UNIVERSITY of HOUSTON

THE INSTITUTE FOR RESEARCH ON
WOMEN, GENDER & SEXUALITY

IRWGS Pandemic Gender Snapshot #11 – April 27, 2022

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

Based on deaths confirmed as of April 11, 2022.

Since our Snapshot on data through October 2021, **an additional 1,552** Covid-19 deaths have been confirmed in Houston/Harris County. **985** are new reports since October; the others are late reports of deaths that occurred earlier. This brings our region's total health-department certified deaths at the two-year Covid-anniversary to **7,801—3,176 women, 4,619 men, 6 sex unknown—40.7%F/59.3%M,** as of 4/11/2022. (Data are provisional & don't include undiagnosed Covid-19 deaths, or Covid-19 deaths still being certified.)

With 67.5% of Harris County residents 5+ fully vaccinated and 78.9% with at least one dose, infections are down and much of the region has opened up.[2] But with 86,468 Texans reported dead due to Covid so far, and almost a million US deaths overall,[3] Covid fatalities continue, and Long-Covid/PASC looms for many.

This snapshot is **based on IRWGS analyses of death certificate data** confirmed by the Houston Health Department and Harris County Public Health. The confirmation process lags, **undercounting deaths to date**, especially recent deaths. The state of **Texas reports 10,937** Harris County Covid deaths as of 4/25/22, with varying criteria for assigning location, but provides no demographics.[4] **The smaller confirmed dataset utilized here does include demographics**, which can **suggest relative fatality rates by gender, race and age in the region**, assisting analysis. In H/HC, **gender, race/ethnicity & age differentials in Covid-19 mortality have been significant**. Figure 1 provides H/HC Covid-19 mortality rate to date by gender and race/ethnicity.

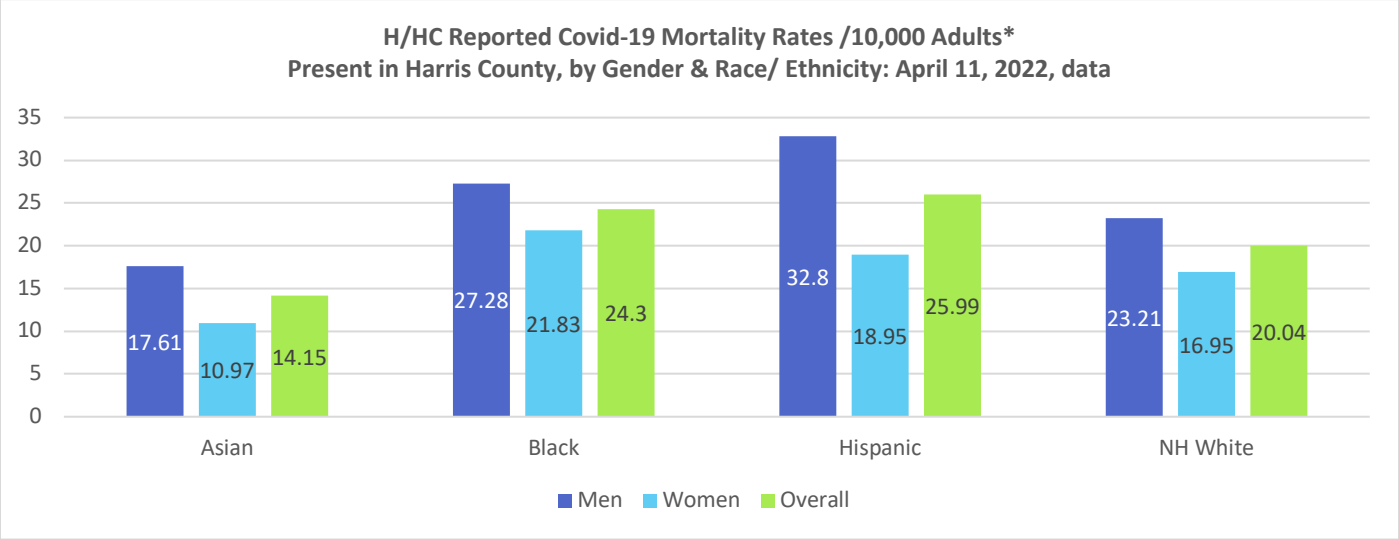

Figure 1 *Adults = 20 and over in the Harris County population (per 2019 ACS). Mortality Data per HHD & HCPH, as of April 11, 2022.

[1] This Snapshot uses current Covid-19 death data based on Houston and Harris County Health Departments' death certificate data (agency based on decedent's residence). **This is provisional, dynamic data**. Gender/Sex & Race/Ethnicity as reported may not reflect preferred identities. HHD and HCPH deaths are confirmed as of 4/11/2022; the most recent in this data set occurred on March 17th.

[2] This is an effect of global vaccine inequity. The current HC test positivity rate is 3.7% (UTSPH), and the total County population (including those under 5, not currently eligible) is 62.8% fully vaccinated, while 72.9% have at least one dose. (HC/H Covid-19 Data Hub : https://covid-harriscounty.hub.arcgis.com/pages/vaccine-info, as of 4/25/22). The HC/H hub reports a 2-to-3-week lag.

[3] As of 4/25/2022, Texas Data per DSHS; the CDC reports 988,707 US Covid deaths; Worldometer reports 1,018,579 US deaths.

[4] Texas Dept. of State Health Services dashboard: https://dshs.texas.gov/coronavirus/AdditionalData.aspx, accessed 4/25/2022. This site reports that of the 10,937 deaths they have logged in Harris County to date, 1,030 occurred in 2022, 6181 in 2021, 3726 in 2020.

