Homicides increased inequality of lifespans in Mexico, 2005-2015

everberations from the war on drugs



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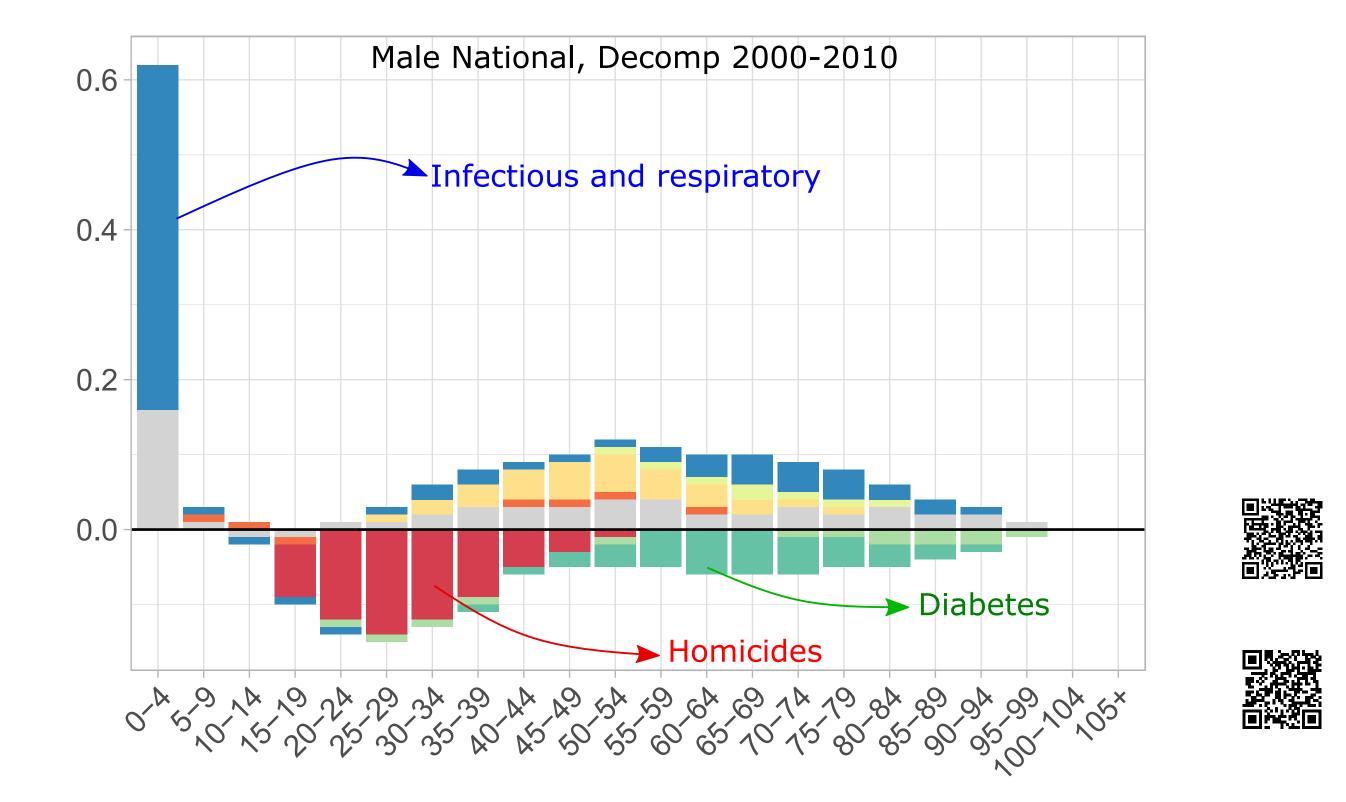
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What we know

- 1. Violence is a major public health issue in Latin America
- 2. Homicide doubled between 2007 and 2012 (from 9.3 to 18.6).
- 3. Gains in life expectancy were wiped out by the increase of homicides after 2005.



What is the effect of homicides on lifespan inequality?

