

LATIN AMERICA'S EPIDEMIC OF VIOLENCE AND ITS IMPACT ON LONGEVITY AND OTHER HEALTH OUTCOMES

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FOR DEMOGRAPHIC
RESEARCH

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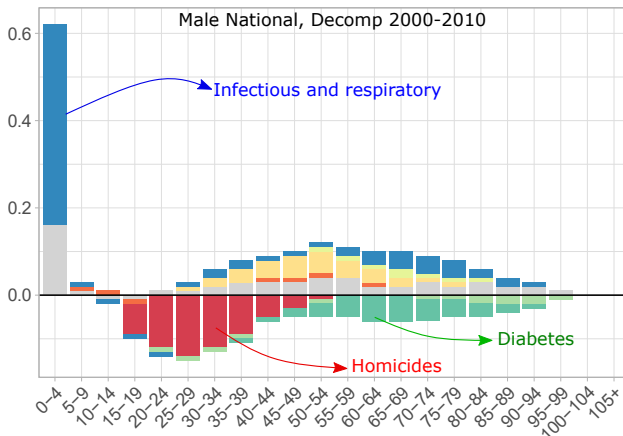
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- ▶ This region has the **highest** homicide rate in the world (16.3 per 100,000).
- ▶ Central American countries → **upsurge** in homicides in the new century.
- ▶ **In Mexico, rates doubled between 2007 and 2012** (9.3 → 18.6).

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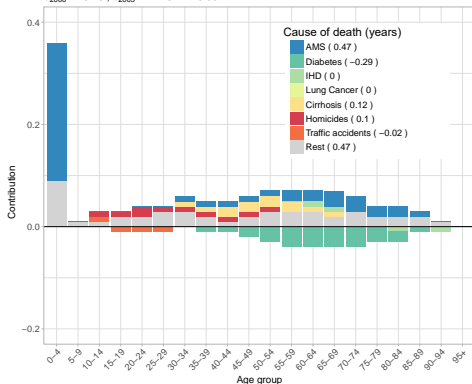
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10y before and after war on drugs and universal healthcare reform

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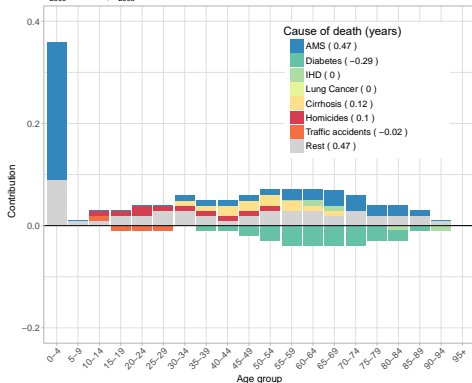
$e_{2000} = 70.46$, $e_{2005} = 71.29$. Dif 0.83



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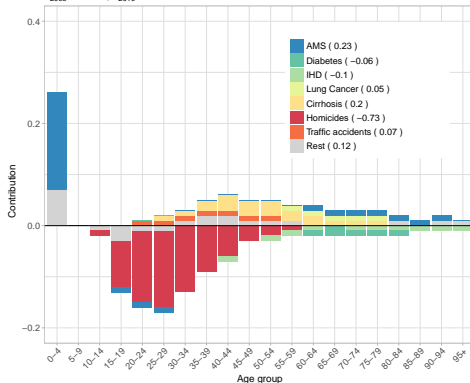
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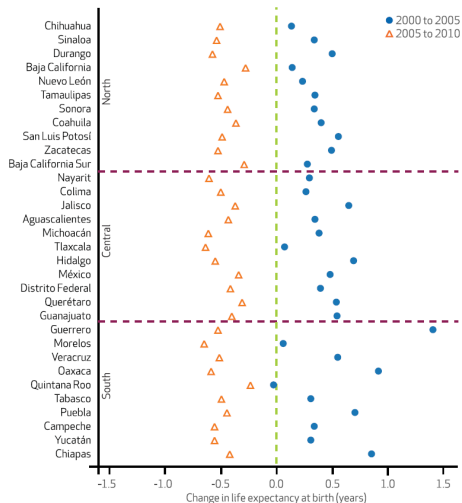
$e_{2005} = 71.29$, $e_{2010} = 71.06$. Dif -0.23





At the subnational level

Changes In Male Life Expectancy At Birth In Mexico, By State And Period, From 2000 To 2005 And From 2005 To 2010



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3. Birth conditions
4. ...

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Wiped out by the increase of homicides after 2005 in each of the 32 states in Mexico

Why lifespan variation

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- ▶ State of **vulnerability**

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7. Road traffic accidents
8. Rest.