Covid-19 Mortality Rates to date by Race/Ethnicity per 10,000 adults present in each group in Harris County:
Male: Asian-17.61; Black-27.28; Hispanic-32.8; NonHispanic White-23.21.
Female: Asian-10.97; Black-21.83; Hispanic-18.95; NonHispanic White-16.95.
Overall: Asian-14.15; Black-24.3; Hispanic-25.99; NH White-20.04.

These rates are based on confirmed deaths to date compared to the adult population breakdown of Harris County.[5] Hispanic men have borne the brunt of the losses, both in absolute numbers and in relative mortality rates, and there are additional disparities evidenced across multiple identity factors, especially affecting Black men and Black women.
Figure 2 presents specific numbers of confirmed H/HC Covid-19 deaths by gender, race/ethnicity and age.

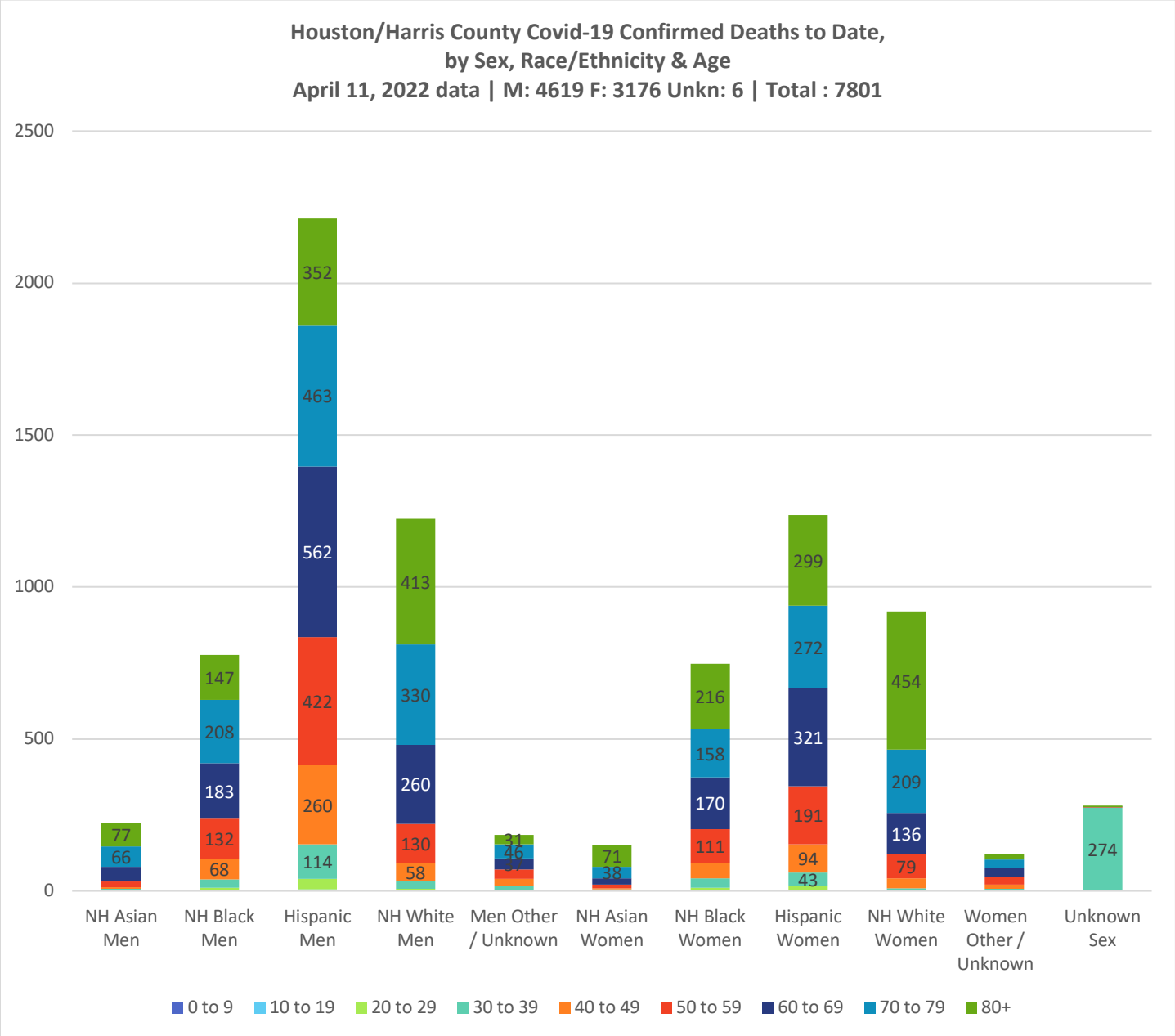

Figure 2 HHD – 4462 | HCPH – 3339 Mortality Data per HHD & HCPH, as of April 11, 2022.

[5] Per the 2019 American Community Survey from the US Census Bureau. 2019 data best reflects the overall population out of which these deaths occurred and should be measured. Adults only because there have been few deaths in the population under 19 here (15).

As of April 11, 2022, confirmed deaths by race/ethnicity included: Asian **374** (223m; 151f); Black **1524** (776m; 748f); Hispanic **3449** (2212m; 1237f); NH White **2143** (1224m; 919f); Other/Unknown **311** (184m; 121f; 6 unknown sex). Older people are most susceptible, but others may also die. Only **4.15% did not have an underlying condition**[6] that increased their risk for death by Covid-19 (these include obesity,[7] diabetes, respiratory illnesses, dementia, heart conditions and other ailments). The divisions revealed here in health outcomes along lines of race/ethnicity (often linked to income-status/class) indicate the need for a more equitable state and national health system.

