UNIVERSITY of HOUSTON

THE INSTITUTE FOR RESEARCH ON
WOMEN, GENDER & SEXUALITY

Pandemic Gender Snapshot #5 – September 7, 2020

Update on Houston/Harris County Covid-19 Fatalities by Gender, Race/Ethnicity & Age[1]

CITE AS: UH IRWGS Analysis

Covid-19 Fatality Count Continues Rise, with One-Month Lag

Though the numbers of Covid-19 new *infections* have fallen in Houston/Harris County, the death toll continues to rise, in part because there is an average 1-month lag in reporting due to processing. **Between July 29 & September 1**, 2020, **668** new Covid-19 deaths were reported in H/HC, bringing the total reported Covid-19 deaths to **1338**. *These do not include undiagnosed Covid-19 deaths.* Of the 668, **422 were men, 243 women, 3 gender unknown,** so the total local reported deaths by gender are **824 men, 510 women, 4 gender unknown,** though testing shows an **infection rate** of roughly **50/50.[2]** Due to the lag in reporting, **69% of the 668 (462) deaths reported in this period (which included all of August) actually occurred in July,** and most diagnosed Covid-19 deaths that occurred in August are not yet included in the count.[3] This update expands on previous snapshots with current numbers and analyses.

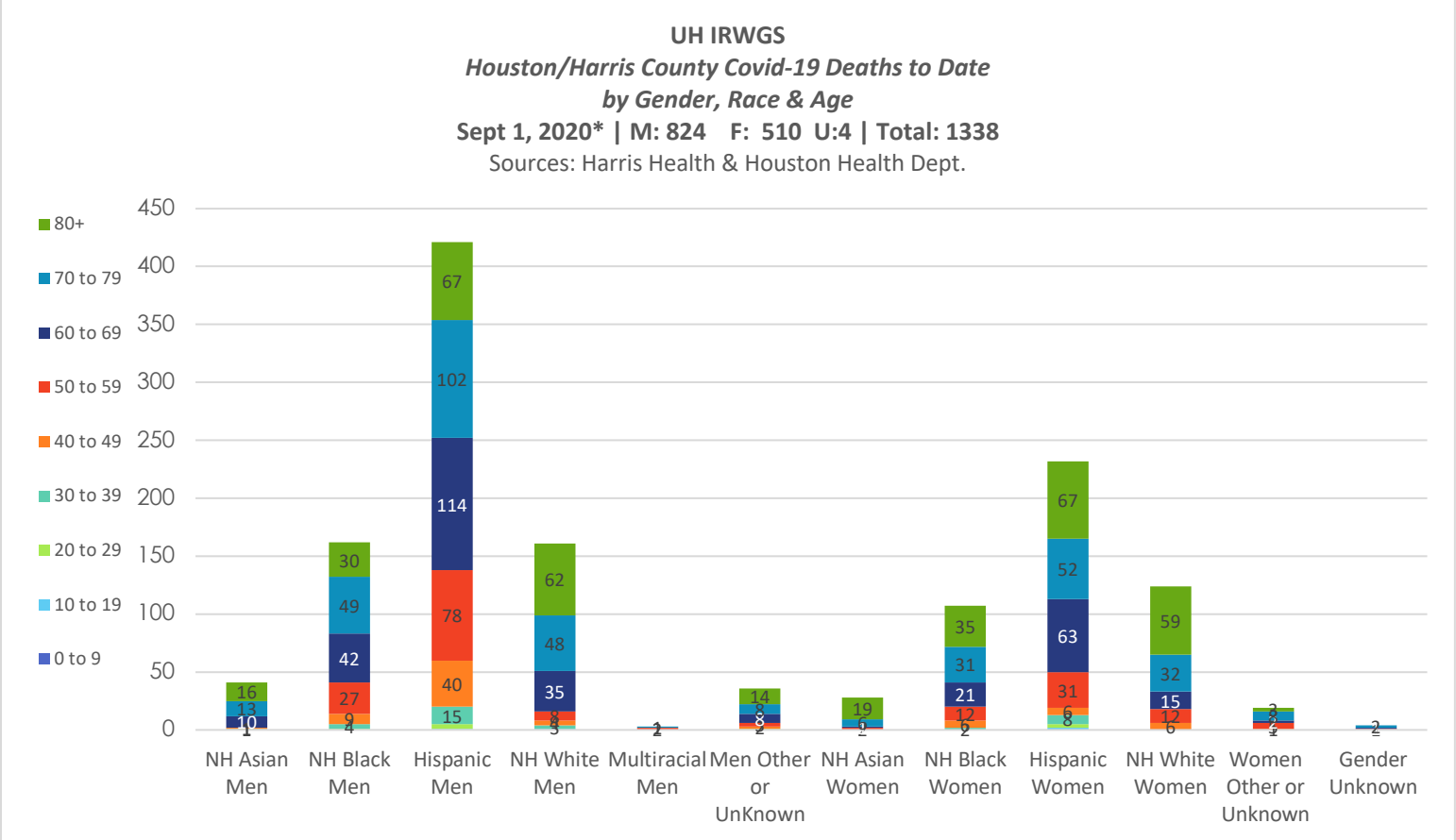

Figure 1. COH – 823 | Harris Health – 515 * Harris County data for Aug. 31, COH data for Sept. 1.

[1] This Snapshot utilizes current Covid-19 death data based on Houston Health Department & Harris Health death certificate data (they divide the county's death reports based on decedent's residence). **This is provisional, dynamic data**. See below for discussion of *excess Covid deaths* not reported as such. Gender/sex and Race/Ethnicity are as reported by the certificates, and do not necessarily reflect individuals' preferred identities.

