# Epidemiology

Childhood cancer is rare; approximately 16,400 cases of cancer are diagnosed in children younger than 20 years old in the United States each year (Scheurer, Lupo, and Bondy, 2016). Despite the relatively low incidence, approximately 1300 children younger than 15 years old die from their disease each year, making cancer the leading cause of death from disease in this age group (Scheurer, Lupo, and Bondy, 2016). The incidence of cancer in children and adolescents is approximately 18 cases per 100,000 children (Henley, Singh, King, et al, 2015).

The incidence of specific subtypes of childhood cancer can vary according to age, sex, and race. For example, males have a higher overall incidence of cancer compared with females, with a ratio of 1.1 : 1 (Scheurer, Lupo, and Bondy, 2016). This is due to the higher incidence of acute lymphoblastic leukemia (ALL), non-Hodgkin lymphoma (NHL), and central nervous system (CNS) tumors—the most common types of childhood cancer—in young boys. Unlike adults, Caucasian children have an overall higher incidence of cancer compared to African-American children. This is accounted for by the higher incidence in ALL, Ewing sarcoma, and melanoma in Caucasian children. The incidence of childhood cancer is more pronounced in children ages 0 to 4 years and adolescents ages 15 to 19 years; however, the types of cancers among these two groups are very distinct, with neuroblastoma and retinoblastoma occurring more commonly in young children and lymphoma and sarcoma occurring more commonly in adolescents (Scheurer, Lupo, and Bondy, 2016) (see Research Focus box).

## ▣ Research Focus

## Childhood Cancer Survival Rates

Childhood cancer survival has dramatically increased over the past five decades. In the 1960s, the overall survival rate of childhood cancer was 28% compared with 3-year survival rates now exceeding 80% (Scheurer, Lupo, and Bondy, 2016). There has been a lack of progress in survival among the adolescent group compared with progress in younger age-groups. The cancers