



Teenage Pregnancy

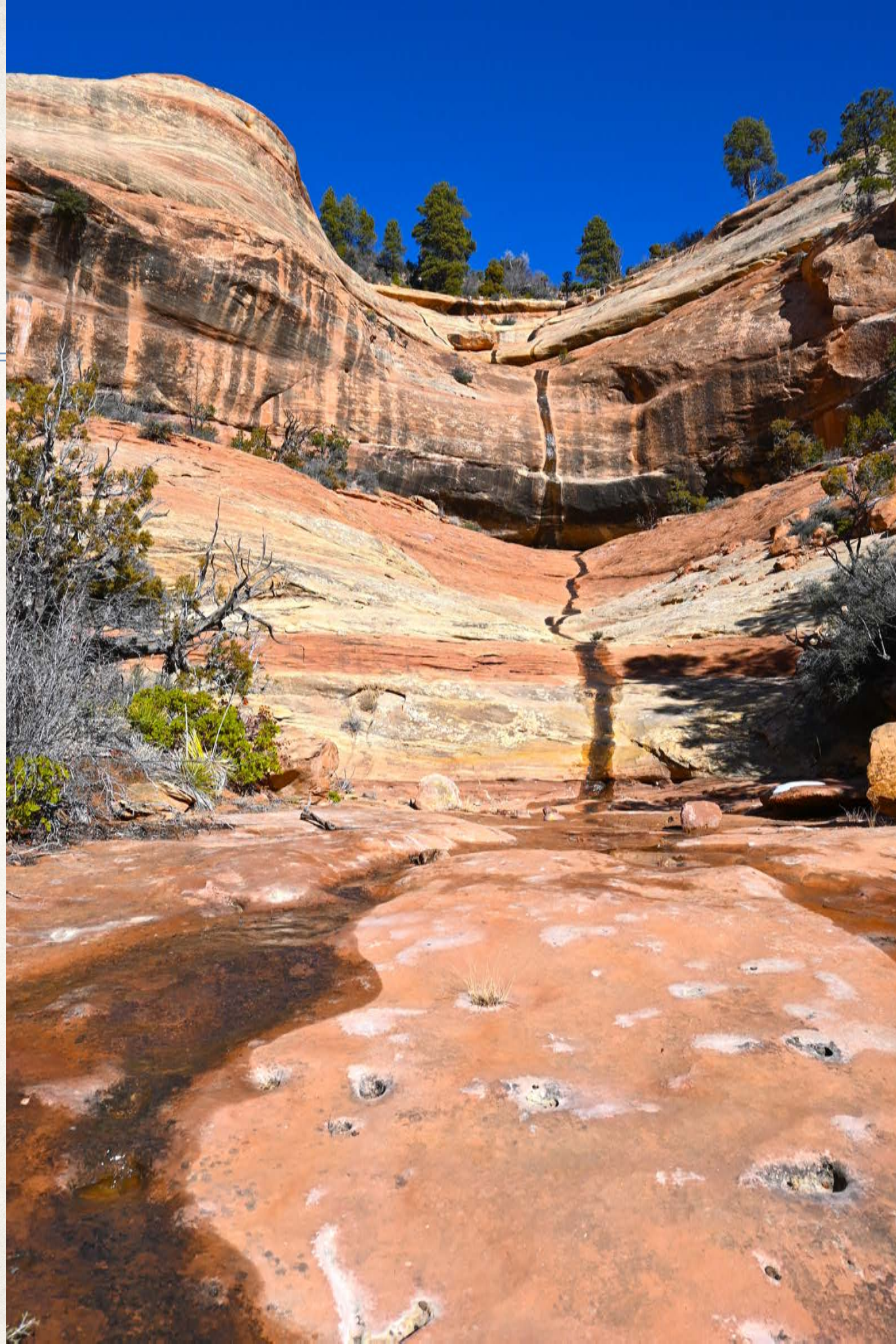
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Goals

1. Discuss prevalence of teenage pregnancy
2. Discuss pregnancy screening in teen population
3. Identify pregnancy risks associated with teenage pregnancy for the mother
4. Discuss medical impacts associated with teenage pregnancy for the fetus / infant
5. Discuss social implications of teenage pregnancy
6. Discuss risk for repeat unintended pregnancy
7. Discuss Post-pregnancy care of the teenager