The **adult population of Houston/Harris County (20+)** breaks out by Gender & Race/Ethnicity thus:
Male: 7.9% NH Asian; 17.6% NH Black; 41.8% Hispanic; 32.7% NH White
Female: 8.2% NH Asian; 20.5% NH Black; 38.9% Hispanic; 32.4% NH White (ACS 2019)
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. (However, HCPH lists race/ethnicity as Unknown, Other or Multiracial at 36 times the rate that HHD does [**8.8% HCPH** (77 Other/Multiracial + 217 Unknown) vs **0.24% COH** (7 listed as Arab, Pacific Islander, American Indian/Alaska Native + 4 Unknown), as of 4/11/22]. Designations as Unknown Race were found by a *Washington Post* Special Report to more often involve people of color than whites.)

Effects Over Time

Figure 3 charts Covid-19 deaths over months by race/ethnicity, indicating the waves, with their disproportionate effects. The death toll was reduced in the Delta wave from the higher toll in previous waves by the uptake of vaccines, demonstrating both vaccine effectiveness and the effects of the prior waves, which have already wiped out some of the most vulnerable. The disproportion was still present but reduced in the later waves. Since most Covid-19 fatalities occur among un-vaccinated members of the community, direct outreach to overcome hesitancy and other barriers continues important to controlling the pandemic going forward.

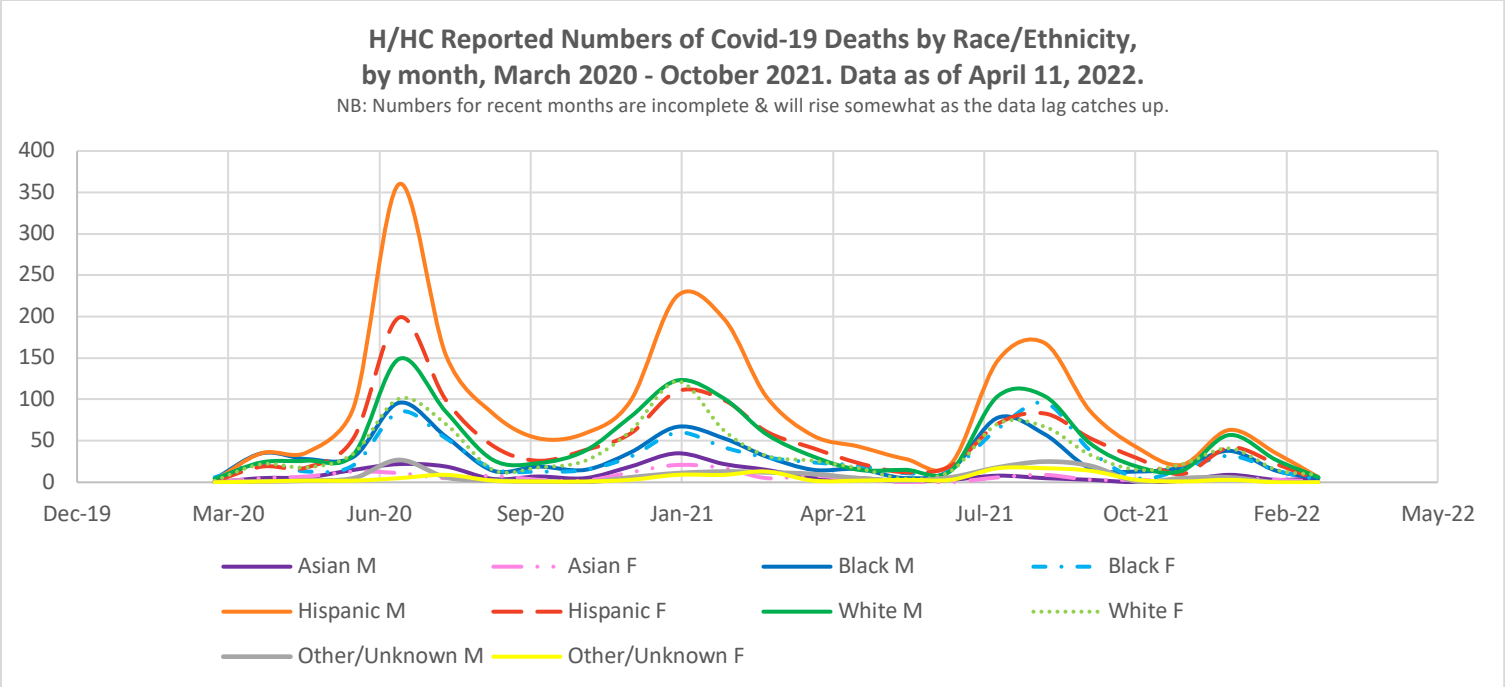

Figure 3 Mortality Data per HHD & HCPH, as of April 11, 2022.

[6] "No underlying condition" includes both those listed as No and Undetermined. The rest were marked Yes on their certificates.
[7] Even mild overweight can be a risk factor. Roni C. Rabin, "Extra Pounds May Raise Risk of Severe Covid-19," *NY Times* (10/10/2020).
[8] Per the Houston/Harris County Covid-19 Dashboard, 117,000 out of the total 212,686 cases (more than half) reported as of December 17, 2020, were "Race Unknown." Since then, the revised dashboard reports only weekly data, broken out by race/ethnicity "where known," but there is no account of what proportion of cases that is.

