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

[https://vizhub.healthdata.org/gbd-compare/](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

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