







Tobacco Smoking in Latin America: Differences between Smokers' Survival Expectations and Observed Mortality Beatriz Novak (Center for Demographic, Urban and Environmental Studies, El Colegio de México)

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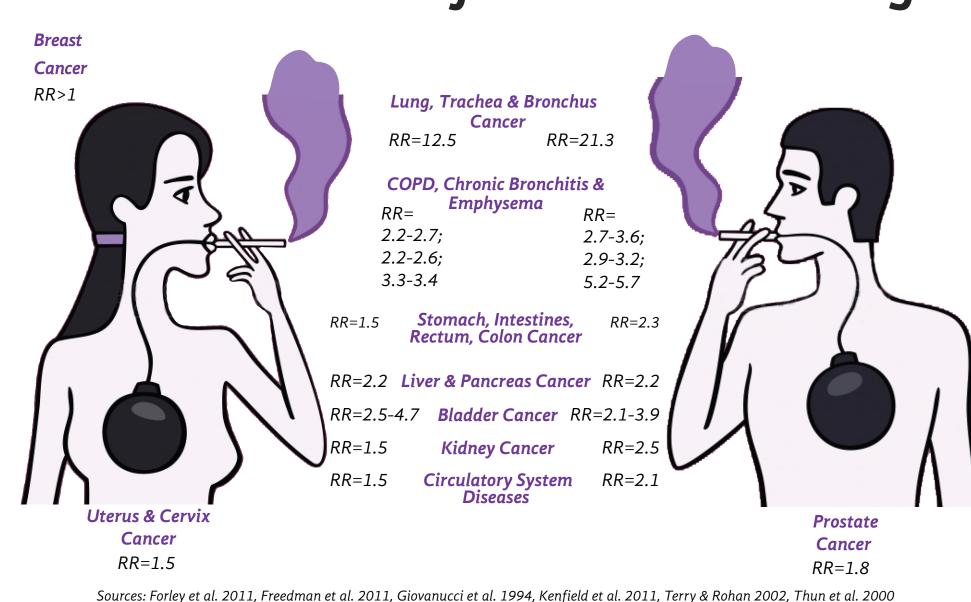
OBJECTIVE

Explore the existence of consistency, or lack thereof, between actual individual smoking behavior and individual survival expectations

