

CancerEd: Investigating the Need for Cancer Curricula

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Introduction

Cancer has frequently been perceived as a taboo subject that one should avoid discussing with others, especially children. Teachers are often hesitant to educate their students about this topic due to the complex and rather depressing connotations it carries.¹ Furthermore, teachers often feel unprepared and under educated in the sciences; therefore, they do not feel equipped to teach challenging science-based concepts (cancer included) in the classroom.² However, cancer is prevalent, affecting more than 1 in 3 Americans in their lifetime, and children who are affected by cancer, either directly or indirectly, may develop misconceptions about this illness from things they overhear from media outlets, peers, or family members. Therefore, giving educators a set of tools with which they can communicate this subject effectively, accurately, and with confidence is of utmost importance. CancerEd aims to create a library of educational materials that can be used to teach children about cancer in an age-appropriate, hands-on, and scientifically accurate manner with the goal of correcting misconceptions and providing children with vocabulary and scientific knowledge to encourage discussions and relieve anxiety surrounding the topic of cancer.

Objectives

1. Develop age-specific, engaging lesson plans that teach children about a specific type of cancer, treatment strategy, or support strategy.
2. Assess child engagement in the topic of cancer and determine specific educational needs by surveying classroom teachers and parents.
3. Disseminate curricular materials widely via the CancerEd.org website.

Acknowledgments & References

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1. Rechis, R., Neal, C., & McGoldrick, D. (2010, March). LIVESTRONG at School: Changing Classroom Talk About Cancer. *Journal of Cancer Education, 25*(1), 127-128.
2. Burns, R. E. (2014). Cancer Prevention and Control: Where are the Kids? *Journal of Cancer Education, 29*, 209-210.
3. NCI SEER Cancer Statistics Review 1975-2013.

Outcomes

Classroom Materials:

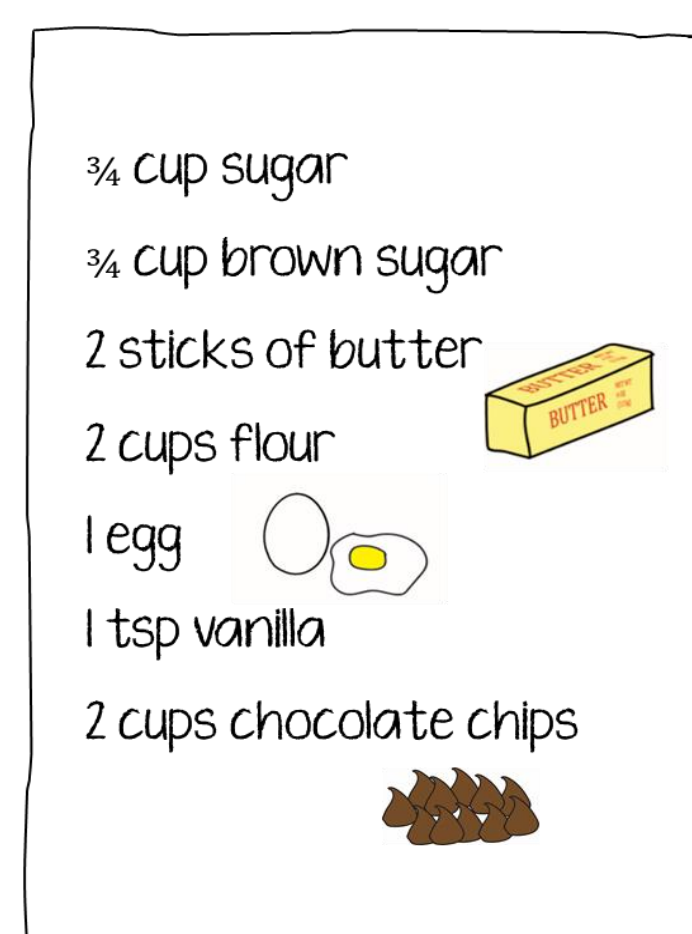
Lesson topics include:

- *Cells and Cell Division*
- *Mutations*
- *What is Cancer?*
- *Leukemia*
- *Chemotherapy*
- *Brain Cancer*
- *Supporting those with Cancer*

