Facts for the Public

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.
- Healthy RBC are round, and they move through small blood vessels to carry oxygen to all parts of the body. In SCD, the RBC become hard and sticky and look like a C-shaped farm tool called a “sickle.”
- These cells can get stuck in the blood vessels and block the normal flow of oxygen throughout the body. This leads to a variety of health problems.

There were approximately 5,100 people with SCD living in California in 2004-2008:

- 14% younger than 6 years
- 25% 6-17 years
- 22% 18-29 years
- 28% 30-50 years
- 11% 51 years and older

There were 486 babies born with SCD in California in 2004-2008:

- 89% were Black, African-American
- 8% were Hispanic, Hispanic-American
- 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

- 5,644 live births
- 452 Black, African-American, live births
- 35,454 Hispanic-American live births

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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 complications and comorbidities 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 60% of people with SCD, age 6 and older, spent at least 1 day in the hospital during the 5 years

Age at death for people with SCD, 2004-2008

- Over 40% of deaths in people with SCD during the five years were 40 years old and younger

*Definitions

- **Asthma**: A disorder that causes the airways of the lungs to swell. Symptoms include wheezing, shortness of breath, chest tightness, and coughing.
- **Avascular Necrosis**: Reduced blood supply causes death of bone cells, most often in the hip and shoulder.
- **Gallbladder Disease**: Gall stones are a common complication of SCD, beginning in children as young as toddlers.
- **Pneumonia and/or Acute Chest Syndrome**: Pneumonia is lung infection caused by an infectious pathogen (virus or bacteria) that can be life-threatening in people with sickle cell disease. Acute chest syndrome is similar to pneumonia, with different diagnostic criteria.
- **Renal Failure**: Includes significant forms of kidney disease, whether acute or chronic.

These data were 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).

For more information, please visit [www.cdc.gov/ncbddd/sicklecell](http://www.cdc.gov/ncbddd/sicklecell) and [http://casicklecell.org/](http://casicklecell.org/)

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