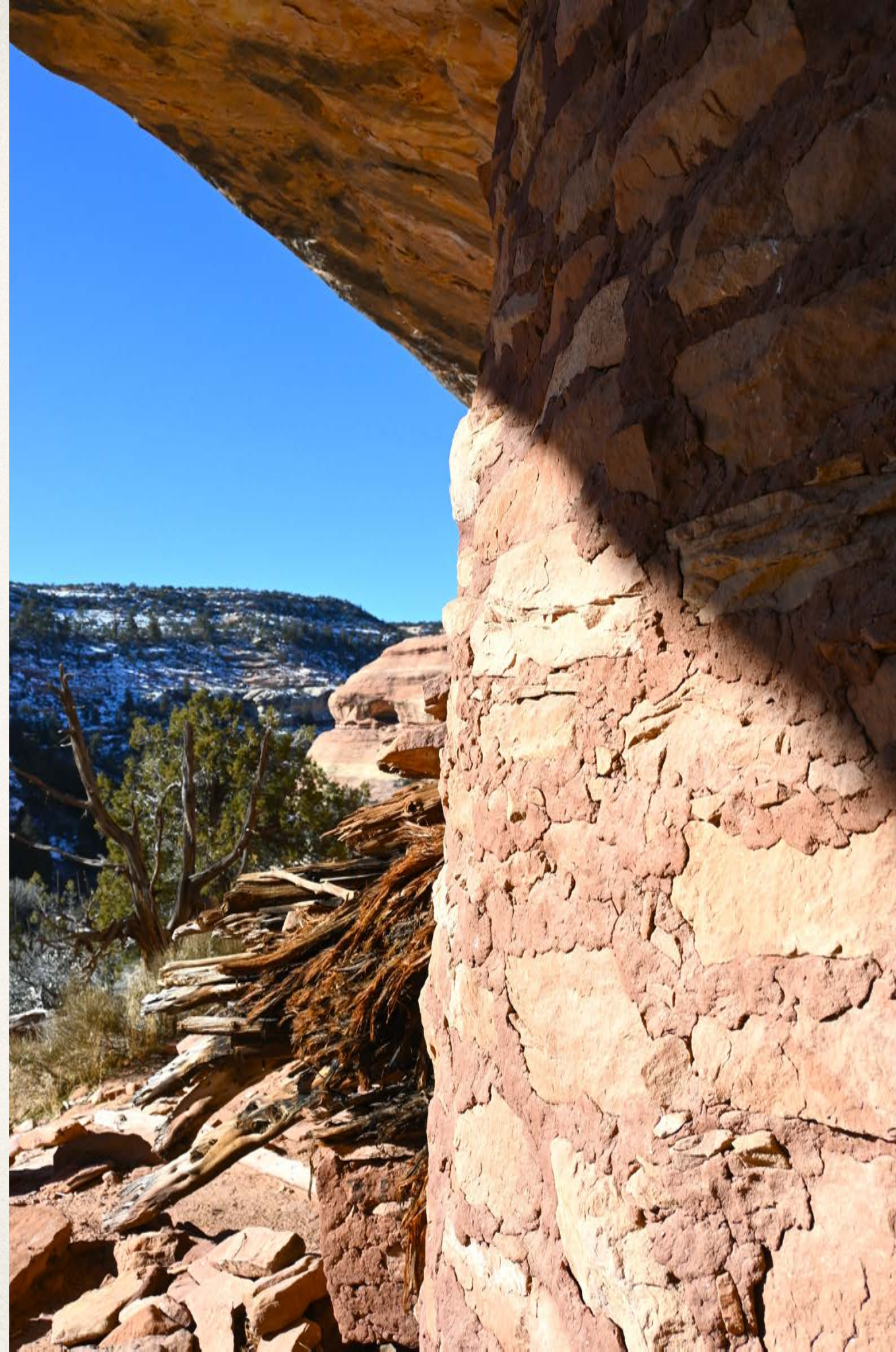
Disclosures

❖ No Financial Disclosures



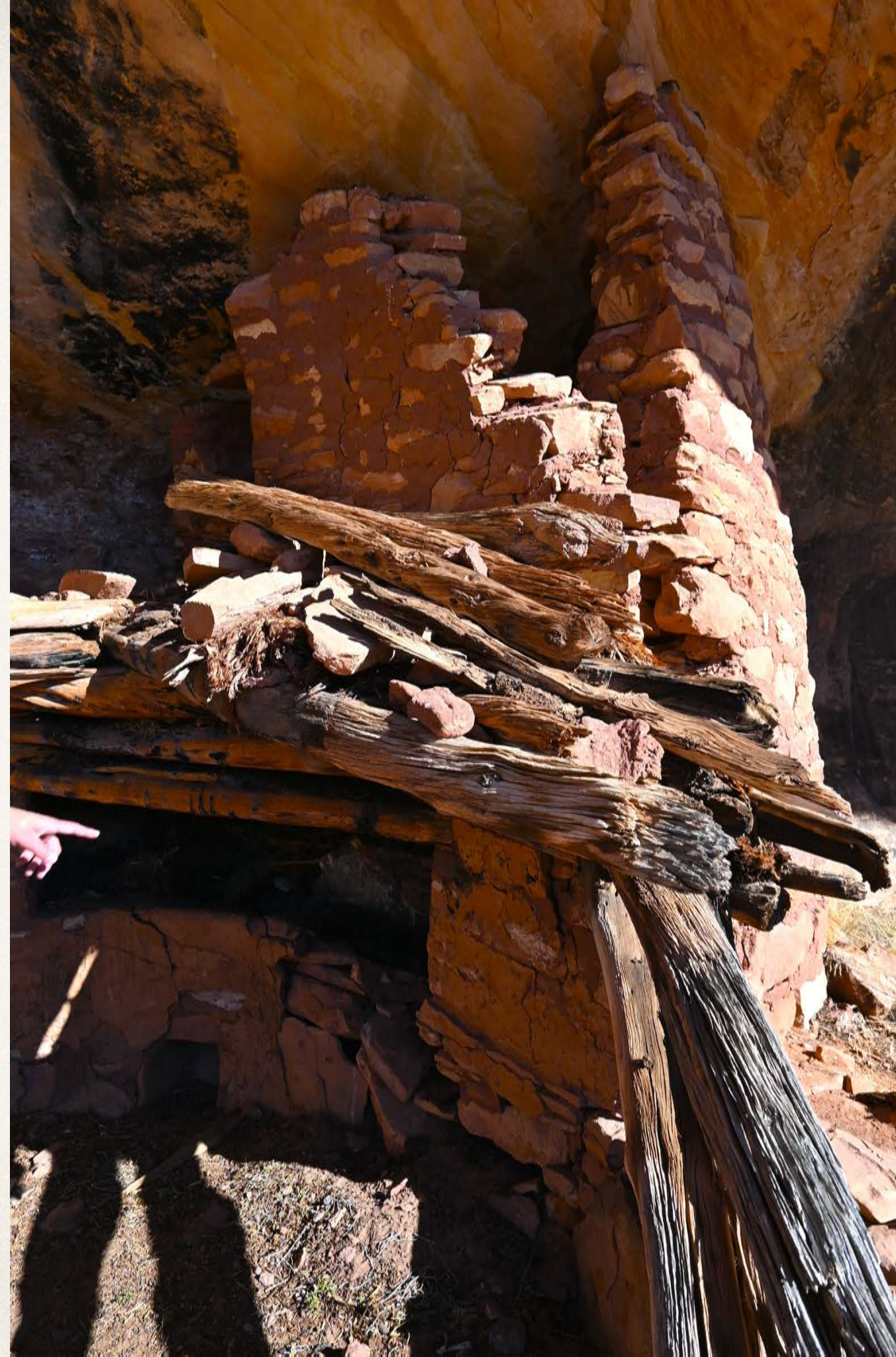
Anna

- ❖ 15yo
- ❖ Accompanied by her sister
- ❖ Chief Complaint: Irregular menses
- ❖ Unknown LMP ~ 3 months ago



Joy

- ❖ 17yo
- ❖ Accompanied by her 34yo mother
- ❖ Chief Complaint: Irregular Menses
- ❖ LMP ~ 4 mo ago



Teenage Pregnancy

- ❖ In 2017, a total of 194,377 babies were born to women aged 15–19 years in the USA: birth rate of 18.8 per 1,000