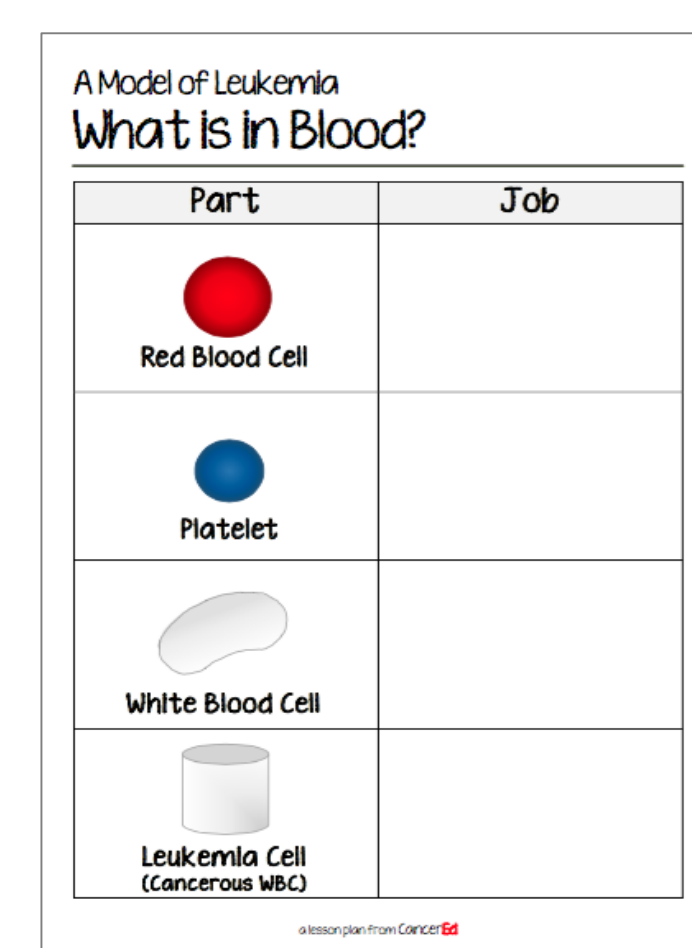


Cancer Treatment Garden

Age-appropriate lessons are designed for K-2 and 3-5 students. Each lesson is intentionally hands-on and inquiry-based to promote retention of content and evoke interest in science and health. Lesson plans include learning objectives, educational standards, supplementary materials, links to additional resources, and assessment strategies.



Cancer: A Mistake in the Recipe



A Model for Leukemia

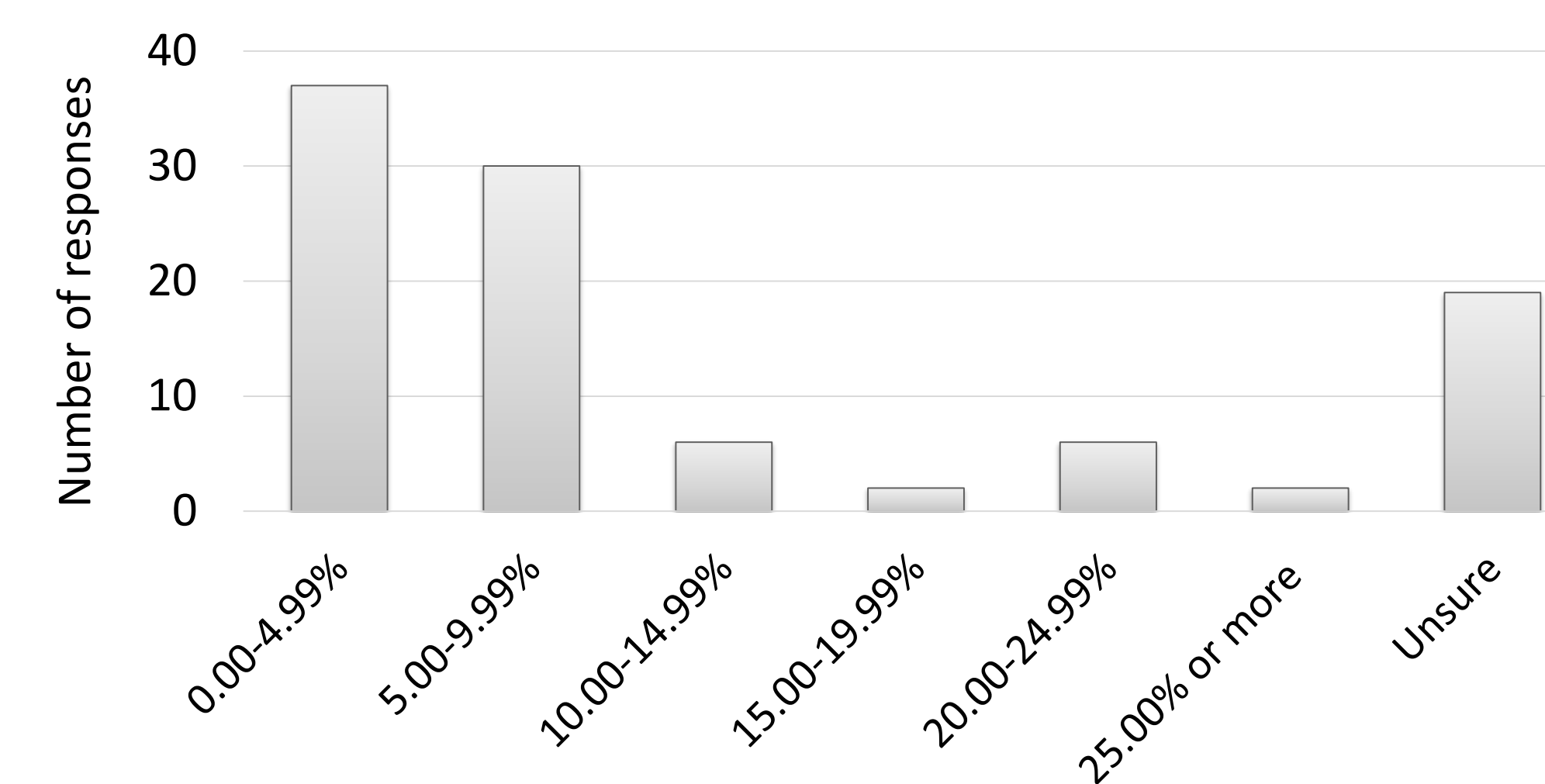
Surveys:

Teacher Survey - Surveys were designed to assess the frequency of cancer-related discussions in the classroom and to assess the need, appropriateness, and desire for cancer curriculum resources. 125 surveys were collected, with nearly 1/3 collected from each group: elementary, middle and high school educators.

