Challenges and Considerations for the Oncology Population



Jenny Witherspoon, MS, RD, CSO, LD





I have no conflicts of interest to disclose.



Getting to know you:

- Students
- RD 0-5 years
- RD 5-10 years
- RD 15-20 years
- RD 20+ years



Anyone ever asked you?

- What do you want to do when you graduate?
- What do you do?
- Where do you work?



Consider better questions:

- What impact do you want to make?
- How are you gifted?
- What brings out the most compassionate side of you?
- What makes you strive to make things better or different?
- What makes you different?



Occurrence and Mortality

- 2 million new cancer cases estimated to be diagnosed in 2025.
- Nationally, 2 in 5 people will be diagnosed with cancer in their lifetime.

- 1. American Cancer Society. Cancer Facts & Figures 2025. Atlanta:. American Cancer Society; 2025
- 2. https://oklahoma.gov/content/dam/ok/en/health/health2/aem-documents/health-promotion/occr/Cancer%20Burden%20Report%202024 FINAL.pdf



Occurrence and Mortality

- Death rates have declined both genders, racial/ethnic groups,
 and common types of cancer since the 1990's
- 1991 2022: death rate decreased by 34%
- 2013 2022: death rate decreased 1.7% per year

- 1. Cancer Trends Progress Report, National Cancer Institute, NIH, DHHS, Bethesda, MD, March 2024, https://progressreport.cancer.gov.
- 2. American Cancer Society. Cancer Facts & Figures 2025. Atlanta: American Cancer Society; 2025.



Aging and Survival

- >50 years of age: 88% of cancer diagnoses
- <a>≥65 years of age: 59% of cancer diagnoses
- Early 1960's: 5-year survival rate for all cancers ~30%
- 2014 2020: 5-year survival rate for all cancers 69%

Reference:

1. American Cancer Society. Cancer Facts & Figures 2025. Atlanta: American Cancer Society; 2025.



Modifiable Risk Factors

- 1. Cigarette smoking
- 2. Excess body weight
- 3. Alcohol consumption
- 4. UV ray exposure
- 5. Poor diet
- 6. Pathogenic infections
- 7. Physical inactivity

Reference:

1. https://cancerprogressreport.aacr.org/progress/cpr24-contents/cpr24-reducing-the-risk-of-cancer-development/#contents6



Risk Factor Data - 2019

American adults >30 years old:

- 40% of all cancer cases (minus nonmelanoma skin cancer) attributed to modifiable risk factors
- 44% of all cancer deaths attributed to modifiable risk factors

- 1. Islami F, Marlow EC, Thomson B, et al. Proportion and number of cancer cases and deaths attributable to potentially modifiable risk factors in the United States, 2019. *CA Cancer J Clin*. 2024; 74(5): 405-432. doi:10.3322/caac.21858
- 2. American Cancer Society. Cancer Facts & Figures 2025. Atlanta: American Cancer Society; 2025.



^b Risk Factor Data - 2019

Highlights:

- Cigarette smoking: 19.3% cancer cases, 28.5% of deaths
- Excess body weight: 7.6% cancer cases, 7.3% of deaths
- Alcohol: 5.4% cancer cases, 4.1% of deaths

- 1. Islami F, Marlow EC, Thomson B, et al. Proportion and number of cancer cases and deaths attributable to potentially modifiable risk factors in the United States, 2019. CA Cancer J Clin. 2024; 74(5): 405-432. doi:10.3322/caac.21858
- 2. American Cancer Society. Cancer Facts & Figures 2025. Atlanta: American Cancer Society; 2025.



deals and Recommendations:

Nutrition

Choose:

- 1. Nutrient-rich food choices that promote a healthy body weight
- 2. A variety of vegetables dark green, red and orange, fiber-rich legumes
- 3. Whole fruits in a variety of colors
- 4. Whole grains

- 1. Rock, C. L., Thomson, C. A., Sullivan, K. R., Howe, C. L., Kushi, L. H., Caan, B. J., Neuhouser, M. L., Bandera, E. V., Wang, Y., Robien, K., Basen-Engquist, K. M., Brown, J. C., Courneya, K. S., Crane, T. E., Garcia, D. O., Grant, B. L., Hamilton, K. K., Hartman, S. J., Kenfield, S. A., . . . McCullough, M. L. (2022). American Cancer Society nutrition and physical activity guideline for cancer survivors. *CA: A Cancer Journal for Clinicians*, 72(3), 230-262. https://doi.org/10.3322/caac.21719
- 2. <u>Jennifer A. Ligibel et al.</u>, Exercise, Diet, and Weight Management During Cancer Treatment: ASCO Guideline. *JCO* **40**, 2491-2507(2022).DOI:10.1200/JCO.22.00687



deals and Recommendations:

