



# Effect of USA Death Registry System in Global Burden of Disease estimation

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# What is the Global Burden of Disease?

- A **systematic scientific** effort to quantify the **comparative** magnitude of **health loss** due to diseases, injuries and risk factors by age, sex, geographies for specific points in time.
- We estimate and as a public goods we publish
  - Number of lost years due to premature death and health loss for
    - 315 diseases and injuries
    - in 519 geographical location within 195 countries and territories
    - every years for 1990- upward by age, sex and years
- GBD has important role for Health policy and planning in countries and locations

<http://www.healthdata.org/>

<http://www.healthdata.org/results/data-visualizations>

<https://vizhub.healthdata.org/gbd-compare/>

Figure 8a: Leading Level 3 causes of YLLs by country, for all ages, females

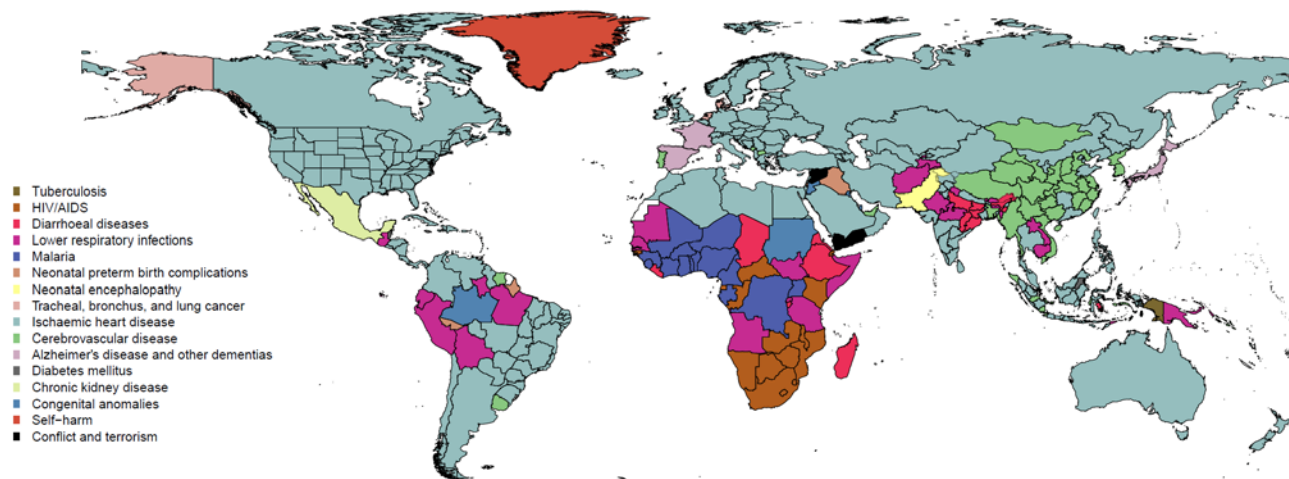
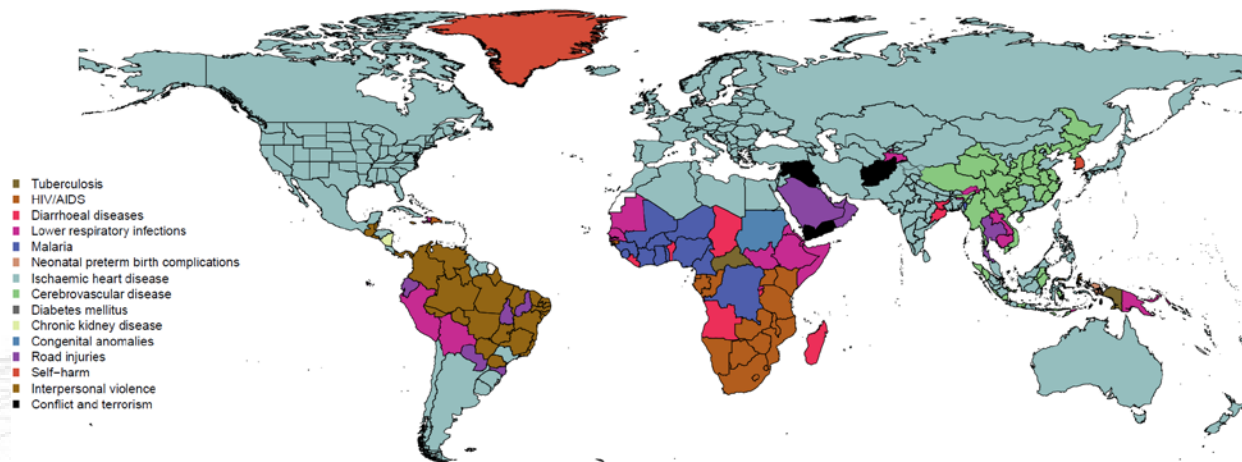