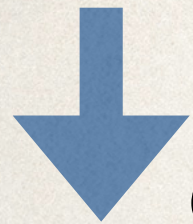
Birth Rate



7% since 2016



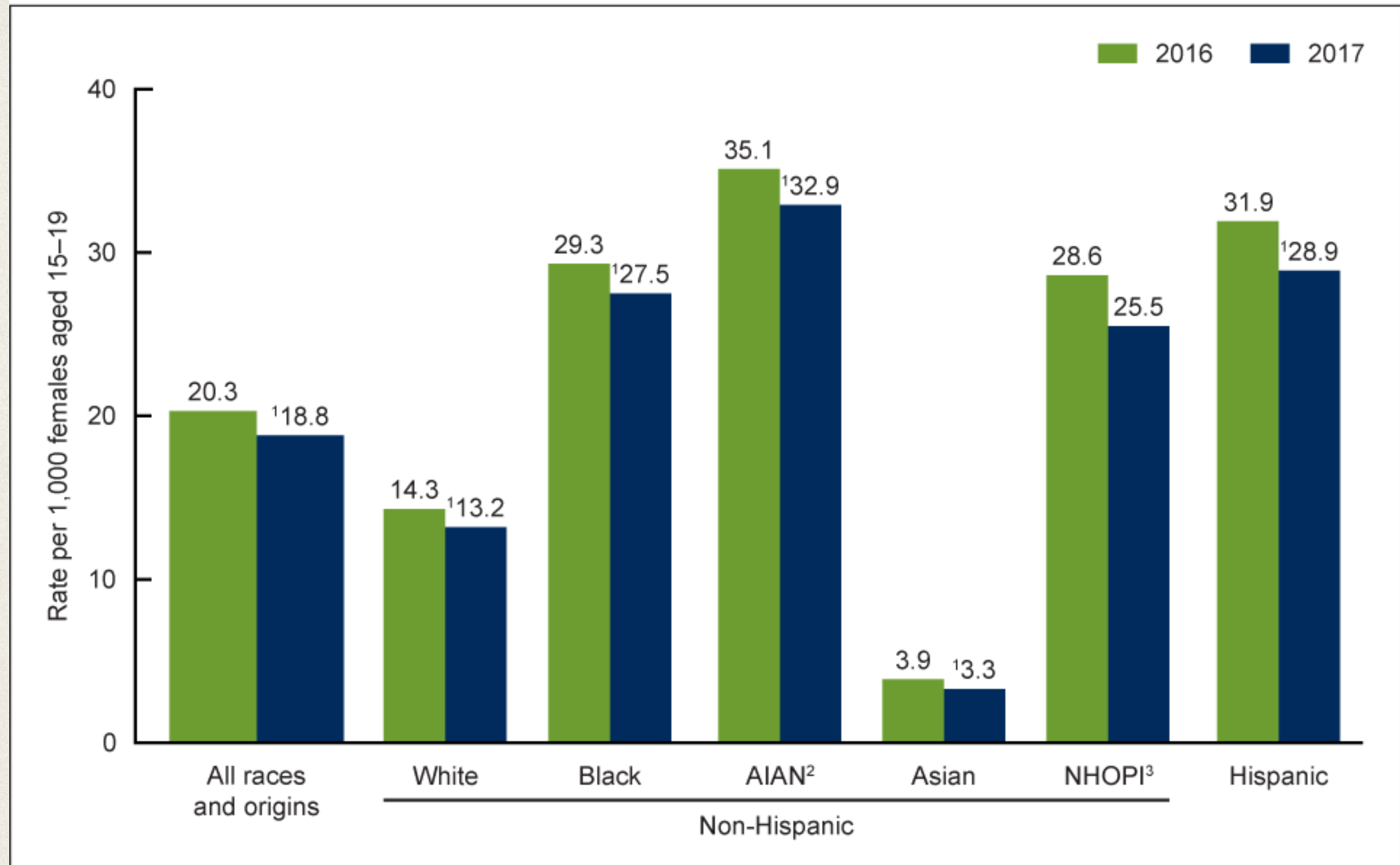
10% for women aged 15–17 years



6% for women aged 18–19 years.

1. Martin JA, Hamilton BE, Osterman MJK. Births in the United States, 2017. NCHS data brief. 2018 (318):1-8.
2. Martin JA, Hamilton BE, Osterman MJK, Driscoll AK, Drake P. Births: Final Data for 2017. National vital statistics reports : from the Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System Cdc-pdf [988KB]. 2018;67(2):1-52.

Figure 2. Birth rates for females aged 15–19, by race and Hispanic origin of mother: United States, 2016 and 2017



¹Significant decline from 2016 ($p < 0.05$).

²AIAN is American Indian or Alaska Native.

³NHOPI is Native Hawaiian or Other Pacific Islander.

NOTES: Race groups are single race. Access data table for Figure 2 at: https://www.cdc.gov/nchs/data/databriefs/db318_table.pdf#2.

SOURCE: NCHS, National Vital Statistics System, Natality.

