

# UNIVERSITY of HOUSTON

THE INSTITUTE FOR RESEARCH ON  
WOMEN, GENDER & SEXUALITY

## Pandemic Gender Snapshot #3 – July 9, 2020:

### Update on Houston/Harris County Covid-19 Fatalities by Gender, Race/Ethnicity & Age<sup>1</sup>

As the numbers of Covid-19 *infections* continue to rise following the Texas “re-opening” after the Spring 2020 Houston/Harris County Stay Home order, the numbers of Covid *deaths* have also risen, at an increasing rate. In H/HC, **forty-five new deaths were reported between the last PGS on June 26 & July 7**, bringing the total to **406 reported deaths**.<sup>2</sup> **231 were men, 174 were women**, & 1 gender unknown, although the **infection rate** is roughly **50/50**.<sup>3</sup> This is a relatively small data set, but noteworthy.

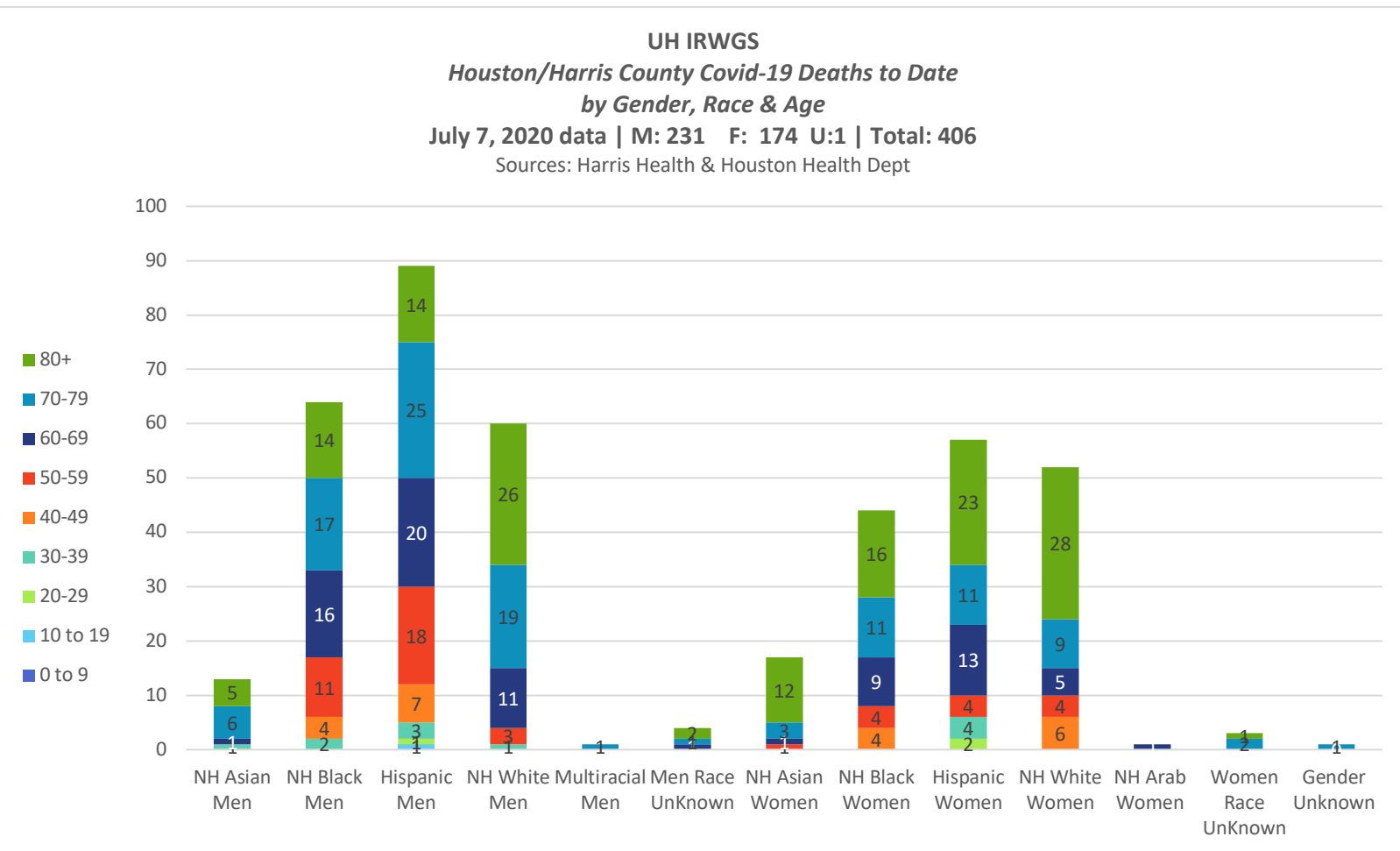


Figure 1. COH – 244 | Harris Health – 162.

<sup>1</sup> This Snapshot updates earlier Snapshots, re reported Covid-19 death data for Houston/Harris County, based on death certificate data from the Houston Health Department and Harris Health (which divide the county’s death reports based on decedent’s place of residence). The Snapshot combines new analyses with some from previous Snapshots, to provide a current overview.

<sup>2</sup> See discussion of reporting complexities and excess deaths, below.

<sup>3</sup> Per [Houston/Harris County Covid-19 Dashboard](#): 50% female, 47% male and 3% unknown, as of July 9, 2020.

Combining the two jurisdictions as per the H/HC Covid-19 dashboard, of the **total deaths, 43.1% were female, and 56.9% male, consistent with the global pattern of more male deaths, likely due to a combination of biological and behavioral factors.**<sup>4</sup> Interestingly, the gender difference varies between the two local health departments. City of Houston reported deaths to July 7: 153 male / 91 female deaths—62.7%*m*/37.3%*f*). Other Harris County reported deaths to July 7: 78 male, 83 female, 1 gender unknown deaths—48.1%/51.3%. We’re exploring that difference, which may be linked to who is present in those areas (rural/urban), to reporting differences, and/or to other factors.

