THOUGHTS ON OPENING UP AND INEQUALITIES

Angus Deaton, Brookings, May 12, 2020
Pandemics and inequalities

- “Medical statistics will be our standard of measurement: we will weigh life for life and see where the dead lie thicker, among the workers or among the privileged” Rudolf Virchow, 1848

- “inequalities have powerfully sculpted not only the distribution of infectious diseases but also the course of health outcomes among the afflicted” Paul Farmer, 2001

- “Four different kinds of violent ruptures have flattened inequality: mass mobilization warfare, transformative revolution, state failure, and lethal pandemics.” Walter Scheidel, 2017

- “A situation like this, it highlights problems that already exist in society that people haven’t noticed. Suddenly you see things. It is like an x-ray machine.” Anderson Cooper, 2020
Warning

- Calculations below are subject to revision
- Numbers are changing
- I may have made mistakes!
The SIR model—which does work!—predicts a rise and fall in numbers of deaths

IHME curve-fitting claimed to show that the fall would be complete with zero deaths by May 1, and 60,000 in total
- Now August 4th, with 137,184 deaths, but same shape
- Curve fitting plus parallels with Italy, Iran, and other countries

Re-opening problem is wait until deaths are low enough
- So that it is safe to come out
- New York has a shape like this

Economists calculated VSL and recommended that social distancing would save enough lives to be hugely worth while
All of this is problematic

- Without a vaccine, could be around a million COVID deaths
  - Assuming immunity exists, so herd immunity is possible
- To get there, a series of smaller local epidemics or waves
  - Each may conform to SIR, but not for the US as a whole
- Social distancing saves lives by relieving pressure on healthcare
  - Which saves some COVID and other patients, but does not stop number being infected
- Successful distancing **prolongs** the epidemic in the absence of vaccine
  - Saving lives temporarily is a good thing, but different calculation
  - Even for the elderly, including Swedish elderly
  - May make time for a vaccine, or a medicine, e.g. antiviral cocktail
- Safe to come out is intolerably far ahead: several years
  - So we need smart opening up now, which is happening
  - Infection proofing workplaces and leisure places where that is possible
  - Protection of vulnerable groups
  - See Jim’s presentation
NEW JERSEY

(as of May 10)
United States other than NY and NJ

(as of May 10)
Inequalities
LIFE AND DEATH
The quick and the dead

- Central inequality: Living v dying

- Additional risk is close to proportional to pre-existing risk
  - Might regard this as fair distribution (or not)

- If mortality doubles at all ages, life expectancy falls from 78.6 in 2017 to 70.1 (1963 level, losing 57 years of progress)
- More realistic, mortality rises by 35 percent, LE falls from 78.6 in 2017 to 75.0 (1989 level, losing 31 years of progress)
- 1918-19 pandemic reduced LE by 7 years, but increased by 8 years in 1919
  - Some estimates give larger numbers, we don’t know for sure
- Perhaps a bounce-back from COVID too?
EDUCATION, LABOR MARKETS, AND COVID
Education and death in US today

- Deaths of despair (suicide, overdoses, alcoholic liver disease) have risen rapidly in the US for those without a BA since 1995
  - 158,000 deaths in 2018, about 100,000 excess over “normal”
- COVID-19 likely to have second waves, but will eventually stop
- But 100,000 deaths of despair a year for as far as we can see
  - Overdoses may fall, though we don’t know what COVID is doing
  - Suicides rising and likely to increase because of isolation
- These excess deaths are almost entirely among those without a four year college degree
- Accompanied by a large decline in employment population ratio and reduction in earnings
## Labor markets and COVID

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>BA or more</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UNEMPLOYMENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 2020</td>
<td>6.8</td>
<td>2.5</td>
</tr>
<tr>
<td>April 2020</td>
<td>21.2</td>
<td>8.4</td>
</tr>
<tr>
<td><strong>EMPLOYMENT TO POPULATION RATIO</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 2020</td>
<td>54.9</td>
<td>71.2</td>
</tr>
<tr>
<td>April 2020</td>
<td>45.1</td>
<td>65.6</td>
</tr>
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</table>
Social distancing

