

# CONCENTRATED DISADVANTAGE, STRESS AND THEIR EFFECTS ON PREGNANCY

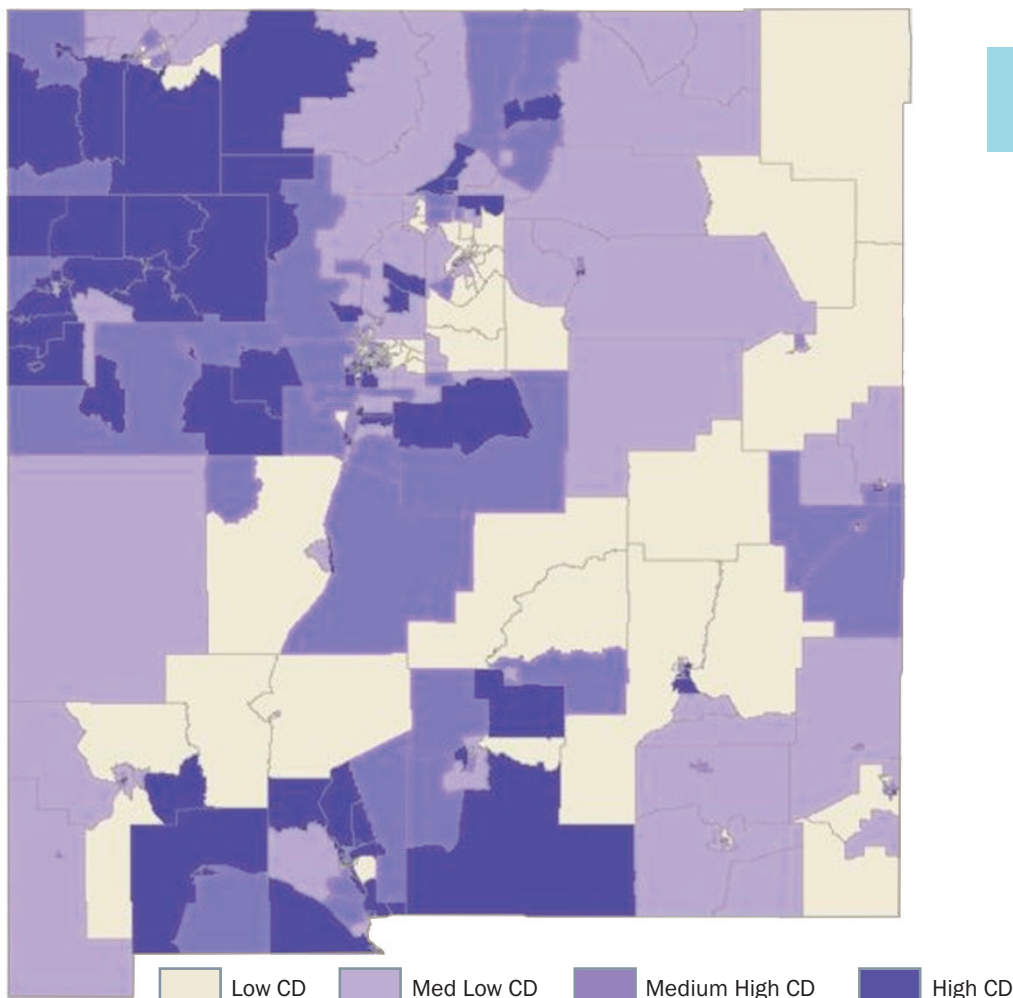
## Life Course

A life course perspective is a framework to show how health develops over a lifetime, with health improving or diminishing based in part on exposures to risk and protective factors that go beyond biology and individual behaviors to include social, economic, and environmental impacts. Pregnancy is a critical and sensitive period in the life course of a woman – her experiences of stress and the potential corrosive effect of living in a segregated, disadvantaged community directly impact the health and wellbeing of her children and her children's children, and herself later in life. Stressful experiences prior to pregnancy may also set the stage for pregnancy-related health conditions or adverse birth outcomes for her infant.

