

Leukemia Prevalence in African Americans

Jayven Jefferson and Ndeye Diop

UMB CURE Scholars Program - Sixth Grade Cohort 2, Southwest Baltimore Charter School, Baltimore, MD
Marlene and Stewart Greenebaum Cancer Center, University of Maryland, Baltimore

Purpose of Study

To examine the prevalence of leukemia in African Americans.

Background Information

- Leukemia is also known as white blood cell cancer, or blood cancer.
- It can spread all over your body.
- There are several types of leukemia. They are either acute or chronic and are named after the type of cell affected: myeloid or lymphoid cells.

Risk Factors

- Previous cancer treatment
- Genetic disorders
- Exposure to certain chemicals
- Family history
- Smoking

Symptoms

- Fever
- Fatigue
- Pain in joints
- Swollen lymph nodes
- Feeling weak or tired
- Bleeding or bruising easily
- Frequent infections
- Loss of appetite or weight loss
- Swollen abdomen

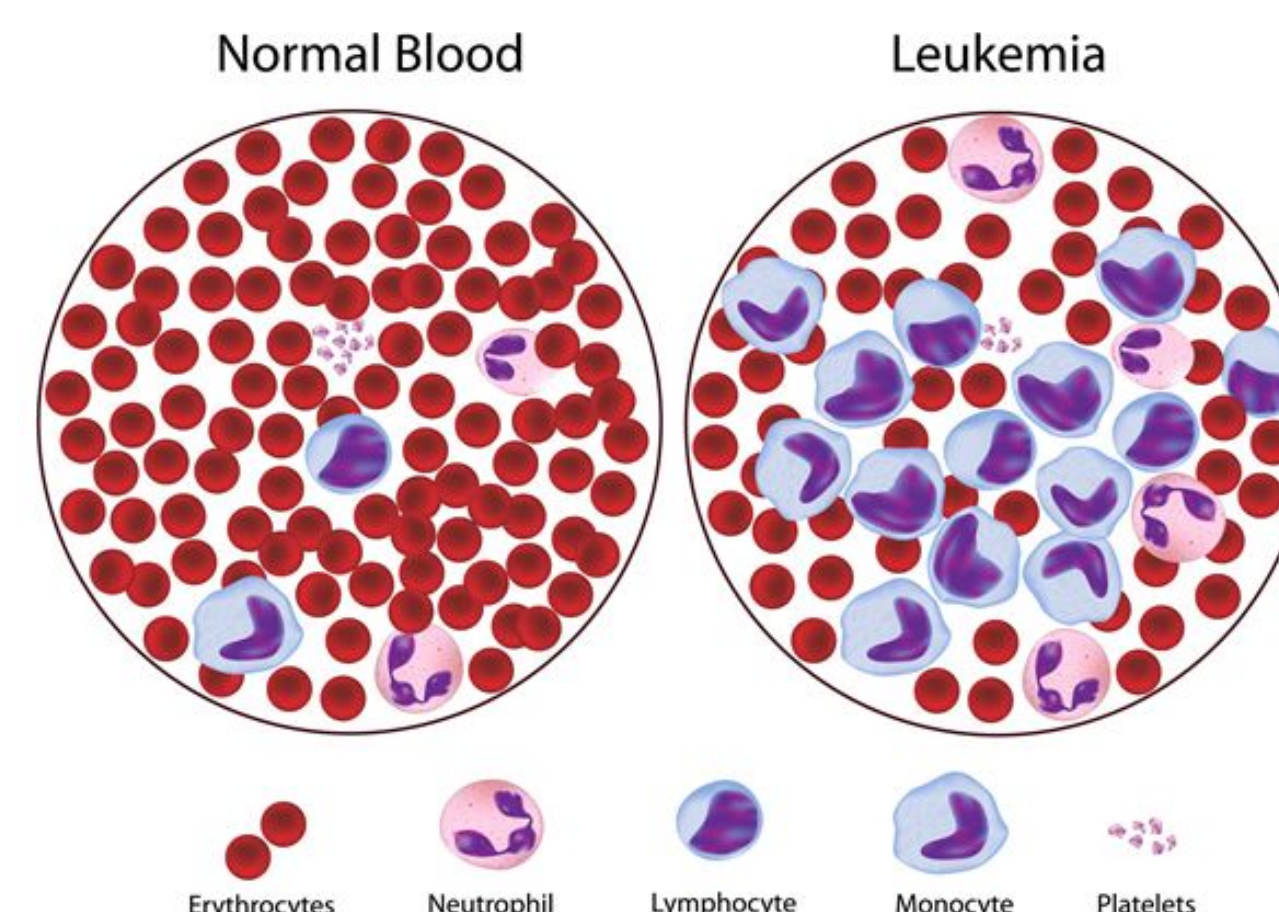


Figure 1. Normal vs leukemia blood samples.. (www.medgurus.org)

Diagnostic Tests

- Leukemia is diagnosed with a physical exam, blood tests, and bone marrow test.