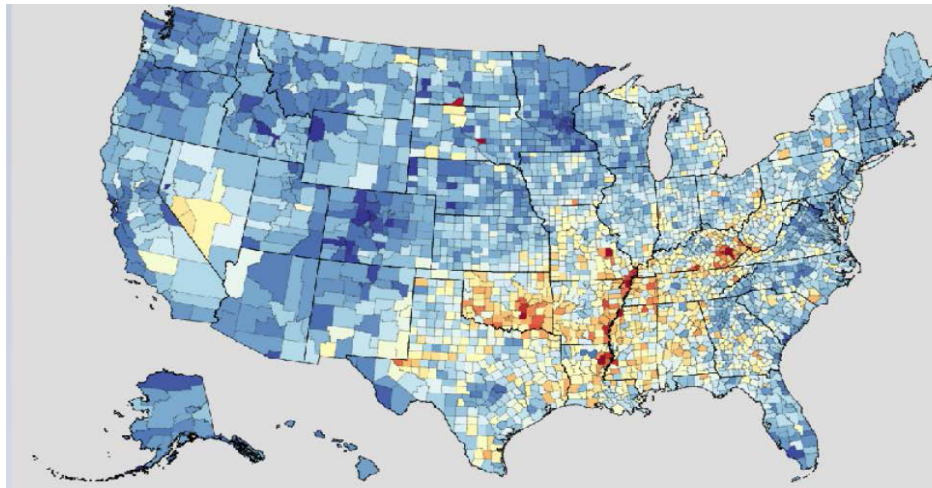
Figure 8b: Leading Level 3 causes of YLLs by country, for all ages, males



# Age Standard Death Rate by USA county 2014 both sex all age for Ischemic Heart Diseases

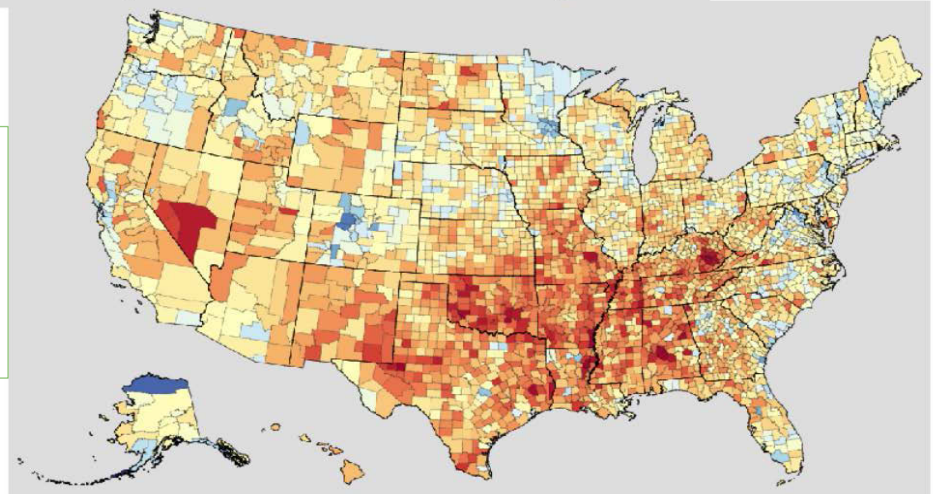
USA –NCHS county level  
ICD9 and ICD10

Percent change in ASDR for  
IHD from 1980-2014 by USA  
county, both sexes all ages



