROPE: Prices of pack of most sold and cheapest brands of cigarettes in international dollars, 2010



# Average price of 500 ml discount beer in Euro



# Best buys

Efficiency <why> Social justice

State <who> Individual

Market <where> Regulation

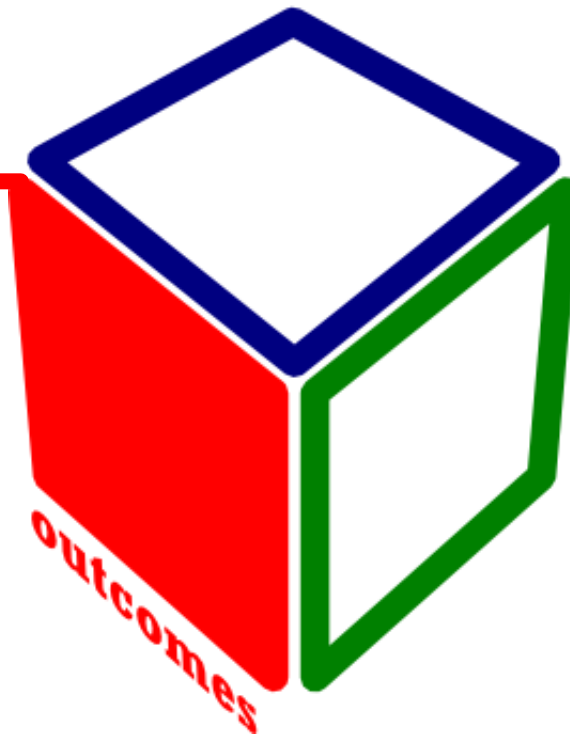
- Do No Harm
- Measure



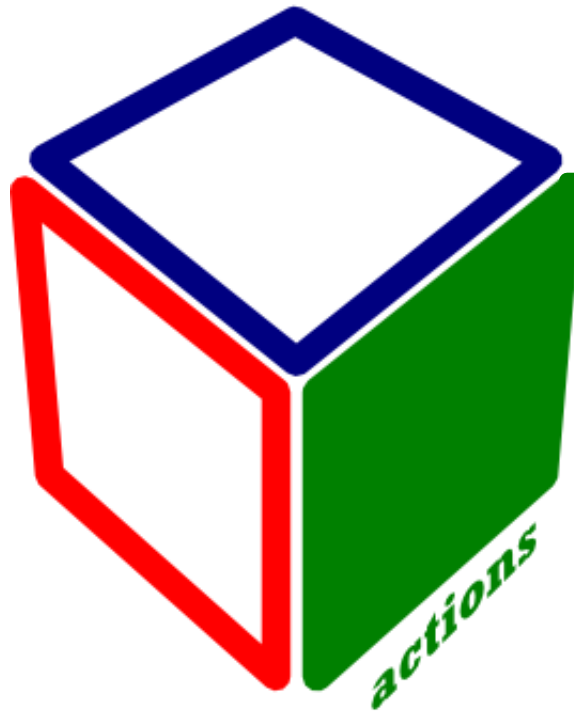
## Local authority indicators

- life expectancy at birth;
- children reaching a good level of development at age five;
- young people not in employment, education or training (NEET); and,
- percentage of people in households receiving means tested benefits

- CVD deaths
- Smoking Rates
- Low birth weight babies
- Early childhood development scores

