Colorectal Cancer Stats

1 in 25 people will be **diagnosed** with CRC in their lifetime

12% of cases will be diagnosed in individuals younger than **age 50**, though most are diagnosed in ages **50+**

Incidence rates have been increasing in adults **ages 20-39** years since the mid-1980s and **ages 40-54** years since the mid-1990s

2-4x more risk for people with a **first-degree relative** who has been diagnosed with CRC compared to those without a family history

55% of CRCs in the US are attributed to **potentially modifiable risk factors** like diet and lifestyle

Screening colonoscopies can reduce CRC **incidence by 40%** and **mortality by 60%**

66% of adults ages **50 and older** reported having CRC screening within the past 3-10 years as of 2018

45 the age at which individuals at **an average risk** for CRC should begin screening

Cancer.org [Internet]. Atlanta: American Cancer Society; ©2020 [2021 March 9]. Available from https://www.cancer.org/research/cancer-facts-statistics.html.
CancerDisparitiesProgressReport.org [Internet]. Philadelphia: American Association for Cancer Research; ©2020 [2021 February 3]. Available from http://www.CancerDisparitiesProgressReport.org.

Health Inequities in Colorectal Cancer (CRC)

African Americans **disproportionately affected** in CRC screening, incidence, and mortality

Disparities:

Incidence and mortality decreasing across all ethnicities, but African Americans **still experience substantial disparities**

4x more likely to be diagnosed with more aggressive right-sided CRC

Increased diversity in CRC clinical trials is **necessary to eliminate racial disparities**

Increased Diversity:

One of the greatest keys to success in overcoming inequities in CRC

Clinical Study Participation:

Ancestry in genetic studies: 80% European, 10% Asian, **2% African**, 1% Hispanic, <1% all other groups

African American and Hispanic ancestry have **more complex genetic makeup** than non-Hispanic whites

Screening:

42% of incidence and **19% of death rate** attributed to differences in screening rates

Incidence:

25% higher CRC incidence and **37% higher** CRC death rate than whites

Genetics:

~10% of cancer-causing mutations are inherited; genetic risk studies are **heavily-biased toward non-Hispanic whites**

Inequities:

Inequities in **development of new therapeutics and precision medicine strategies** continue to persist

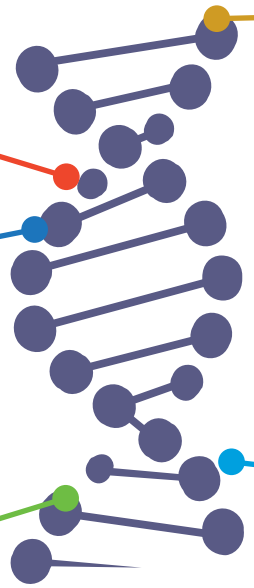
CancerDisparitiesProgressReport.org [Internet]. Philadelphia: American Association for Cancer Research; ©2020 [2021 February 3]. Available from http://www.CancerDisparitiesProgressReport.org.
Cancer.org [Internet]. Atlanta: American Cancer Society; ©2020 [2021 March 9]. Available from https://www.cancer.org/research/cancer-facts-statistics.html.

Why We Do It: Clinical Trials Should Mirror Patient Population Demographics

As we enter an era in which the principles of personalized and precision medicine are reshaping healthcare, we now know that without tailoring medical care to all who need it, people will be left behind. Creating more inclusive clinical trials is a critical first step.

Certain diseases and medications **may impact people differently** based on multiple factors.

Pharmacogenetic research has uncovered **significant differences among racial and ethnic groups** in the metabolism, effectiveness, and side-effect profiles of many clinically-important drugs.[1]



Diversity in clinical trials allows us to study an investigational medication in different populations.