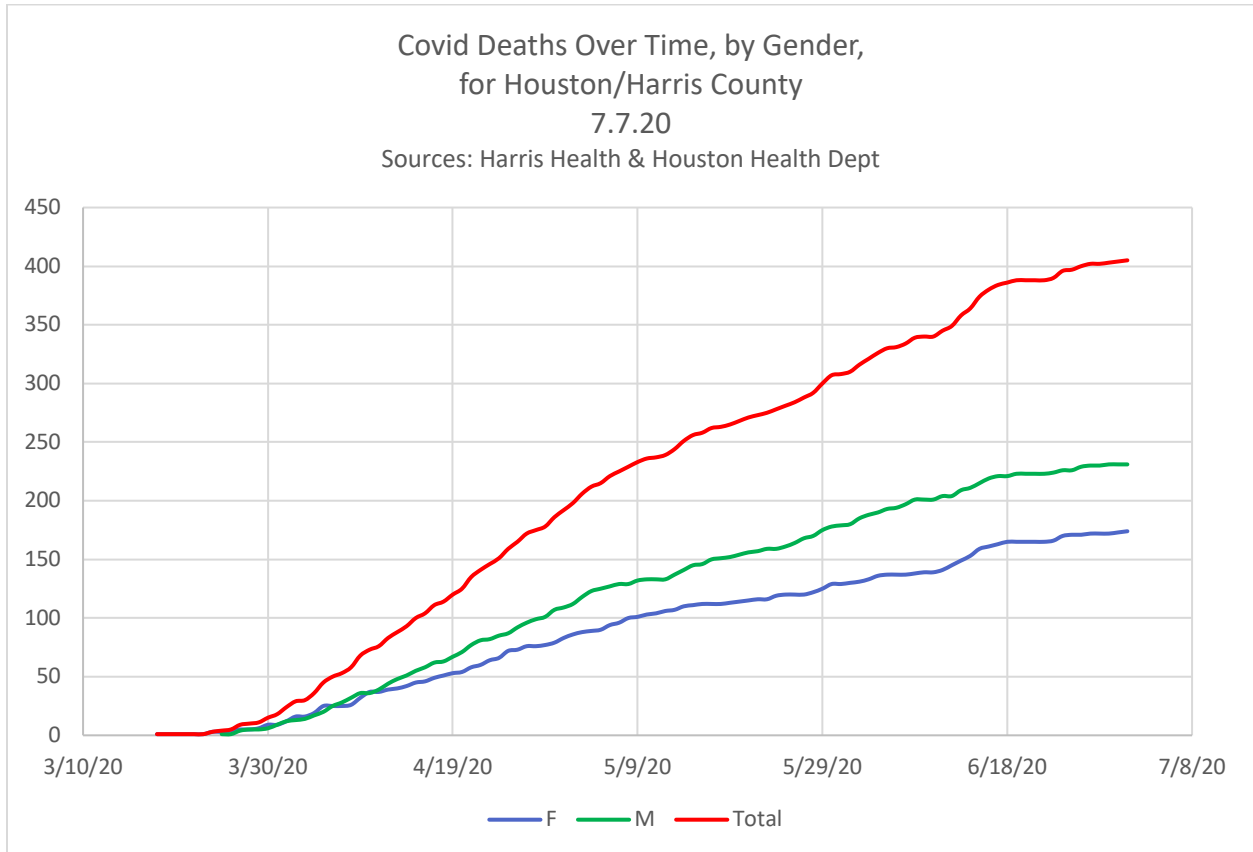


Figure 2.

**The number of reported deaths does not accurately reflect total local deaths to Covid-19, for several reasons.** First, for an extended period of weeks this spring, few people were being tested and therefore some who had the virus were not identified as Covid-19 deaths. This is a national issue, and a recent study in *JAMA* presented the numbers of “excess deaths” due to respiratory ailments in March-May

<sup>4</sup> The [Western Journal of Emergency Medicine](#) reports that in Italy men represent 58% of Covid-19 infections & 70% of Covid-19 deaths, while Wuhan China saw a majority of infections (between 51.0 and 66.7%) among men, with a 1:1.64 female/male ratio of deaths (*WJEM* 2020;21(3): 507-509). Respiratory infections SARS (2003) and MERS (2012) also saw sex-linked differentials.

Specific cause or causes have not been determined, but some hormonal or genetic protection—from higher rates of estrogen/progesterone or from the double X chromosome—may account for higher rates of female survival. Differential rates of exposure through work outside the home & differences in health-affecting behaviors (mask wearing, handwashing, smoking, etc.) are also potential factors (April 30, 2020, [www.Five-Thirty-Eight.com](http://www.Five-Thirty-Eight.com)). See PanGenSnapshot for 5.30.20.

2020 compared to a running average of the past five years for that period in each state.<sup>5</sup> **They found that in Texas 55% of such excess deaths were not attributed to Covid-19 in March-May though many likely were linked.** If that percentage holds true for Houston/Harris County, the number of deaths to date would surpass 800. The percentage missed should change over time as testing increases, but some misses remain predictable, especially since, although testing has increased, it is not available timely to meet the demand of all who seek it in the current spike. In addition, deaths due to other causes may be linked to Covid-19 if people with, for example, heart ailments refrain from getting treatment for fear of the virus.

Additionally, Covid-19 reports lag date of death, generally by a week or so, and some additions to the Covid-19 total may be from as much as two months earlier. Figure two is updated by date of death, rather than date of report, to reflect reported occurrence rate.

Like the gender differential, the race/ethnicity differential in death rates also continues marked. **Black men (17.7% of the Harris County adult male population / 27.7% of male deaths) and Black women (20.6% of the county's adult female population / 25.3% of female deaths)**<sup>6</sup> continue to be represented among the dead in proportions higher than their proportions in the population, when compared to others of their same gender. **These disparities are attributable to longstanding structural social and economic inequalities—including for example limited health care access, exposure in frontline jobs, underlying health conditions linked to stress and income and other racial disparities (obesity, diabetes, respiratory ailments, etc.), and dense housing.**

Though the *number* of deaths among **Hispanic men** is higher than among other groups, Hispanics also comprise the biggest sector of the local male population and their *percentage* of deaths is slightly lower than their proportion in the local population (**41.9% of adult male population / 38.5 of male deaths**). Deaths among **Hispanic women** are also somewhat disproportionate but still high (**38.9% of adult female population / 32.8% of female deaths**) and may be linked to the higher proportion of younger people present.

