

Teenage Pregnancy Prevention in the United States:

Using CDC's Health Impact Pyramid to Frame Teen Pregnancy Prevention Efforts

**PAHO/WHO International Interagency Meeting on Current Evidence,
Lessons Learned, and Best Practices in Adolescent Pregnancy
Prevention in Latin America and the Caribbean**

March 17, 2014

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Objectives

- ❑ Describe why teen pregnancy is a public health problem in the United States
- ❑ Describe why preventing teen pregnancy is a CDC “Winnable Battle”
- ❑ Describe CDC’s efforts to prevent teen pregnancy



Teen Pregnancy is a Public Health Problem

Teen Mother

- Educational attainment
- Earnings

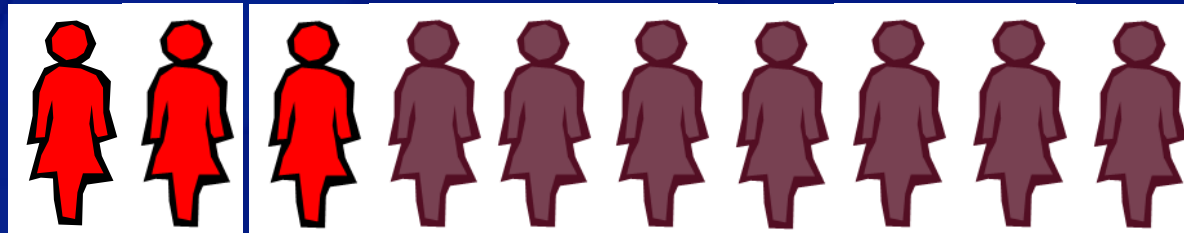
Pregnancy

- Preterm birth
- Low birthweight infant
- Infant death

Child

- Abuse and neglect
- Early development problems
- Sons: Incarceration
- Daughters: Teen pregnancy

Teen Pregnancy in the United States



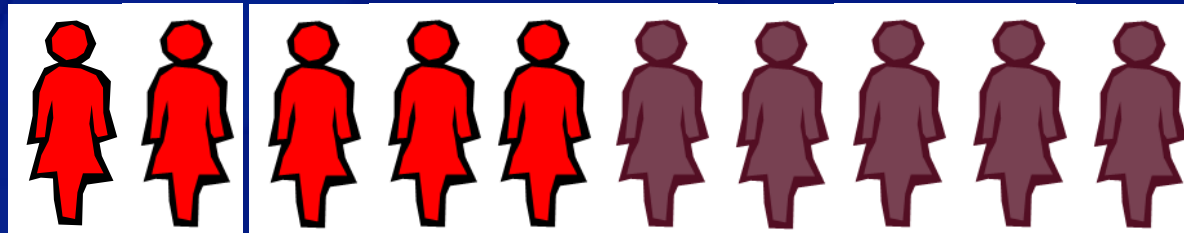
3 in 10 teen girls
will become pregnant before age 20
750,000 teen pregnancies every year

The National Campaign to Prevent Teen and Unplanned Pregnancy, 2011

http://www.thenationalcampaign.org/resources/pdf/FastFacts_3in10.pdf

Kost K, et al. Guttmacher Institute, 2012, <http://www.guttmacher.org/pubs/USTPtrends08.pdf>

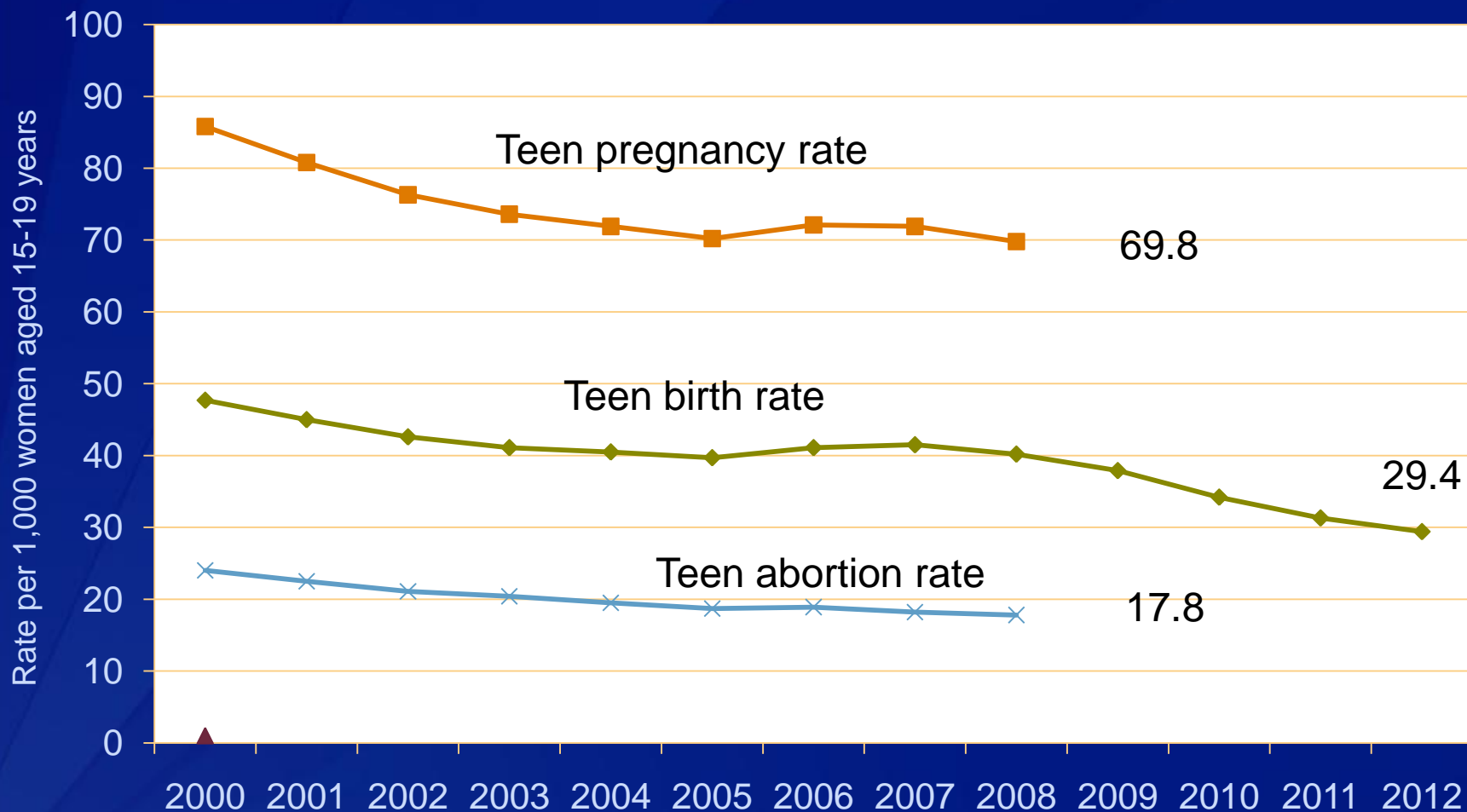
Teen Pregnancy in the United States



5 in 10 African American and Latina teen girls
will become pregnant before age 20