One **life course indicator**, “concentrated disadvantage”, is a measure of the socioeconomic wellbeing in a neighborhood that includes more than just individual indicators of poverty, educational level and employment in a community. Concentrated disadvantage is a community-level measure which may impact the availability of services and opportunities for residents in a neighborhood including access to health care, grocery stores and better schools. ([http://www.amchp.org/programsandtopics/data-assessment/LifeCourseIndicatorDocuments/LC-06\\_ConcentratedDisad\\_Final-4-24-2014.pdf](http://www.amchp.org/programsandtopics/data-assessment/LifeCourseIndicatorDocuments/LC-06_ConcentratedDisad_Final-4-24-2014.pdf))

- Concentrated disadvantage is calculated from five Census variables from the U.S Census Bureau’s American Community Survey:
  - % of individuals below poverty line
  - % of individuals on public assistance
  - % of female-headed households
  - % of working-age individuals unemployed
  - % of individuals under age 18

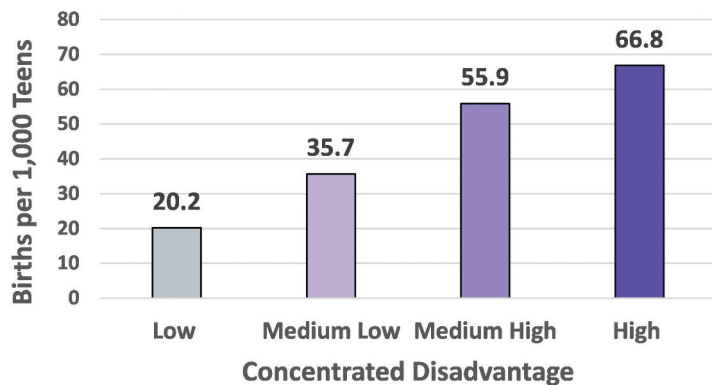
## Concentrated Disadvantage by Census Tract, New Mexico, 2010-2014



### Key findings of concentrated disadvantage by census tract:

- Generally, high concentrated disadvantage (CD) is prevalent in the northwest and southern regions of New Mexico.
- Of New Mexico’s 499 census tracts, 15.8% (79) of them fell within the “high” CD category, and 36.9% (184) and 39.3% (196) fell within the “medium high” and “medium low” CD categories, respectively.
- Only 8% (four) of New Mexico’s 499 census tracts were categorized as “low” CD.”

### Teen Birth Rate by Concentrated Disadvantage Quartile, New Mexico, 2011-2013



The birth rate among teens aged 15 to 19 years in NM was 3 times higher in areas of high concentrated disadvantage compared to areas of low concentrated disadvantage.

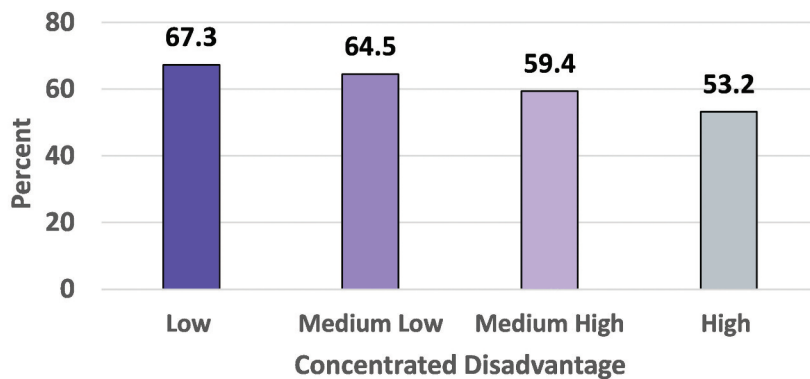
(Source: New Mexico Bureau of Vital Records and Health Statistics)

### Consequences of Teen Pregnancy

Research consistently shows that teen pregnancy and births affect the lifetime health and well-being of teen parents, their children and the community at large.

- Teen births are associated with a lower annual income for the mother compared to older mothers. Eighty percent of teen mothers must rely on welfare at some point.
- Teen pregnancy and educational achievement are strongly linked: only about one-third of teen mothers receive a high school diploma.
- New Mexico had the 4th highest rate of teen births in the country in 2014. The failure to support young people in delaying parenthood costs New Mexico taxpayers up to \$103 million a year from lost tax revenues, public assistance, child health care, foster care.

### First Trimester Prenatal Care by Concentrated Disadvantage, New Mexico, 2011-2013



Women living in areas of high concentrated disadvantage are less likely to have prenatal care in the first trimester.

(Source: New Mexico Bureau of Vital Records and Health Statistics)

### Benefits of Early and Regular Prenatal Care

- Improved birth weight of baby (>2500 grams)
- Decreased risk of preterm delivery
- Lower infant mortality rate
- Decreased risk of other pregnancy-related complications including preeclampsia and complications from diabetes

References:

\* <https://thenationalcampaign.org/data/compare/1701>

\* <http://www.hhs.gov/ash/oah/adolescent-health-topics/reproductive-health/teen-pregnancy/health-impact.html>

\* <http://www.healthcommunities.com/teen-pregnancy/children/overview-of-teen-pregnancy.shtm>

## Stress Experienced by NM Women in the Year Prior to Delivery of an Infant

Low income women and unmarried women giving live birth are at increased risk for stress. Prenatal stress is a risk factor for adverse birth outcomes including low birth weight, preterm birth and postpartum anxiety and depression.