Nutrition

Limit:

- 1. Red and processed meats
- 2. Sugar-sweetened beverages
- 3. Highly processed foods
- 4. Refined grain products

- 1. Rock, C. L., Thomson, C. A., Sullivan, K. R., Howe, C. L., Kushi, L. H., Caan, B. J., Neuhouser, M. L., Bandera, E. V., Wang, Y., Robien, K., Basen-Engquist, K. M., Brown, J. C., Courneya, K. S., Crane, T. E., Garcia, D. O., Grant, B. L., Hamilton, K. K., Hartman, S. J., Kenfield, S. A., . . . McCullough, M. L. (2022). American Cancer Society nutrition and physical activity guideline for cancer survivors. *CA: A Cancer Journal for Clinicians*, 72(3), 230-262. https://doi.org/10.3322/caac.21719
- 2. <u>Jennifer A. Ligibel et al.</u>, Exercise, Diet, and Weight Management During Cancer Treatment: ASCO Guideline. *JCO* **40**, 2491-2507(2022).DOI:10.1200/JCO.22.00687



Ideals and Recommendations: Physical Activity

- 1. 150-300 min of moderate-intensity physical activity per week
- 2. 75-150 min of vigorous-intensity physical activity
- 3. Meet/exceed upper limit of 300 min is ideal

Reference:

1. Rock, C. L., Thomson, C. A., Sullivan, K. R., Howe, C. L., Kushi, L. H., Caan, B. J., Neuhouser, M. L., Bandera, E. V., Wang, Y., Robien, K., Basen-Engquist, K. M., Brown, J. C., Courneya, K. S., Crane, T. E., Garcia, D. O., Grant, B. L., Hamilton, K. K., Hartman, S. J., Kenfield, S. A., . . . McCullough, M. L. (2022). American Cancer Society nutrition and physical activity guideline for cancer survivors. *CA: A Cancer Journal for Clinicians*, 72(3), 230-262. https://doi.org/10.3322/caac.21719



Ideals and Recommendations: Physical Activity

- 1. Regular aerobic and resistance exercise during active treatment with curative intent
- 2. Recommend preoperative exercise for patients undergoing surgery

Reference:

1. <u>Jennifer A. Ligibel et al.</u>, Exercise, Diet, and Weight Management During Cancer Treatment: ASCO Guideline. *JCO* **40**, 2491-2507(2022).DOI:10.1200/JCO.22.00687



Considerations:

Sleep: increased inflammation, decreased immunity¹

Stress: increased inflammation, decreased immunity², coping skills

- 1. Lanza G, Mogavero MP, Salemi M, Ferri R. The Triad of Sleep, Immunity, and Cancer: A Mediating Perspective. Cells. 2024 Jul 24;13(15):1246. doi: 10.3390/cells13151246. PMID: 39120277; PMCID: PMC11311741
- 2. Dai S, Mo Y, Wang Y, Xiang B, Liao Q, Zhou M, Li X, Li Y, Xiong W, Li G, Guo C, Zeng Z. Chronic Stress Promotes Cancer Development. Front Oncol. 2020 Aug 19;10:1492. doi: 10.3389/fonc.2020.01492. PMID: 32974180; PMCID: PMC7466429.



"The shoe that fits one person, pinches another..."

Carl Jung



Risk Factor Data: 2021-2023

13.7% OKLAHOMA ADULTS

Reported binge drinking in 2023 vs. 15.2% of adults in the US.8,9



4.8% OKLAHOMA ADULTS

Reported heavy drinking in 2023 vs. 6.1% of adults in the US.8,9



79.3% OKLAHOMA ADULTS

Consumed vegetables less than one time per day in 2021 vs. 80.3% of adults in the US.^{8,9}



51.3% OKLAHOMA ADULTS

Consumed fruit less than one time per day in 2021 vs. 59.2% of adults in the US.8,9



69% OKLAHOMA ADULTS

Participated in any physical activity during the past month in 2023 vs. 75.8% of adults in the US.8,9



15.8% OKLAHOMA ADULTS

Smoked every day in 2023 vs. 12.1% of adults in the US.8,9



- 1. https://oklahoma.gov/content/dam/ok/en/health/health/aem-documents/health-promotion/occr/Cancer%20Burden%20Report%202024 FINAL.pdf
- 2. Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information, Behavioral Risk Factor Surveillance System 2023, on Oklahoma Statistics on Health Available for Everyone (OK2SHARE).
- 3. Centers for Disease Control and Prevention (U.S.). Behavioral Risk Factor Surveillance System (BRFSS), United States, 2023.