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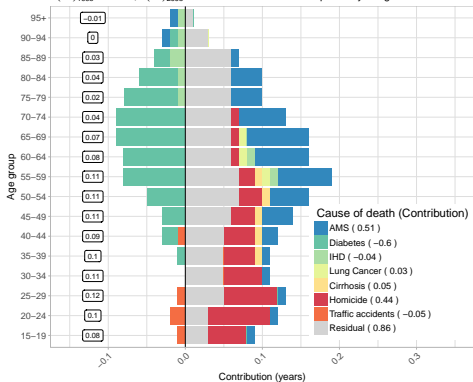
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- ▶ Easy **public health interpretation**.
- ▶ **Quantify** age and cause specific effects.
- ▶ Separate ages that **decrease** from those that **increase**.
- ▶ Conditioned to age 15 to capture the **onset of violence**.

National life expectancy

A) 1995–2005

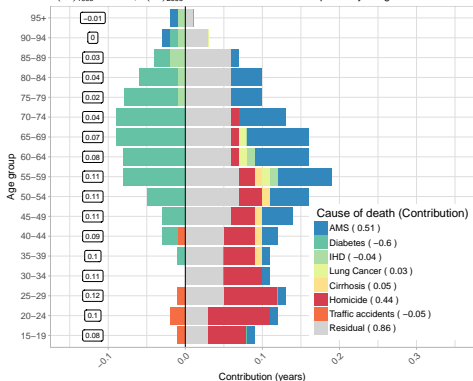
$e(15)_{1995} = 57.08$, $e(15)_{2005} = 58.25$. Difference in life expectancy at age 15 = 1.17



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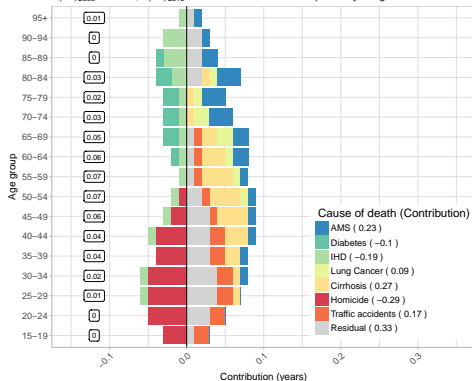
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B) 2005–2015

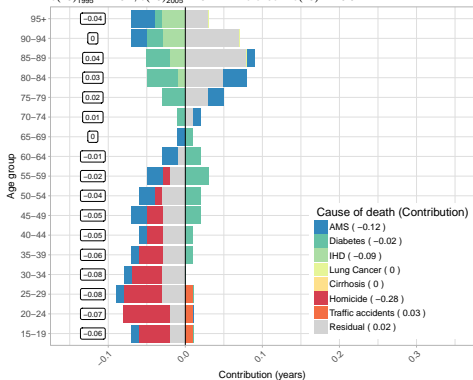
$e(15)_{2005} = 58.25$, $e(15)_{2015} = 58.8$. Difference in life expectancy at age 15 = 0.55



National lifespan inequality

A) 1995–2005

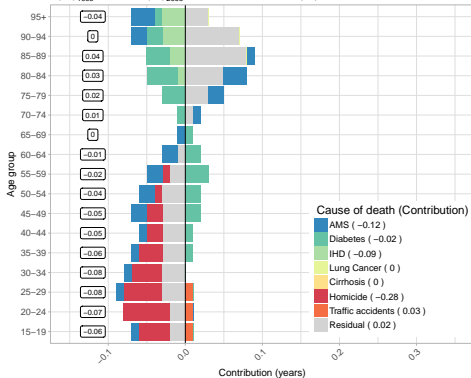
$e(15)_{1995}^{\dagger} = 14.31$, $e(15)_{2005}^{\dagger} = 13.77$. Difference in $e(15)^{\dagger} = -0.54$



