



# CancerEd

tools for teaching about cancer

*CancerEd is comprised of a team of students and faculty from Calvin College, working to develop quality, age-appropriate curriculum to teach K-12 students about cancer in a scientifically accurate, engaging, and sensitive manner.*

## Goals and Objectives

The original goal of CancerEd was to develop cancer curricula for K-12 teachers in the classroom, but the project scope expanded following discussions with staff at the Helen DeVos Children's Hospital (HDVCH). Staff members that work with pediatric oncology patients and their school peers expressed a desire for new classroom demonstrations and activities tailored to both the age and diagnosis of particular patients. Fruitful discussions with HDVCH professionals have helped to guide our efforts.

To date, CancerEd has developed draft versions of the following modules for K-2 and 3-5 students: *What is Cancer?* (biology of cancer), *Leukemia*, *Treating Cancer*, and *Caring for Someone with Cancer*. Combined, the modules contain 10 lesson plans. Next steps will include:

1. Developing additional cancer curriculum modules.

Each new module will target a particular age group and will focus on a specific type of cancer, treatment strategies, or support strategies. Modules will engage students and promote learning through the use of varied pedagogical strategies such as visual demonstrations, hands-on activities, and guided discussions.

2. Piloting, evaluating, and revising modules.

Following careful review by education faculty (Calvin College) and hospital staff (HDVCH), modules will be piloted and assessed in classrooms. Teacher feedback and student assessments will be used to revise materials as needed.

3. Further developing the CancerEd.org website to facilitate wide dissemination of materials.

To broaden the impact of CancerEd's work, a website has been created to house all learning modules, resources, and activities. The materials are freely available to educators, schools, hospitals, and organizations throughout Michigan and beyond.

4. Assessing child engagement in the topic of cancer and specific educational needs.

A teacher survey has been developed to assess student engagement in the topic of cancer in classroom settings and to identify particular topical and subject area (science, social studies, etc.) cancer curriculum needs. A parent survey will be developed to characterize child-parent communication about cancer and to assess availability, quality, and use of resources intended to facilitate communication. Follow-up focus groups are also planned.

## Outcomes

1. Upon the development and implementation of all learning modules, children will:
  - Understand:
    - the biology of cancer (mutation of genetic material, uncontrolled cell division, disruption of normal tissue function)
    - how cancer differs from other illnesses (such as a cold or the flu)
    - how cancer treatments work (chemotherapy, radiation, surgery)
    - why patients experience common cancer treatment symptoms (losing hair, fatigue, compromised immune systems)
  - Demonstrate comfort discussing cancer and asking questions about cancer
  - Identify ways that they can support peers/family during their illness
2. Upon further development of CancerEd.org, classroom and hospital educators will:
  - Be able to access a library of free lesson plans and supporting materials that can be used to educate children about cancer
  - Find additional curated cancer resources (websites, books, etc.) that can aid their work with students
3. Following survey and focus group data collection and analysis, CancerEd will:
  - Understand particular challenges experienced by parents and teachers attempting to explain cancer to children
  - Develop (and/or revise) lesson plans to address identified challenges
  - Expand curricular materials to include topics and subject areas to meet identified needs