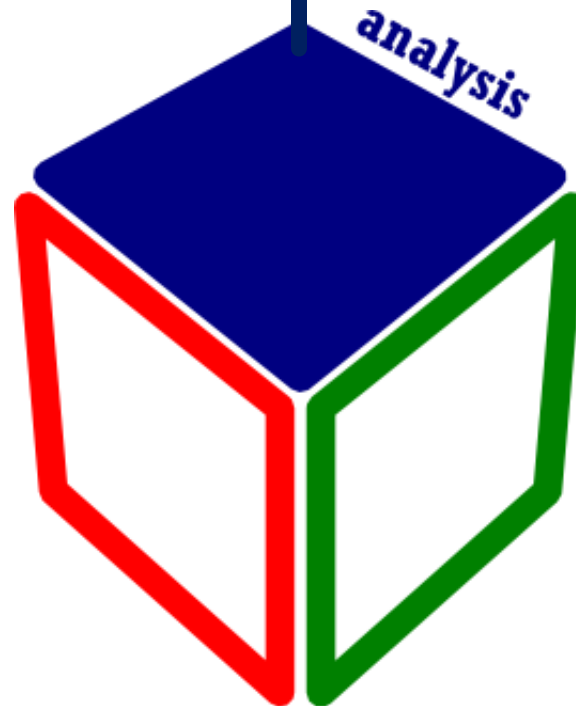




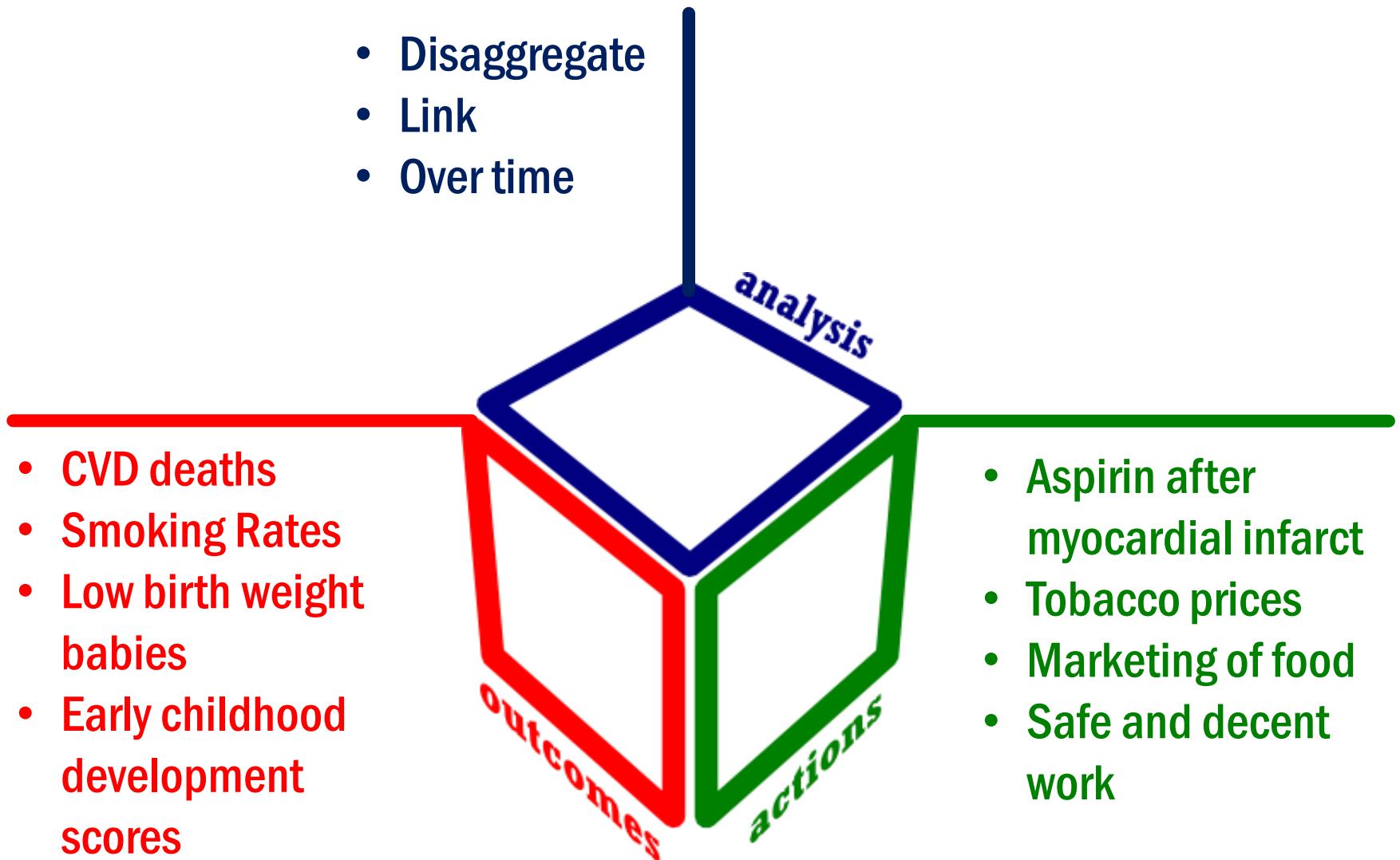


- Aspirin after myocardial infarct
- Tobacco prices
- Marketing of food
- Safe and decent work