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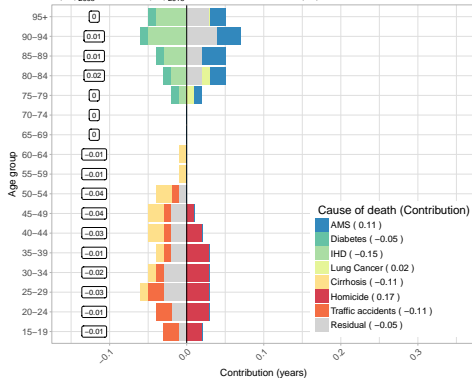
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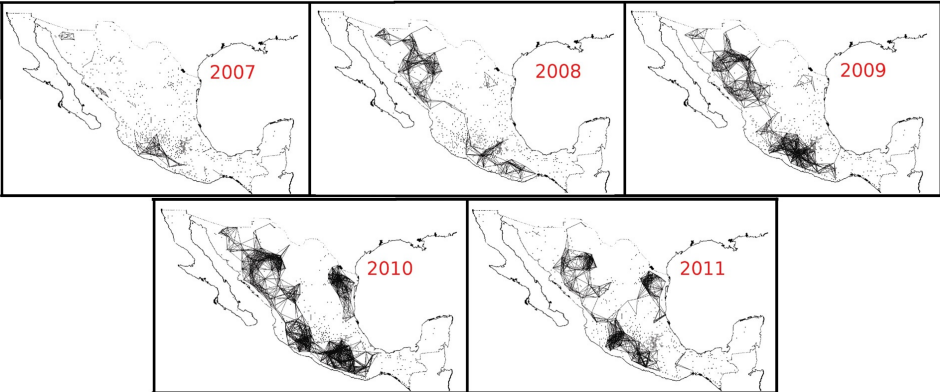


B) 2005–2015

$e(15)^{\dagger}_{2005} = 13.77$, $e(15)^{\dagger}_{2015} = 13.62$. Difference in $e(15)^{\dagger} = -0.15$

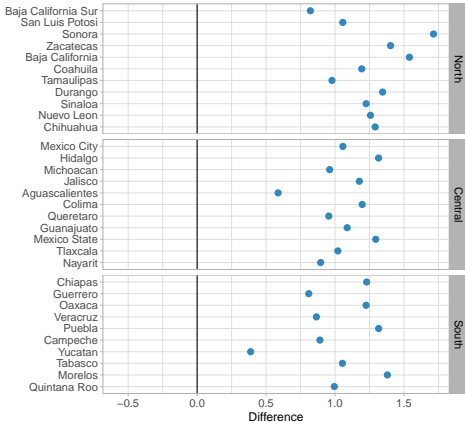


Homicides not evenly shared across Mexico



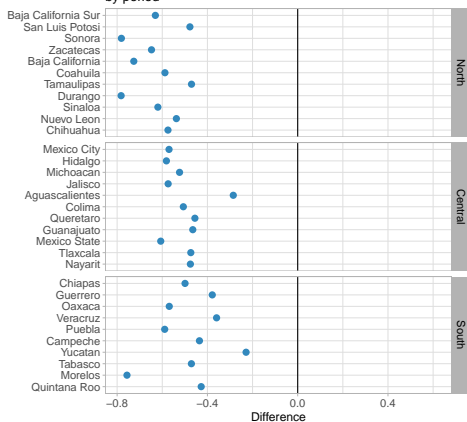
Subnational level

A Changes in state male life expectancy (e_{15})
by period



Period ● 1995–2005

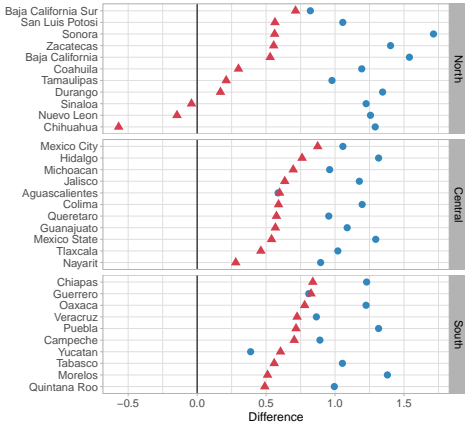
B Changes in state male lifespan variation (e_{15}^+)
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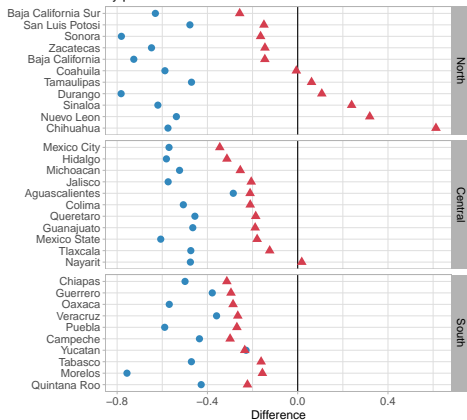
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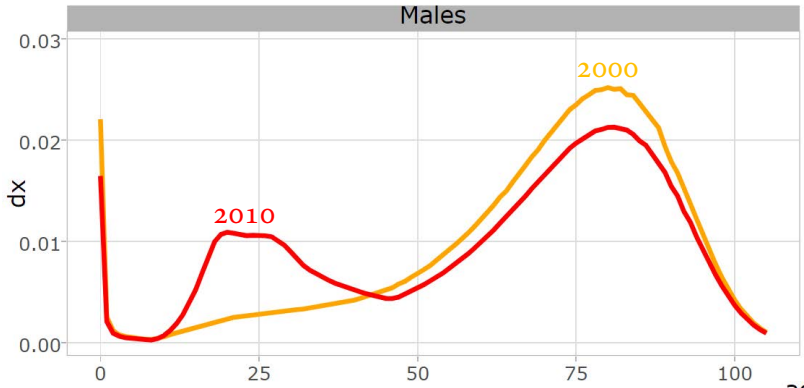
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B Changes in state male lifespan variation (e_{15}^+) by period