GENDER ANALYSES

Figure 4 charts Houston/Harris County Covid-19 deaths over months by gender and overall. To date, men here have been dying at a rate consistently 50% higher than women (roughly 60% of deaths have been to men and 40% to women since the start of the pandemic).[9] This parallels the global pattern of more male deaths, though testing shows an infection rate of roughly 50/50.[10] The global difference is likely due to a combination of biological and behavioral factors, **with behaviors that lead men to be in worse health than women generally more influential**.[11] A report in *Nature* on August 26, 2020, found that older men produce a weaker immune response to the virus than older women, but those findings have been disputed by the Harvard GenderSci Lab. Either way, men are much more likely than women to become severely ill and to die of the virus, and should be especially careful to avoid infection—via vaccination, masking and social distancing. People of all genders/sexes with such co-morbidities as *obesity, diabetes, heart disease, and respiratory ailments* are at greater risk than others.

The **gender difference varies slightly between the two local health departments**. The **City of Houston** Health Department's confirmed **4,462 deaths** as of April 11, 2022, were **2,694 male / 1,768 female—60.37%m/39.6%f**. But **Harris County** Health Department's confirmed **3,339 deaths** in the unincorporated sectors of Harris County as of April 11, 2022, were **1,925 male, 1,408 female—57.65%m/42.16%f (& 6 sex unknown)**.

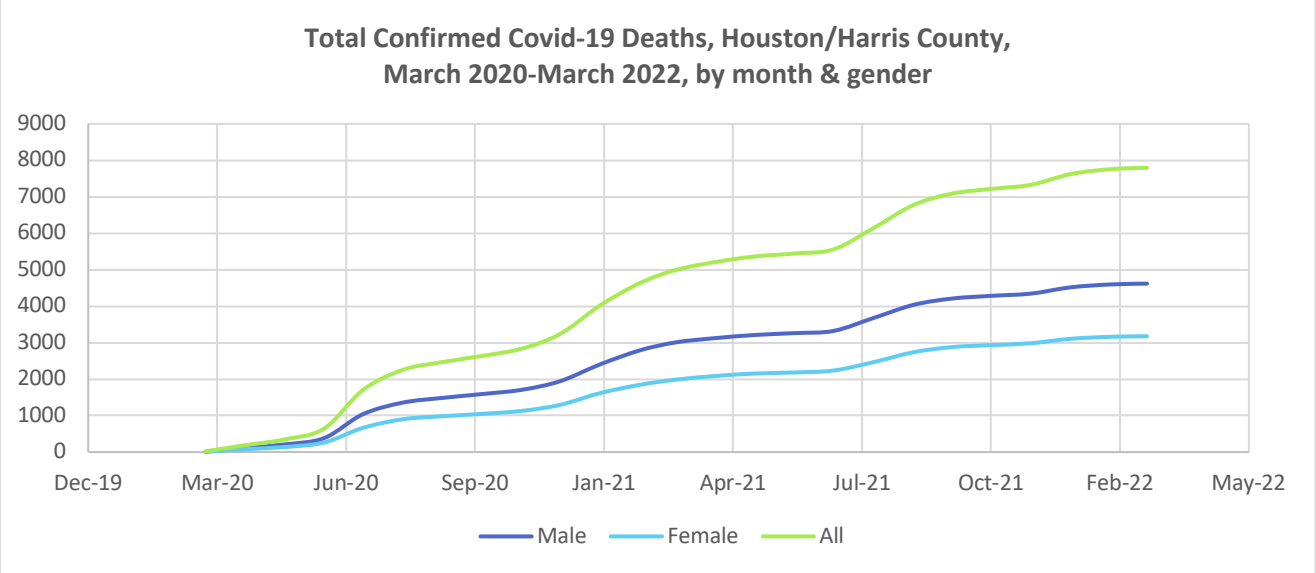

Figure 4 Mortality Data per HHD & HCPH, as of April 11, 2022.

There is **a notable difference in the gender variation within racial/ethnic groups** here (see Figure 1): among those whose Covid-19 deaths have certified in H/HC, **Hispanic Men** have a mortality rate **42.2% higher than Hispanic women**; **Asian men** a rate **37.7% higher than Asian women**; **White men** a rate **27% higher than White women; and Black men** a rate **20% higher than Black women**. These gaps may be linked to men being in some frontline jobs in greater numbers than women and/or to those men being in worse health than women and/or taking fewer health precautions, including fewer vaccines.

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[9] This is a wider gap than the CDC's national data indicate, which is 55% male / 45% female (11/28/21).

[10] See, for instance, this study from UK Research and Innovation (April 2020).

[11] One study found that in Italy in Spring 2020 men had 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, suggesting that behavioral reasons like **men's going to the doctor less, eating less healthy foods, and smoking more than women overall play the biggest rol**e (Harvard GenderSciLab). 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).

Long Covid/PASC Varies by Gender Too

New studies suggest that women are more likely to suffer with Long Covid Syndrome (aka PASC – Post-Acute Sequelae of Covid)–and to have more symptoms.[12] The American Academy of Physical Medicine and Rehabilitation dashboard reports that 30% of those who have gotten and survived Covid-19 to date have gone on to show signs of PASC (an estimated 24 million people). If you have symptoms and are interested in participating in research, you can enroll at RECOVERCovid.org (an NIH initiative). Much research to follow.