[2] Per the Houston/Harris County Covid-19 Dashboard: 52% female, 45% male and 3% unknown, as of Sept. 6, 2020.

[3] The 668 divide: 148 August, 462 July, 51 June, 6 May, 1 April.

GENDER ANALYSES

Of the total 1338 deaths in the two jurisdictions, **61.7% were male and 38.1% female, consistent with the global pattern of more male deaths**, likely due to a combination of biological and behavioral factors, **with behaviors that lead men to be in worse health than women generally perhaps more influential**.[4] A report in *Nature* on August 26, 2020, found that older men produce a weaker immune response to the virus than older women. The proportion of reported Covid deaths to men in this region has increased over the months. But people of all genders/sexes with such co-morbidities as *obesity, diabetes, heart disease, and respiratory ailments* are at greater risk than those without. Of the deaths documented in the City of Houston by 9/1, **only 9.1% (75/823) were listed as *not* involving an underlying condition**.[5]

Interestingly, the gender difference varies between the two local health departments, though less now than previously. The **City of Houston** Health Department's reported 823 deaths as of September 1 were 524 male / 299 female—**63.7%m/36.3%f**. But Harris Health's reported 515 non-COH deaths as of August 31 were 300 male, 211 female, 4 gender-unknown—**58.3%m/41%f**. We're exploring that gender variation in mortality across jurisdictions, which may be linked to who is present (rural/urban) and/or in frontline jobs, to reporting/diagnosis differences, and/or to other factors. Overall the gender mortality gap here seems to be increasing.

