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 beta\(^0\)-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 6,200 people with SCD living in California in 2004-2008:
- 43% younger than 18 years
- 21% 18-29 years
- 25% 30-50 years
- 11% 51 years and older

There were 486 babies born with SCD in California in 2004-2008:
- 89% were Black
- 8% were Hispanic
- 5% were Other

Note: There is overlap between the race and ethnicity categories.

SCD affects all races and ethnic groups. In California, SCD occurs among approximately 1 out of every:
- 8,000 births
- 500 Black, African-American, or African descent births
- 99,000 Hispanic-American births

Number of Newborns with SCD, 2004-2008

- Alameda: 32
- Kern: 31
- Los Angeles: 166
- Orange: 45
- San Bernardino: 82

Note: There is overlap between the race and ethnicity categories.

National Center on Birth Defects and Developmental Disabilities
Division of Blood Disorders
Healthcare utilization by people with SCD, 2004-2008

- The number of hospital admissions and emergency room visits rises dramatically after age 18

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

- Over 50% of people with SCD in each age group received at least one transfusion during the five years

Most common complications among people with SCD on Medi-Cal, 2004-2008

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

Total number of hospital days for people with SCD, 2004-2008

- Over 65% of people with SCD spent at least 1 day in the hospital during the five years

Age at death for people with SCD, 2004-2008

- This data was collected through the Registry and Surveillance System for Hemoglobinopathies (RuSH). RuSH was a pilot project that was implemented by the Centers for Disease Control and Prevention (CDC) in collaboration with the National Institutes for Health (NIH), National Heart, Lung, and Blood Institute (NHLBI).

Top 5 causes of death among people with SCD, 2004-2008

- The causes include various conditions affecting different organs and systems.

For more information, please visit www.cdc.gov/ncbddd/sicklecell and http://casicklecell.org/
Like us on Facebook at California Sickle Cell Resources