RACE/ETHNICITY ANALYSES

All the analyses indicate significant differences by race/ethnicity, intersectional with sex and age. Figure 1 (above) indicates that Hispanic men have died of Covid-19 at a rate 29% higher than that of White men, almost double that of Asian men (46% higher), and 17% higher than that of Black men; while Black men have died at a rate 15% higher than White men and 35% higher than Asian men, per reports to date.

Women in each race/ethnicity group have died at rates lower than the men in the same group, but women's rates also vary widely by race/ethnicity, and Black women have died at a rate almost equal to that of White men, and greater than that of Asian men.

Differences among race/ethnicity mortality rates are in part attributable to the combination of historical bias creating unequal access to health care and doctors when accessed treating people of color less aggressively. These dynamics have led to a higher incidence of underlying conditions among communities of color. In addition, those with higher rates of frontline employment and dense living situations have faced elevated infection rates. Since Spring 2021, vaccine hesitancy has also affected infection and mortality rates, the patterns of which will be better understood later, when full data is available.

Along with contagion in frontline jobs, economic repercussions of the pandemic (including evictions) increased the likelihood that people would be packed into shared apartments with no room for sick people to isolate. Immigration fears also impact the Hispanic community as well as other immigrant communities here, relative to deportation and to the Feb. 2020 federal ruling (enacted right before the pandemic) that blocked green card access for those who utilized food stamps and some health and housing assistance. Though that rule is no longer in effect, some may remain hesitant to seek aid, even in illness.

Race/Ethnicity and Age

Age outcomes also vary by race/ethnicity. In some measure a result of frontline employment, **relatively large numbers of young people were included in the Hispanic and Black death tolls, both pre- and post-vax, whereas that has not been the case among Whites and Asians**. Those able to work at home were not as likely to be infected.

Where **37.7% of Hispanic and 30.7% of Black male deaths have been to men 59 and under**, this has been true for only **18.1% of White and 13.9% of Asian** male deaths. Likewise, where **27.9% of Hispanic and 27.3% of Black female deaths** have been to women 59 and under, this has been true for only **13.1% of White and 13.2% of Asian female deaths**. These data indicate that younger people should take the same precautions as their elders. In addition to fatalities, avoiding infection will also mean avoiding the effects of long Covid-19 on

[12] See Pela et al. "Sex-Related Differences in Long-Covid-19 Syndrome," Journal of Women's Health (March 25, 2022), online.

some who have been infected and recovered, of all ages, which are recognized to occur but not yet understood.

Fifty-six of the 94 confirmed deaths to date among **people between 0 and 29** have occurred **among Hispanics** (2 children under 10, 8 teens, and 46 people in their 20s [33 men, 13 women]); along with 20 deaths to Blacks (1 under 10, 1 teen, and 18 people in their 20s [10 men, 8 women]); 9 deaths to Whites (1 under 10, 2 teens, and 6 people in their 20s [4 men, 2 women]); 5 deaths to Asians (5 people in their 20s [1 man, 4 women]); and 4 people in their 20s Race Other/Unknown [2 men, 2 women]. The 274 deaths reported among **people in their 30s** here to date break down as: 157 Hispanic, 59 Black, 32 White, 7 Asian, 19 Unknown Race; of them, 188 were male and 86 female.

Figures 5 documents fatalities over time, by gender and race/ethnicity (end-of-line plateaus will rise as data lags catch up). Rising lines indicate continuing fatalities and indicate the need for further progress in vaccination across groups.