Age  
Standard  
Death rate  
from 34.5 –  
439.8 per  
100 K

Percent  
change  
from -5.5%  
- +0.8%

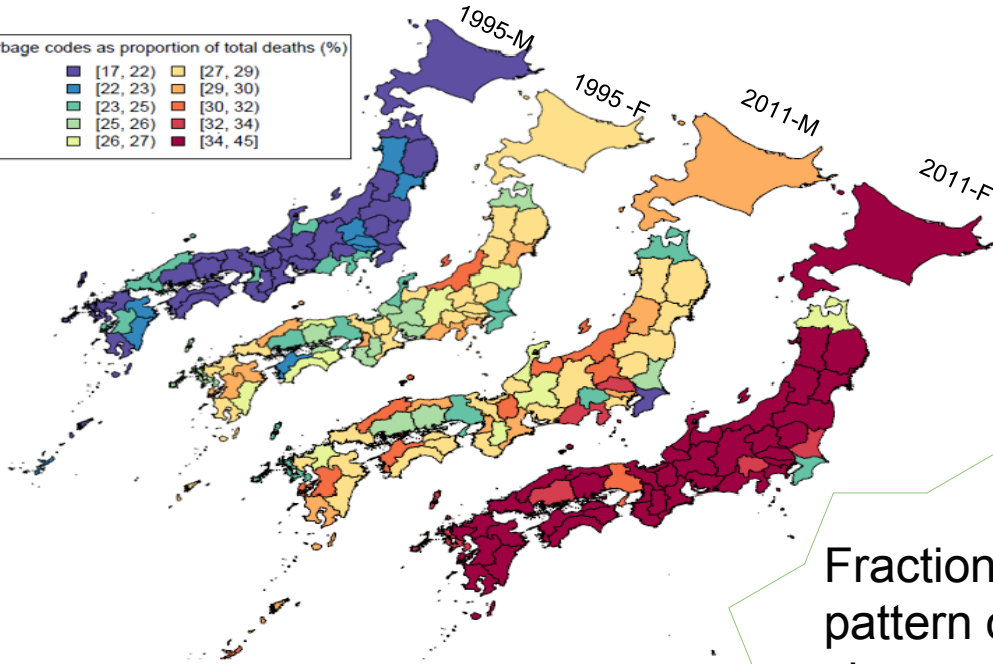
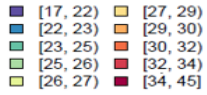


## 5 - Critical challenges: Garbage Codes

- Septicemia
- Senility
- Headache
- Ill-defined and unspecified causes of mortality
- Heart failure
- Atherosclerosis
- Low back pain
- Infertility
- Cardiac arrest
- Injury unspecified

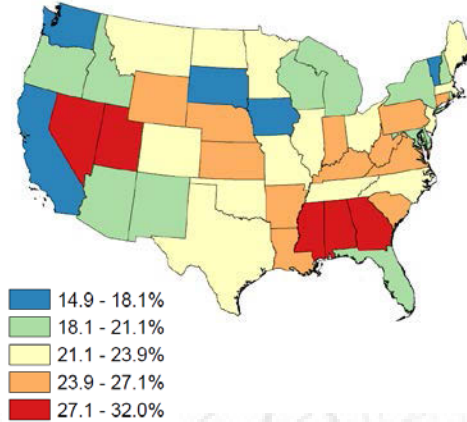
Some ICD codes or some causes that cannot be **underlying** causes of death

Garbage codes as proportion of total deaths (%)

