What is Sickle Cell Disease (SCD)?

- SCD is a group of inherited conditions that affect hemoglobin, a protein that allows red blood cells (RBC) to carry oxygen to all parts of the body.

- The most common types of SCD are:
  
  - *Hemoglobin SS Disease (HbSS)* - People who have this form of SCD inherit two sickle cell hemoglobin genes ("S"), one from each parent. This is commonly called sickle cell anemia and is usually the most severe form of the disease.
  
  - *Hemoglobin SC Disease (HbSC)* - People who have this form of SCD inherit a sickle cell hemoglobin gene ("S") from one parent and from the other parent a gene for abnormal hemoglobin called “C”. This is usually a milder form of SCD.
  
  - *Hemoglobin S beta thalassemia (HbS beta thalassemia)* - People who have this form of SCD inherit one sickle cell hemoglobin gene (“S”) from one parent and one gene for beta thalassemia, another type of anemia, from the other parent. There are two types of beta thalassemia: “0” and “+”. Those with HbS beta0-thalassemia usually have a more severe form of SCD. People with HbS beta+-thalassemia tend to have a milder form of SCD.

There were approximately 8,374 people with SCD living in New York in 2004-2008:

- 40% younger than 21 years
- 46% 21-50 years
- 14% 51 years and older

There were 197 babies born with SCD in New York in 2008:

- Race
  - 89% Black or African-American
  - 8% White
  - 3% Other/Unknown race

- Ethnicity
  - 11% Hispanic-American
  - 89% Non-Hispanic

SCD affects all races and ethnic groups. In New York, SCD occurs among approximately 1 out of every

- 1,259 births
- 260 Black or African-American births
- 10,209 White births
- 2,714 Hispanic-American births

Number of Newborns with SCD, 2004-2008

- 0
- 1-10
- 11-30
- 31-50
- 51-100

Erie
Bronx
New York
Kings
Queens
Erie
56
47
23

National Center on Birth Defects and Developmental Disabilities
Division of Blood Disorders
Emergency room visits for people with SCD, 2008

- Almost 50% of people with SCD in the <21 and 21-50 year age groups had at least one emergency room visit in 2008

Hospital admissions for people with SCD, 2008

- Greater than 30% of people with SCD in each age group had at least one hospital admission in 2008

Total number of hospital days for people with SCD, 2008

- Over 25% of people with SCD spent 11 or more days in the hospital during 2008

Most common complications among people with SCD, 2004-2008

- Pneumonia/Acute Chest Syndrome (ACS) was the most common complication across all ages

Most common medical treatments and procedures provided to people with SCD, 2004-2008

- Over 55% of people with SCD in each age group received at least one transfusion during the five years

For more information, please visit www.cdc.gov/ncbddd/sicklecell