

Cancer's Shifting Paradigm



By *Jamie Wells, M.D.* — January 9, 2019



Credit: [PublicDomainPictures.Net](#) [1]

You may be seeing a bunch of headlines from *CNN's* "[US cancer death rate hits 25 years of decline, study says](#) [2]" to the *Wall Street Journal's* "[Cancer Deaths Decline 27% Over 25 Years](#) [3]" reporting a favorable study just published by the American Cancer Society in *CA: A Cancer Journal for Clinicians* [4]. Other outlets' titles capture a bit more accuracy to the work, consider *Axios'* "[As cancer mortality declines, gap between rich and poor emerges](#) [5]" or *Time's* "[Cancer Deaths Have Fallen Drastically Over the Last 25 Years. But These Types Are On the Rise.](#) [6]" It's actually hard to quibble with the precision or lack thereof in headlines on such a report because there have been key gains in the field, and that should be highlighted and celebrated.

The limited form of media in word counts and clickbait tendencies makes it difficult to paint a comprehensive picture in one segment or article, but without one optimal solutions to the right problems won't be made. Context and nuance are essential to tackling such a mammoth issue as cancer prevention and cure. Though this latest work has some good information for guidance, it is not a perfect measure; for instance, the many calculations or future predictions are based on several year old data.

And, it is important to appreciate that [1,762,450 new cancer cases and 606,880 cancer deaths](#) [7] are expected in the U.S. this year, so becoming complacent is not an option. While many amazing strides are underway, there are still types of cancer that are aggressive and elude current therapies, for example, and require dedicated attention and considerable efforts for progress to advance.

It is reasonable to appreciate the [wonderful news](#) [7] that

- There are about 2.6 million fewer cancer deaths total over that 25-year period than there

would have been had things remained at 1991 peak rates.

- The steady decline over this interval reflects an overall 27% drop.
- Lung, breast, prostate and colorectal cancers [all went down](#) [5] which is mainly attributable to earlier detection, more advanced therapies as well as dips in smoking - also, most cancers show improved survival.
- Racial death rate disparities are narrowing

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Rebecca Siegel, first author of the study, [tells CNN](#) [2], “The racial gap in cancer mortality is continuing to narrow -- so it was that the cancer death rate in blacks was 33% higher than in whites in the mid-1990s, and the current data now indicate it's 14% higher -- so it's still higher, but the gap is narrowing, which is really good news.”

The concerning gap is a socioeconomic one which has grown larger over three decades

As Siegel suggests, “It was surprising to see that the disparities by socioeconomic status are actually widening... Wealth causes differences in exposure to risk factors and also access to high-quality cancer prevention, early detection and treatment.”

Why this is surprising is a point of particular interest. The *du jour* terms for our chronic ails like “social determinants of health” and “behavioral economics” or “population health” have become the rage today as an avenue to get powers that be and the public to focus on decades old problems - that environment, lifestyle (e.g. sedentary versus active, obesity), extreme stress (e.g. poverty, homelessness, trauma), job hazards and status, family history, toxic exposures (e.g. smoking, substance abuse), prevention or access to treatment and vaccines, along with biopsychosocial dynamics greatly influence overall health and well-being.

Casting a wide net and painting with a big brush are relics of ineffective public health policy - reactive, not proactive measures. This routinely serves to divert resources away from the most needed environments. Whether it is cancer or diabetes or vaccine compliance, county-level analysis is way more informative than the alternative. Personalization and population-specific measures are where health innovation begins. Lifestyle and treatment plans by region, for instance, could be tweaked to shift the pendulum.