- Disaggregate
- Link
- Over time



- Disaggregate
- Link
- Over time



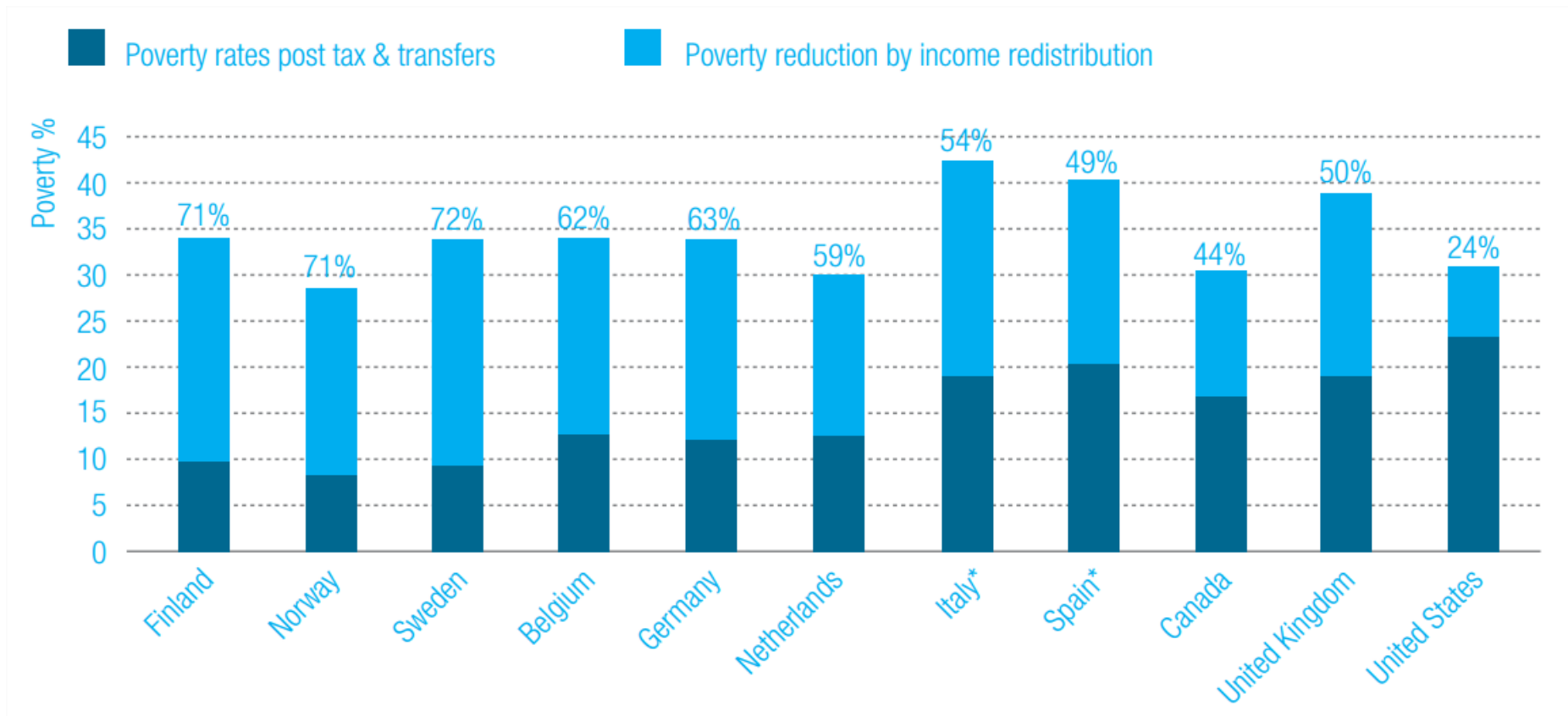
# Capacity to measure National Health Reporting

	All	EUR-A	EUR B+C
NCD mortality	100%	100%	100%
NCD morbidity	98%	96%	100%
NCD risk factors	73%	78%	68%

