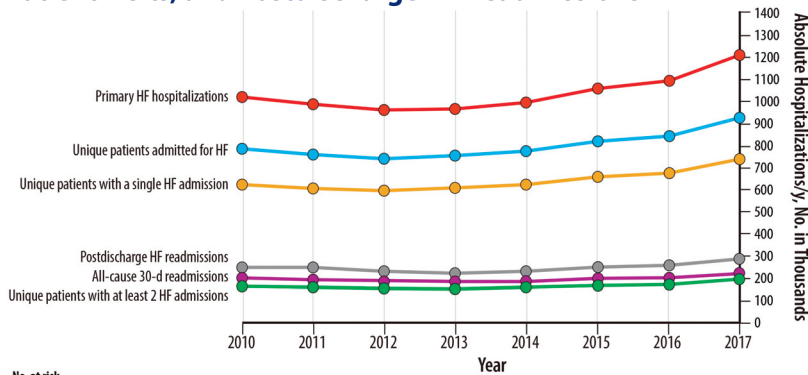


- Rates of HF hospitalizations declined from 2010 to 2014, followed by an increase from 2014 to 2017. (Fig. 1)<sup>1</sup> This increase was consistent across age groups and sexes, with the highest rates being among Black patients.
- HF hospitalizations among young adults between the ages of 18-45 years also increased since 2013, and Black patients accounted for 50% of these hospitalizations.<sup>2</sup>
- HF hospitalizations among the elderly (age >80 years) have increased since 2014 with high burdens of hospitalizations among patients with comorbid conditions.

**Figure 1: US Trends for Overall HF Hospitalizations, Unique Patient Visits, and Postdischarge HF Readmissions<sup>1</sup>**

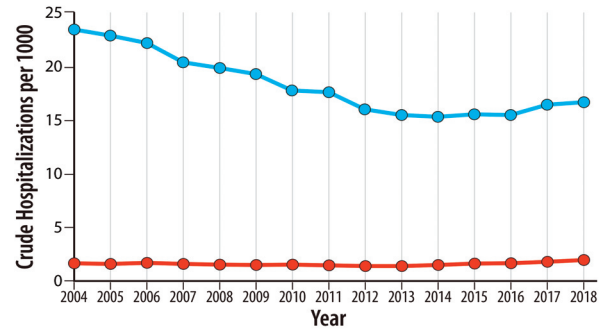


No. at risk	2010	2011	2012	2013	2014	2015	2016	2017
Primary HF hospitalizations	1017475	985034	957509	962819	994099	1057652	1090348	1208334
Unique patients admitted for HF	776307	754532	735372	748456	769795	815499	837707	924066
Unique patients with a single HF admission	618462	602688	588451	603915	618575	653953	669875	736707
Postdischarge HF readmissions	241168	230503	222137	214362	224303	242152	252641	284269
All-cause 30-d readmissions	191819	187197	178884	176494	177448	189633	192684	214803
Unique patients with at least 2 HF admissions	157845	151844	146921	144541	151220	161546	167832	187359

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- According to a retrospective analysis of the Nationwide Inpatient Sample (NIS) with weighted data between 2004 and 2018, after an initial decline between 2004 and 2013, there was an increase in HF hospitalizations after 2013 (Fig. 2).<sup>3</sup>
- HF hospitalization rates vary by race/ethnicity, with several studies demonstrating Black patients with HF have higher hospitalization rates compared with other races and ethnicities.<sup>4</sup>
- Data from the NIS from 2002-2013 showed that Black women and men had the highest rates of hospitalizations for HF compared with other races, and the rate of HF hospitalizations for Black women and men was almost two and a half times higher than for White patients with HF. Asian/Pacific Islanders had the lowest HF hospitalization rates (Figs. 3a, 3b).<sup>5,6</sup>

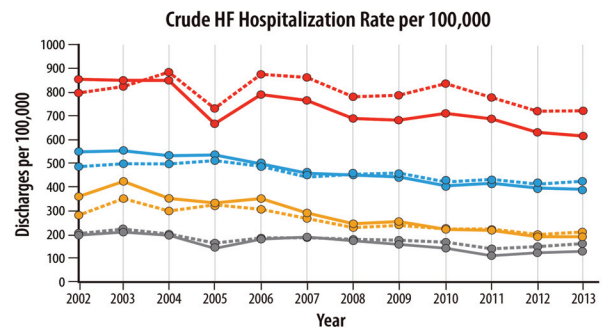
**Figure 2: Trends of Hospitalization for HF According to Age Between 2004 and 2018**