The National Campaign to Prevent Teen and Unplanned Pregnancy, 2011
http://www.thenationalcampaign.org/resources/pdf/FastFacts_3in10.pdf

Teen pregnancy¹, induced abortion¹, and birth rates^{1,2,3}, United States, 2000–2012*

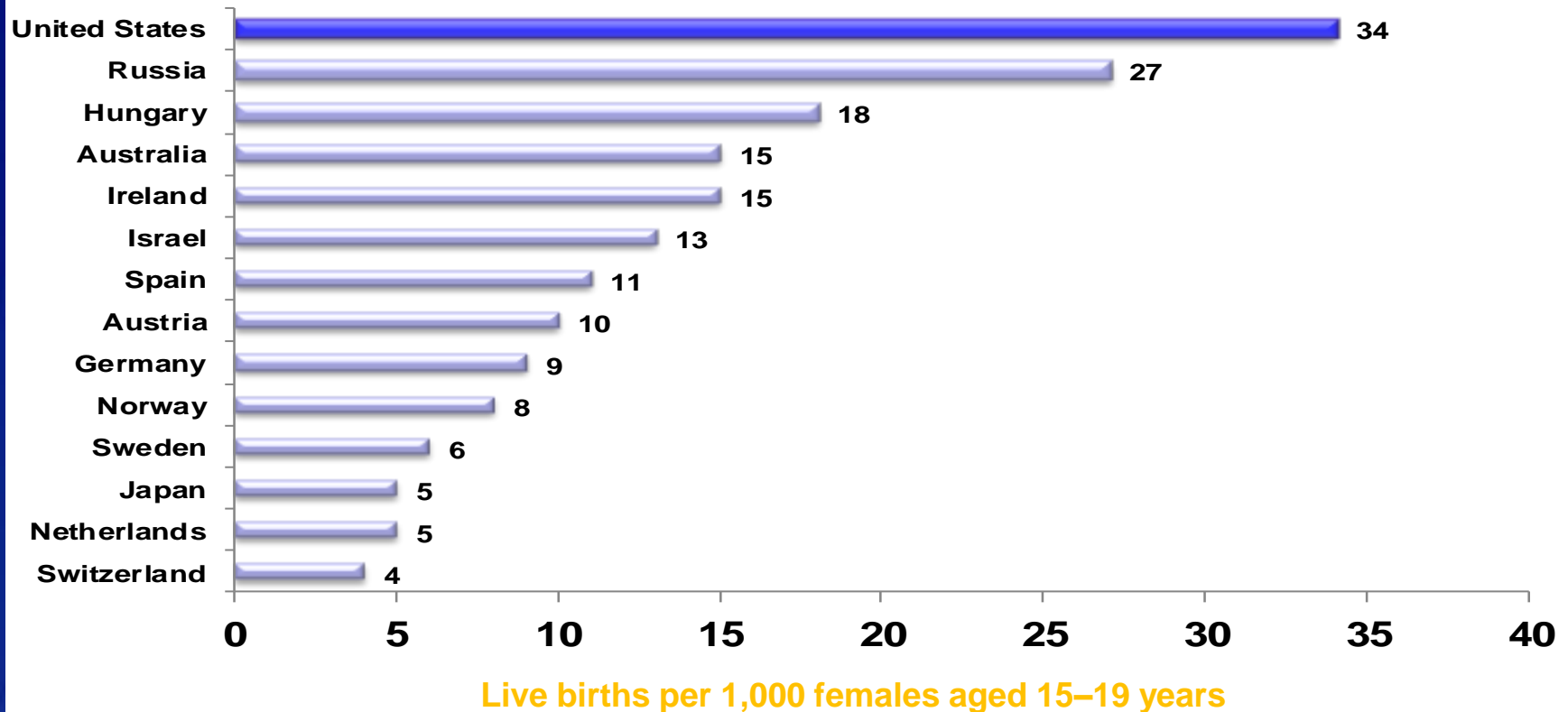


1. Pregnancy, abortion and birth rates 2000–2008: Ventura SJ, Curtin SC, Abma JC. Estimated pregnancy rates and rates of pregnancy outcomes for the United States, 1990–2008. National Vital Statistics Reports, 2012;60(7). Table 2.

2. Birth rates 2009: Hamilton BE, Martin JA, Ventura SJ. Births: Preliminary data for 2010. National Vital Statistics Reports, 2011;60(2). Table S-2.

3. Birth rates 2010–2011: Hamilton BE, Martin JA, Ventura SJ. Births: Preliminary data for 2011. National Vital Statistics Reports, 2012;61(5). Table 2.

