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Life Expectancy After HIV Diagnosis 2008–2018, United States

NATIONAL CENTER FOR HIV, VIRAL HEPATITIS, STD, AND TB PREVENTION

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BACKGROUND

Life expectancy (LE) among persons with diagnosed HIV has continued to improve, particularly since introduction of antiretroviral treatment. Building on our previous work, we updated the LE estimates for a longer 11-year period from 2008–2018.

METHODS

We used National HIV Surveillance System data reported to CDC through December 2020, on persons ≥13 years old at HIV diagnosis, to estimate LE after HIV diagnosis, allowing at least 24 months for reporting of deaths occurring by the end of 2018. We followed the National Center for Health Statistics' life table approach. Survival within the first year, or beyond first year after HIV diagnosis were estimated separately to estimate overall LE. Estimates were also generated separately by sex at birth, race/ethnicity (Black/African American, Hispanic/Latino or White persons), disease severity (stage 3 vs. all other stages), and transmission category. The data were statistically adjusted for missing risk factors.

RESULTS

- From 2008–2018, the LE for persons with diagnosed HIV increased by an average 1.3% per year.
- In 2018, the LE was 32.85 years (CI* 32.80–32.90), representing an absolute increase of 4.22 years and relative increase of 14.7%, from 28.63 years (95% CI, 28.58–28.67) in the year 2008.
- Life expectancy improved for both sexes, however..
  - In 2018, LE for males was 3.1 years longer [32.70, (95% CI 32.64–32.75)] vs. females [29.58, (95% CI 29.48–29.69)]
  - Males had larger gains (4.03 years or 14.06%) vs. females (2.34 years or 8.59%), over the 11-year period
- In 2018 persons with late-stage disease (HIV Stage 3 [AIDS]) at diagnosis, had lower LE (27.16 years, CI 27.02–27.31) compared to persons with disease not at stage 3 (34.39 years (CI 34.34–34.43).

** CI = 95% Confidence interval*

- During 2008–2018, overall, the life expectancy for people with diagnosed HIV increased by 4.22 years or 15%
- Yet, the life expectancy for people with diagnosed HIV remains lower than that for the general U.S. population

Table: Life expectancy for persons with HIV diagnosed during 2008–2018

		Male			Female		
Year of HIV diagnosis	Overall	Black/African American	Hispanic/ Latino	White	Black/African American	Hispanic/ Latino	White
2008	28.63	26.81	32.69	26.95	26.25	30.73	26.70
2009	29.31	27.87	33.24	27.40	26.54	30.94	27.76
2010	30.41	29.16	33.88	28.02	27.37	31.95	27.87
2011	30.97	29.94	34.34	28.15	28.17	31.73	27.68
2012	31.52	30.37	35.30	28.47	28.12	32.26	27.60
2013	31.83	30.89	35.18	28.32	28.34	32.25	28.02
2014	32.35	31.49	35.48	28.87	28.72	32.99	28.79
2015	32.65	31.64	35.69	29.15	28.76	33.81	28.79
2016	32.67	31.71	35.99	29.17	28.78	31.97	28.78
2017	32.68	31.50	35.67	29.51	28.90	33.08	28.31
2018	32.85	31.53	35.55	29.56	29.08	32.24	28.25

RESULTS

- In 2018, among persons with late-stage disease (HIV Stage 3 [AIDS]) at diagnosis, the LE was considerably lower (27.16 years, CI 27.02–27.31) compared to persons with disease not at stage 3 (34.39 years (CI 34.34–34.43).
- By race/ethnicity the LE in 2018 were
  - Hispanic/Latino: 36.20 (CI 36.10-36.29)
  - Black/African American: 32.05 (CI 31.97-32.12)
  - White: 30.33 (CI 30.24-30.43)
- By transmission category
  - Male-to-male sexual contact: 34.08 (CI 34.03-34.14)
  - Heterosexual contact (females): 30.39 (CI 30.27-30.50)
  - Male-to-male sexual contact *and* injection drug use: (29.86 (CI 29.62-30.10)
  - Injection drug use (females): 25.96 (CI 25.61-26.30)
  - Heterosexual contact (males): 25.92 (CI 25.77-26.08)
  - Injection drug use (males): 24.37 (CI 24.09-24.66)

CONCLUSIONS

Over the 11-year period, life expectancy improved for all persons by age-group, sex at birth, race/ethnicity, transmission category, and stage of disease at diagnosis. However, the improvements were not uniform across all groups.

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