— Age 18-64 years  
2004-2013 APC -2.3\*; 2013-2018 APC 7.0\* — Age ≥65 years  
2004-2014 APC -4.5\*; 2014-2018 APC 2.8\*

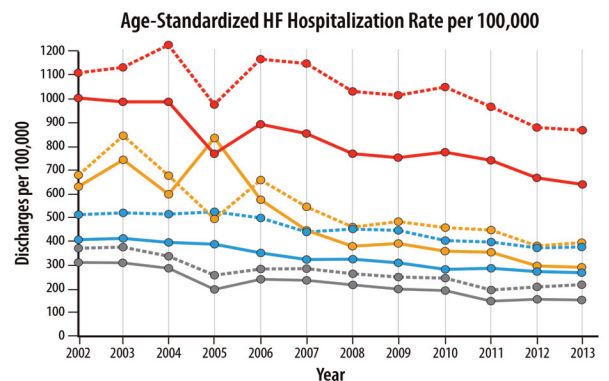
\*means annual percentage change (APC) is significantly different from zero at  $\alpha = 0.05$ .  
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**Figure 3a: National Crude Hospitalization Rate by Race/Ethnicity and Sex**



--- Black Male --- White Male --- Hispanic Male --- Asian & PI Male  
--- Black Female --- White Female --- Hispanic Female --- Asian & PI Female

**Figure 3b: National Age-Standardized Hospitalization Rate by Race/Ethnicity and Sex**



--- Black Male --- White Male --- Hispanic Male --- Asian & PI Male  
--- Black Female --- White Female --- Hispanic Female --- Asian & PI Female

PI = Pacific Islander

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- In general, men have higher HF hospitalization rates than women (Fig. 4).
- Importantly, HF hospitalization rates have been increasing for both women and men since 2013.<sup>3</sup>
- From the 2004-2018 NIS, the mean age at hospitalization for HF was 72.3 ±14.3 years.<sup>7</sup>

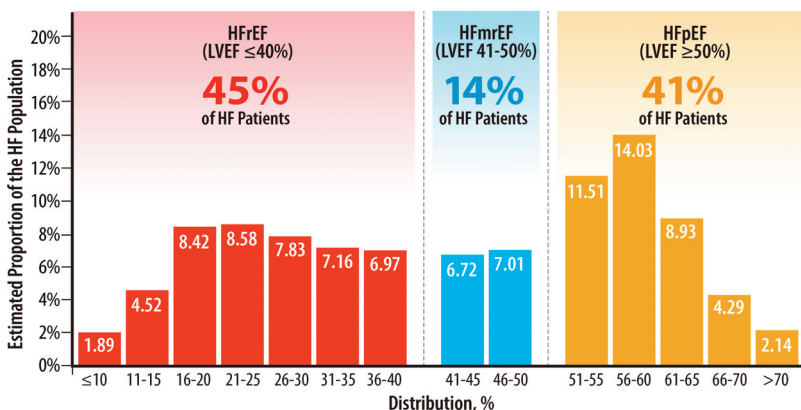
**Table 1: Trends in Heart Failure Hospitalizations by Age**

Category	Timespan	Trend	Source
<b>Age at Hospitalization</b>		<b>Median [IQR]</b>	
HFrEF	2008-2018	74.0 [74.0-83.0] to 71.0 [59.0-81.0], p<0.001	NIS <sup>12</sup>
HFpEF	2008-2018	78.0 [67.0-86.0] to 77.0 [66.0-85.0], p<0.001	NIS <sup>12</sup>
<b>Hospitalization Rates</b>		<b>Annual Percentage Change</b>	
Age ≥ 65 years	2004-2014	-4.5%, p<0.05	NIS <sup>2</sup>
Age ≥ 65 years	2014-2018	2.8%, p<0.05	NIS <sup>2</sup>
Age 18-64 years	2004-2013	-2.3%, p<0.05	NIS <sup>2</sup>
Age 18-64 years	2013-2018	7.0%, p<0.05	NIS <sup>2</sup>
<b>In-Hospital Mortality</b>		<b>Mortality Rate</b>	
Age 18-34 years	2002-2016	2.2% to 1.6%, p=0.13	NIS <sup>13</sup>
Age 35-44 years	2002-2016	1.5% to 1.0%, p=0.01	NIS <sup>13</sup>
Age 45-54 years	2002-2016	1.7% to 1.3%, p<0.001	NIS <sup>13</sup>
Age 55-64 years	2002-2016	2.4% to 1.7%, p<0.001	NIS <sup>13</sup>
Age 65-74 years	2002-2016	3.5% to 2.3%, p<0.001	NIS <sup>13</sup>
Age ≥ 75 years	2002-2016	5.8% to 3.8%, p<0.001	NIS <sup>13</sup>