Click on the rectangles to view graphs of the percent of women reporting a stressful event in the 12 months prior to giving birth by federal poverty level and marital status. (SOURCE: New Mexico Department of Health, Maternal and Child Health, PRAMS 2011-2013)

**Close family member sick**

**Separated or divorced**

**Husband/partner lost job**

**Moved to new address**

**Could not pay bills**

**Argued with husband/partner more than usual**

**Pregnant woman lost job**

**Someone very close had problem with drinking/drugs**

**Husband/partner did not want pregnancy**

**Someone very close died**

**Pregnant woman or husband/partner went to jail**

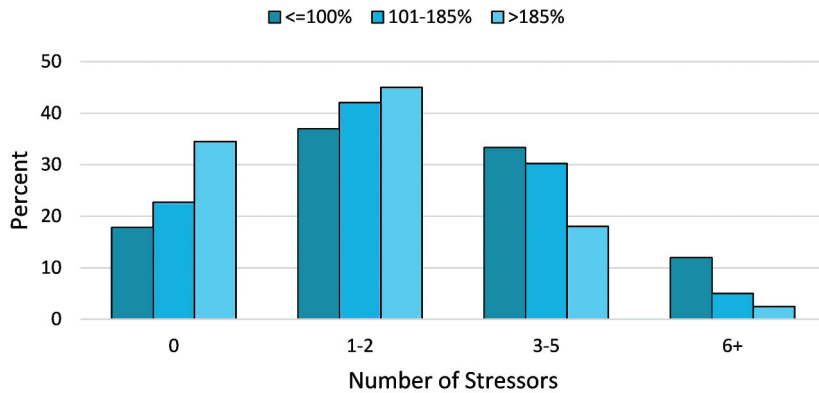
**Pregnant woman physically abused by husband/partner before pregnancy**

**Pregnant woman physically abused by husband/partner during pregnancy**



**Husband or partner abuse before and during pregnancy increases the risk of stress among pregnant women.**

### Number of stressors reported by women who recently gave birth by Federal Poverty Level, New Mexico, 2011-2013



The cumulative number of stressors that new mothers reported during the 12 months prior to giving birth by federal poverty level (FPL) is shown in the figure.

(Source: NM PRAMS)

- Women living in households over 185% of the FPL were more likely to report no stressors during the 12 months prior to giving birth than women living in households at or below the FPL.
- Women living in households at or below the FPL were more likely to report three or more stressors during the 12 months prior to giving birth than women living in households over 185% of the federal FPL

### Resources to improve health outcomes from pregnancy through early childhood in New Mexico:

1. *Families First*—A case management program of the New Mexico Department of Health, Public Health Division. It is funded by Medicaid to provide perinatal case management to Medicaid eligible pregnant women and children 0-3 years old. Contact: phone: 505-476-8911; <https://nmhealth.org/about/phd/fhb/ffp/>
2. *Children Youth and Families Department Home Visiting*—A program in which home visitors partner with families to promote child development and confident parenting by supporting the relationship among the family, home visitor and the community. Contact: phone: 505-827-7946; <https://cyfd.org/home-visiting>
3. *Chi St. Joseph's Children Home Visiting Program*—A program that provides mothers, fathers, and primary care providers with education and support to encourage normal growth and development of happy, healthy babies in positive, nurturing families. Contact: phone 505-924-8000; [http://www.stjosephnm.org/Home\\_Visiting\\_Program.aspx](http://www.stjosephnm.org/Home_Visiting_Program.aspx)
4. *First Born® Program*—A home visiting program that provides services for women pregnant for the first time, families parenting for the first time, and families adopting their first baby. Contact phone: 575-538-8504; <http://firstbornprogram.org/>

#### Technical Note

##### How Quartiles of Concentrated Disadvantage (CD) are Calculated:

The percentages by census tract in NM of each census variable were calculated. Then, the percentages were Z-score transformed by subtracting the mean of the distribution from the variable value and dividing the difference by the standard deviation of the distribution.  $Z = (\text{score} - \text{mean}) / \text{standard deviation}$ . The Z-scores for the five components in a census tract were averaged, resulting in one Z-score per NM census tract. After Z-scores were calculated for all census tracts, the Z-scores were divided into quartiles. The highest 25% of scores fall into the highest CD quartile.