LIVE LONG & PROSPER: THE IMPACT OF EDUCATION ON MORTALITY

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Education is a process

• Years of school completed ("education") doesn’t drop down on you in adulthood

• Process across life course
  • Type of school & classes
  • Quality of school & teachers
  • Friends & peers in school
  • Beliefs about the future
  • Extracurricular experiences
  • Early childhood education & “social and emotional” skills
  • Can be what you learned in preschool or in college
Causality in 2 minutes

- Can be direct and immediate
  - I kick you, it hurts
  - Take Tylenol, fever reduced by 2 degrees
  - Get college degree: earn higher wages after diploma
  - Go to high quality preschool: improve pre-literacy
Causality in 2 minutes

- Or, can be indirect or longer-term effect
  - Learn to solve word problems in 9th grade → increase analytical skills → more likely to breastfeed, read to child at age 3, take meds as prescribed, exercise post heart attack
  
  - Shape social reference: change stigma of smoking, being overweight, giving toddler soda or candy

  - Shape your social network: Marry someone highly educated, have more educated friends
Actual Causes of Death

“Modifiable behavioral risk factors are leading causes of mortality in the United States.” Mokdad et al. *JAMA* 2004

- Smoking (18% of total US deaths in 2000)
- Poor Diet and Physical Inactivity (16.6%)
- Alcohol Consumption (3.5%)
Educational Disparities in Smoking (age ≥25)

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-11 yrs (no degree)</td>
<td>0.34</td>
</tr>
<tr>
<td>12 yrs (no degree)</td>
<td>0.29</td>
</tr>
<tr>
<td>HS diploma</td>
<td>0.25</td>
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<tr>
<td>Some College (no degree)</td>
<td>0.23</td>
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<tr>
<td>AA</td>
<td>0.20</td>
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<tr>
<td>BA/BS</td>
<td>0.11</td>
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<tr>
<td>Graduate degree</td>
<td>0.06</td>
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</tbody>
</table>
Education & Smoking Across Time (NHIS)

Maralani 2013, Social Science & Medicine
Education & Smoking Across Life Course (Add Health)

Maralani 2014, Social Science Research
Smoking & Education at Marriage (Born 1942-53, HRS)

Maralani 2015, Under Review
Quitting & Education Between Marriage & First Birth (HRS)

Maralani 2015, *Under Review*
Wrap Up

- Education and health intertwined across life course

- Large-scale, longitudinal demographic data help us figure out how education shapes health and wellbeing

- To understand how educational policy can have health dividends, need:
  - Longitudinal and detailed data on educational and health-related experiences and characteristics from childhood to adulthood
  - Data on both individuals and families
National data sets used and their sponsors

- **National Health Interview Surveys**
  US Census Bureau and CDC

- **Nat’l Longitudinal Study of Adolescent to Adult Health**
  NIH, NSF, DHHS (and many others!)

- **Health and Retirement Study**
  National Institute on Aging

- **National Longitudinal Surveys**
  Bureau of Labor Statistics (BLS)