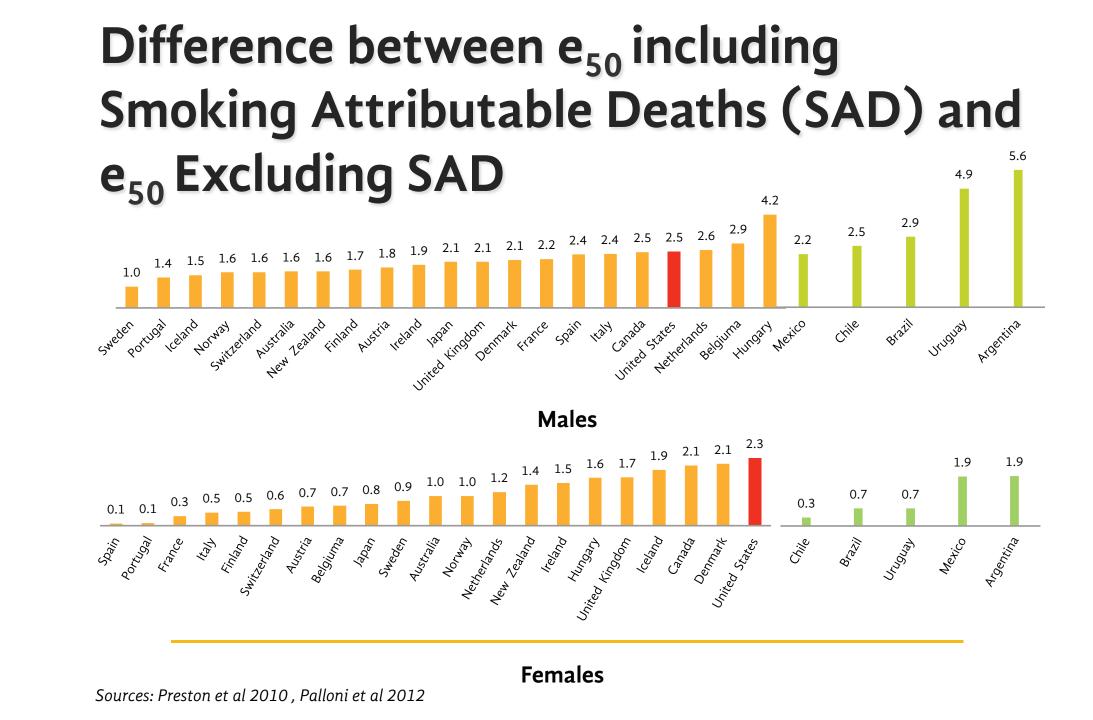
CONTEXT

- Since 1980s the US rate of increase in life expectancy at age 50 has slowed down, primarily due to the contribution of lung cancer and COPD
- Male and female smoking is also the most likely explanation for the observed fall of the ranking of US life expectancy relative to high-income country peers.
- Low income countries are going through the same stages of a smoking epidemic that high income countries did before them

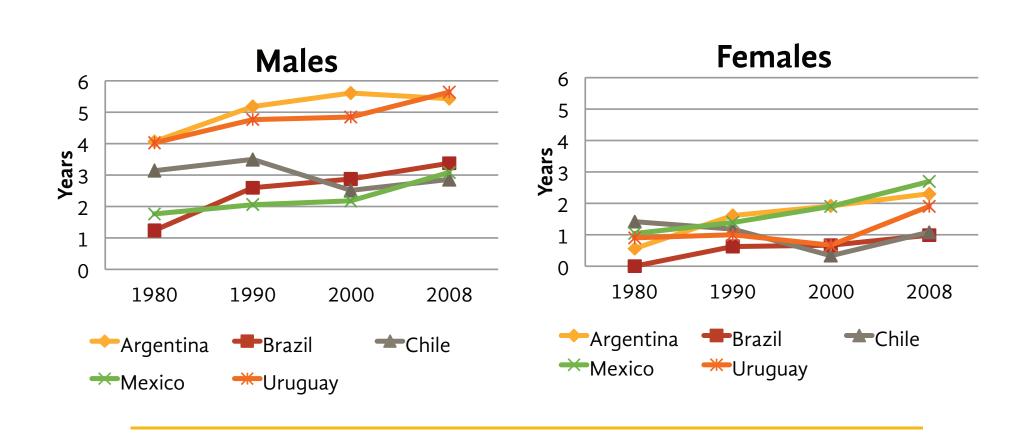
Health Risks of Tobacco Smoking



 The bulk of smoking attributable mortality is associated with lung cancer, COPD, cancers of selected sites, and some forms of circulatory and heart disease (in order of importance)



Difference between e₅₀ including and **Excluding SAD Increased through Time** in Latin American Countries



What do we know about Subjective Survival Expectations of Smokers?

- In general, smokers seem to understand that smoking may shorten their potential lifespan
- Underestimate the magnitude of the effect of smoking on their survival probabilities (Schoembaum 1997) 2-4 years (Ross & Mirowski 2002, Hamermesh & Hamermesh 1983)
- Current smokers seem to use the experience of parents/grand-parents to diminish the importance of smoking on health; however,
- Former smokers emphasize the negative smoking-related health outcomes of relatives (Sloan et al. 2003)

- "Hard-core smokers" seem to attribute less damaging effects of smoking on health and mortality, but
- Less addicted (and frail) smokers seem to be more rational assessing health status and survival probabilities regarding the consequences of smoking (Balia 2007)
- Only specific information about smoking-related health events is most likely to cause smokers to update their survival beliefs (Smith et al. 2001)