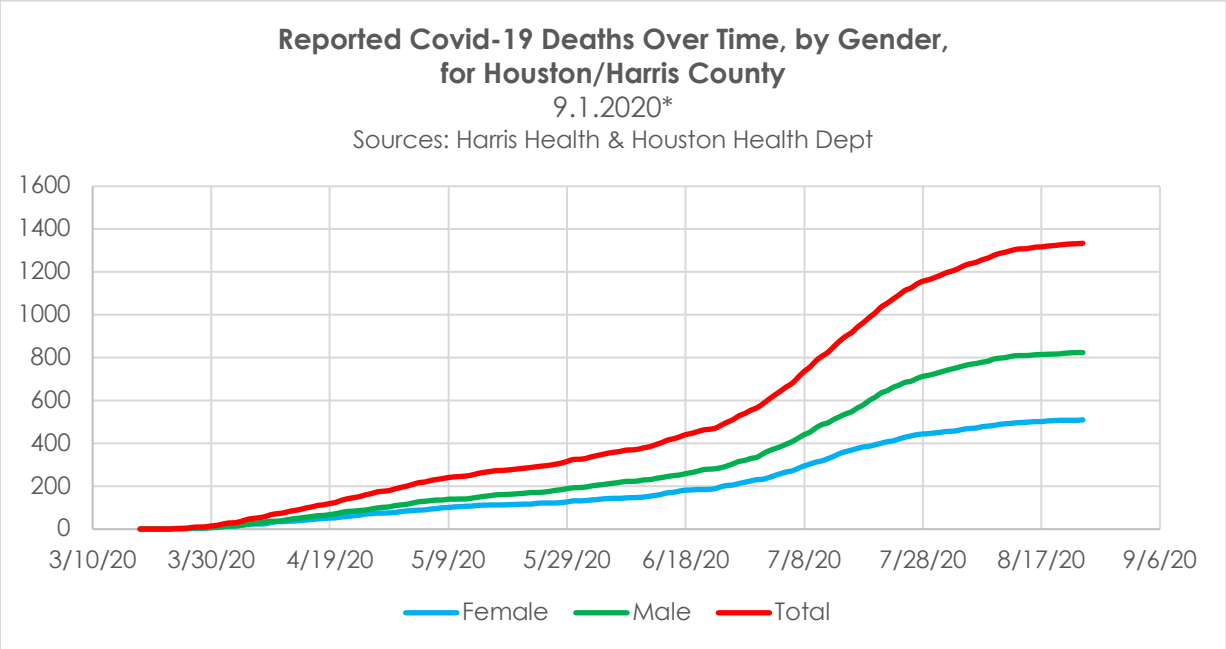

Figure 2. * Harris County data for Aug. 31, COH data for Sept. 1.

[4] The *Western Journal of Emergency Medicine* reports that in Italy men have 58% of Covid-19 infections & 70% of Covid-19 deaths, while Wuhan China saw most 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. In the US, state death data around sex differentials vary widely, which brings researchers at the Harvard GenderSci Lab to postulate that behavioral reasons like men's going to the doctor less, eating less healthy foods, and smoking more than women overall may play the biggest role. Nonetheless, some hormonal or genetic protection—from higher rates of estrogen/progesterone or from the double X chromosome—may play in. Differential rates of exposure through work outside the home & differences in over health-affecting behaviors (mask wearing, handwashing, etc.) are also potential factors. Grace Huckins, "Covid Kills More Men Than Women. Experts Still Can't Explain Why, " *Wired* (7.9.2020). See also Takahashi, et al., "Sex differences in immune responses that underlie COVID-19 disease outcomes," *Nature*, August 26, 2020.

[5] Available Harris County Health Department data (8.31) states there definitely were underlying conditions in 87.6% of deaths, but only 2.9% of their cases list No under Underlying Conditions. The remaining 9.5% of cells are marked Unknown or left blank.

1-WEEK TO 2-MONTHS LAG IN COVID FATALITY REPORTS

Note that the levelling off in the most recent weeks in Figure 2 reflects the lag in reporting – and will change. The lag can vary from 1 week to 2 months or more, due to the complexities of state reporting for at-home deaths, etc. Figure 2 is updated by date of death, rather than date of report. The 7.28.20 PanGen Update cited 670 deaths reported to that point, but this chart documents that roughly **500 additional deaths had occurred by then but had not yet been reported**. A parallel delay effect may be assumed for August data. As Excess Deaths are analyzed (see below), the numbers from across the pandemic will also rise. All these dynamic data changes will also impact gender, race and age analyses, so this report and others based on current data must be considered provisional. Keep the lag in mind when you hear reports on the current official fatality rate.

Per death certificates, **reported Covid-19 deaths in Houston/Harris County to date per month are**: March **18** (4f/14m); April **170** (63f/107m); May **138** (53f/85m); June **241** (91f/150m); July **623** (242f/381m); August to date **148** (62f/86m) [August is highly incomplete, with the latest death reported as of Aug. 24, and many from earlier in the month yet to come]. The dip in deaths in May likely reflects the effects of the County Judge's Stay Home order, and the rise thereafter likely reflects the effects of the Governor's lifting of the order.