Treatment

- Stem cell transplant
- Radiation
- Chemotherapy
- Targeted therapy
- Biological therapy

Factors Influencing Disparity

- Lack of access to quality healthcare and affordability of fees
- Unhealthy diet/food accessibility
- Overcoming family dogmas
- Living in an unhealthy neighborhood, with exposure to environmental toxins
- Using harmful products such as cigarettes
- Having physicians with similar backgrounds
- Ability to take time off work for appointments

Data

- African Americans are almost twice as likely to die from chronic lymphocytic leukemia complications than Caucasians. Incidence is similar.

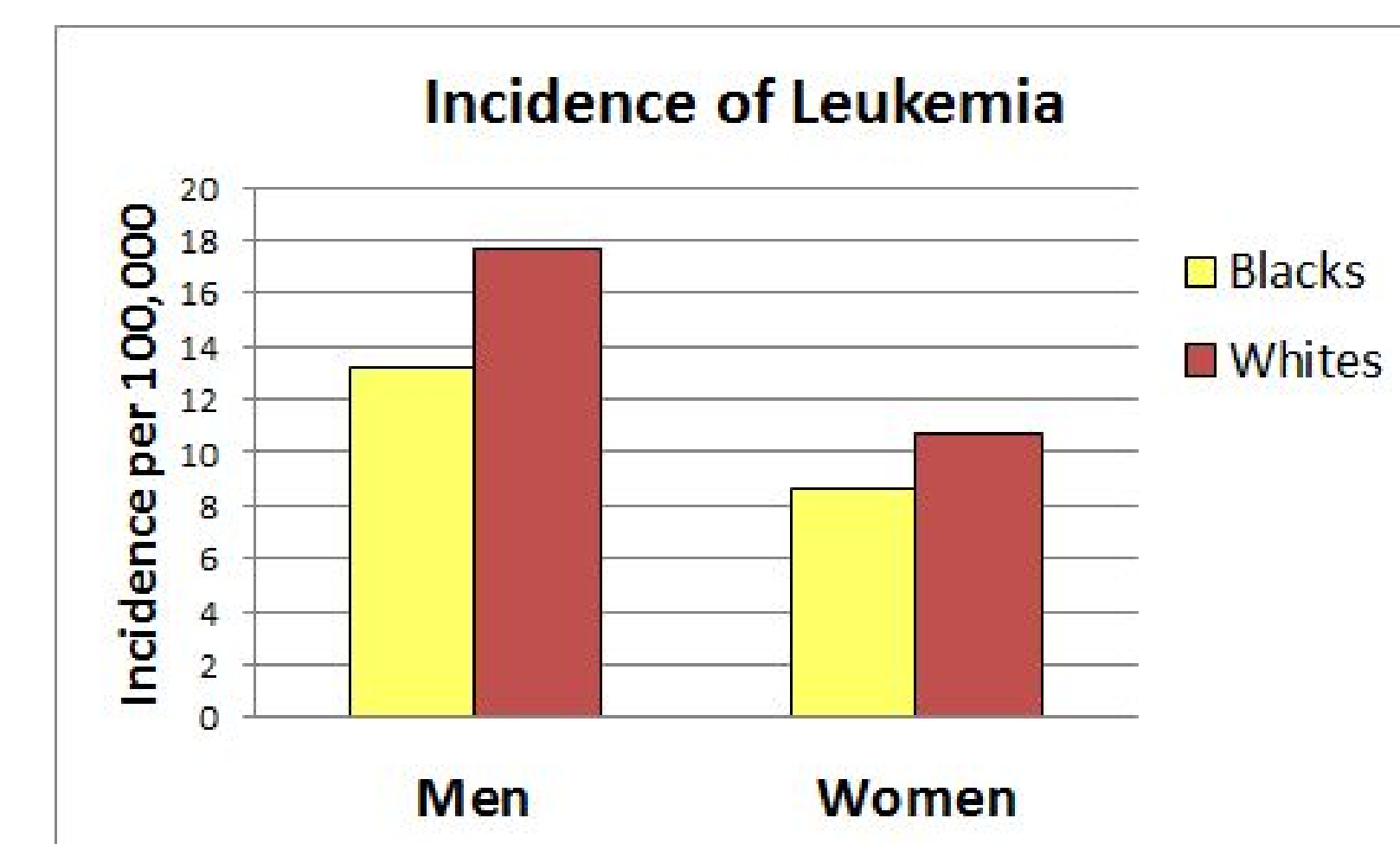


Figure 2. Incidence rates of leukemia in the US, 2008-2012. (www.cancer.org)

Addressing the Disparity

- Educate UMB CURE Scholars about cancer disparities.
- Educate families.
- Educate community.
- Become healthcare providers.
- Become cancer researchers.

References

- American Cancer Society (www.cancer.org)
- CC Coombs et al. Leuk Lymphoma. 53:2326.
- www.mayoclinic.org
- www.medgurus.org