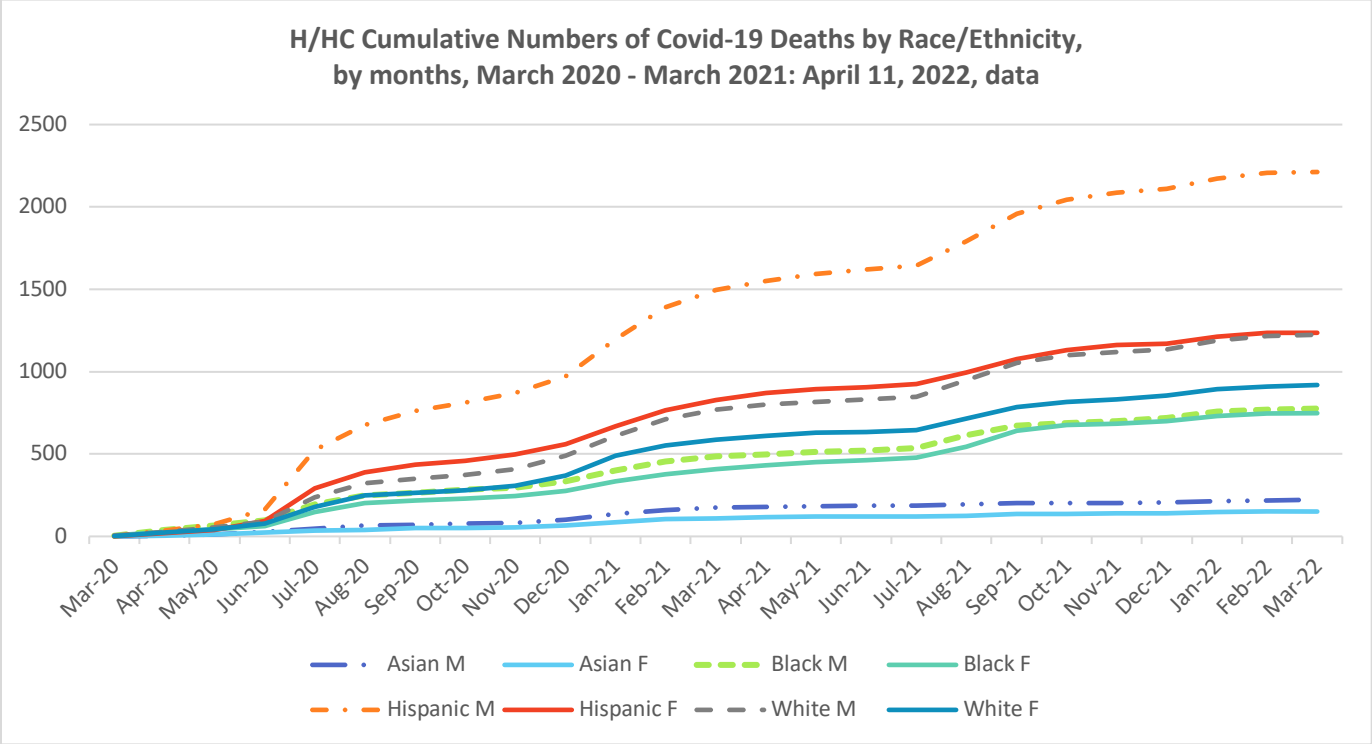

Figure 5 Mortality Data per HHD & HCPH, as of April 11, 2022.

AGE ANALYSES

Old 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 (deaths to people over 70 made up 3206 out of the total 6249- confirmed Covid-19 deaths here - 51.3%). Overall, the old, those with underlying conditions, frontline workers and the poor/socially vulnerable, or those with some combination of those factors, have proven most at risk. However, as noted above, the numbers of deaths here among people in their 40s, 50s and 60s are significant, and vary by race/ ethnicity. Figure 6 breaks out the deaths by decade of age, gender and race/ethnicity.

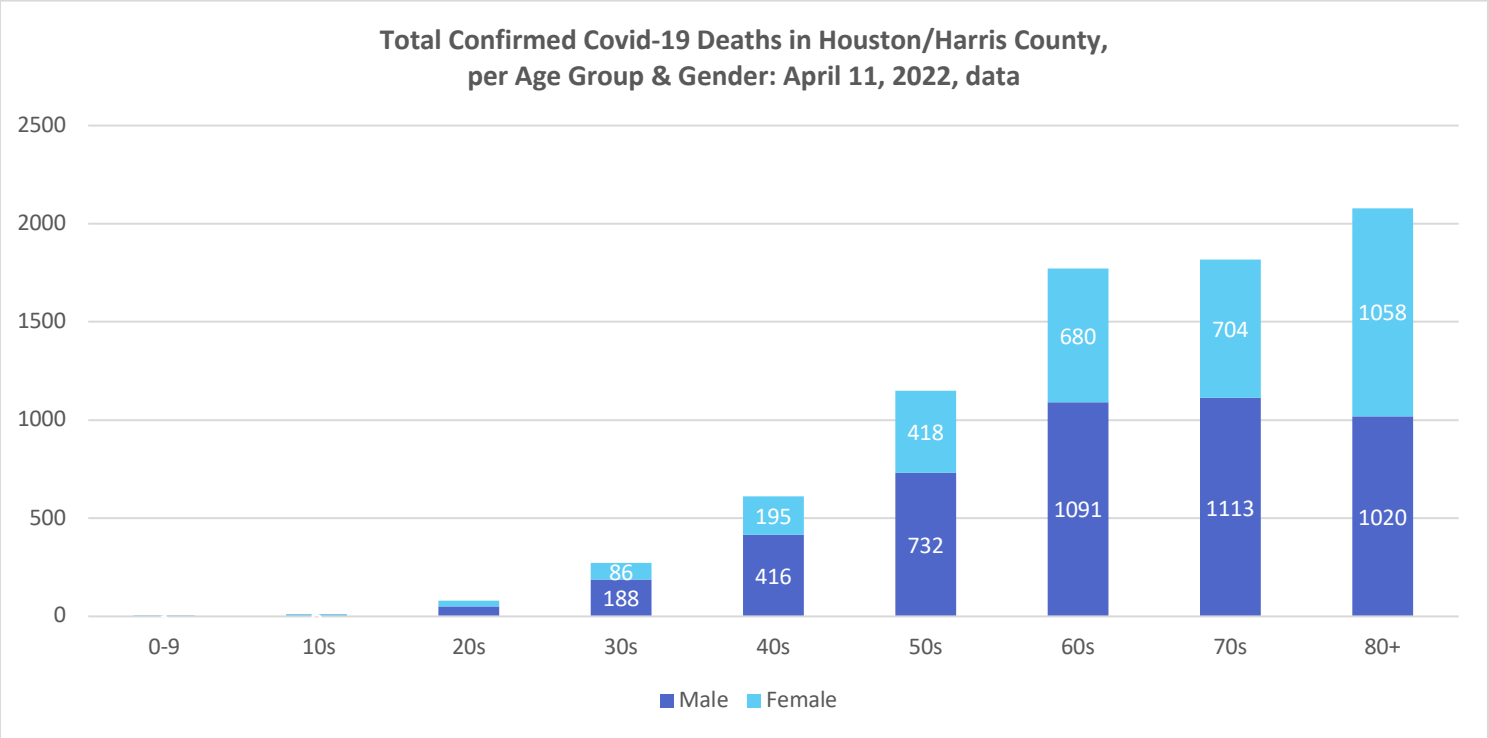

Figure 6 Mortality Data per HHD & HCPH, as of April 11, 2022.