EXCESS DEATHS (Unreported COVID-19 Deaths)

The number of reported deaths does not accurately reflect total local deaths to Covid-19, for another reason as well: undiagnosed deaths. For an extended period of weeks this spring, few people were being tested and therefore quite a few 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 2020 compared to a running average of the past five years for that period in each state.[6] **They found that in Texas 55% of such excess deaths were not attributed to Covid-19 in March-May though most of them were caused by it, meaning that more than double the number of reported Covid-19 deaths were likely.** And since May, deaths in hospital will be tested for Covid, but deaths at home will not necessarily be, so they won't be so registered if not tested previously. The percentage missed might 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 during spikes.

The undiagnosed death rate is also increased *when Texans without health insurance choose not to not seek help* if they become ill until it's too late, if at all. In 2018, Texas had the highest percentage of uninsured of any state at 17.7%, per the US Census bureau (national average was 8.9%).[7] *That percentage has risen substantially since March 2020, because many of those who lost their jobs in the pandemic also lost their insurance through their employers*. All the factors intertwine.

The undercount of infections and deaths and the actual rate of deaths also increase when people who wish to *avoid challenge on their immigration status are slow to seek assistance*, avoiding testing and/or hospitals. This will most directly affect the Hispanic population, though not solely. In addition, deaths

[6] 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.

[7] US Census Bureau, *Health Insurance Coverage in the US: 2018*. Released Nov. 8, 2019.

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.

RACE/ETHNICITY ANALYSES

Like the gender mortality differential, **the race/ethnicity differential also continues marked**. The adult population of Houston/Harris County breaks out by Gender & Race/Ethnicity thus (per 2018 ACS):
Male: 7.6% NH Asian; 17.7% NH Black; 41.9% Hispanic; 32.8% NH White.
Female: 8.2% NH Asian; 20.6% NH Black; 38.9% Hispanic; 32.3% NH White.
An equitable distribution of Covid-19 would reflect similar infection and death rates. Though the documentation of infections does not reliably report race/ethnicity[8] (so we cannot track infection equity or correlate infection with death rates here), death certificates do document race/ethnicity.[9]

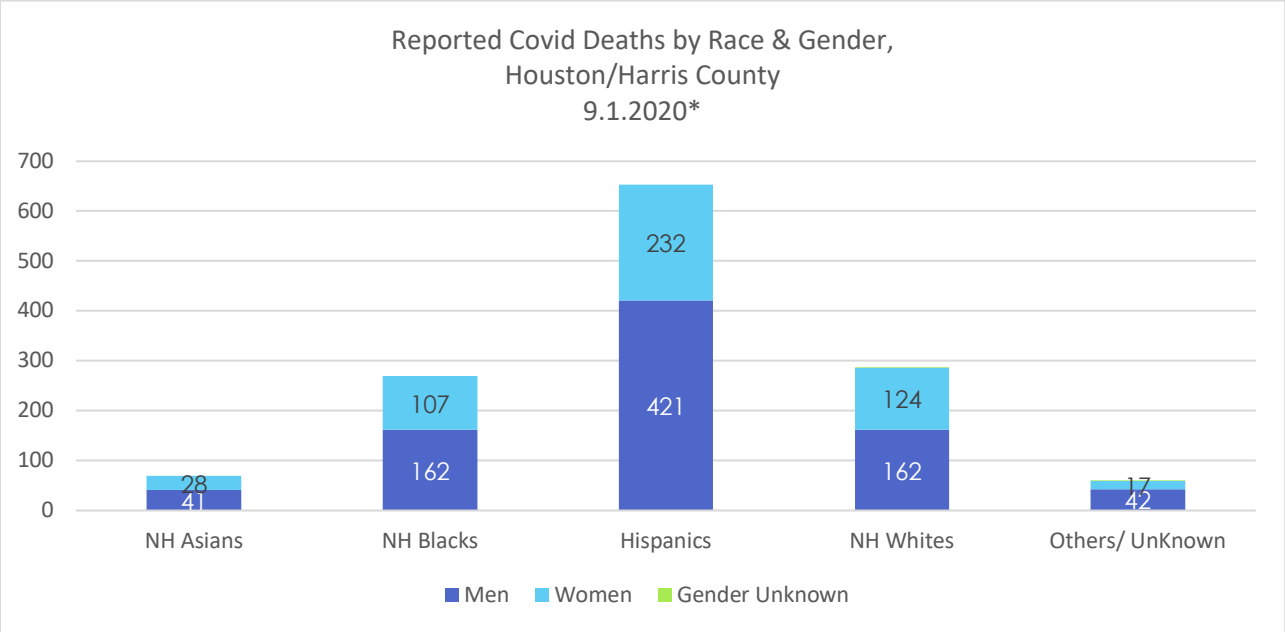

Figure 3. *Harris County data for Aug. 31, COH data for Sept. 1.