The percentage of male deaths represented by **White men (32.8% of adult male population / 26.0% of male deaths)** is lower than their relative presence overall and may be linked to more limited presence in frontline jobs and better healthcare access. But the percentage of female deaths represented by **White women (32.3% of adult female population / 29.9% of female deaths)** is close to their relative presence. **Asian women (8.2% of adult female population / 9.77% of female deaths)** have died in numbers slightly higher than their relative presence and at higher rates than **Asian men (7.6% of adult male population / 5.6% of male deaths)**, but the overall numbers are low, and the pattern may shift.

When we break out the two health jurisdictions, the rates of death vary across a number of factors, not just gender—most notably the proportion of Black male decedents to Hispanic is smaller in Harris County and the proportion of White female decedents to Black and Hispanic is greater, and vice versa.

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<sup>5</sup> Weinberger *et al.* [Estimation of Excess Deaths Associated with the COVID-19 Pandemic](#) in the United States, March to May 2020. *JAMA Intern Med.* Published online July 1, 2020.

<sup>6</sup> Harris County population analysis by race/ethnicity by UH IRWGS based on American Community Survey for 2018.

Harris Health  
(outside COH, in HC)  
Reported Covid-19 Deaths  
July 7, 2020

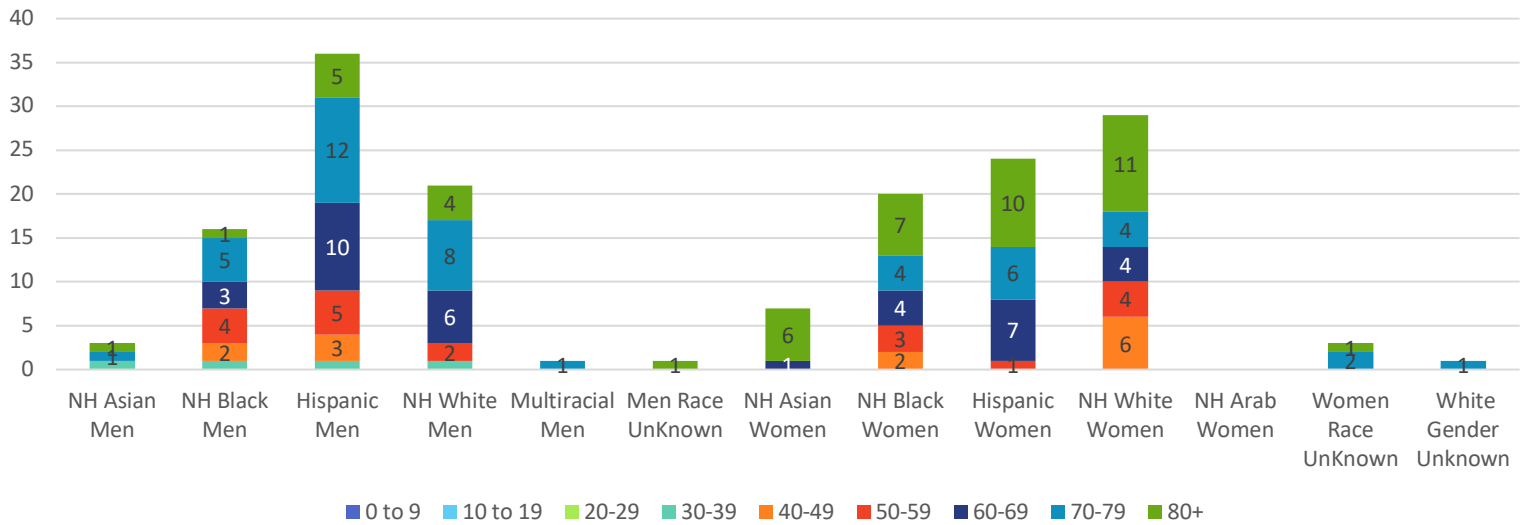


Figure 3.