- Social distancing further widens gap between those with and without a BA

- Without a BA, either essential or non-essential
  - Former risk their lives (health personnel, bus or subway workers, elderly care attendants, food retail, delivery)
  - Latter risk their livelihoods (non-food retail, services, restaurants etc.)
  - Opening up risks losing unemployment benefits if they choose not to work
  - Educated elite stay at home, go on working, stay safe and get paid

- Widen the earnings premium for a BA (currently 80 percent in the US) as well as mortality differentials
POLITICAL INEQUALITIES AND COVID
How political inequality overlays COVID

- Power in Senate is unequally distributed
- Four states (CA, TX, FL, and NY) have a third of the US population, but only 8 percent of Senate seats
- Gini coefficient for Senate power is 0.75
- Even more unequal for COVID deaths
- Gini coefficient for Senate power of COVID dead is 0.88
  - Red states with few deaths have blocking power over blue states with many deaths
- Even gini for House it is 0.78
Political inequalities and death

- 25 states have a Republican governor, 25 states have a Democratic governor
- As of March 31,
  - 687 red state deaths, 3161 in blue states, ratio is 0.22
- As of April 14
  - 4,748 deaths in red states, 21,198 in blue states, ratio is 0.22
- As of April 28
  - 10,935 deaths in red states, 41,260 in blue states, ratio is 0.27
- As of May 10
  - 17,350 deaths in red states, 56,475 in blue states, ratio is 0.31

- Covid deaths are moving from blue to red
- William Frey at Brookings has documented this for counties
Value of a statistical life (VSL)

- A red state governor is losing HIS business in exchange for blue state lives
  - Opening up is a no-brainer, which is why it is happening
- $VSL = \text{Value of Someone else’s Life!}$

- This will change, and there will be less political difficulty about helping states in trouble
- Greater consensus for smart opening
Racial and ethnic inequalities

- Higher COVID-19 mortality rates among blacks and Hispanics:
- CDC argues that the COVID-19 inequalities are largely spatial
Distribution of deaths by race for US

<table>
<thead>
<tr>
<th></th>
<th>NHWhites</th>
<th>NHBlacks</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>% COVID deaths</td>
<td>52.1</td>
<td>21.2</td>
<td>16.5</td>
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<tr>
<td>% Population</td>
<td>60.4</td>
<td>12.5</td>
<td>18.3</td>
</tr>
<tr>
<td>% Reweighted Population</td>
<td>40.4</td>
<td>18.4</td>
<td>26.9</td>
</tr>
</tbody>
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- Excess ratios for Blacks and, to a lesser extent, Hispanics, accounted for by area effects
- New York population is not the same as for the US as a whole
- Points at spatial and living arrangements, like segregation and density
- As of May 8, source CDC
## Distribution of deaths NY and NJ

<table>
<thead>
<tr>
<th></th>
<th>NHWhite</th>
<th>NHBlack</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NEW YORK STATE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of COVID deaths</td>
<td>66.5</td>
<td>14.8</td>
<td>14.0</td>
</tr>
<tr>
<td>% of population</td>
<td>73.0</td>
<td>8.8</td>
<td>11.7</td>
</tr>
<tr>
<td><strong>NEW YORK CITY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of COVID deaths</td>
<td>29.3</td>
<td>24.8</td>
<td>26.4</td>
</tr>
<tr>
<td>% of population</td>
<td>32.1</td>
<td>22.0</td>
<td>29.2</td>
</tr>
<tr>
<td><strong>NEW JERSEY</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>% of COVID deaths</td>
<td>62.2</td>
<td>12.6</td>
<td>18.0</td>
</tr>
<tr>
<td>% of population</td>
<td>54.9</td>
<td>12.9</td>
<td>20.6</td>
</tr>
</tbody>
</table>

The population in the city is much more diverse than in the state NJ has no disproportion: elderly in care homes predominately white? Segregation, living arrangements, and the subway in the city
THANK YOU