Teen Birth Rates in High-income Countries, 2010



United Nations Demographic Yearbook 2011. <http://unstats.un.org/unsd/demographic/products/dyb/dyb2011.htm>

Martin JA, et al. Births: Final data for 2010. National vital statistics reports; vol 61, no 1, 2012

Darroch JE, et al. Family Planning Perspectives 2001;33:244-250

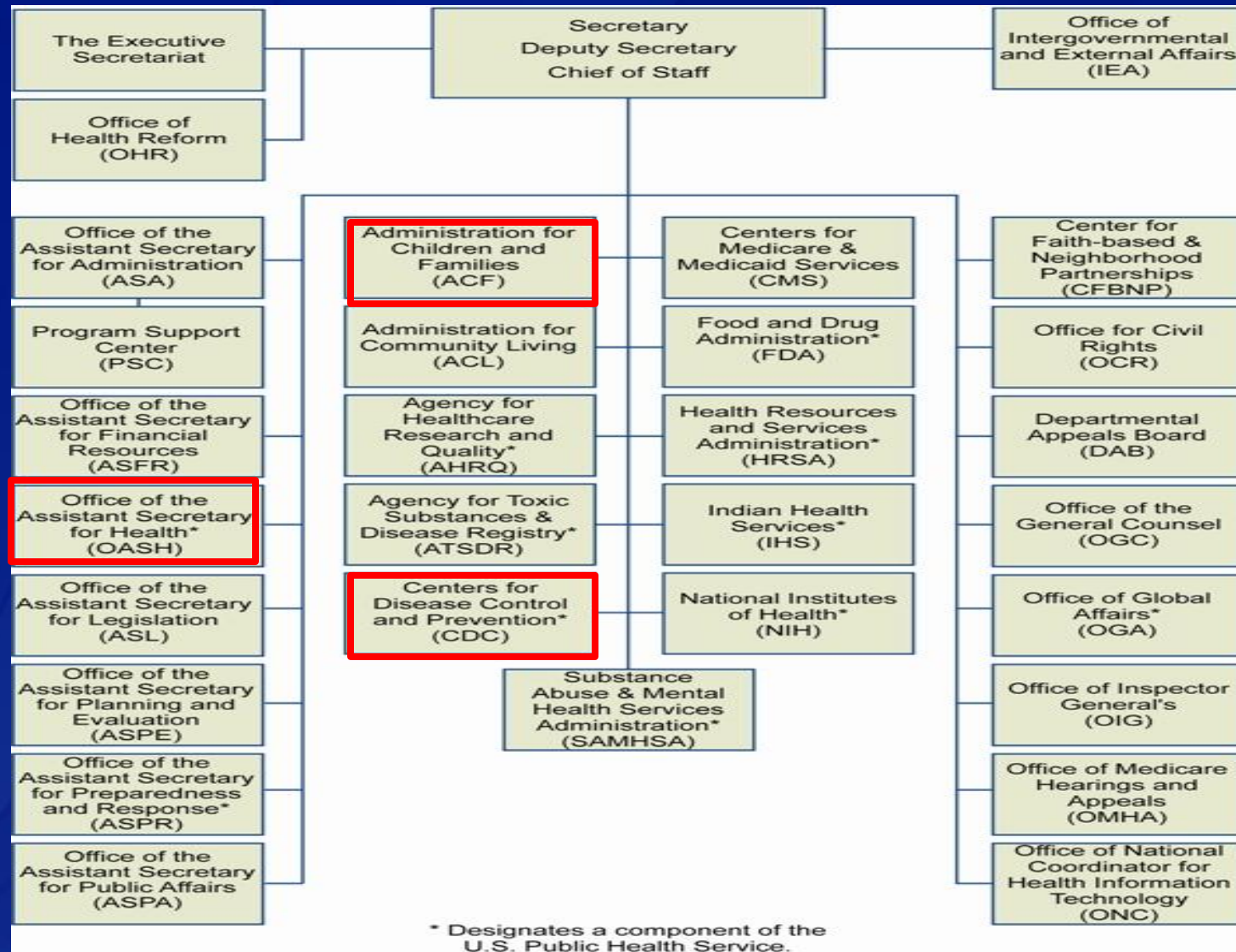
The Cost of Teen Births



❑ In 2010, teen births cost the United States \$9.4B

- Increased costs for health care, foster care, incarceration, and lost tax revenue
- Reflects the steady decline of the teen birth rate in recent years
 - Decrease in programmatic costs associated with each participant in publicly funded programs

US Department of Health and Human Services



U.S. Department of Health and Human Services

Office of the Assistant Secretary for Health (OASH)

☐ **Pregnancy Assistance Fund**

☐ **Teen Pregnancy Prevention Initiative**

- Replication of Evidence-based Programs
- Research and Demonstration Projects
 - Untested and innovative strategies (with ACF)
 - Multi-component community-wide initiatives (with CDC)

Administration for Children and Families (ACF)