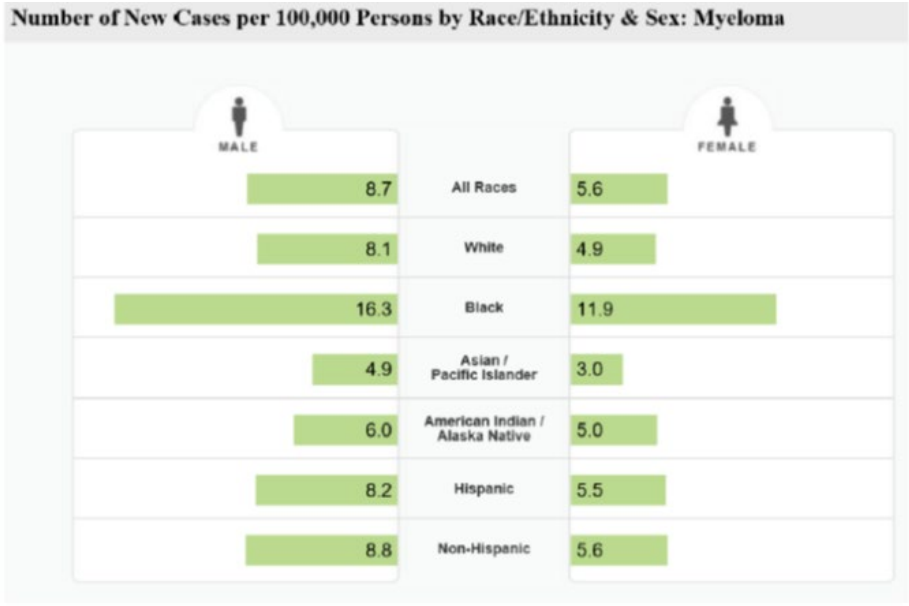
FDA guidance states that clinical trials should proactively seek to enroll patients that reflect the population that will use the medication.

We have an ethical and Credo-based obligation to demonstrate safety and efficacy of our drugs in their intended target populations.

[1] Burroughs et. al. Racial and Ethnic Differences in Response to Medicines: Towards Individualized Pharmaceutical Treatment. J. Natl. Med. Assoc. 2002, 94, 1–26.

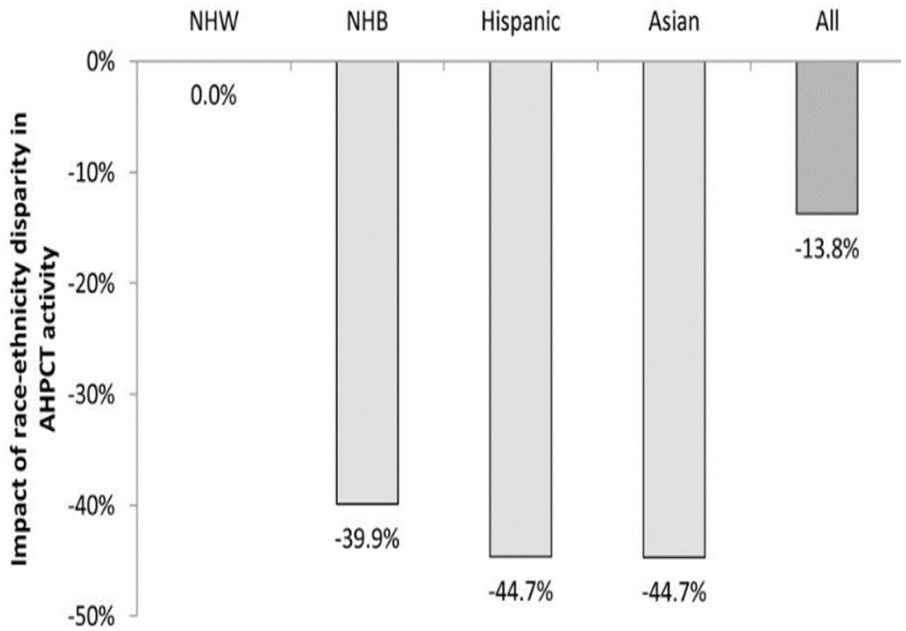
African-Americans are 13% of the US population, however are 20% of patients with myeloma

Incidence of MMY by Race & Ethnicity



Howlader N et al. SEER Cancer Statistics Review, 1975-2016, National Cancer Institute. Bethesda, MD, https://seer.cancer.gov/csr/1975_2016/, based on November 2018 SEER data submission, posted April 2019