Black men (**17.7%** of the Harris County adult male population / **19.6%** of reported male deaths) and **Black women** (**20.6%** of the county's adult female population / **21.0%** of reported female deaths)[10] continue to be represented among the dead in proportions higher than their proportions in the population, when compared to others of their same gender, though the margin has decreased since the initial reports. Most notably in this data, **Black men have died at almost twice the rate of White men**: although there are roughly twice as many White men in Houston/Harris County as Blacks (17.7/32.8 = 54%), they have had exactly the same number of male deaths. A similar disparity operates re Black and White women. Such 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

[8]Per the Houston/Harris County Covid-19 Dashboard, 50,000 out of the total 103,088 cases reported as of August 29, 2020, were "Race Unknown."
[9] However, Harris County has increasingly listed Race/Ethnicity as Unknown (now 7.8%, 1.6% at mid-July; COH HD R/E Unknown is 0.4%).
[10] Harris County population analysis by race/ethnicity by UH IRWGS, based on the US Census's American Community Survey for 2018.

racial disparities (obesity, diabetes, respiratory ailments, etc.), and dense housing. Analysis of excess deaths not so far attributed to Covid-19 will expand understanding of the full breadth of this and other racial disparities.

Though the *number* of reported deaths among **Hispanic men** is much higher than among other groups, Hispanics also comprise the biggest sector of the local male population. Their *percentage* of reported deaths is now much higher than their proportion in the local population (**41.9% of** the adult male population / **51.0%** of reported male deaths). Reported deaths among **Hispanic women** also are higher than their proportion in the population and high in numbers (**38.9%** of the adult female population / **45.5%** of reported female deaths). Among the 229 male deaths reported July 29 to Sept. 1, at least 135 were Hispanic (at 58.9%, that's higher than the overall Hispanic average, indicating that the proportion of Hispanic reported deaths is increasing), and among the 125 female deaths reported in the same period, 71 were Hispanic (56.8%, also substantially higher than the overall average). The higher rates may reflect a higher infection rate than previously, a higher diagnosis/ reporting rate, care differentials, or some combination of all three. As with Blacks, the disparities in Hispanic mortality rates in Harris County are attributable to longstanding structural social and economic inequalities.

The actual numbers of Hispanic deaths to Covid-19 seem especially likely to be substantially higher than reported (linked to under-diagnosis/reporting due to lack of insurance, immigration status and other access issues, all part of the "excess death" phenomenon described above). But all groups are affected by diagnosis inconsistencies, due to lack of testing capacity/access over time, lack of health insurance, and other factors.

The percentage of male deaths represented by **White men** (**32.8%** of the adult male population / **19.6%** of reported male deaths) is substantially lower than their relative presence overall and may be linked to more limited presence in frontline jobs and better healthcare access. The percentage of female deaths represented by **White women** (**32.3%** of the adult female population / **21%** of reported female deaths) is also lower than their relative presence. **Asian women** (**8.2%** of the adult female population / **5.5%** of reported female deaths) have died at higher rates than **Asian men** (**7.6%** of the adult male population / **5.0%** of reported male deaths), but the overall numbers are low, and the pattern may shift. Because the total when working with percentages must be 100%, if numbers of deaths in one group rise, the proportion of the others will fall; all the numbers are interactive.

AGE ANALYSES

Age also significantly intersects Covid-19 deaths**.** The majority of Covid-19 deaths globally occur among people over seventy, and that is the case here as well. Overall, the old, those with underlying conditions and the poor/socially vulnerable, or those with some combination of those factors, seem most at risk.