☐ **Personal Responsibility and Education Program**

☐ **State Title V Abstinence Grants**

CDC's Winnable Battles

**Healthcare-
Associated
Infections**



**Nutrition, Physical
Activity, Obesity
and Food Safety**



HIV



**Teen
Pregnancy**



**Motor
Vehicle
Injuries**

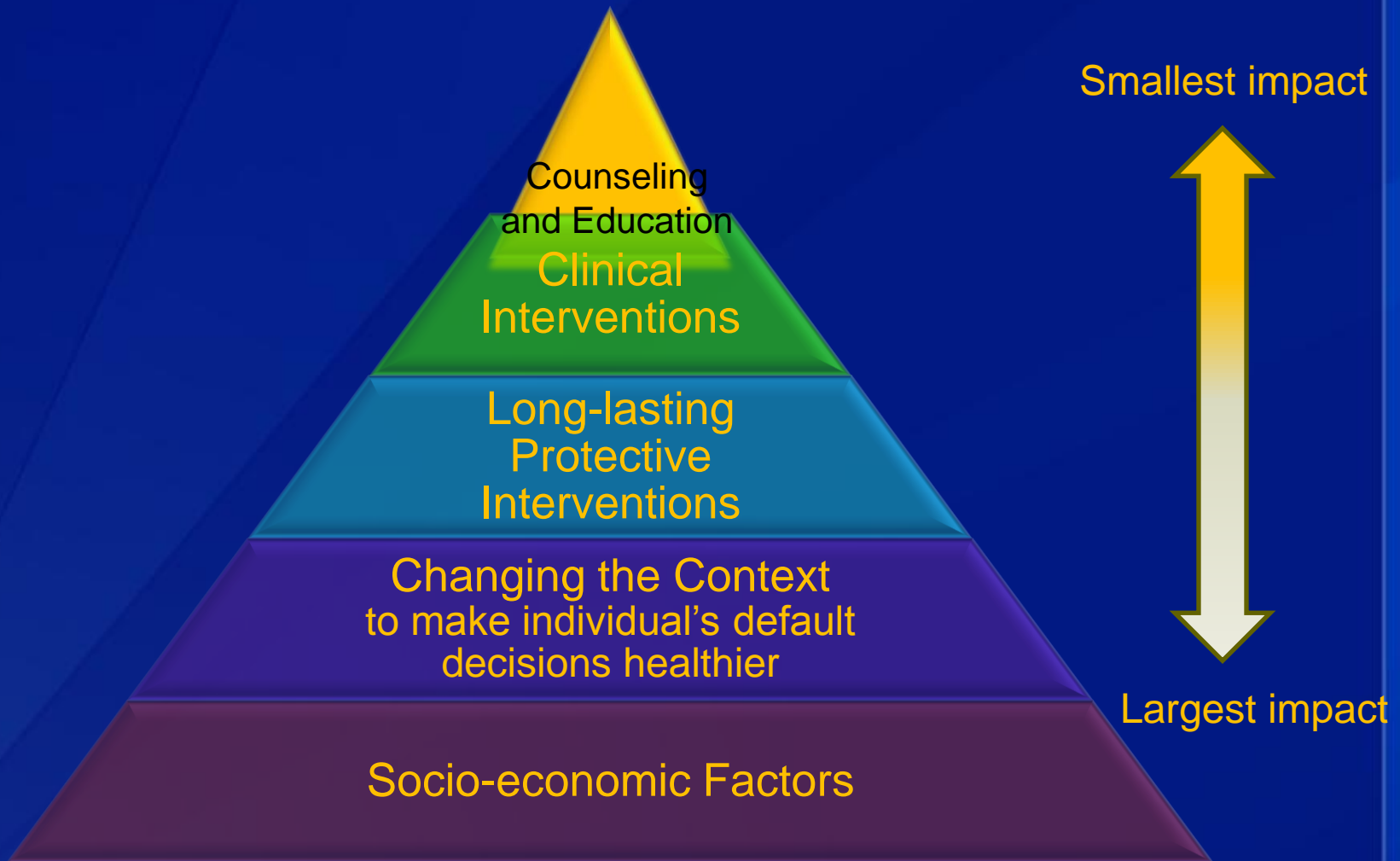


Tobacco



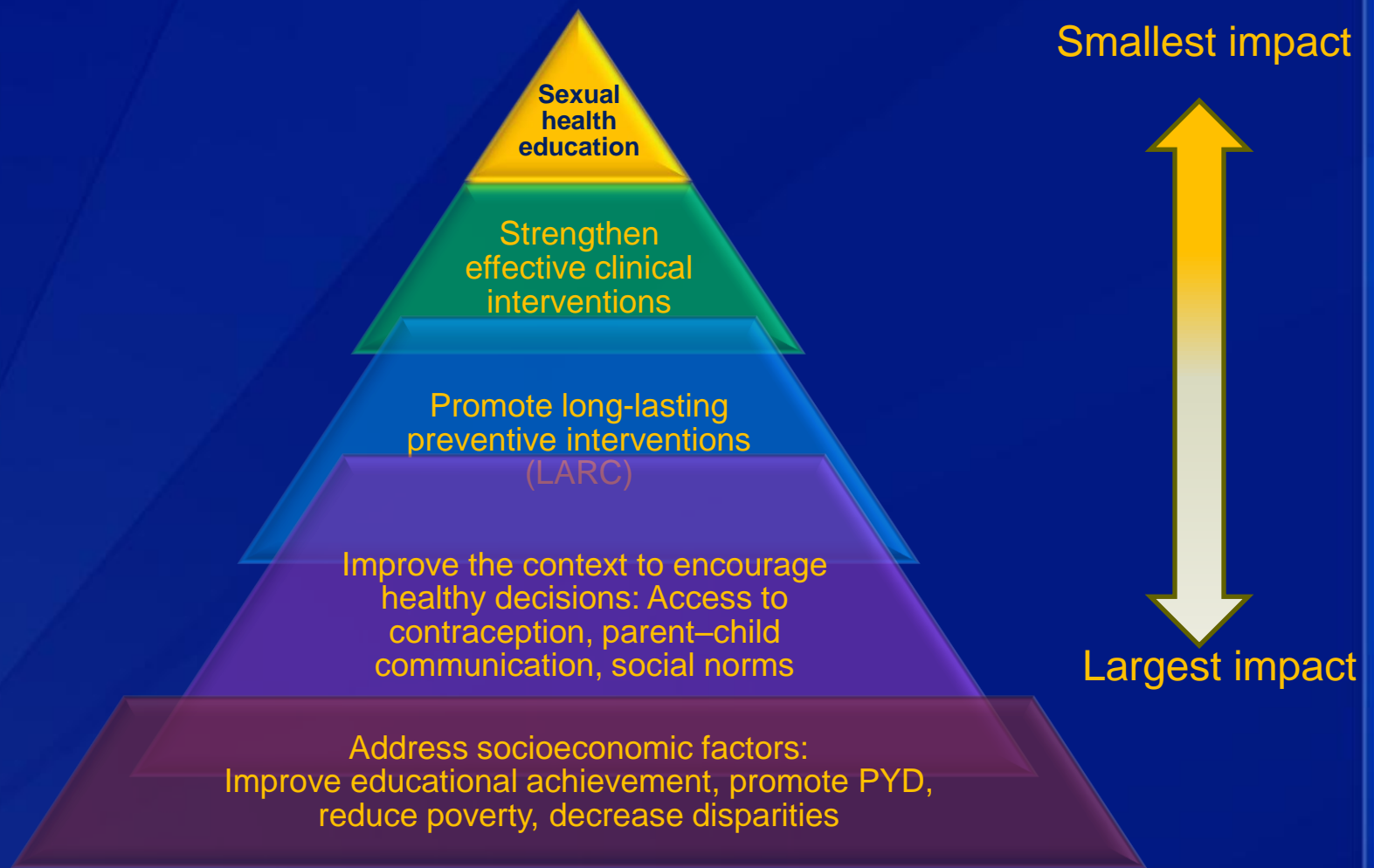
CDC's Health Impact Pyramid

Factors that Affect Health



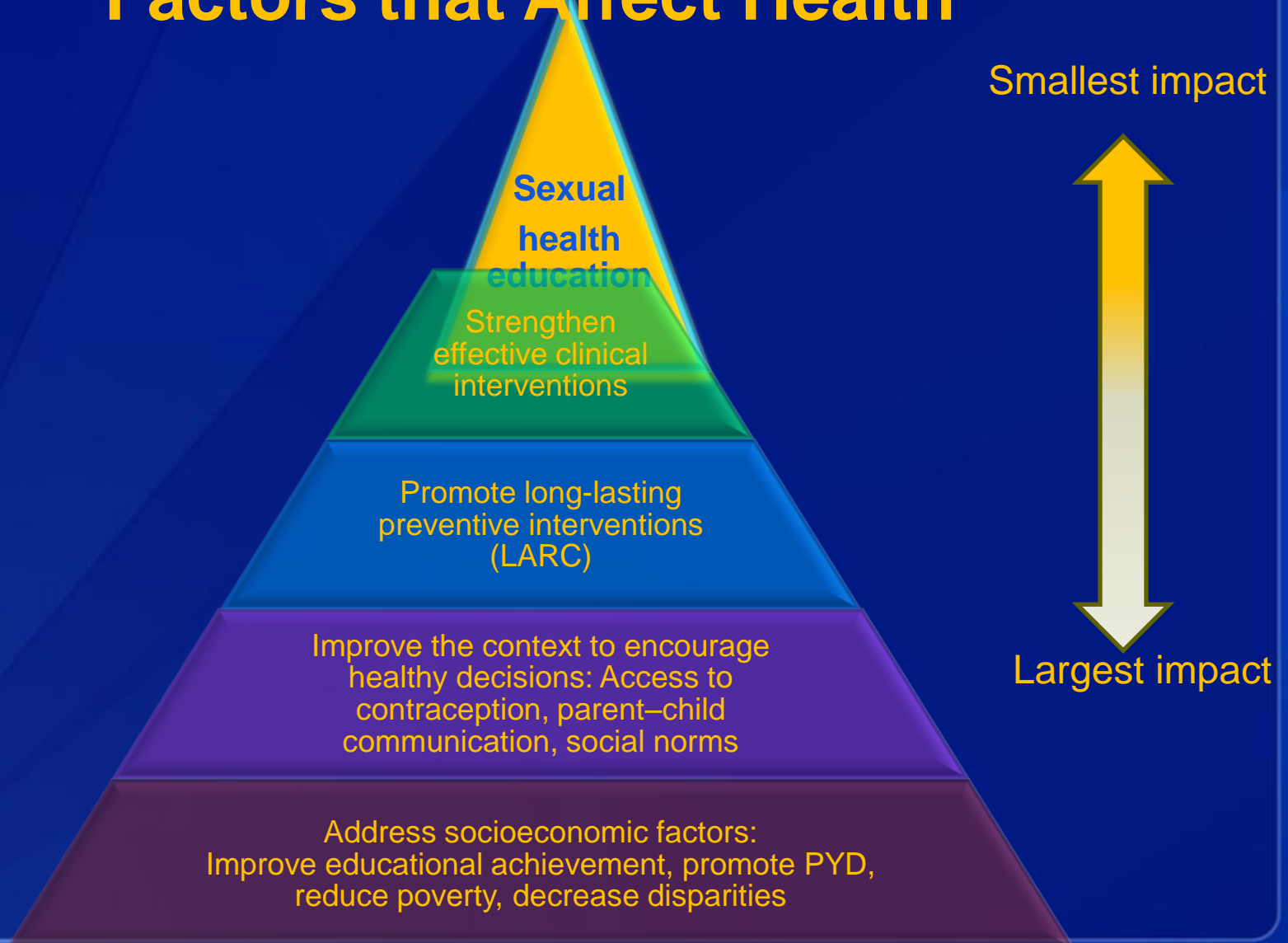
Teen Pregnancy and the Health Impact Pyramid

Factors that Affect Health



Teen Pregnancy and the Health Impact Pyramid

Factors that Affect Health



Sexual Health Education

❑ Challenges

- Most teens receive sex education
 - Not always before the first time they have sex
- Education about birth control methods lags behind other health education areas such as HIV and STDs

❑ Opportunities

- There is a need to educate state and local education officials about the benefits of sexual health education
- Parents/guardians need to talk to their teens about responsible decision-making in regards to sexual issues



Strengthen Effective Clinical Interventions and Promote Use of LARC Interventions

❑ Challenges

- Youth are poorly educated about contraception including safety and side effects
 - Many providers have misconceptions about which contraceptive methods are safe and appropriate for teens
- Barriers to low utilization (2-4%) of LARCs among adolescents
 - Cost, knowledge, and accessibility



Abma JC, et al. National Survey of Family Growth 2006–2008. National Center for Health Statistics. Vital Health Stat 23(30). 2010
ACOG, American Congress of Obstetricians and Gynecologists
AAP, American Academy of Pediatrics

Strengthen Effective Clinical Interventions and Promote Use of LARC Interventions