Review these pieces for greater understanding:

- [Top Cause Of Death: Geography](#) [8]
- [Why National Health Policy Often Fails To Make A Dent In Disease Burden](#) [9]
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Targeted, Regional Approach Likely Best To Improve Vaccine Rates ^[10]

- [Committee To Reduce Infection Deaths Hosts Forum Of Public Health Leaders](#) ^[11]

Cancer's shifting paradigm

The exciting news with respect to cancer is that we have profoundly evolved our understanding of the disease; therefore, we can amp up prevention efforts and are developing more targeted therapies with less adverse effects that don't compound the harm caused by the more traditional chemotherapies, as an example. Hopefully, this will become more and more possible. Though some treatments are more promising than others, we are in an explosive learning phase especially with the onset of immunotherapies, early diagnostic tools etc.

I recently had the distinct pleasure of hosting the [Independent Women's Forum's](#) ^[12] *Working For Women* podcast and interview preeminent cancer researcher and physician scientist [Dr. Richard Pestell](#) ^[13]. In it, we speak about metastatic breast cancer, triple negative breast cancer, what is hopeful on the horizon, why he is excited about his current work and what obstacles are impeding progress in treatments. This is important because with such aggressive diseases especially there should not be any unnecessary lag time getting targeted therapeutics from lab bench to patient bedside (see [here](#) ^[12], scroll to bottom of accompanying article to listen to podcast).

As he describes, there is a very important shift in thinking as cancer used to be seen as a disease with a lump. So you would treat the original lump. Now, we know cancer is circulating in the bloodstream and if we can manage these traveling cancer cells, then we can block them from spreading which is what ultimately leads to the death of the patient. [Dr. Pestell](#) ^[14] likens this to how we treat diabetes, managing the blood sugar (aka glucose) is the focus rather than the harder to treat pancreas. So, he is working on a new approach where just like a car driving on the road that needs a key to start the engine, his team found the key to the spread of breast cancer cells.

To learn more about this, how we can work to expedite drug and disease management discovery, lessen the accountability gap between industry and academia and enhance patient access to vital treatments, listen [here](#) ^[12] (at page bottom) or [here](#) ^[15] (on YouTube).

There is no time to be content as not all cancers have made meaningful strides - think pancreatic cancer. Fortunately, we are experiencing quite a renaissance in the field, so continued dedication, advocacy support and economic focus are necessary more than ever. Until all gaps are closed and no one dies from these diseases, our work is not done.

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Links

[1] <https://www.publicdomainpictures.net/en/view-image.php?image=35972&picture=cancer-awareness-ribbons>

[2] <https://www.cnn.com/2019/01/08/health/cancer-death-rate-decline-us-study/index.html>

[3] <https://www.wsj.com/articles/cancer-deaths-decline-27-over-25-years-11546959600>

- [4] <https://onlinelibrary.wiley.com/doi/abs/10.3322/caac.21551>
- [5] <https://www.axios.com/cancer-deaths-drop-for-most-americans-but-not-poor-as-much-496edfcc-bd98-4867-a8a6-d74dcd6776c4.html>
- [6] <http://time.com/5495804/cancer-death-decline/>
- [7] <https://onlinelibrary.wiley.com/doi/full/10.3322/caac.21551>
- [8] <https://www.acsh.org/news/2016/12/14/top-cause-death-geography-10593>
- [9] <https://www.acsh.org/news/2018/04/11/why-national-health-policy-often-fails-make-dent-disease-burden-12825>
- [10] <https://www.acsh.org/news/2018/06/12/targeted-regional-approach-likely-best-improve-vaccine-rates-13071>
- [11] <https://www.acsh.org/news/2017/05/31/committee-reduce-infection-deaths-hosts-forum-public-health-leaders-11361>
- [12] <http://www.iwf.org/media/2808344/#153-Top-Cancer-Researcher:-Capital-Markets-Key-in-Getting-Cures-from-Lab-to-Patients>
- [13] https://en.wikipedia.org/wiki/Richard_Pestell
- [14] <https://scholar.google.com/citations?user=RYIsfBQAAAAJ&hl=en>
- [15] <https://www.youtube.com/watch?v=9TBGsydyCv0>