**Capacity to Disaggregate: Medium to Low**

- Do No Harm
- Measure
- Advocate

# Proportion relatively poor pre- and post-welfare state redistribution.

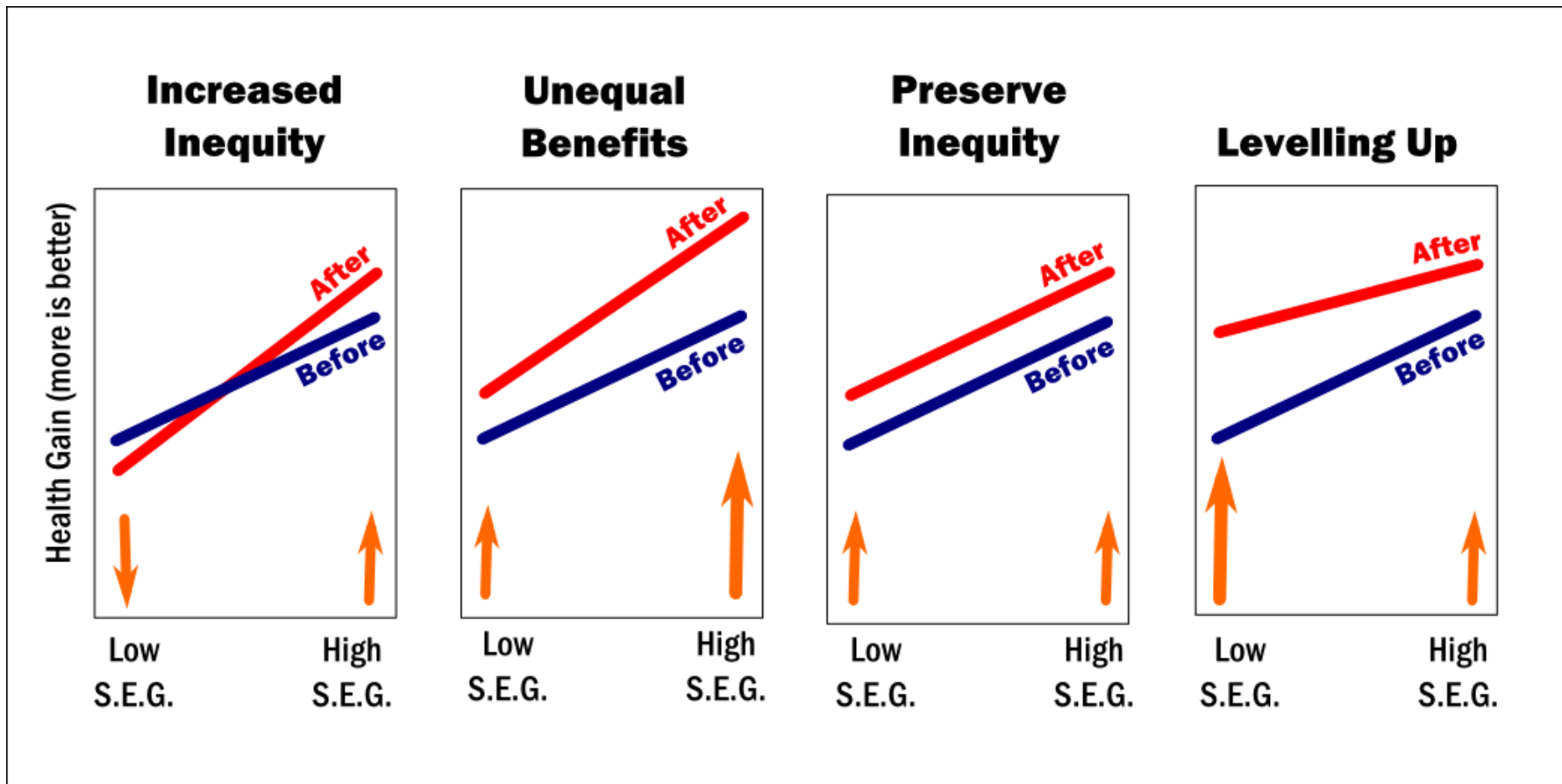


Lundberg et al. (2007) citing Ritakallio & Fritzell (2004) in the Final Report Global Commission on Social Determinants and Health (WHO, 2008)

[http://whqlibdoc.who.int/publications/2008/9789241563703\\_eng.pdf](http://whqlibdoc.who.int/publications/2008/9789241563703_eng.pdf)