Data & Methods

Deaths counts from the vital statistics and population estimates from the Mexican population council from 1995 to 2015

Cause of death classification

- 1. Amenable to medical service
- 2. Diabetes
- 3. Ischemich heart diseases
- 4. Lung cancer
- 5. Cirrhosis
- 6. Homicide7. Traffic accidents
- 8. Residual

Lifespan inequality indicator

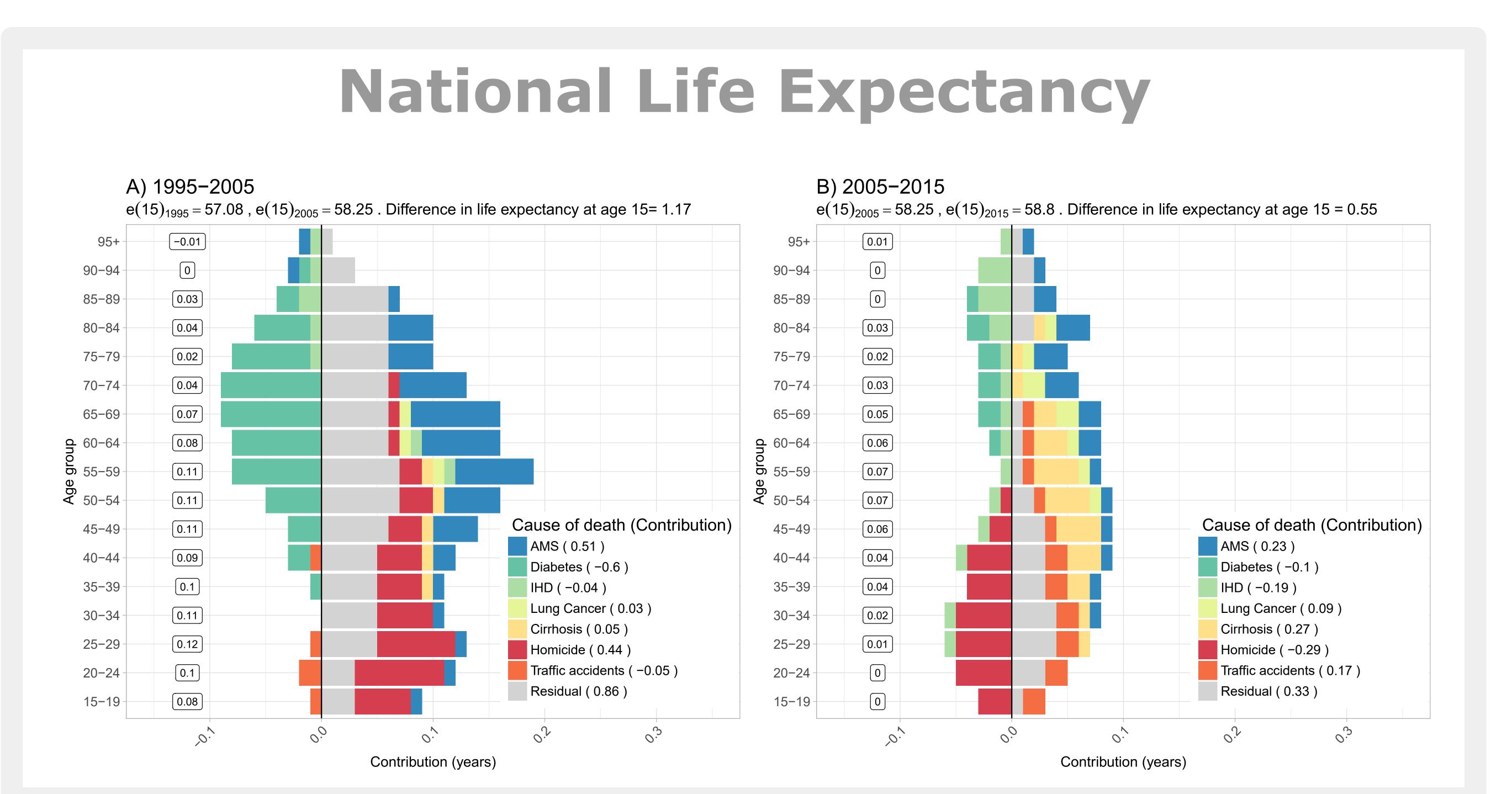
We use years of life lost ($e^{\dagger_{15}}$) as a dispersion indicator and we refer to it as "lifespan inequality" or "lifespan variation" from age 15. It is defined as the average remaining life expectancy when death occurs above age 15, or life years lost due to death.

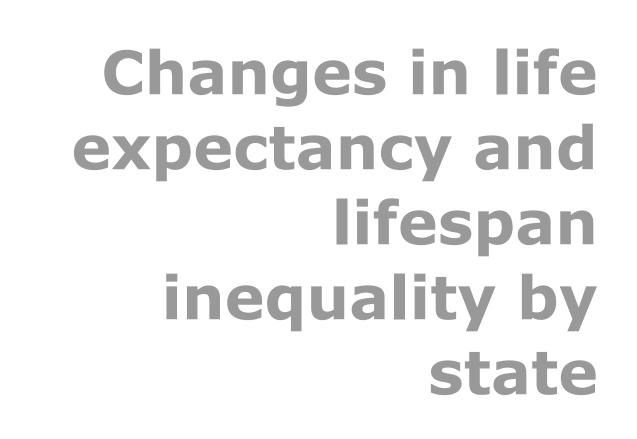
Demographic methods

We smoothed cause-specific death rates over age using a 1-d p-spline separately by year, sex and state. We then rescaled the smoothed cause-specific deaths to all-cause death rates to maintain the overall mortality level.