Houston Health Department  
(inside COH, in HC)  
Reported Covid-19 Deaths  
July 7, 2020

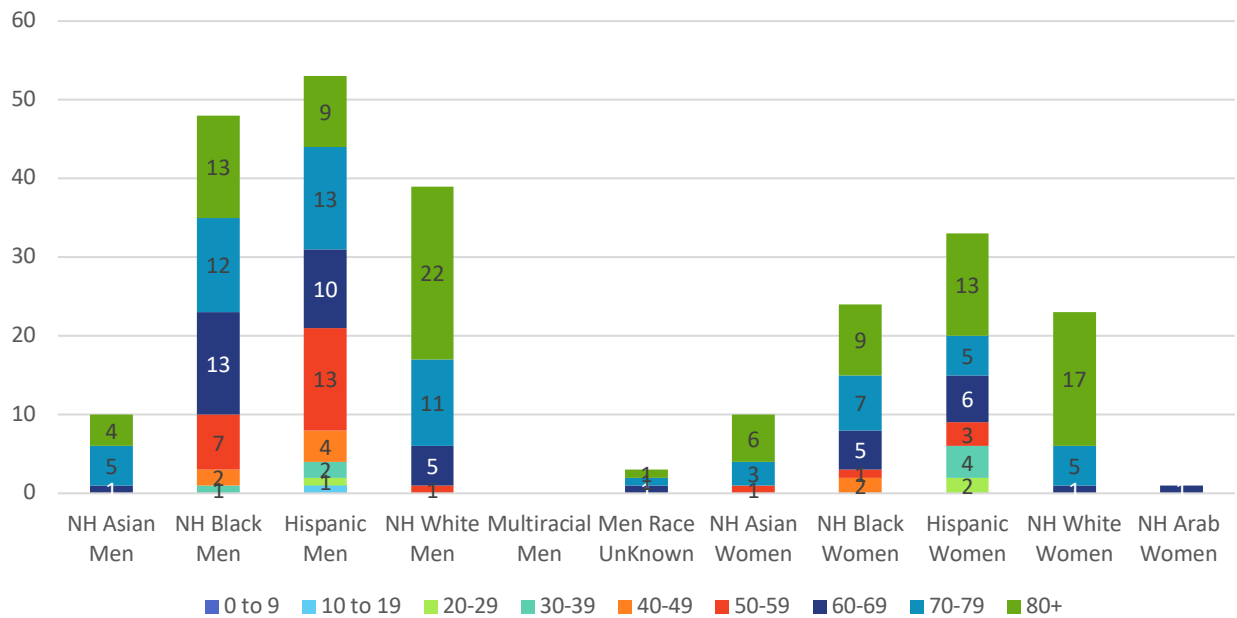


Figure 4.

This variation may be due to multiple factors, including who lives where (rural/urban), failures to diagnose or report some deaths as Covid-linked, who survives into old age, etc. The missing deaths may be proportionate across all groups, in which case the data picture below holds; or there may be specific gaps. We are working to account for that currently through excess death comparisons. Always keeping in mind that the data is incomplete, when the **reported deaths in Houston alone (60.1% of total reported deaths), not including the rest of Harris County, are analyzed, they break out as follows:**

	Proportion in full Harris Cty Male Population	Proportion of Male Deaths in COH
<b>Men</b>		
Asian	<b>7.6%</b>	<b>6.5%</b>
Black	<b>17.7%</b>	<b>31.4%</b>
Hispanic	<b>41.9%</b>	<b>34.6%</b>
White	<b>32.8%</b>	<b>25.5%</b>
	Proportion in full Harris Cty Female Population	Proportion of Female Deaths in COH
<b>Women</b>		
Asian	<b>8.2%</b>	<b>11.0%</b>
Black	<b>20.6%</b>	<b>26.4%</b>
Hispanic	<b>38.9%</b>	<b>36.3%</b>
White	<b>32.3%</b>	<b>25.3%</b>

**Likewise, reported deaths in Harris County excluding the City of Houston (39.9% of total reported deaths) break out as follows:**

	Proportion in full Harris Cty Male Population	Proportion of Male Deaths in HC outside COH
<b>Men</b>		
Asian	<b>7.6%</b>	<b>3.9%</b>
Black	<b>17.7%</b>	<b>21.1%</b>
Hispanic	<b>41.9%</b>	<b>47.4%</b>
White	<b>32.8%</b>	<b>27.6%</b>
	Proportion in full Harris Cty Female Population	Proportion of Female Deaths in HC outside COH
<b>Women</b>		
Asian	<b>8.2%</b>	<b>8.75%</b>
Black	<b>20.6%</b>	<b>25.0%</b>
Hispanic	<b>38.9%</b>	<b>30.0%</b>
White	<b>32.3%</b>	<b>36.25%</b>

More analysis to follow as more data points become available.