- 67% of respondents estimated that fewer than 10% of students are affected by cancer (personally or via a family member). Calculations based on cancer prevalence suggest this is a significant underestimation. Actual values are 20-30%.³
- 89% of teachers responded "yes" or "maybe" when asked if they would integrate age- and subject-appropriate materials about cancer into their classrooms.
- There is a clear need and the desire to incorporate cancer education into school curricula.

Students Perceived to be Affected by Cancer

Either Directly or Indirectly



Methods

Lesson Plan Development

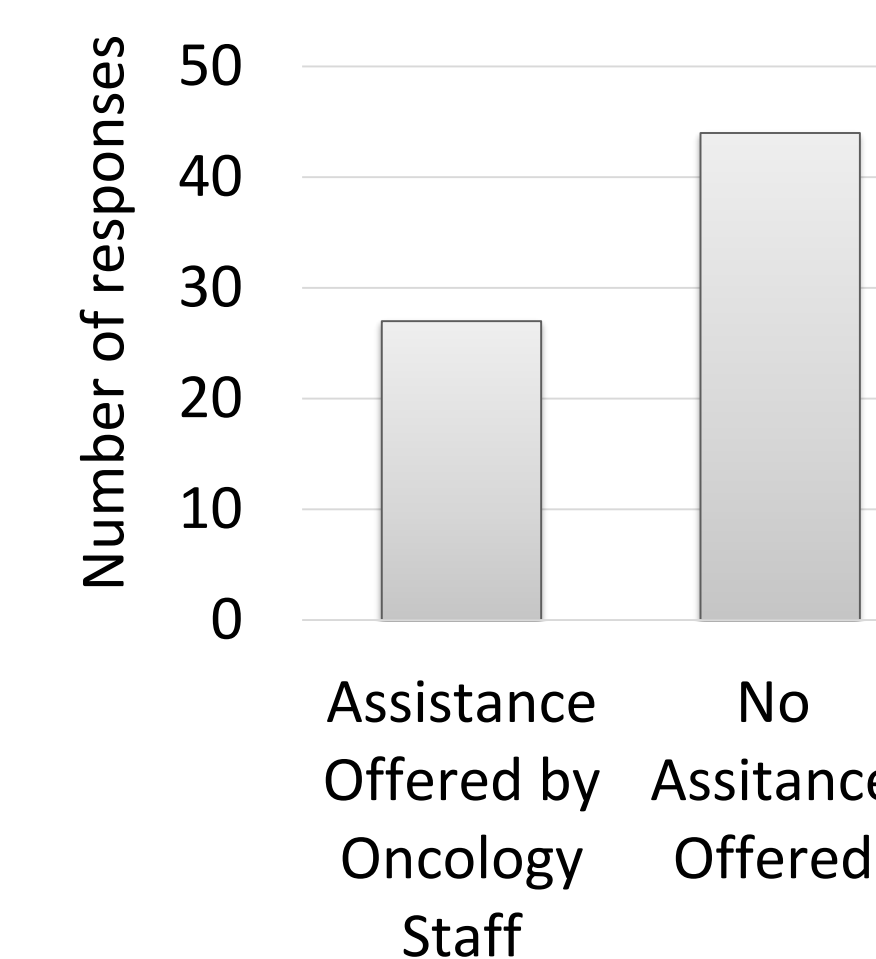
- Lessons were reviewed by a hospital educator and piloted in classrooms or with small student groups.

Surveys

- *Parent Survey* - A web-based survey, launched June 2016, was distributed to adults that had cancer while parenting a child, age 5-18, via email to cancer support groups, blog administrators, cancer organizations, and individual cancer patients/survivors. An abbreviated paper version was distributed to patients at a Grand Rapids cancer treatment facility.
- *Teacher Survey* - A web-based survey, launched May 2016, was distributed to K-12 teachers via email to principals in 100 randomly selected public school districts in the state of Michigan and principals in Kent County.

Parent Survey - Surveys were designed to assess parent-child communication during the course of a parent's cancer journey, and to assess the availability of resources to facilitate conversations. Qualitative data analysis has not been completed. Preliminary quantitative data reveal that 62% of parent cancer patients did not receive assistance from their oncology staff regarding strategies or resources for talking with children about their diagnosis.

Assessing Resources for Discussing Cancer with Children



Marketing Developments:

New lesson plans and resources have been added to CancerEd's website (www.CancerEd.org). In addition, CancerEd has increased its social media presence and can now be found on twitter @CalvinCancerEd and Facebook @CancerEd Curriculum.