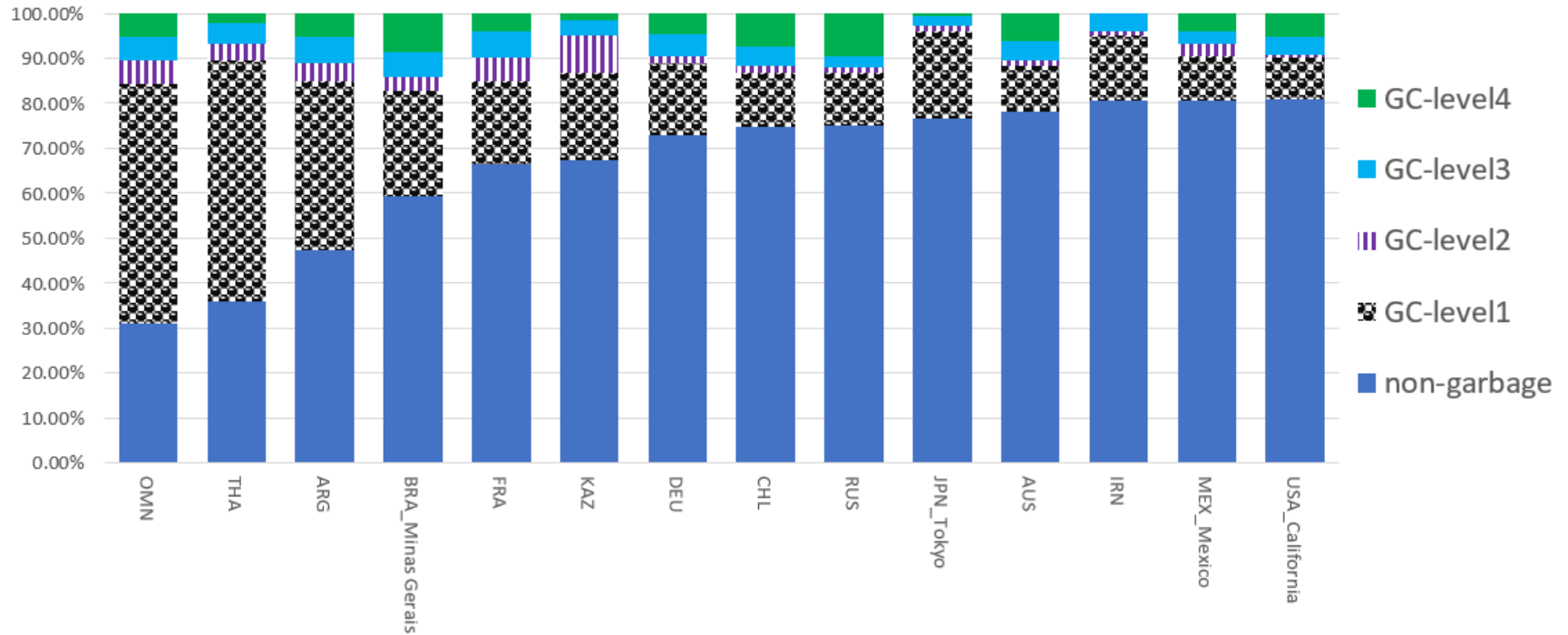


Fraction and  
pattern of GCs  
change by age,  
sex, year and  
location

Percent garbage by subnational state, Mexico ICD10 2012



# Fraction of GC based on level of redistribution on GBD cause , By countries just 2010





## Availability and completeness of causes of death data for