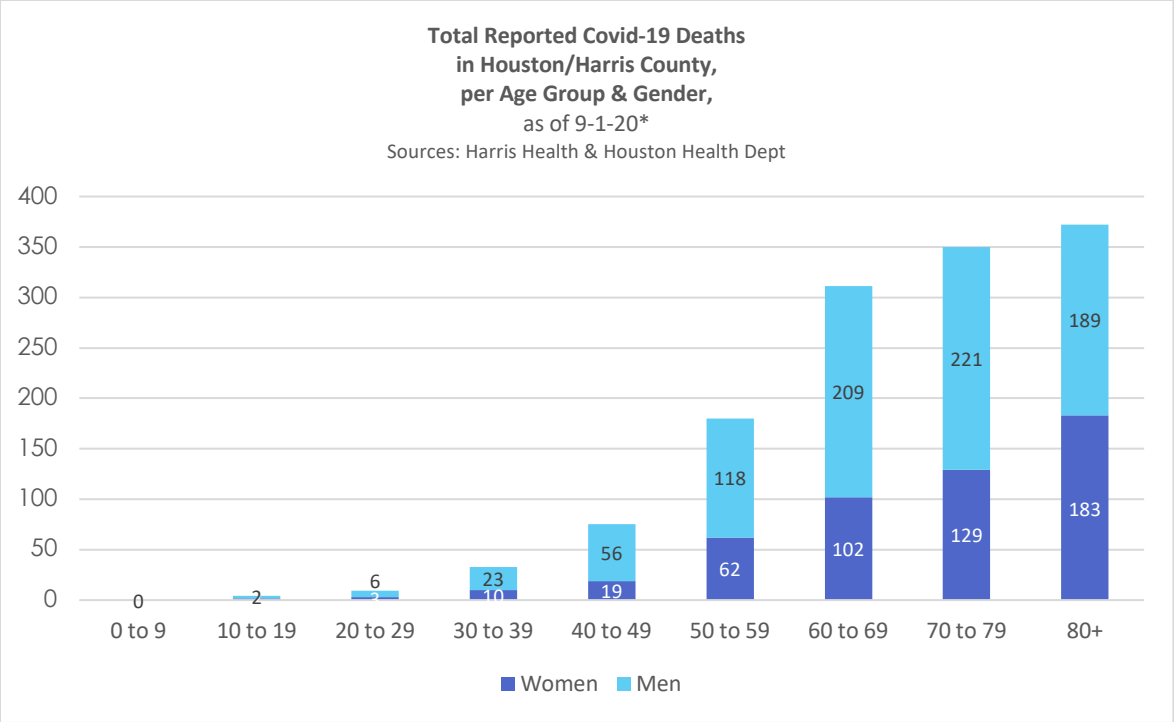

Figure 4. *Harris County data for Aug. 31, COH data for Sept. 1.

While women have died in lower numbers than men in most age bands through 70-79, the dynamic almost reverses in the 80+ band (183 women / 189 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), older women's Covid-19 fatalities actually are much lower than their representation in the population. The same resiliency that allows women to live longer in general plays in with Covid-19.

Age also intersects with gender and race/ethnicity outcomes. Ten of the 13 reported deaths to date among people under 30 have been among Hispanics, and the 33 deaths reported among people in their 30s here to date break down as 23 Hispanic, 6 Black, 3 White, 1 Asian; of them 23 were male and 10 female. Deaths among the young are few across the board, and we will see ongoingly whether recent reports of higher transmission rates among younger people lead to an increased death rate in that group, or not. New effective treatments for critically ill patients may also reduce the overall death rate.

Expanding to a wider definition of relative youth**, reported deaths among men under 60** (94 total; 23.3% of male deaths**) have occurred to date in larger numbers among Blacks and Hispanics** (23/62, respectively) **than among Asians and Whites** (1/8, respectively). White men have died in higher numbers relative to their overall racial presence in H/HC than men in other groups only among men in their 80s or above (see Figure 5).