**Age** also significantly intersects Covid-19 deaths, as Figure 5 indicates. The majority of Covid-19 deaths globally occur among people over seventy, and that is the case here as well. Overall, the old and the poor/socially vulnerable seem most at risk.

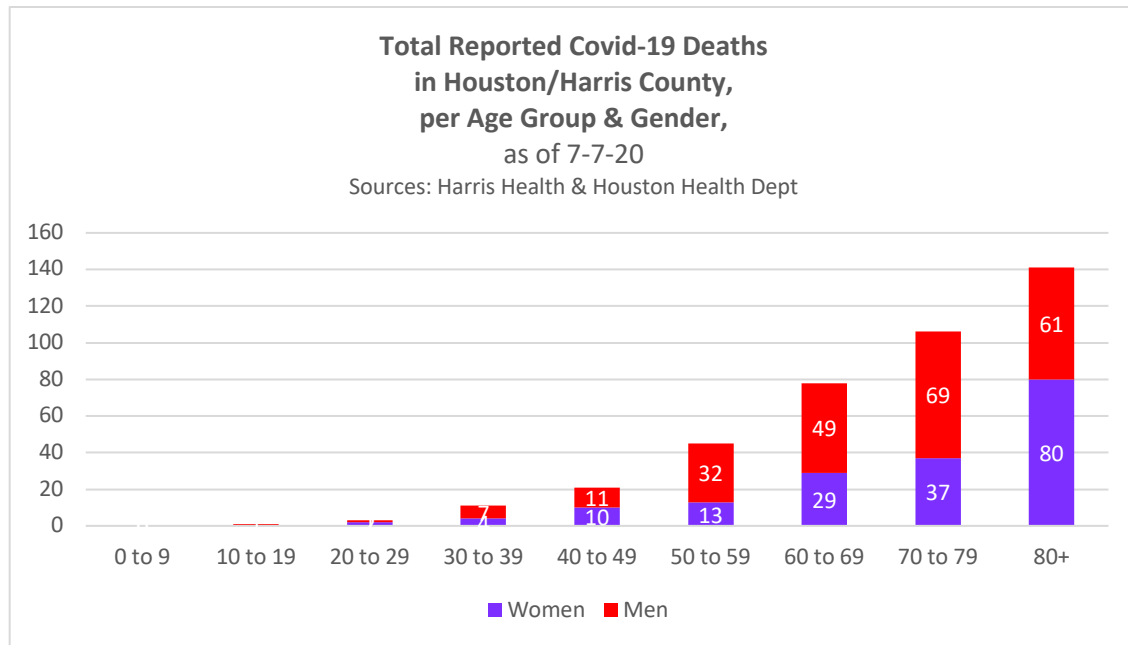


Figure 5.

While women have died in lower numbers than men in most age bands through 70-79, the dynamic reverses in the 80+ band (80 women / 61 men), likely because **men represent only 37% of the population of people 80 and over in Harris County**. Given that roughly twice as many women as men survive into their 80s and beyond (due to men’s overall worse health outcomes), women’s higher Covid fatalities actually are lower than their representation in the population. The same resiliency that allows women to live longer in general seems to be in play with Covid-19.

Age also intersects with gender and race/ethnicity outcomes (see Figure 1). Deaths among the young are few across the board, but while until last week only one child and one person in his 20s are known to have died from Covid-19 here to date [both Hispanic males]), **last week saw an additional 2 deaths to women in their 20s (the first in that category, both Hispanic) and increasing deaths to both women and men in their 30s**. This may be related to the higher rate of transmission among younger people that has been reported here lately.

**Deaths have occurred in larger numbers among Black and Hispanic males under 60 (17/30, respectively) than among Asian and White males in that age group (1/4, respectively)**. And while fewer younger women are dying than younger men overall (reported deaths to women below 60 by race currently are: Asian 1, Black 8, Hispanic 10, White 10), younger White women more than double the number of younger deaths among White men (10/4).