SDOH

- 1. Economic stability
- 2. Education access and quality
- 3. Healthcare access and quality
- 4. Neighborhood and built environment
- 5. Social and community context

Reference:

1. https://odphp.health.gov/healthypeople/priority-areas/social-determinants-health

Social Determinants of Health

Social Determinants of Health
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Healthy People 2030

Healthy People 2030, U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved [date graphic was accessed], from https://odphp.health.gov/healthypeople/objectives-and-data/social-determinants-health



SDOH - Oklahoma

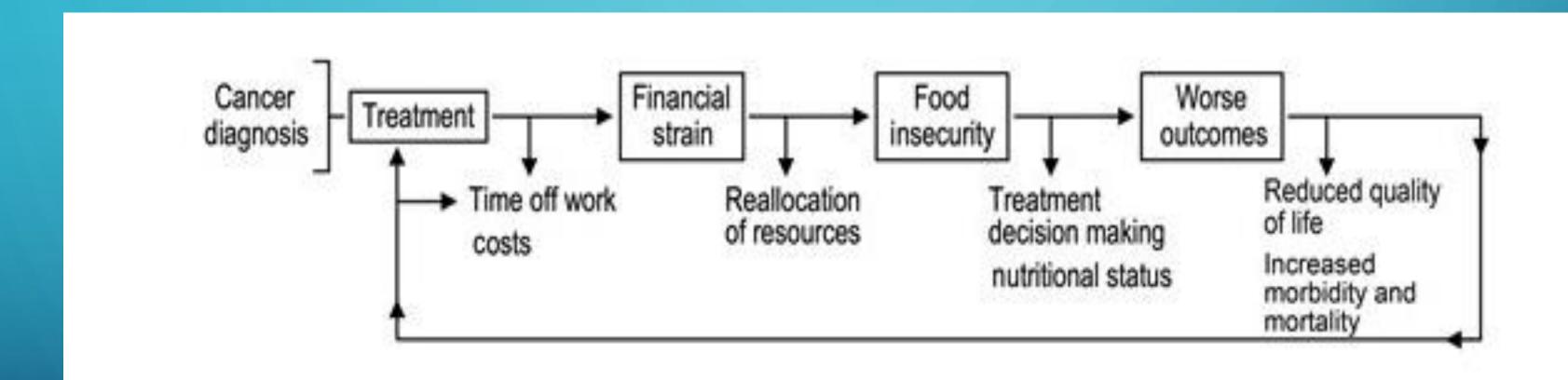
2022 Stats	Oklahoma	South	United States
< Highschool education	11.1%	11.7%	10.9%
Unemployed	3.1%	3.4%	3.6%
No health insurance (age <65)	16.4%	14%	10.2%
Living in poverty	15.2%	13.8%	12.5%
Living with food insecurity	14.3%	14.5%	12.8%
Living in unstable housing	11.5%	13.9%	14.5%
Median household income	\$61,364	\$69,141	\$75,149

Reference:

1, https://map.aidsvu.org/profiles/state/oklahoma/social-determinants-of-health



Food Insecurity and Cancer



Reference:

1. Margaret Raber, Ann Jackson, Karen Basen-Engquist, Cathy Bradley, Shonta Chambers, Francesca M Gany, Chanita Hughes Halbert, Stacy Tessler Lindau, Rafael Pérez-Escamilla, Hilary Seligman, Food Insecurity Among People With Cancer: Nutritional Needs as an Essential Component of Care, *JNCI: Journal of the National Cancer Institute*, Volume 114, Issue 12, December 2022, Pages 1577–1583, https://doi.org/10.1093/jnci/djac135



Financial Insecurity and Cancer

Cancer-related costs to patients:

- 21.1 billion (16.2 billion out-of-pocket, 4.9 billion patient time)¹
- Terminally ill cancer patients and death-with-dignity²

- 1. American Cancer Society. Cancer Facts & Figures 2025. Atlanta:. American Cancer Society; 2025
- 2. PDQ® Adult Treatment Editorial Board. PDQ Financial Toxicity and Cancer Treatment. Bethesda, MD: National Cancer Institute. Updated <MM/DD/YYYY>. Available at: https://www.cancer.gov/about-cancer/managing-care/track-care-costs/financial-toxicity-hp-pdq. Accessed <MM/DD/YYYY>. [PMID: 27583328]



Moving Forward:

- 1. Where to begin? Ask your patient.
- 2. Can your patient be successful?
- 3. Tailored recs that add value
- 4. Are you setting the example? Consider the value of lived experience vs. textbooks, research, data, etc.
- 5. Prioritize connection



Contact Information:

- Email: jenny.witherspoon@ouhealth.com
- LinkedIn: https://www.linkedin.com/in/jenny-witherspoon-7623a410?utm_source=share&utm_campaign=share_via&utm_content=profile&utm_medium=android_app