Teen Pregnancy

- ❖ Special considerations
- ❖ What is her plan?
- ❖ Options for pregnancy
 - ❖ Abortion
 - ❖ Adoption
 - ❖ Plan to continue pregnancy and keep baby



Maternal Risks




- ❖ Sexually Transmitted Diseases
- ❖ Psychiatric Disorders
- ❖ Hypertensive Disorders
- ❖ Preterm Delivery
- ❖ Anemia
- ❖ Premature Death
- ❖ Substance Use
- ❖ Community and Interpersonal violence



Sexually Transmitted Diseases

- ❖ The same unprotected sex that resulted in pregnancy increases the risk of STD



	Chlamydia	Gonorrhea	Syphilis
Incidence of STI per 100,000 females age 15-19	3265.7	557.4	7.8
Percent change from 2013-2017	 6.5	 20.4	 68.4

Psychiatric Disorders

- ❖ 77% of teen pregnancies are unplanned
- ❖ Postpartum Depression- rate double that of women aged >25yo
- ❖ Suicidal Ideation
- ❖ Increased demographic risk factors for mental illness
 - ❖ Parents with low education levels
 - ❖ History of child abuse
 - ❖ Limited social network
 - ❖ Living in chaotic unstable home environments
 - ❖ Living in low income communities

Kessler RC. Epidemiology of women and depression. Affect Disorder. 2003;74(1):5-13 PMID12646294

Dopheide JA. Recognizing and treating depression in children and adolescents. AM J Health Syst Pharm. 2006;63(3):233-243 PMID16444444

Hypertensive Disorders

- ❖ 12% of Teenage Pregnancies (5% adult pregnancies)
- ❖ Large retrospective study demonstrated an increased risk of preeclampsia and eclampsia with an adjusted OR of 3.7 and 3.2 respectively

Preterm Delivery

- ❖ Preterm Birth Rate 10.3% in 2017
- ❖ Retrospective Cohort study of teenage mothers found a 2.5x increased risk of preterm labor
- ❖ Case control study in England found increased risk of preterm birth with a 1.21 OR (CI 1.01-1.45) in first pregnancy
 - ❖ Second teenage pregnancy with further increased rate (1.93, 1.38-2.69)
- ❖ Multiple factors

Leppalahti S, Gissler M, Mentula M, Heikinheimo O. Is teenage pregnancy an obstetric risk in a welfare society? Population based study in Finland, from 2006-2011. *BMJ open*. 2013;3

Khashan AS, Baker PN, Kenny LC. Preterm birth and reduced birthweight in first and second teenage pregnancies: a register-based cohort study. *BMC Pregnancy Childbirth* 2010;10:36

Anemia

Increased risk of Anemia in pregnancy with an odds ratio of 1.8

❖ Nutrition

Premature Death

- ❖ Globally Leading cause of death
- ❖ Population-based study
 - ❖ Independent of socio-economic background
 - ❖ Teenage mothers have increased risk of premature death later in life
 - ❖ Odds Ratio 1.6

Substance Use

- ❖ Large Cohort Studies have shown increased rates
 - ❖ Smoking
 - ❖ 36% in Teenage pregnancy vs.
 - ❖ 7% in Adult pregnancy
 - ❖ Drug and alcohol use
 - ❖ 1.1% in Teenage vs.
 - ❖ 0.2% in Adult pregnancy

Community and Interpersonal Violence

- ❖ Increased risk for PTSD
- ❖ On average, teen mothers experience >5 traumatic events
 - ❖ Physical attacks by partner
 - ❖ Neglect
 - ❖ Parental abuse
 - ❖ Incarceration
 - ❖ Traumatic loss
- ❖ Adolescent mothers are 2-3x more likely to be victimized by their partner, father of their child or a family member

Leplatte D, Resenblum KL, Staton E, Muzik M. Mental Health in primary care for adolescent parents. *Mental Health Fam Med*. 2012; 9(1):39-45 mid 232777797

Gessner BD, Perham-Hester KA. Experience of violence among teenage mothers in Alaska. *J Adolesc Health* 1998; 22(5) 383-388pmid 9589339

Wiemann CM, Aguricia CA, Berenson AB Volk RJ, Rickert V1. Pregnant adolescents; experiences and behaviors associated with physical assault by an intimate partner. *Matern Child Health J*.

