

Children of the San Joaquin Valley: Preventable Childhood Illness in San Joaquin County

Background and Implications

Preventing childhood illness is a key public health objective, given that many of the conditions that develop in childhood will negatively impact the individual well into adulthood. This report examines how pediatric preventable emergency department visits and hospitalizations are related to family and neighborhood factors in San Joaquin County.

Summary of Findings

In the San Joaquin Valley, non-white low-income children, ages zero to five, experience emergency department visits and hospitalizations more than others. The most frequent preventable emergency department visits and hospitalizations for these children are respiratory conditions related to home and neighborhood conditions, such as exposure to second-hand smoke and mold and mildew in housing, and proximity to major roadways and other air-polluting sources in neighborhoods.

Children in San Joaquin County are 2.9 times more likely to be hospitalized than children from other regions in California (288/10,000 and 97/10,000 respectively). These higher rates are likely due to lower social-economic status and less access to equal preventive care opportunities.

Figure 1. Rate of Childhood Hospitalization in San Joaquin County by Zip Code (2009-2011)

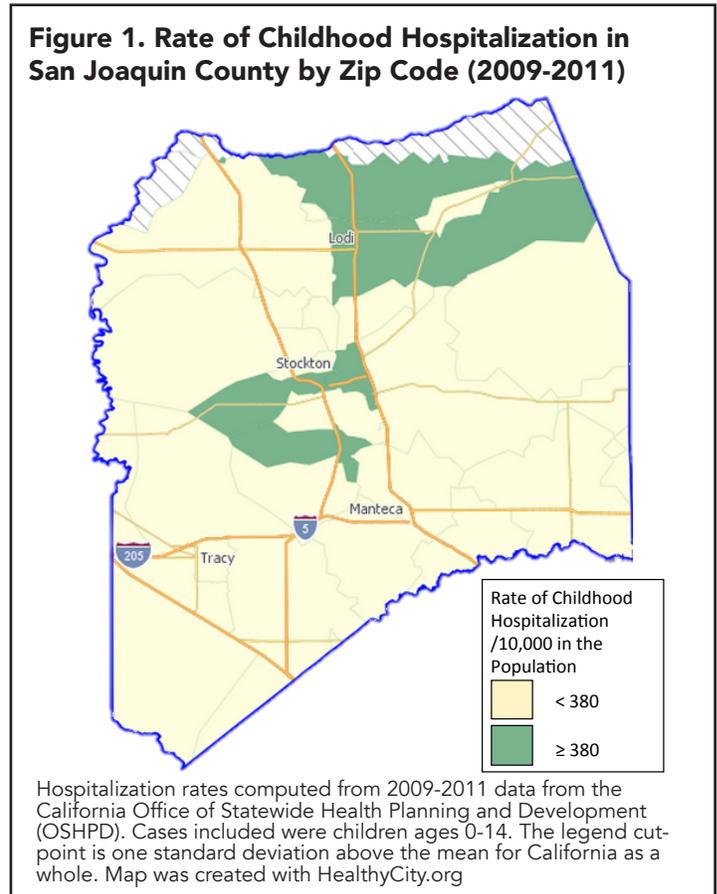


Table 1. Emergency Department and Hospital Discharges in Children 0 - 14, San Joaquin County, 2009-2011

Hospital Use	Frequency ^a	%	Rate ^b	Cost/Year ^{c,d}
Emergency Department Total	43,431	100%	88	\$8,686,200
Preventable	25,025	58%	51	\$5,005,000
Non-Preventable	18,406	42%	37	\$3,681,200
Hospital Discharge Total	14,247	100%	29	\$31,262,667
Preventable	4,098	29%	8	\$8,992,378
Non-Preventable	10,149	71%	21	\$22,270,289

The most frequent preventable and non-preventable conditions include pneumonia, asthma, and bronchitis.

^a indicates the sum of the three year (2009-2011) interval.

^b indicates the rate per 1,000 in the population.

^c emergency department visits are estimated to cost \$600 per visit.

^d hospitalizations are estimated to cost \$6,583 per visit.

The communities (zip code) highlighted in Figure 1 have the highest rates of child hospitalization in San Joaquin County.

In Table 1, the majority of emergency department visits are for diagnoses that are considered preventable. These are primarily respiratory conditions for which early preventive care and possibly public health programs could reduce the incidence and severity. Though still relatively infrequent events in the county, these cases account for more than \$5 million in health care costs annually. As indicated by the decreased proportion of preventable hospitalizations, most of these children are not admitted though, when they are, more than \$8.9 million is spent on hospital-based health care for these cases.

How Does Public Health Help Prevent Childhood Illness?

San Joaquin County Public Health Services (PHS) staff offer support to families and work with community partners to create and promote policies and systems to improve opportunities for all children to be healthier. PHS operates the following programs that aim to prevent childhood illnesses and promote health and well-being.

Infants

Black Infant Health empowers pregnant and mothering African American women to make healthier choices for themselves and their families. It uses a weekly group-approach with complementary case management to help women develop life skills, learn strategies for reducing stress, build social support, and connect with community and social services. Breastfeeding promotion improves practices, policies, and staff training to increase breastfeeding initiation and support in hospital and outpatient settings.

Adolescents

Adolescent Family Life works with teens that are pregnant or parenting. Case managers promote positive youth development by focusing on the teen's strengths and resources to help them be healthy, complete their education and avoid repeat pregnancies. Cal-Learn works with pregnant and parenting teens who receive CalWORKS (California Work Opportunity and Responsibility to Kids) aid and services to complete high school, become independent and form healthy families. Case managers help with services referrals and access to care.

Healthier lifestyles

Nutrition Education and Obesity Prevention provides students in schools that have high free- or reduced-

price meals with nutrition education and opportunities to increase fruit and vegetable consumption, reduce unhealthy food and beverage consumption, and increase physical activity through experience with and exposure to school gardens. Safe Routes to School promotes physical activity for children and families through regular walking or biking to and from schools. Staff also assist with policy briefs and provide technical assistance to schools.

Protection from injuries

Child Lead Poisoning Prevention promotes early screening of children, provides case management of lead poisoned children, informs health care providers, and informs the public about reducing exposures. Smoking and Tobacco Outreach Prevention helps reduce children's exposure to second-hand smoke through public education and assisted the Regional Transit District to adopt a smoke-free transit policy. Child Passenger Safety provides motor vehicle injury prevention education and car seat installations, safety classes, and low-cost seats.

Access to health care

Child Health and Disability Prevention (CHDP) promotes periodic health assessments and services for low-income children and youth, provides referrals for necessary diagnosis and treatment along with care coordination, and links families with resources and health care services. Health Care for Children in Foster Care coordinates and monitors health care services, like CHDP, for children in foster care.

Recommendations to improve opportunities for better child health

There are many areas on which PHS and partners can collaborate to prevent child illness by improving the upstream determinant social environments and policies. For example, regarding food security, the American Academy of Pediatrics recommends that health care providers inquire with their patients' families about access to adequate food and connect them to resources when needed. They, and most service providers, can similarly inquire at client encounters about families' housing adequacy and connect them to resources. Regarding child-development, care and education, partners can help increase the awareness of and enrollment in preschool and involvement with Reach Out and Read programs. Efforts by partners to improve 3rd-grade reading proficiency and high-school graduation of everyone will have significant long-term public health improvements.