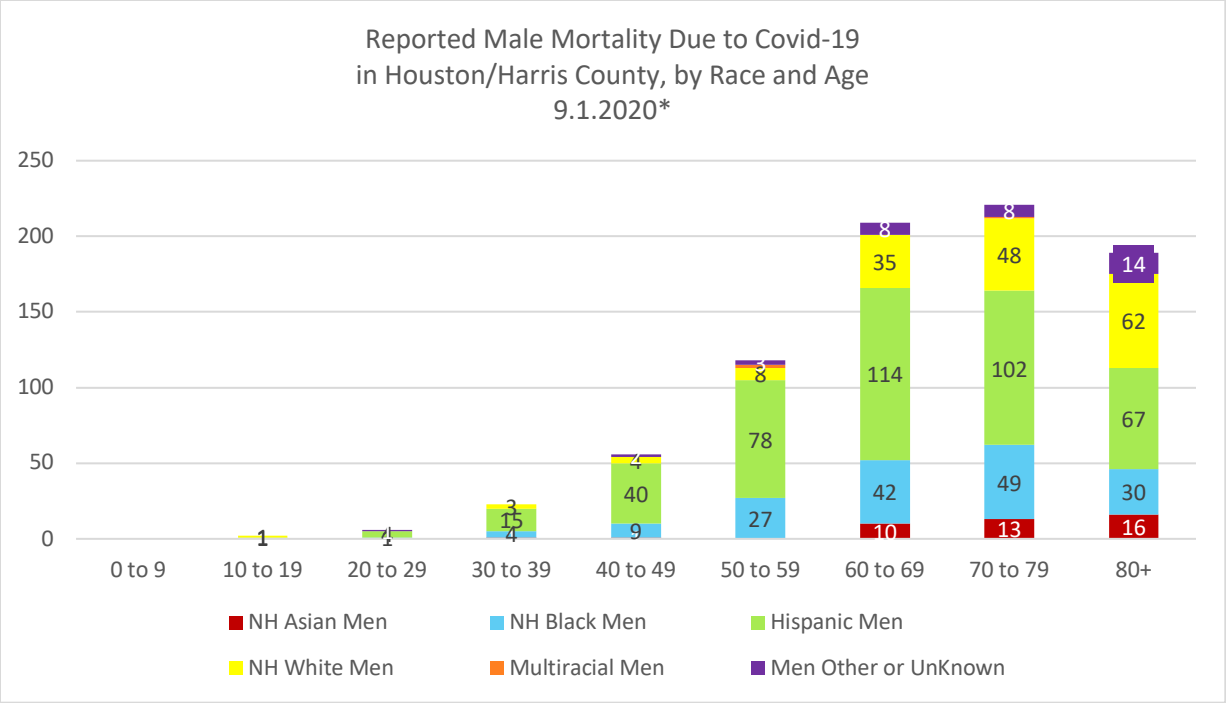

Figure 5. * Harris County data for Aug. 31, COH data for Sept. 1.

Fewer younger women (96) are dying than younger men (205) overall.
The 205 reported deaths to men below 60 (24.9% of female deaths) by race currently are:
Asian 2, Black 41, Hispanic 138, White 16, Multiracial 2, Other/Unknown 6.
The 96 reported deaths to women below 60 (18.8% of female deaths) by race currently are:
Asian 2, Black 20, Hispanic 50, White 18, Other/Unknown 6 (see Figure 6).