While susceptibility to Covid-19 is greater among the elderly, the numbers of deaths in each age/race-ethnicity group will also relate to which racial/ethnic groups include more elderly people. According to a UT Southwestern Medical Center study, the average life expectancies across gender and racial groups in Texas include:

- Hispanic women – 83.9 years; Hispanic men – 78.28
- White women – 80.6; White men – 75.6
- Black women – 78.0; Black men – 72.4

Lower life expectancies are directly linked to poverty and can be tracked to zip code level via the UTS website.<sup>7</sup> The “Hispanic Health Paradox,” that Hispanics have longer lives in spite of high poverty rates, seems linked to high rates of immigration – and healthier food access / eating patterns in youth (and thus lower blood pressure and obesity), lower smoking rates and a tendency of healthier people to migrate. US-born Hispanics have similar obesity and other lifetime health issues linked to eating patterns as other Americans.<sup>8</sup>

Covid-19 has highlighted pre-existent disparities in American society linked to poverty and to the stresses of poverty and of racism, including health differences, and it has also revealed differences which may be biological (like women’s longer life spans). Just as workplace exposure may be an issue for younger people, place and context of residence may also be a factor in whether a person contracts Covid-19: the virus has spread quickly in some nursing homes, for example (44% of Texas’s Covid-19 deaths to date have occurred in such places),<sup>9</sup> while living with a multi-generational family may also be risky for elders if younger frontline workers bring contagion home.

As noted in previous Snapshots, the lower level of female Covid deaths contrasts to a number of other gender differentials around Covid, both national and local. These include women’s higher rates of workplace exposure in frontline jobs (in Harris County, women make up 74% of health workers, 59% of fast food workers, 73% of pharmacists, and 69% of cashiers); expanded responsibilities for childcare and homeschooling given the shutdowns; higher levels of domestic violence; and continued lower levels of pay (see UH IRWGS [Initial Report on H/HC Gender & Sexuality Data](#), February 2020). State level efforts to reduce access to birth control and abortion may also affect women’s long-term status. Researchers on workplace equity predict that women overall and single mothers in particular<sup>10</sup> will see long-term career setbacks if they have to step away from jobs due to their greater responsibility for childcare and homeschooling due to pandemic school closures.<sup>11</sup>

While Covid-19 has demonstrated some predictable socio-economic patterns, it also seems to behave in distinctive ways as a disease, around factors like gender, age, and post-infection immunity. In the coming weeks, we’ll see whether the rising infection rate in Texas, said to involve a larger segment of younger people than was the case in prior hotspots like [New York City](#) and Northern [Italy](#), leads to a [similar or different pattern and rate of fatalities](#).<sup>12</sup>

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<sup>7</sup> UTSouthwestern Medical Center, “New interactive map first to show life expectancy of Texans by ZIP code, race, and gender” (Feb. 27, 2019): <https://www.utsouthwestern.edu/newsroom/articles/year-2019/life-expectancy-texas-zipcode.html>

<sup>8</sup> Population Reference Bureau (prb.org), Paola Scommegna, “New Studies Link U.S. Hispanics’ Longer Life Expectancy to Migration Patterns, Less Smoking” (Sept. 12, 2017): <https://www.prb.org/hispanics-life-expectancy-migration-patterns/>

<sup>9</sup> As of the end of June, 44% of Texas’s total Covid-19 deaths (more than 1000) had occurred in nursing homes, very close to the US average. “[43% of US Deaths Are Linked to Nursing Homes](#),” *New York Times* (June 27, 2020).

<sup>10</sup> Single mothers made up 30% of women living with children under 18 in Harris County in 2018 (ACS).

<sup>11</sup> Patricia Cohen and Tiffany Hsu, “[Pandemic Could Scar a Generation of Working Mothers](#),” *New York Times*, (June 3, 2020).

<sup>12</sup> For discussion of the many issues in play, see Whet Moser’s June 26, 2020, article “Why Changing COVID-19 Demographics in the US Make Death Trends Harder to Understand,” at The Covid-Tracking Project blog: <https://covidtracking.com/blog/why-changing-covid-19-demographics-in-the-us-make-death-trends-harder-to>