Infectious disease models can also describe riots. The spread of coronavirus and violent protests share many features in common, shedding at least some light on the coming summer of discontent.

"Now is the winter of our discontent," begins Richard III, one of Shakespeare's most famous plays. In this opening soliloquy, Richard lays out his anger at the world and foreshadows the evil he has in store, including the murder of his own family members, as he plots to seize the throne. Using the language of metaphor, he predicts a "glorious summer."

Things went a bit differently for society in 2020. It could be said that we experienced a glorious winter -- or, at the very least, a largely peaceful and prosperous one -- blissfully unaware of the horrors that lay ahead in the spring. Now, we are entering the summer of our discontent.

Coronavirus and Riots

At first glance, the coronavirus pandemic and rioting appear to have little, if anything, in common. But a deeper analysis suggests otherwise.

Parts of the U.S., particularly cities, have been under lockdown for roughly three months. That's a long time to be cooped up. As the economy predictably came crashing down, unemployment soared. A total of about 40 million jobs were lost since March, though some have been reclaimed.
as restrictions eased. Still, the official unemployment rate is the worst since the Great Depression.

The pain was not shared equally. The chart below depicts unemployment by race for Q1 2020 vs. today. (Data comes from the Bureau of Labor Statistics found here [2] and here [3].)

### Unemployment by Race in the U.S.

<table>
<thead>
<tr>
<th>Race</th>
<th>Q1 2020</th>
<th>Today</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>3.6%</td>
<td>14.2%</td>
<td>+10.6</td>
</tr>
<tr>
<td>Asian</td>
<td>3.3%</td>
<td>14.5%</td>
<td>+11.2</td>
</tr>
<tr>
<td>Black</td>
<td>6.6%</td>
<td>16.7%</td>
<td>+10.1</td>
</tr>
<tr>
<td>Hispanic</td>
<td>5.4%</td>
<td>18.9%</td>
<td>+13.5</td>
</tr>
</tbody>
</table>

As shown, the absolute value of the unemployment rate rose highest for Hispanics (13.5 percentage points), demonstrating that they were the hardest hit economically by the coronavirus lockdown. The other races were roughly equal, with Asians faring slightly worse than Whites and Blacks.

However, the media narrative [4] was that people of color were disproportionately affected by layoffs. The data show that's not entirely accurate, but when it comes to public policy and justice, perception matters just as much (if not way more) than actual data. It is true, for various reasons, that minorities seem to have poorer health outcomes [5] to COVID-19 than Whites.

Then, the death of George Floyd at the hands of a police officer (which a jury will determine if it constitutes murder or manslaughter) was like tossing a lit match into a keg of gunpowder. People of color, and Blacks in particular -- given the long-standing tension between the African-American community and police officers -- expressed rage at a society that they believe is rigged against them.

Given all the events that led up to this moment, is it possible the riots would not have happened if we hadn't spent the last few months in lockdown and the unemployment rate wasn't at a historical high? Perhaps, perhaps not. But it's tempting to speculate that the lockdown placed our society into a psychologically vulnerable position.

**Infectious Disease Models Can Also Explain the Spread of Riots**

Consider this: Models built to explain the spread of infectious diseases can also explain the spread of riots. In January 2018, my colleague, Dr. Chuck Dinerstein, described [6] a paper that demonstrated just that. His entire article is worth reading, but here is his provocative conclusion:

"Do ideas and actions spread like an infectious disease? And if they do, is the best treatment to have a lot of exposure, so you're less susceptible, or to wall yourself off hoping that the germ doesn't jump the wall you have erected?"
This surely serves as food for thought as our society grapples with the best way to stop the spread of two very different but oddly related pandemics.


Links