Overall, Covid-19 has diminished the community of elders across the United States – and even more so in the Hispanic and Black communities, which already had low survival rates into their later decades due to lower health care access, etc. This cuts connections to history, life wisdom and knowledge, and family bonds. Harris County has lost at least 2.6% of its men of all race/ethnicities in their 80s and above to Covid-19 and 1.6% of its women in that age band. That includes 4.4% of Hispanic men, 3.4% of black men, 1.9% of white men and 1.8% of Asian men in their 80s; 2.5% of Hispanic women, 1.8% of black women, 1.5% of Asian women, and 1.3% of white women in their 80s. Along with their individual families, the nation is much the poorer for these losses.

While women have died in lower numbers than men in all age bands between 20s and 70s, the relation reverses in the 80+ band (1058 women / 1020 men), in large part 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 have occurred at much lower rate than those 80+ compared to men (see Figure 8). The same resiliency that allows women to live longer in general plays in with resisting Covid-19.

This evidence draws attention to the pre-existent inequities in health by gender and **suggests the need for a men's health outreach campaign across race/ethnicities,** as well as studies of the gendered inequities in our culture that negatively affect men's health, including gendered stereotypes and disparities of opportunity.

Figures 7 and 8 break out the deaths by decade of age, gender and race/ethnicity.

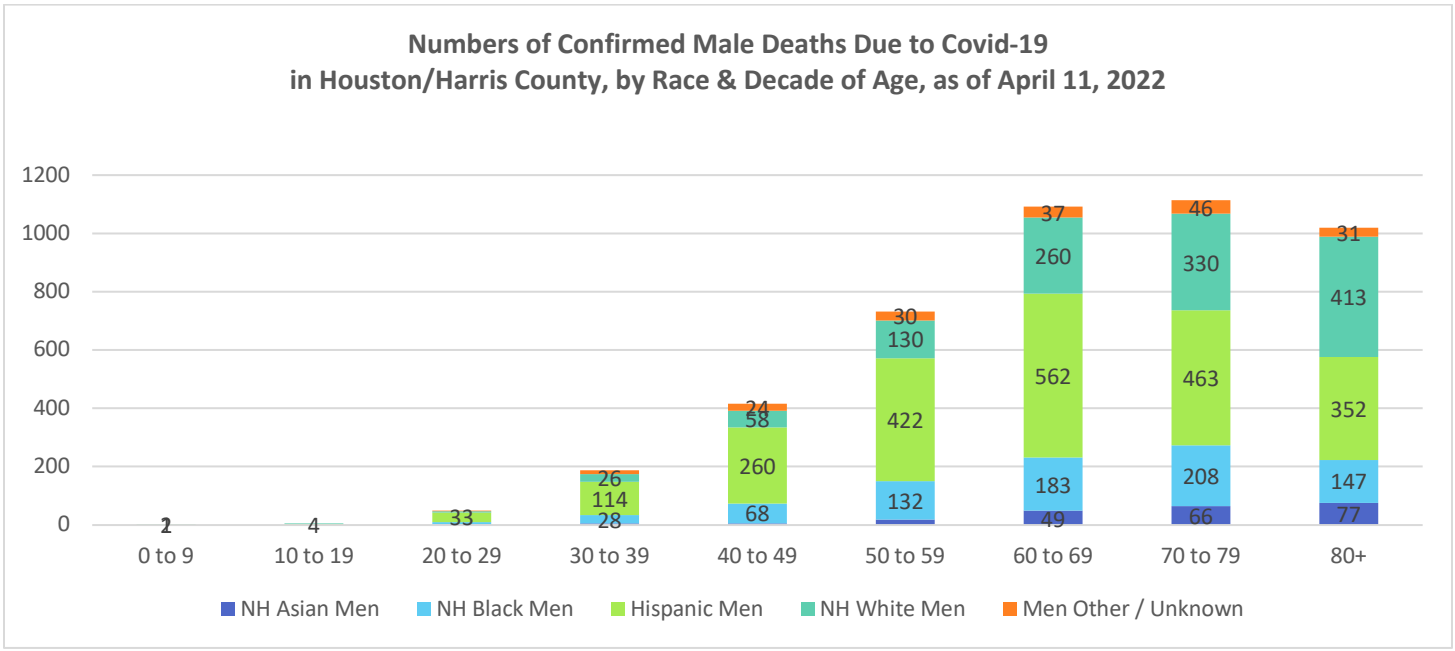

Figure 7 Mortality Data per HHD & HCPH, as of April 11, 2022.

