Background
Sickle cell disease is an inherited disorder. In the United States, the disease is more prevalent in African-Americans however worldwide it is distributed among all races in Central and South America, southern Europe, central and southern India, and Africa. Patients with sickle cell may experience pain, leg ulcers, infection, and delayed onset of puberty. Anemic symptoms can also be present, such as fatigue, paleness, jaundice, and shallow breathing.

Sickle cell is carried by genes that control the manufacture of hemoglobin, the protein that carries oxygen within the red blood cell. A child must receive the gene from both parents in order for the condition to be expressed; a single copy of the gene is latent. In the US, about 2 million people are carriers of the trait, amounting to 1 in 12 African Americans. Roughly 72,000 people have the disease. Sickle cell occurs in about one in every 500 African-American births; and one in every 1,000—1,400 Hispanic-American births (http://www.ornl.gov/sci/techresources/Human_Genome/posters/chromosome/sca.shtml).

National Costs of Sickle Cell
- In 2000, an analysis revealed that nationally, total sickle cell health care cost exceeded $3 billion in 1997.
- Between 1989 and 1993, there were an average 75,000 hospitalizations per year for individuals with sickle cell disease in the US.
- Government statistics referenced in 1991 state that during that year, 20,000 African American hospital discharges related to sickle cell were avoidable.
- In the past, children between one and three years old had the highest mortality rate. In recent years, newborn screening programs, preventative care, and parent education have resulted in declining death rates in this age group (http://www.diversityrx.org/ccconf/00/PS_07.htm).

In fiscal year 2008:
- 2,334 Medicaid recipients had paid claims associated with a primary diagnosis of sickle cell or .26% of the total Medicaid recipient population.
- Total medical expenditures for this population were $28,722,720, accounting for .80% of the state Medicaid expenditure.

Prevalence of Sickle Cell Disease among African American South Carolina Medicaid Recipients by County
(N = 2,334)