Risk of Repeat Birth

- ❖ Repeat birth- 2nd(or more) birth before the age of 20yo
- ❖ Nearly 1 in 5 births are repeat births
 - ❖ 86% are second births
 - ❖ 13% are third births
- ❖ 91% of Sexually Active Teen Moms use birth control
 - ❖ Only 1 in 5 sexually active teen mothers use the most effective types of birth control

1. How many teens have repeat births?

There were 365,000 births to teens, ages 15–19, in 2010

66,800
repeat births

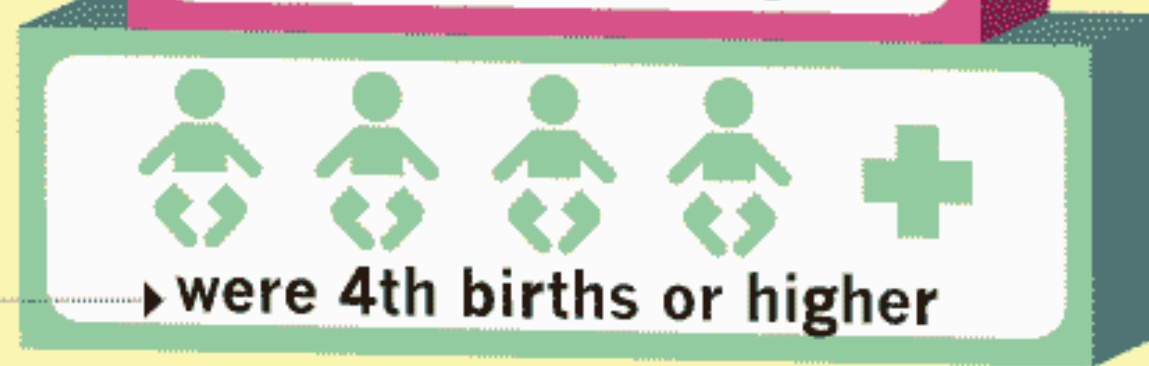
57,200



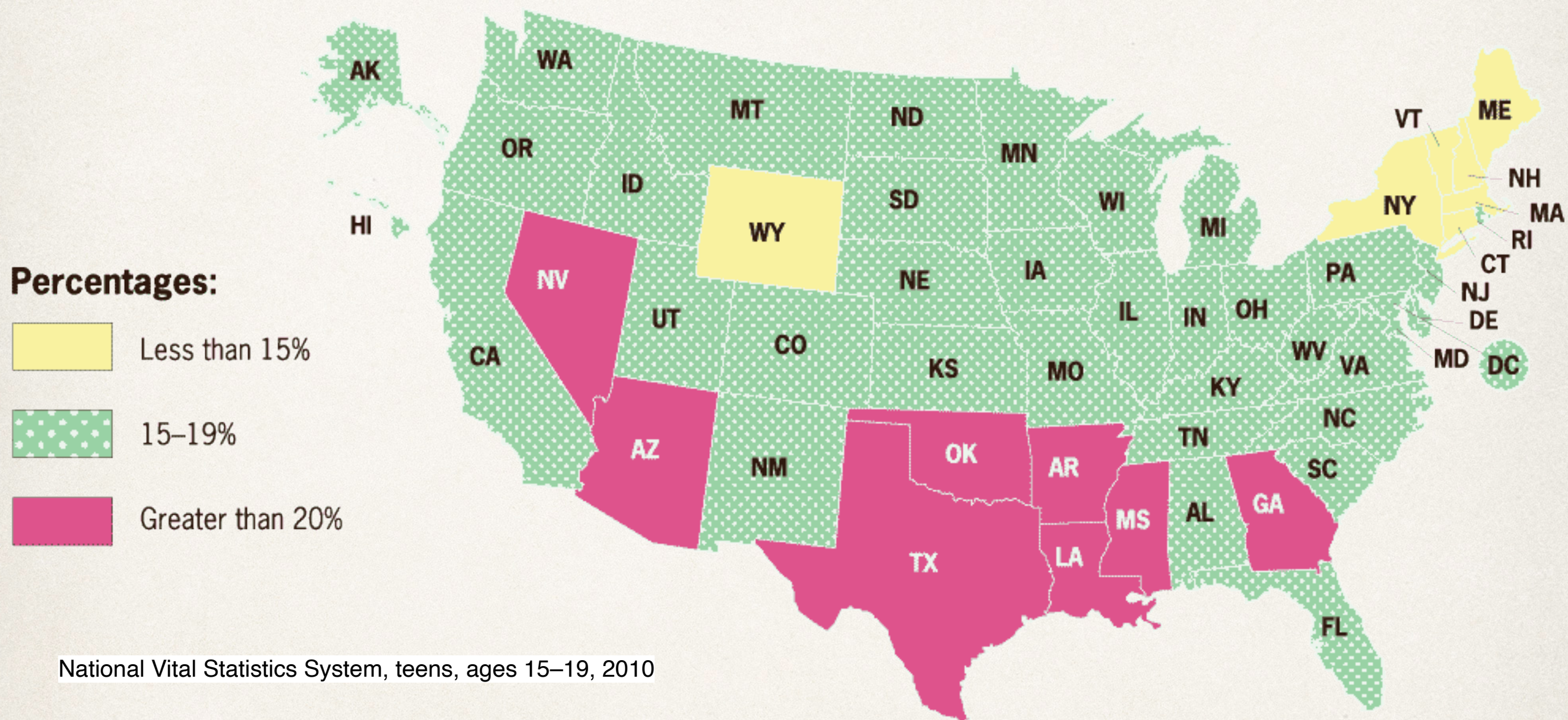
8,400



1,200



2. Which states have the highest percentages of repeat teen births?



National Vital Statistics System, teens, ages 15–19, 2010

3. How effective are different birth control methods?

Sexually active teens should use condoms to prevent sexually transmitted diseases and consider using another type of birth control to further reduce the risk of pregnancy.

Risk of pregnancy with typical use	Type of birth control*	How to use it
Less than 1 pregnancy per 100 women in a year	Implant	• Placed by health care provider • Lasts up to 3 years
	Intrauterine devices (IUDs)	• Placed by health care provider • Copper IUD — Lasts up to 10 years • Progestin IUD — Lasts 3–5 years