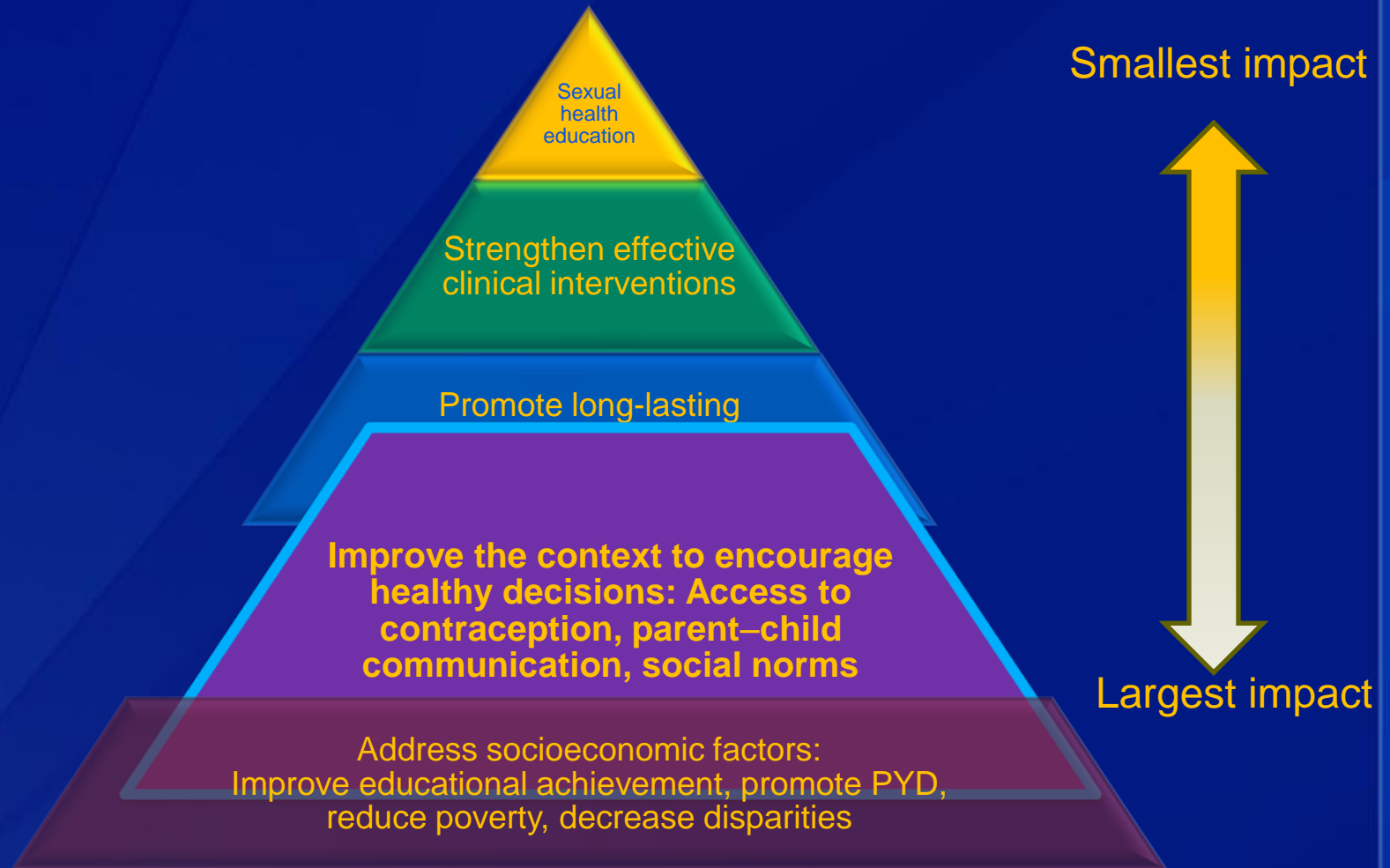
□ Opportunities

– CDC is working with

- States and other government agencies to remove logistical barriers to contraceptive use
- Partners to improve provider education on the LARC safety and effectiveness for better education of teens and parents
 - American College of Obstetricians and Gynecologists
 - American Academy of Pediatrics

Teen Pregnancy and the Health Impact Pyramid

Factors that Affect Health



Adapted from Thomas R. Frieden. A Framework for Public Health Action: The Health Impact Pyramid. American Journal of Public Health: April 2010, Vol. 100, No. 4, pp. 590-595. doi: 10.2105/AJPH.2009.185652

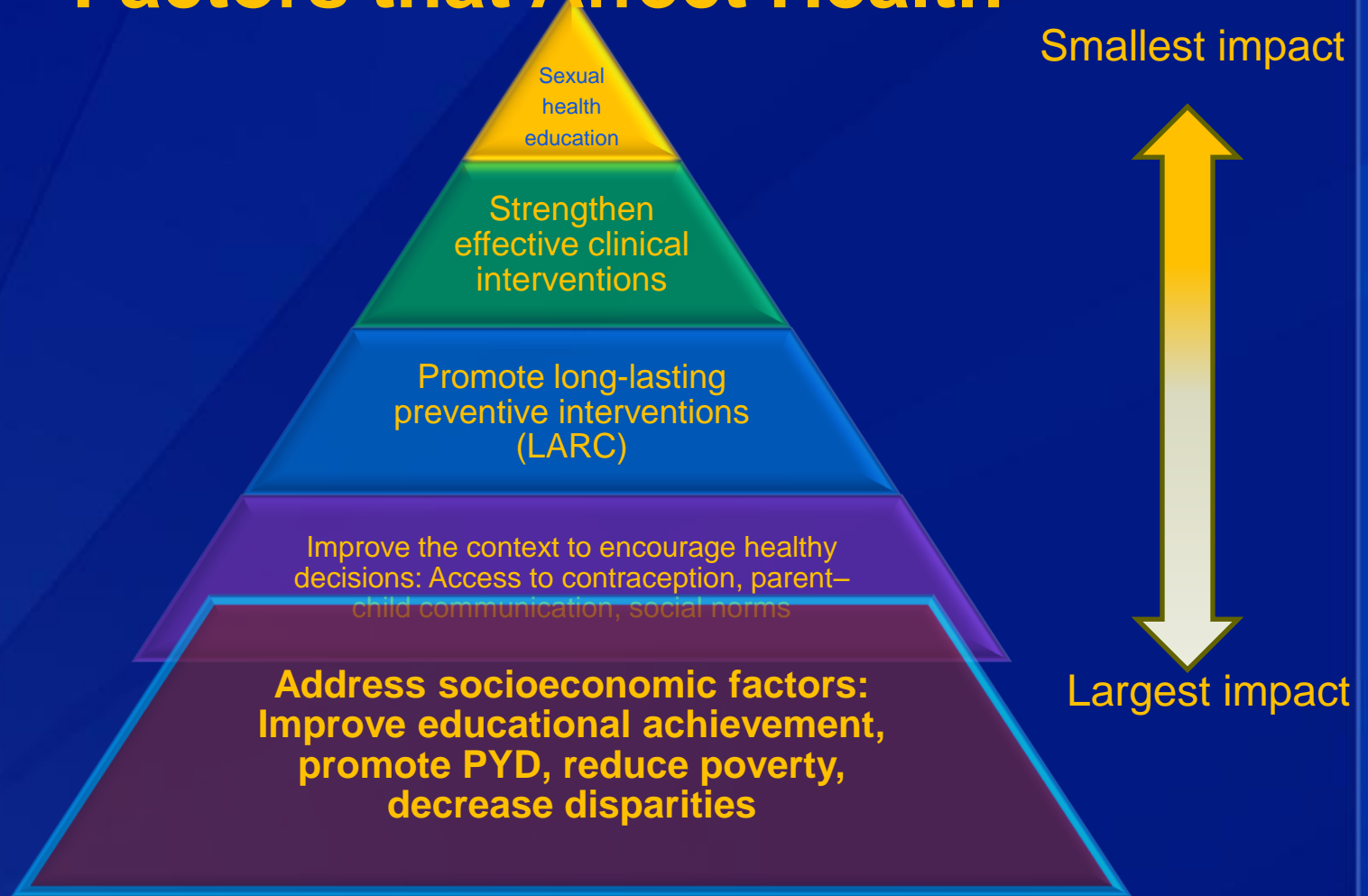
Improve the Context to Encourage Healthy Decisions