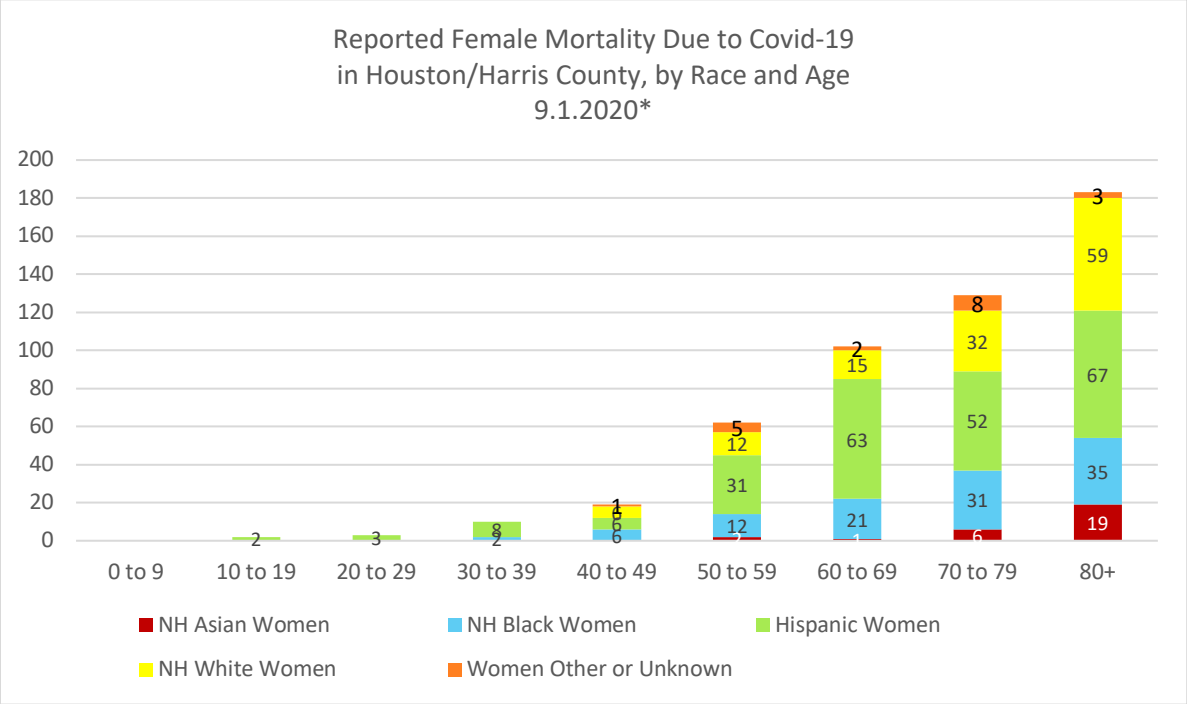

Figure 6. * Harris County data for Aug. 31, COH data for Sept. 1.

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. A UT Southwestern Medical Center study, summarizes Texas average life expectancies across gender and racial groups:

- 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.[11] 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, in various class positions.[12]

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 emphasized gendered health differences—which may be in part biological and/or linked to socialized gender behaviors. 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 up to late June occurred in such places),[13] while elders in multi-generational families may also be at risk if younger frontline workers bring contagion home. Nursing home infection rates ballooned in July.[14]

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.[15]

ADDITIONAL PANDEMIC GENDER EFFECTS – Homeschooling, etc.

As noted in previous Snapshots, the lower level of female Covid-19 deaths contrasts to a number of **other gender differentials around the virus**, 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), which

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[11] 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

[12] 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/

[13] 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).

[14] Sarah R. Champagne, "Coronavirus cases in Texas nursing homes more than doubled in July." *Texas Tribune* (July 28, 2020). Texastribune.org.

[15] 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

connects to **women's lower levels of pay** (see UH IRWGS Initial Report on H/HC Gender & Sexuality Data, 2020);
• **Women's expanded responsibilities for childcare & homeschooling** with school shutdowns (see below);
• **Higher levels of domestic violence**—though data specific to Harris County is still incoming, global reports document a rise;
• & **Efforts to reduce access to birth control and abortion** during the pandemic, which may also affect women's and families' long-term status.
Stay tuned for more PanGen reporting on these dynamics.

Researchers on workplace equity predict that women overall and single mothers in particular[16] 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**.[17] To address this likelihood, with leadership on the working parent front, countermeasures may be adopted to guarantee that women will not see workplace penalties. Some **parenting pay** on the model of Germany's Spring 2020 Covid salary-replacement program, for the service of raising the next generation in a time of crisis, could also be considered (see Gregory, What This County Needs Is a Working Parents Administration). A national discussion of the Fall 2020 homeschooling catastrophe is needed.

On the many concatenating Covid-intensified fronts documented in this Snapshot, both equity and economic stability demand thoughtful innovation and transformative action by business and civic leaders, both nationally and locally.

[16] Single mothers made up 30% of women living with children under 18 in Harris County in 2018 (ACS).
[17] Patricia Cohen and Tiffany Hsu, "Pandemic Could Scar a Generation of Working Mothers," *New York Times,* (June 3, 2020).