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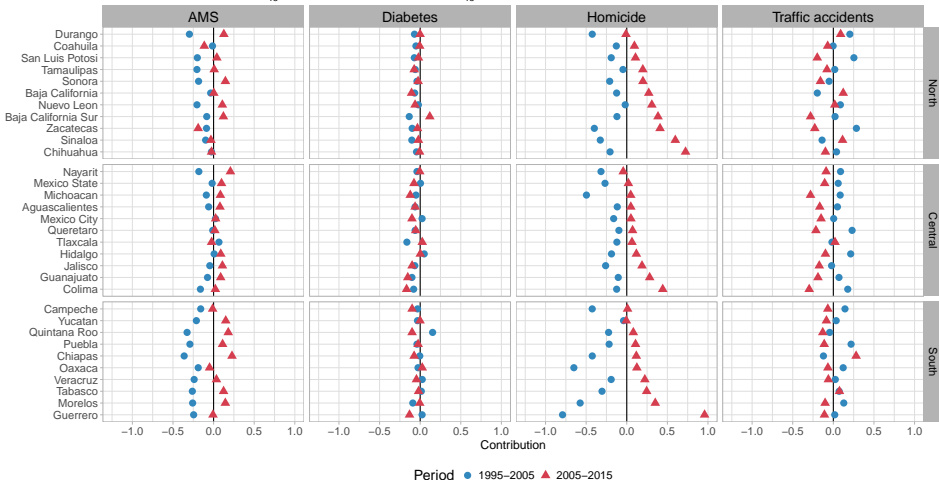
Chihuahua (Bordering with Texas): Rates 3 times those of US troops in Iraq between 2003 and 2006!



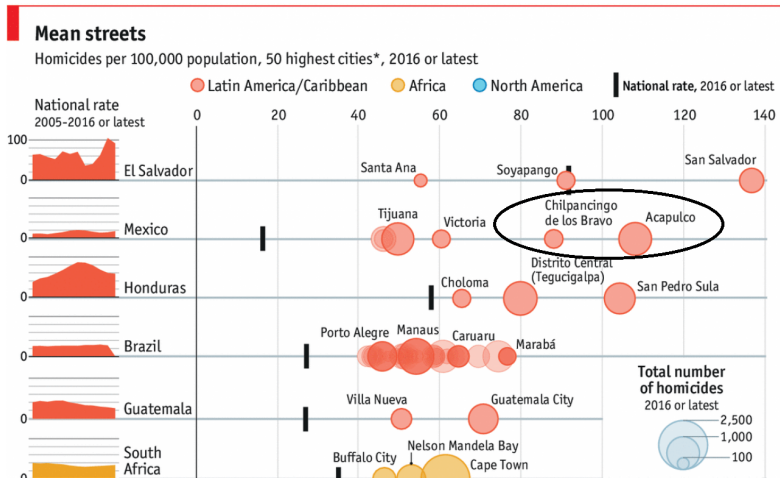
Cause-specific results

Cause-specific contributions to the change in lifespan variation at age 15 (e_{15}^{\dagger})

Negative values decrease e_{15}^{\dagger} and positive values increase e_{15}^{\dagger}



2 of most dangerous cities in the world in 2016 in this state (The Economist)!



International Perspective

~ 2,000,000
15-30

77%
Men

35%
Homicides
(+ 1/2 million)

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- ▶ Young males in Mexico **live less**, on average, and **face more uncertainty**.
- ▶ **Ongoing violence** in Mexico → **urgent priority**.
- ▶ Comprehensive **evidence-based** strategies are needed.
- ▶ Other countries in LAC might be experiencing similar **detrimental** consequences.

Challenge of Mexico: Reducing violence

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Shinnyapp:

https://demographs.shinyapps.io/LVMx_15_App/

Lifespan variation in Mexico, 1995-2015