- **Challenges and opportunities**
 - Community mobilization
 - CDC's community-wide initiatives create supportive environment for youth
 - Receive evidence-based prevention programs
 - Obtain access to contraceptives and reproductive health services
 - Collaboration with the other government agencies to scale-up community practices nationwide



Teen Pregnancy and the Health Impact Pyramid

Factors that Affect Health



Adapted from Thomas R. Frieden. A Framework for Public Health Action: The Health Impact Pyramid. American Journal of Public Health: April 2010, Vol. 100, No. 4, pp. 590-595. doi: 10.2105/AJPH.2009.185652

Address Socioeconomic Factors

❑ Challenges and opportunities

- Social determinants of health are important to reducing teen pregnancy
- Positive youth development can set youth on a more healthy trajectory through life



Gavin LE, Catalano RF, Markham CM. Positive Youth Development as a Strategy to Promote Adolescent Sexual and Reproductive Health. Journal of Adolescent Health. 2010; 46 (S3);S1-S6.

CDC'S EFFORTS TO PREVENT TEEN PREGNANCY

Integrating Services, Programs, and Strategies Through Community-wide Initiatives

❑ Partnership between CDC and the Office of the Assistant Secretary for Health

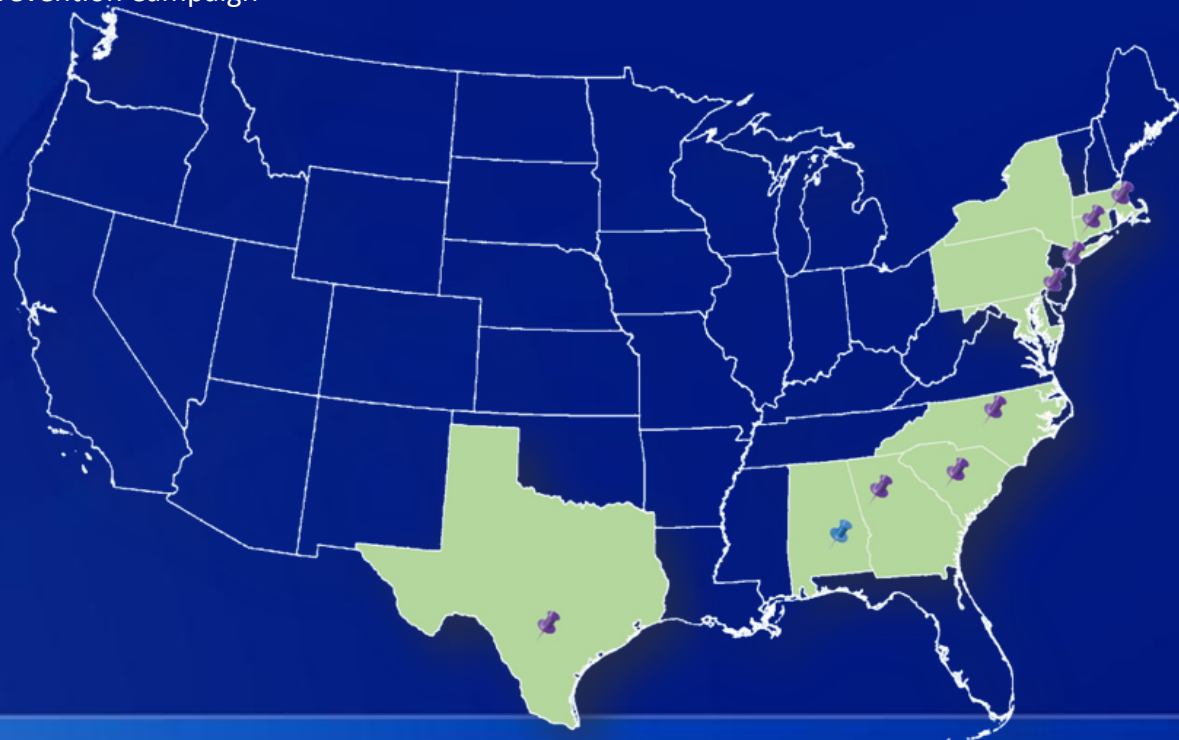


- Innovative, multi-component, community-wide initiatives in reducing teen pregnancy/birth
- African American and Latino teens aged 15–19