6-12 pregnancies per 100 women in a year	Injectable	• Given by health care provider • 1 shot every 3 months
	Patch	• Apply a new patch each week for 3 weeks (21 total days) • Don't wear a patch during the 4th week
	Ring	• Place ring into the vagina yourself • Keep the ring in your vagina for 3 weeks, and then take it out for 1 week
	Pill	• Swallow a pill every day
	Diaphragm	• Use correctly every time you have sex
18 or more pregnancies per 100 women in a year	Male condom	• Use correctly every time you have sex
	Female condom	• Use correctly every time you have sex
	Sponge	• Use correctly every time you have sex
	Rhythm method	• Use correctly every time you have sex
	Spermicide	• Use correctly every time you have sex
	Withdrawal	• Use correctly every time you have sex

*The most effective methods also include sterilization, but because this method is very infrequently used by teens, it was not included in the table.

Fetal/Infant Risks

- ❖ Reduced Birth Weight
- ❖ Higher Risk of Fetal / Infant Death
- ❖ Decreased Rate of Breast Feeding
- ❖ Infection
- ❖ Delayed Childhood Development

Risks

- ❖ Social Implications
 - ❖ Social Isolation
 - ❖ Education
 - ❖ Welfare Benefits
 - ❖ Next Generation Teenage Mother