Difference in Access to Therapy

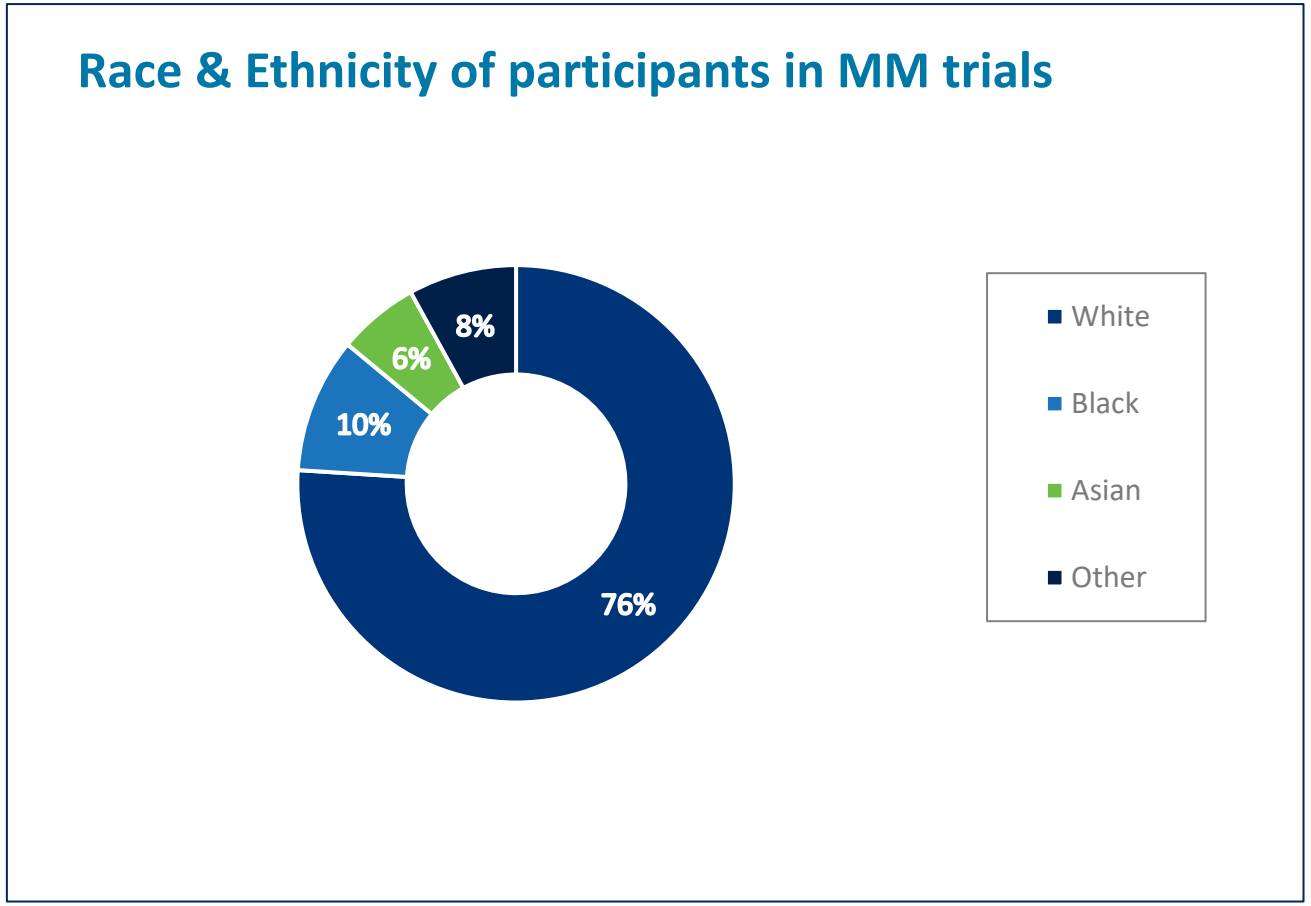


Costa LJ, *Biol Blood Marrow Transplant 2015;* **21**(4): 701-6.
1. Ailawadhi S, Cancer Med 2017; 6(12): 2876-85

Racial/Ethnic Minorities Are Typically Under-represented in Industry-sponsored Trials, Yet Overrepresented in Multiple Myeloma Cases

African Americans:

- 2-3x higher rates of
  - Multiple Myeloma (MM)
  - Monoclonal Gammopathy of undetermined significance (MGUS) **could intervene earlier**
- Have a better biologic response to MM intervention therapies
- Outcomes similar to other groups despite better biologic response
- Poor representation in clinical trials



[a]Does not total to 100, as other groups are not included (American Indian and Alaska Native, Native Hawaiian and other Pacific Islander), and some may have classified themselves as 2 or more races. [b]Percentages by race/ethnicity in 2 trials in which all patients received DARZALEX. FDA Snapshots approved 16 Nov 2015

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