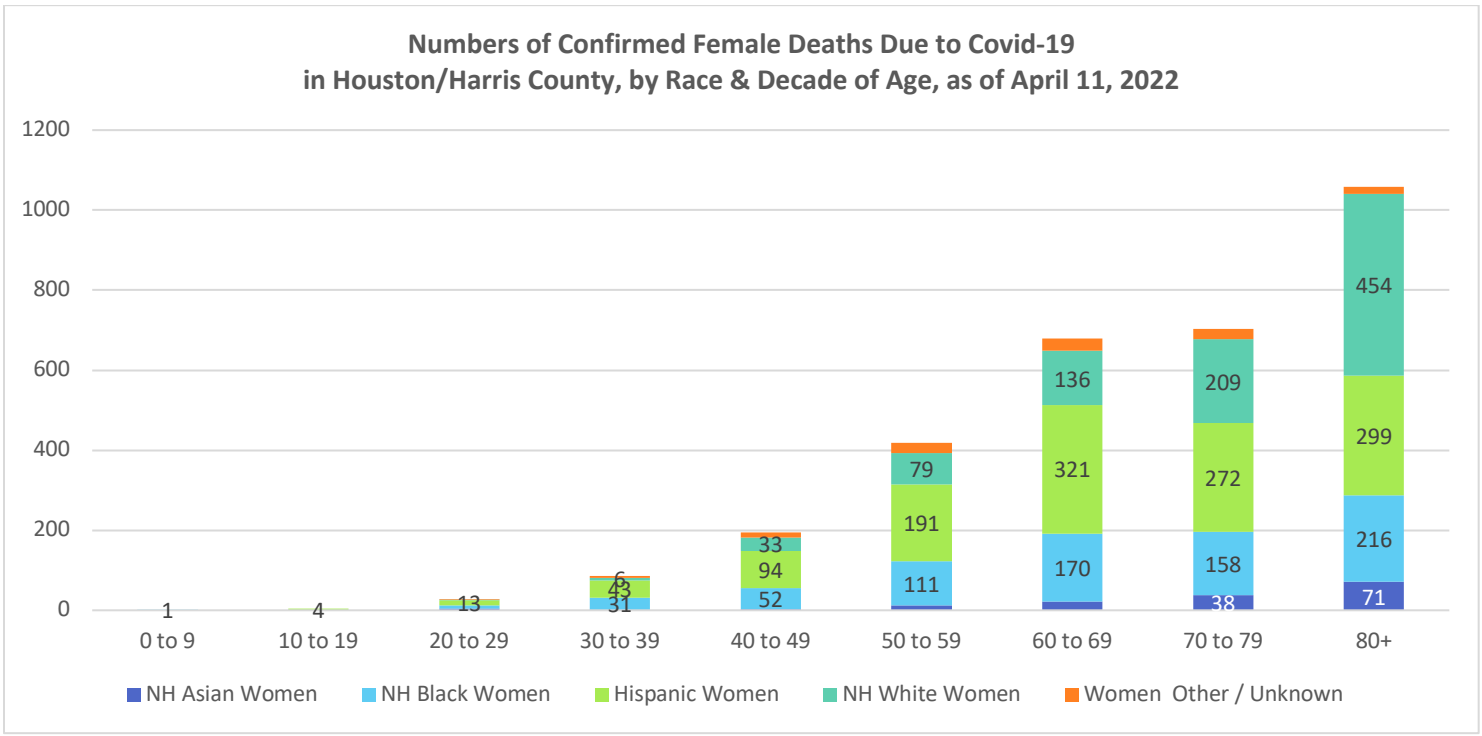

Figure 8 Mortality Data per HHD & HCPH, as of April 11, 2022.

While Covid-19 has highlighted pre-existent disparities in American society and demonstrated some predictable socio-economic patterns, it has affected and continues to affect all groups negatively. It also seems to behave in distinctive ways as a disease, around factors like gender, age, and post-infection immunity. We are watching an evolving disease, with evolving effects on various sectors. The after-effects of non-fatal Covid over the long-haul also promise to be long-lasting for a substantial number.

EXCESS DEATHS (Unreported COVID-19 Deaths)
The number of reported Covid-19 deaths cannot reflect total local deaths to that illness, because some go **undiagnosed**. In the initial phases of the pandemic, few people were being tested and therefore quite a few who had the virus were not identified as Covid-19 deaths. A 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.[13] **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 at the time were likely.** The percentage missed has changed as testing has increased, but some misses remain predictable.

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 or have no health insurance (Texas has the highest uninsured rate at 17.7% [national average is 8.9%][14]) are slow to seek aid. In addition, deaths due to other causes may be linked to Covid-19 if people refrain from getting treatment for fear of the virus.

ADDITIONAL PANDEMIC GENDER EFFECTS – Homeschooling, Domestic Violence, 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 some 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 connects to **women's lower levels of pay** (see UH IRWGS Report on H/HC Gender & Sexuality Data, May 2021);
• **Women's expanded responsibilities for childcare & homeschooling** with school shutdowns (see below);
• **Higher levels of domestic violence—**global reports document a rise due to increased numbers locked in with their abusers, greater economic stress, children at home 24/7, and fear of Covid-19;
• **Reduction of access to birth control and abortion** in Texas due to the 2020 cut in access to birth control and abortion and the 2021 shut down of all access to abortion here after 6-weeks gestation, still under dispute, will also affect women's long-term status.

Researchers on workplace equity predict that women overall and single mothers in particular[15] will see long-**term career setbacks if they had to step away from jobs due to their greater responsibility for childcare and homeschooling** due to pandemic school closures.[16] The Build Back Better Act proposed expanding access to childcare and preschool for all families, but did not pass in 2021. Future **Universal Childcare legislation could be transformative for women workers and their families.[17]**

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

[13] Weinberger et al. Estimation of Excess Deaths Associated with the COVID-19 Pandemic in the US, March to May 2020. *JAMA Intern Med.* Published online July 1, 2020.
[14] US Census Bureau, *Health Insurance Coverage in the US: 2018*. Released Nov. 8, 2019.
[15] Single mothers made up 28.9% of women living with children under 18 in Harris County in 2019 (ACS).
[16] Patricia Cohen and Tiffany Hsu, "Pandemic Could Scar a Generation of Working Mothers," *New York Times,* (June 3, 2020). See also Misty Heggeness & Palak Suri, "Telework, Childcare and Mothers' Labor Supply," Federal Reserve Bank of Minneapolis (11/16/21)
[17] See Gregory, "Jobs for Men but Not for Women," *The Nation* (December 2021).