

Fertility and Cancer: Are we making progress?

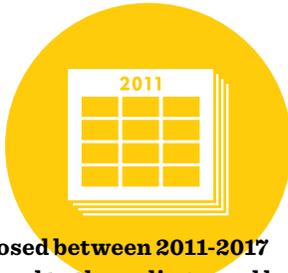
An Update From the 2017 LIVESTRONG Survey

Each year approximately 70,000 adolescents and young adults are diagnosed with cancer in the US. Some cancer treatments may negatively impact fertility, and 40-80% of women and 35-70% of men diagnosed during their reproductive years (15-39) are at risk for reproductive compromise. However, less than 50% report being informed of potential risks to their fertility by their healthcare team according to a study in 2009¹.

In 2017, LIVESTRONG conducted a survey to better understand whether patients are being informed about potential fertility risks due to a cancer diagnosis and/or related treatments, whether they are receiving the necessary education and access to resources to make informed decisions about fertility preservation, and the financial burden associated with preservation. This brief presents key highlights from the survey results.

The good news is more people are being informed, but the bad news is we're seeing a bias.

The results revealed significant disparities in who was informed about potential fertility risks based on education level, health insurance, year of diagnosis and cancer type. Respondents who met the following criteria were more likely to report fertility discussions:



Diagnosed between 2011-2017 compared to those diagnosed between 2006-2010 (84% vs. 69%; $p<.001$).



Higher levels of education at the time of diagnosis ($p<.01$) and at the time of survey completion ($p=.01$).



Had health insurance at time of diagnosis compared to those who did not (96% vs. 85%; $p=.04$).

Fertility preservation can be cost prohibitive.

Receiving a cancer diagnosis can be overwhelming and cause fear and anxiety. Many respondents reported not preserving fertility before treatment because they were not referred to a fertility specialist (30%) or insurance did not cover the costs (20%).

Respondents with a household income of \$40,000/year or less currently were less likely to have taken steps to preserve their fertility compared to those with higher household incomes. Just over half the respondents (52%) said they had health insurance at the time of diagnosis. Of respondents who took steps to preserve their fertility, 34% reported out-of-pocket costs of \$5,000 or more.

¹ Quinn, G. P., Vadaparampil, S. T., Lee, J., Jacobsen, P. B., Bepler, G., Lancaster, J., Keefe, D.L., Albrecht, T. L. (2009). Physician Referral for Fertility Preservation in Oncology Patients: A National Study of Practice Behaviors. *Journal of Clinical Oncology*, 27(35), 5952-5957.

We also found disparities in referrals.

There were similar disparities with referrals to a fertility specialist based on age, year of diagnosis, income level, health insurance status and stage of diagnosis. Referral to a specialist also varied by:

- Age, with respondents who were younger (15 to <20 years) at the time of diagnosis more likely to be referred (64%) compared to respondents ages 20 to <25 (55%), ages 25 to <30 (54%), ages 30 to <35 (57%), and ages 35 to 39 (39%).
 - Year of diagnosis, with those diagnosed in 2011-2017 (58%) more likely to be referred to a specialist than those diagnosed in 2006-2010 (33%).
 - Income at the time of diagnosis, with those who reported family incomes of \$40,000/year or lower less (44%) likely to be referred compared to those who reported higher incomes (50% or more depending on income category).
 - Health insurance status, with those who had insurance at the time of diagnosis (84%) more likely to be referred than those who did not have insurance (61%).
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We are making progress but we have much further to go.

Infertility affects a cancer survivor's long-term quality of life by causing unresolved grief and depression, as well as reduced life satisfaction and increased anxiety. All patients diagnosed in their reproductive years should be informed of infertility risks and receive information/resources on preservation options, regardless of education, income level, and insurance status. Additionally, it is our position that health insurance providers should provide coverage for all standard fertility preservation services for individuals at risk for infertility from necessary medical treatments.

About LIVESTRONG Fertility

LIVESTRONG supports young adult cancer survivors by offering discounted access to fertility preservation (egg & embryo freezing, sperm banking and IVF) in partnership with over 650 fertility clinics across the country. We also provide free stimulation medication to female cancer survivors or women whose male partners have been diagnosed with cancer through a partnership with EMD Serono. Learn more about LIVESTRONG Fertility at www.livestrong.org/fertility.