GBD 2015

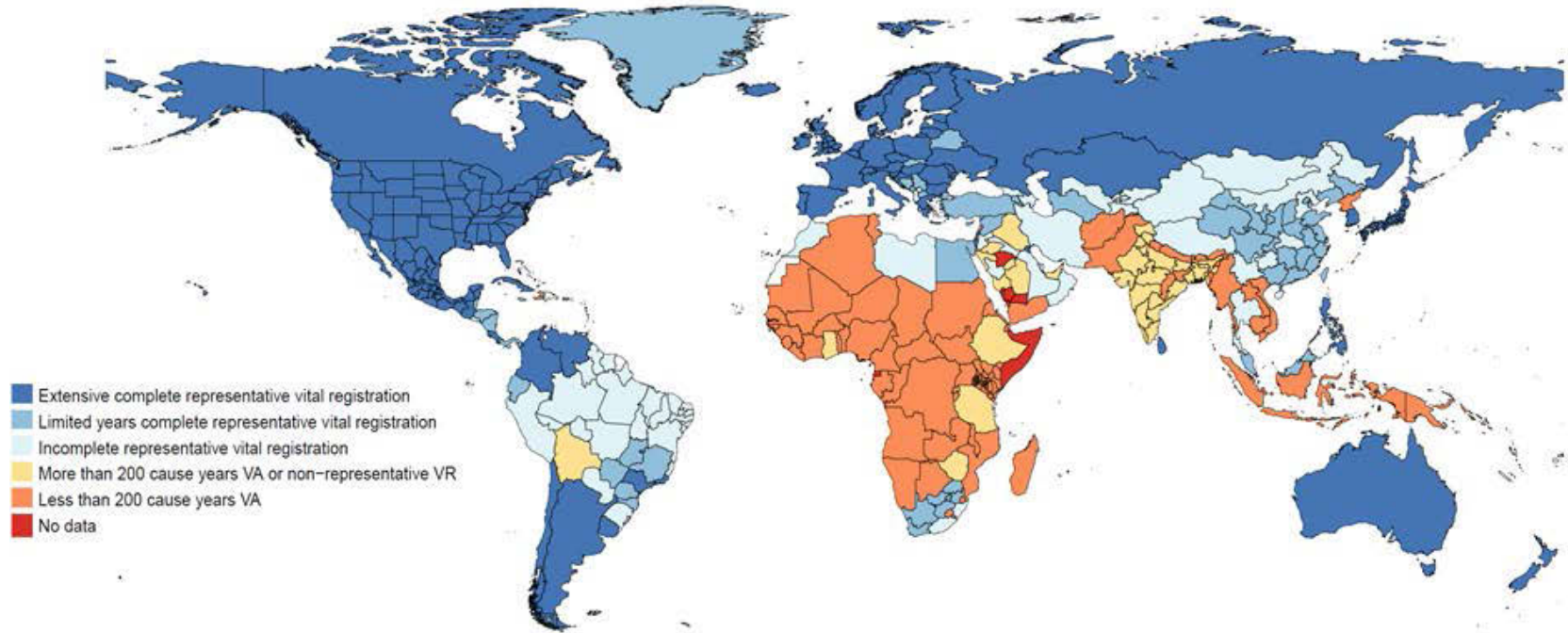
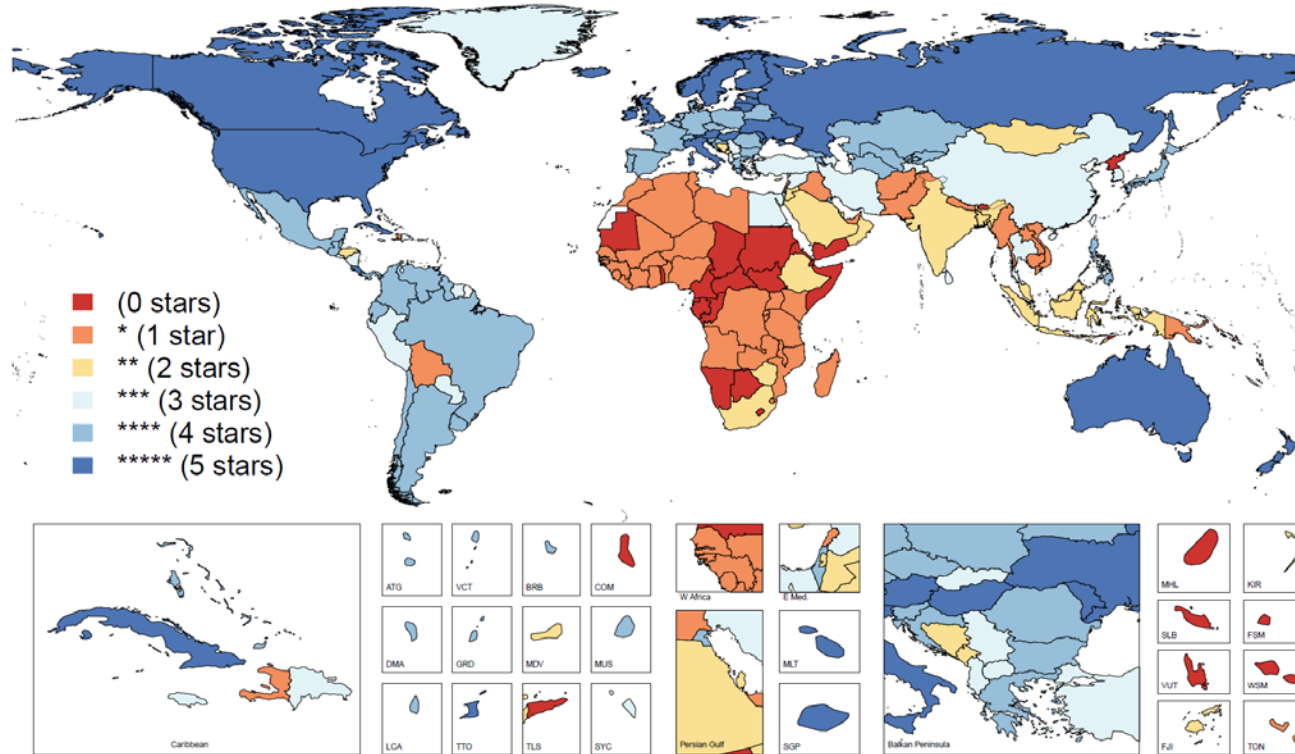




Figure 2: Classification of national time series of vital registration and verbal autopsy data 1980-2016 on the basis of the fraction of deaths well-certified and assigned to a detailed GBD cause



Thanks and any  
question or comment