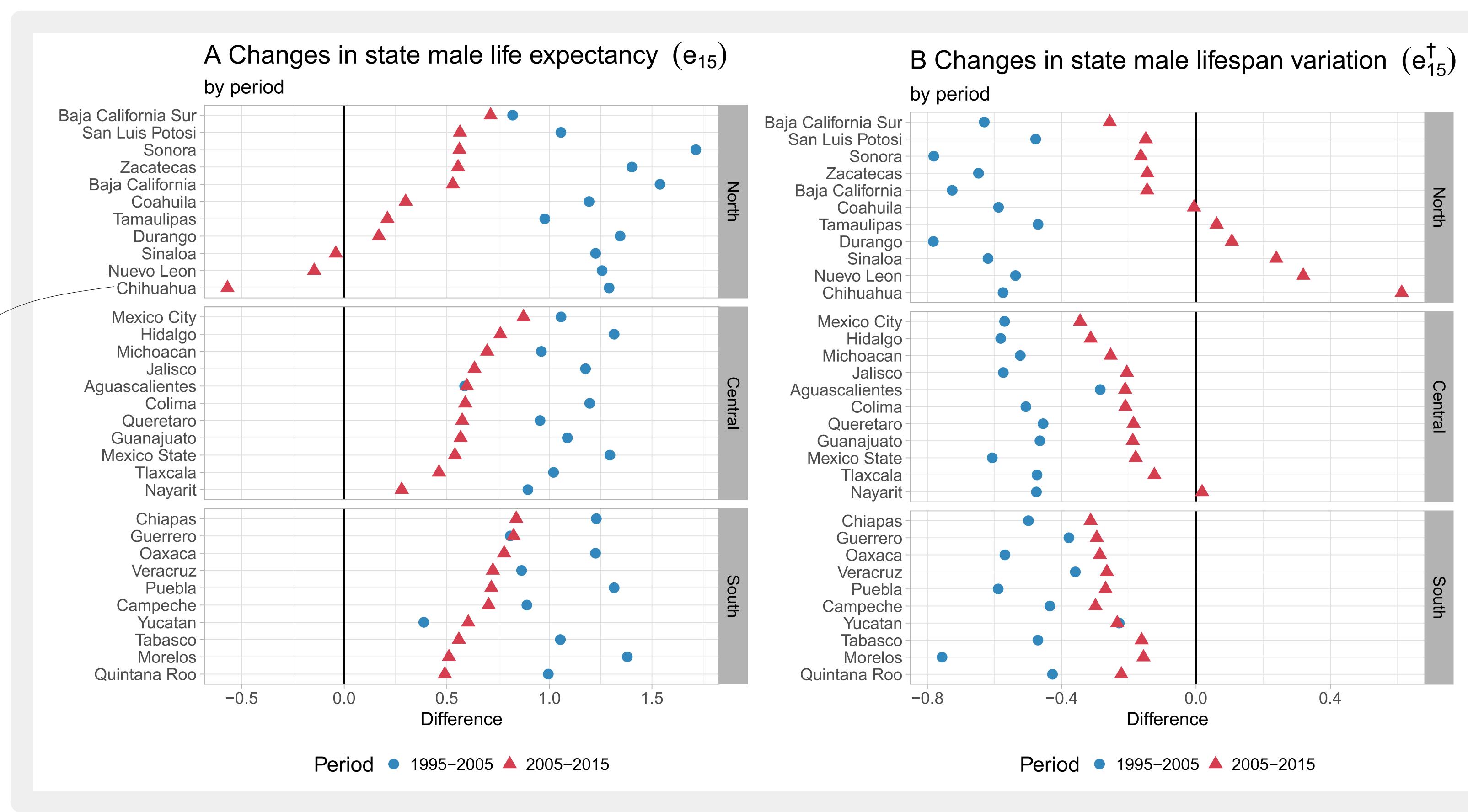
We computed period life tables for each year (1995 to 2015) and calculated life expectancies and lifespan variation conditioned to age 15.