Social Isolation

❖ 40% of Teenage Mothers feel Stigmatized

Education

- ❖ High School Diploma
- ❖ College Diploma

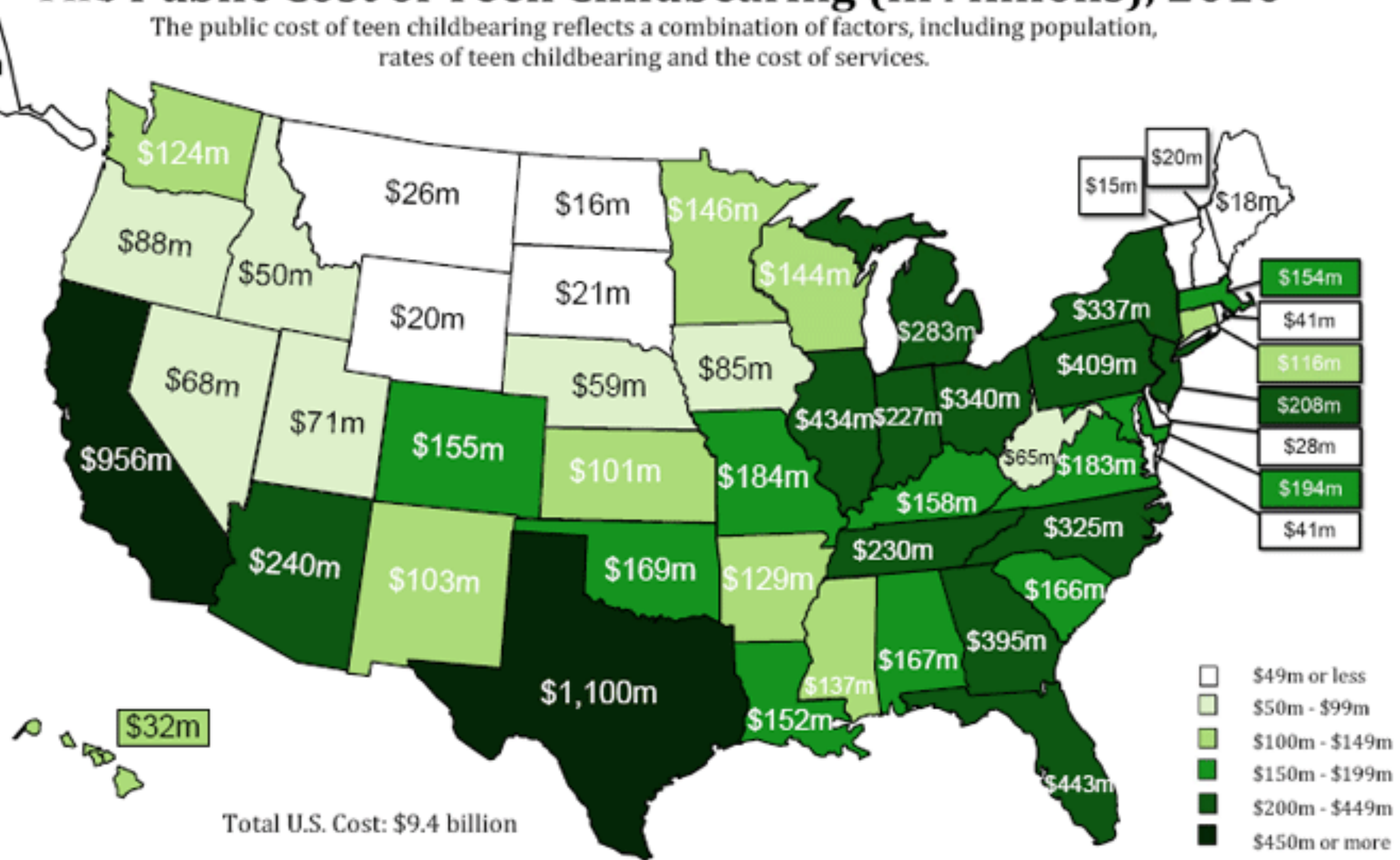
Welfare Benefits

- ❖ 77.5% of Teen Pregnancy had Medicaid as the source of payment for delivery
- ❖ Below Poverty Level

1. Martin JA, Hamilton BE, Osterman MJK. Births in the United States, 2017. NCHS Data Brief, no 318. Hyattsville, MD: National Center for Health Statistics. 2018.
2. National Conference of State Legislatures: Teen Childbearing is Costly To Taxpayers. www.ncsl.org/research/health/teen-childbearing-is-costly-totaxpayers.aspx

The Public Cost of Teen Childbearing (in Millions), 2010

The public cost of teen childbearing reflects a combination of factors, including population, rates of teen childbearing and the cost of services.



Next Generation Teenage Mother

- ❖ Having a mother who was a teen mom increases the rate of becoming a teen mom
 - ❖ According to British Journal of Medicine study
 - ❖ There is an intergenerational relationship between mother and daughter
 - ❖ Rate of pregnancy
 - ❖ How the pregnancy ends

Is it More than Just Age?

- ❖ Adverse Childhood Events (ACE) Theory

- ❖ Compared by ACE

- ❖ emotional, physical, or sexual abuse

- ❖ exposure to domestic violence

- ❖ substance abusing, mentally ill, or criminal household member

- ❖ separated / divorced parents

- ❖ 66% of women indicated >1 ACE

- ❖ # ACE events directly proportional to risk of teenage pregnancy

- ❖ # ACE events directly proportional to risk of fetal death after first pregnancy

Prenatal Care

❖Diet

- ❖Teenager are more likely to have poor nutrition

- ❖Initiate folic acid

- ❖Smoking, alcohol and drug use cessation

- ❖STI screening

- ❖Family Involvement

Post-pregnancy Care

- ❖ Social work involvement to ensure patient is ready to care for baby before discharge
- ❖ Birth control
- ❖ Perinatal Mood and Anxiety Disorders
- ❖ Social support groups

Questions?



References

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