Data

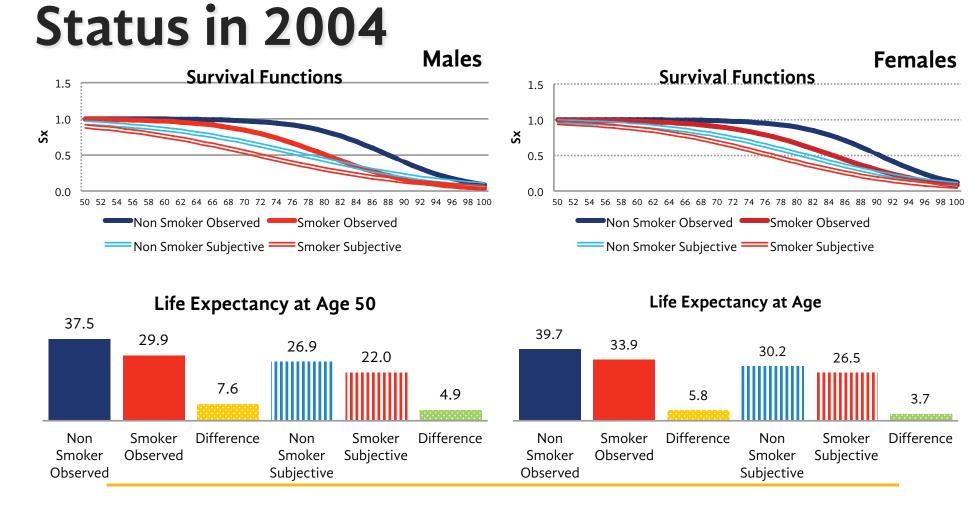
- 2004 Chilean Social Protection Survey (N=2695)
- 2004 Health and Retirement Study (N=5498): Comparison purposes

Subjective Survival Question

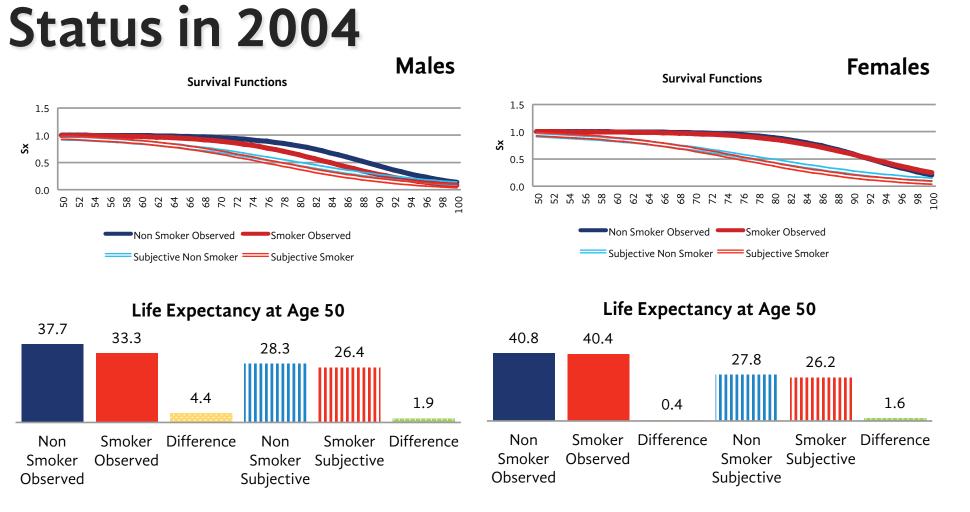
- HRS: "What do you think are the chances that you will live to be 75+/80+/85+/90+/95+/100+ years?" (Age 50-65/50-69/70-74/75-79/80-84/85-90)
- EPS: "What do you think are the chances that you will live to be 65/75/85/100 years?" (Age 50-65/65-74/75-84/85+) Methods
- Retrieve mortality information (HRS: 2004-10; EPS: 2005-2009)
- Retrieve expected survival information (HRS: 2004; EPS: 2005)
- Assume that individuals use same age pattern of mortality to assess expectations but differ in terms of the levels of mortality they are expressing
- Non Linear Squares methods to estimate observed and subjective life tables (Gompertz, Weibull, logistic and log logistic)

Main Results

US (HRS 2004-2010) Observed and Subjective Mortality by Smoking



Chile (EPS 2004-2009) Observed and Subjective Mortality by Smoking



- In general, Chilean male smokers are as optimistic (2.5 y) as US male smokers (2.8 y)
- However, considering only White US males, US male smokers are more optimistic (3.8 y) than the Chilean
- White female smokers in the US are somehow optimistic (0.8 y) but Black females are by far optimistic (5.3 y)
- Chilean female smokers and American Black male smokers are a little bit pessimistic (-1.2 y) regarding their future survival

CONCLUSIONS

- Lack of consistency suggests weaknesses and cracks in public health campaigns designed to convey smoking risks
- Consistency, on the other hand, reveals that the population is at least ready though perhaps unwilling to alter behavior
- Future mortality trends in these countries will also depend on smoking behavior (particularly on uptake and quitting rates)