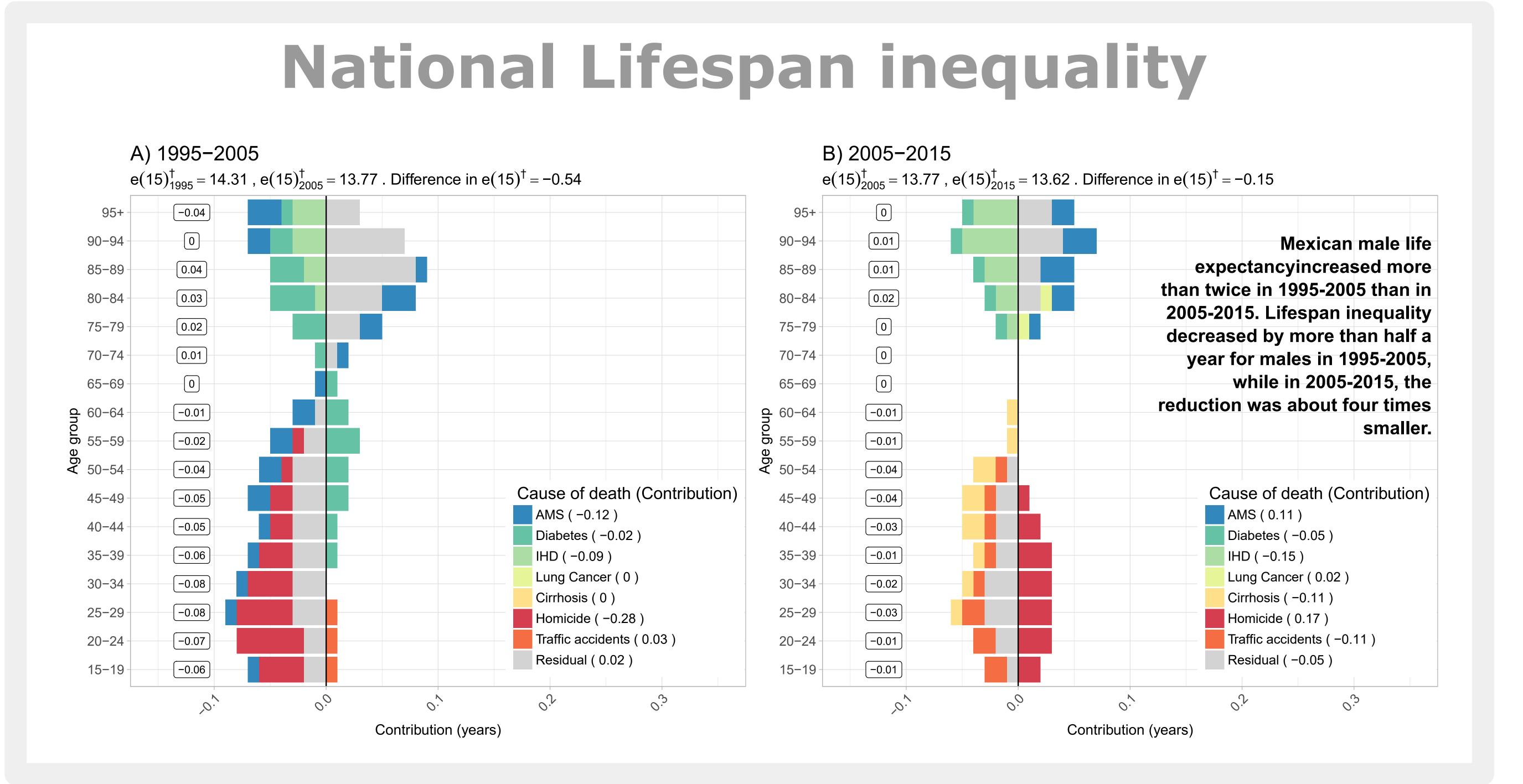
Age- and cause-specific contributions to differences between the study periods using standard decomposition techniques.





In 2010, males aged 15-50 in Chihuahua had three times higher mortality than the US-troops in Iraq between 2003 and 2006.





Cause specific contributions to the changes

The second and fifth most dangerous cities in the world are located in the state of Guerrero, along with cities in countries with higher homicide rates than Mexico.



- 1. Lifespan inequality assess heterogeneity in lifetimes at the population-level, and uncertainty in the timing of death at the individual-level.
- 2. After ten years of the war on drugs, Mexico has not been able to reduce the levels homicides to those prior to 2005.

 3. Young males in Mexico not only are living less, on average, but they are also facing more uncertainty in their time of death.
- 4. The consequences of the ongoing violence in Mexico represent an urgent priority for comprehensive strategies.