HF = heart failure; HFrEF = heart failure with reduced ejection fraction; HFpEF = heart failure with preserved ejection fraction; IQR = interquartile range; NIS = Nationwide Inpatient Sample.

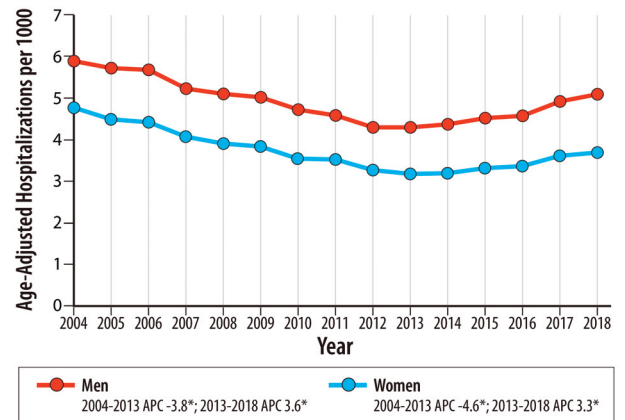
- Between 2008 and 2018, the median age at hospitalization for HFrEF decreased from 74 to 71 years, and the median for HFpEF decreased from 78 to 77 years (Table 1)<sup>3,7</sup>
- NIS data revealed a progressive increase in age-adjusted HF hospitalizations between 2013 and 2018.<sup>7</sup> Hospitalization rates increased by 2.8% among adults ≥65 years, and increased by 7.0% among adults aged 18-64 years. (Table 1).<sup>3</sup>

**Figure 6: Left Ventricular Ejection Fraction Distribution in the GWTG-HF Registry<sup>9</sup>**



GWTG-HF = Get With the Guidelines; HFmrEF = heart failure with mildly reduced ejection fraction; HFpEF = heart failure with preserved ejection fraction; HFrEF = heart failure with reduced ejection fraction; LVEF = left ventricular ejection fraction

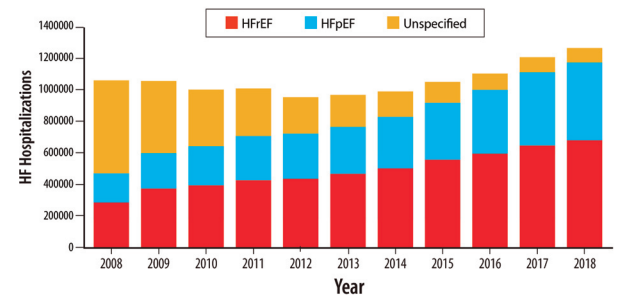
**Figure 4: Trends of Hospitalization for HF According to Sex Between 2004 and 2018**



\*means annual percentage change (APC) is significantly different from zero at  $\alpha = 0.051$ .  
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- NIS data from 2008-2018 show 11,693,994 admissions for HF as a primary diagnosis: 5,354,696 (45.8%) HFrEF; 3,605,004 (30.8%) HFpEF; and 2,734,294 were unspecified. Of the hospitalizations with specific diagnoses, 57.7% were for HFrEF in 2018 (Fig. 5).<sup>8</sup>

**Figure 5: Annual HF Hospitalization Volumes**



HFrEF = heart failure with reduced ejection fraction; HFpEF = heart failure with preserved ejection fraction  
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- Hospitalizations for both HFrEF and HFpEF have been increasing with HFrEF constituting approximately 45%-58% of the hospitalizations.
- The GWTG registry included patients hospitalized for HF between January 2014 and September 2019.<sup>9</sup> These data provide a more direct and complementary measure of the distribution of EF in patients admitted for HF (Fig. 6).



For more information visit <https://hfsa.org/hf-stats>



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All information, including graphics, tables, and text in this fact sheet are from the report published in the *Journal of Cardiac Failure*, and should be referenced as follows:  
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