- **Do No Harm**
- **Measure**
- **Advocate**
- **Level Up**

# Equity impact | abstract models





# Case study: Disparity Reduction in Clalit

HSR

Health Services Research

**Reducing Health Disparities: Strategy Planning and Implementation in Israel's Largest Health Care Organization (pages 1281–1299)**

Ran D. Balicer, Efrat Shadmi, Nicky Lieberman, Sari Greenberg-Dotan, Margalit Goldfracht, Liora Jana, Arnon D. Cohen, Sigal Regev-Rosenberg and Orit Jacobson  
Article first published online: 25 FEB 2011 | DOI: 10.1111/j.1475-6773.2011.01247.x

# Selected quality indicators for targeting and reducing gaps

1. Influenza immunization
2. Mammography tests
3. Fecal occult blood tests
4. Diabetes control
5. Blood pressure control
6. Hyperlipidemia control
7. Anemia in infants

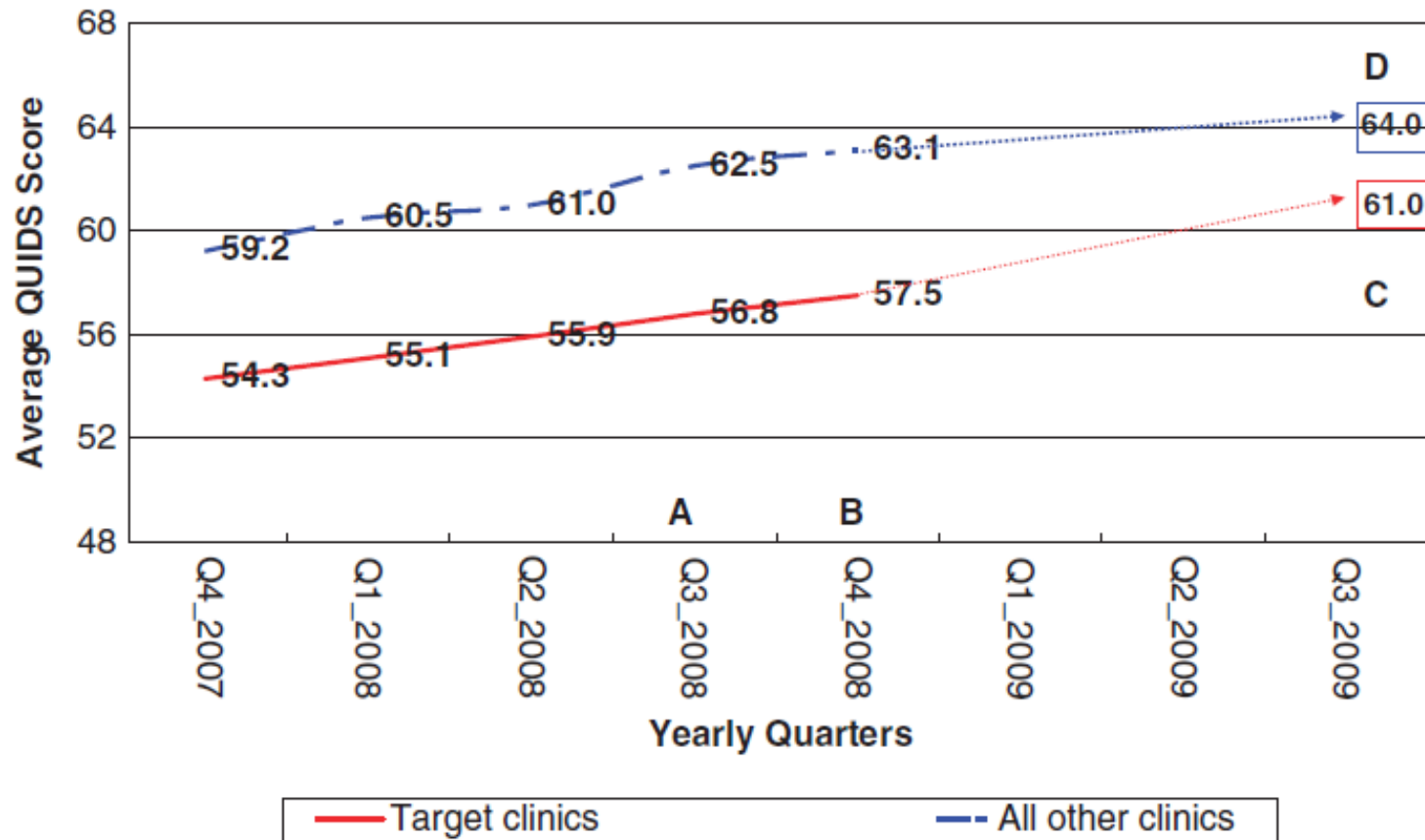


**Composite  
Measure**

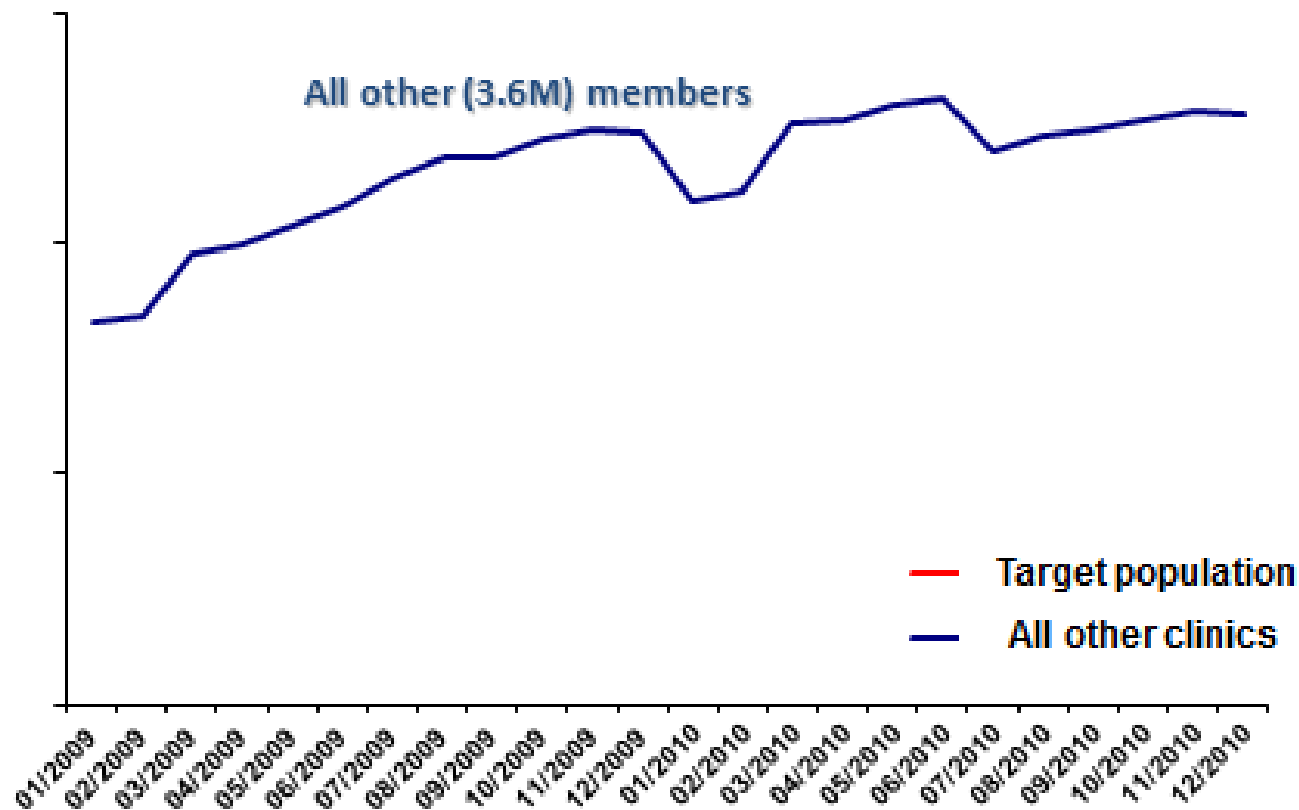


**55 lowest  
performing clinics**

>60% reduction in disparities  
in 7 in-focus indicators, in 3 years



# Over 70% reduction in gaps in quality score (~70 quality indicators)





- Do No Harm
- Measure
- Advocate
- Level Up

# Thank You