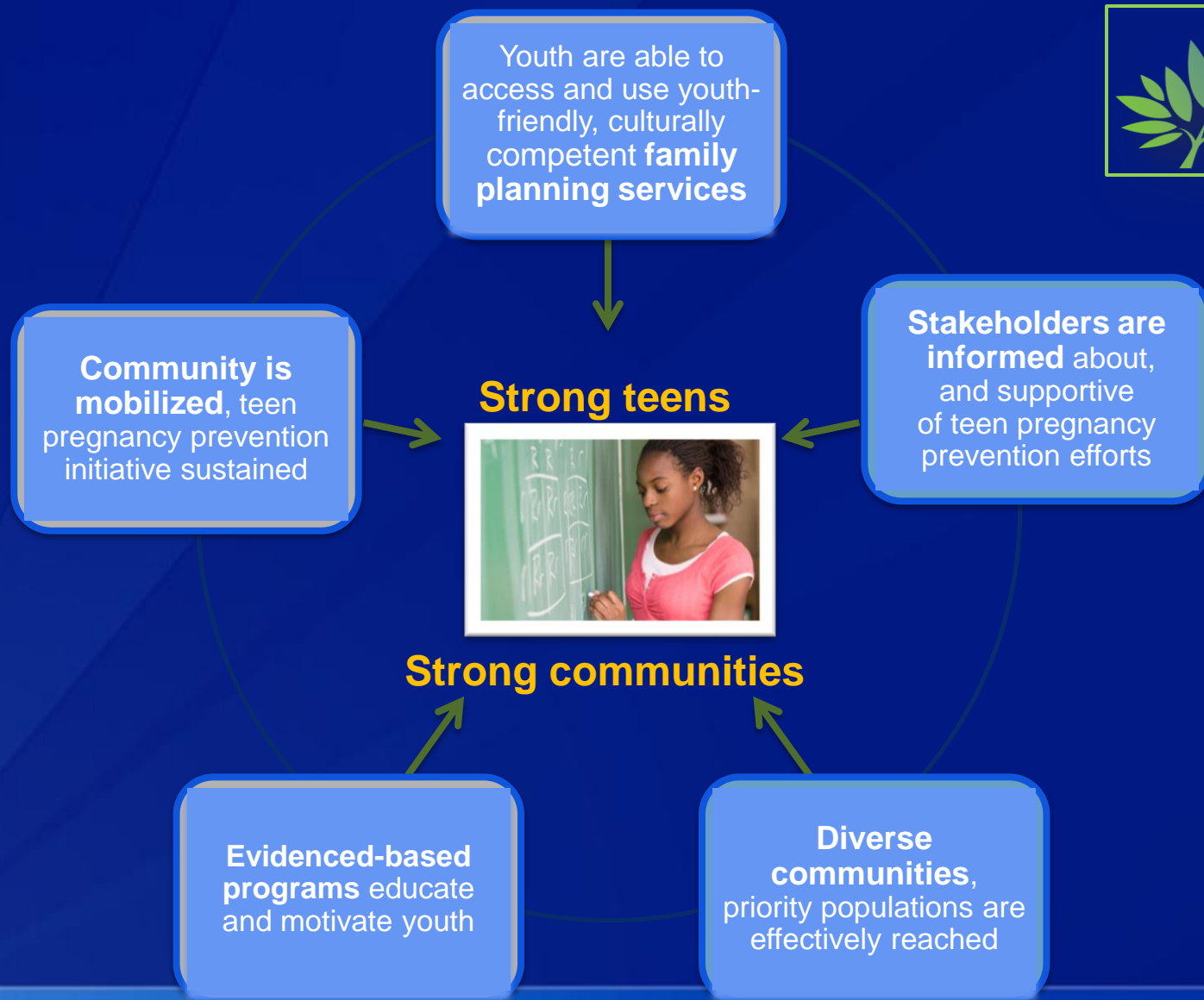


CDC's Teen Pregnancy Prevention Community-Wide Initiatives 2010 – 2015 Grantees

- **AL** - Alabama Department of Public Health
- **CT** - City of Hartford, Department of Health and Human Services
- **GA** - Georgia Campaign for Adolescent Pregnancy Prevention
- **MA** - The Massachusetts Alliance on Teen Pregnancy
- **NC** - Adolescent Pregnancy Prevention Campaign of North Carolina
- **NY** - The Fund for Public Health in New York, Inc.
- **PA** - Family Planning Council of Southeastern Pennsylvania
- **SC** - South Carolina Campaign to Prevent Teen Pregnancy
- **TX** - The University of Texas Health Science Center at San Antonio



5 Keys to Success of Community-wide Initiatives



Communities Are Expected to Select from 31 Available Evidence-based Programs

Be Proud! Be Responsible!	After school programs or community-based organizations
Be Proud! Be Responsible! Be Protective!	High schools
Becoming a Responsible Team (BART)	After school programs or community-based organizations
Children's Aid Society (CAS) -- Carrera Programs	After school programs or community-based organizations
iCuidate!	After school programs or community-based organizations
Draw the Line/Respect the Line	Middle schools
FOCUS	Specialized settings
Heritage Keepers Abstinence Education	Middle schools and high schools
Horizons	Health clinics
It's Your Game: Keep it Real	Middle schools

For a full list of evidence based programs visit: <http://www.hhs.gov/ash/oah/oah-initiatives/tpp/tpp-database.html>

Teen Pregnancy and Contraception

❑ Decline in teen pregnancy

- Majority is attributable to increased use of contraception,
- Smaller proportion due to increased abstinence

❑ Among teens who become pregnant

- About half are due to non-use of contraception
- About half are due to contraceptive failure
 - Failure of contraceptive method
 - Failure to use contraceptives correctly and consistently

Santelli JS, et al. Am J Public Health 2007;97:150-6
Santelli JS, et al. Persp Sex Reprod Health 2006;38:106-11



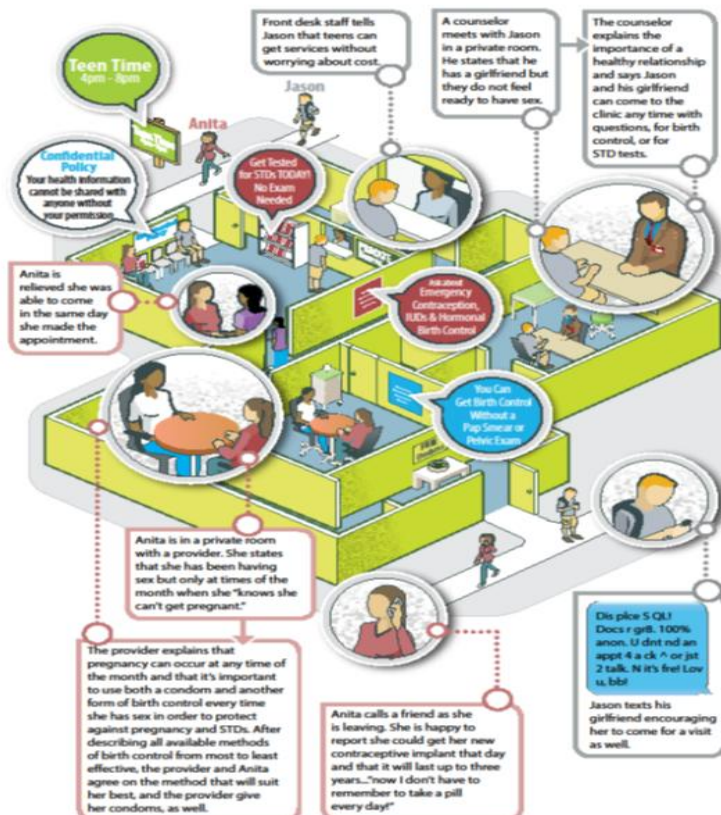
Key Domains of the Elements of Youth Friendly Reproductive Health Services

- ❑ Confidentiality
- ❑ Privacy
- ❑ Consent
- ❑ Accessibility
- ❑ Comprehensive Services
- ❑ Cultural & Linguistic Appropriateness
- ❑ Parent/Guardian Involvement

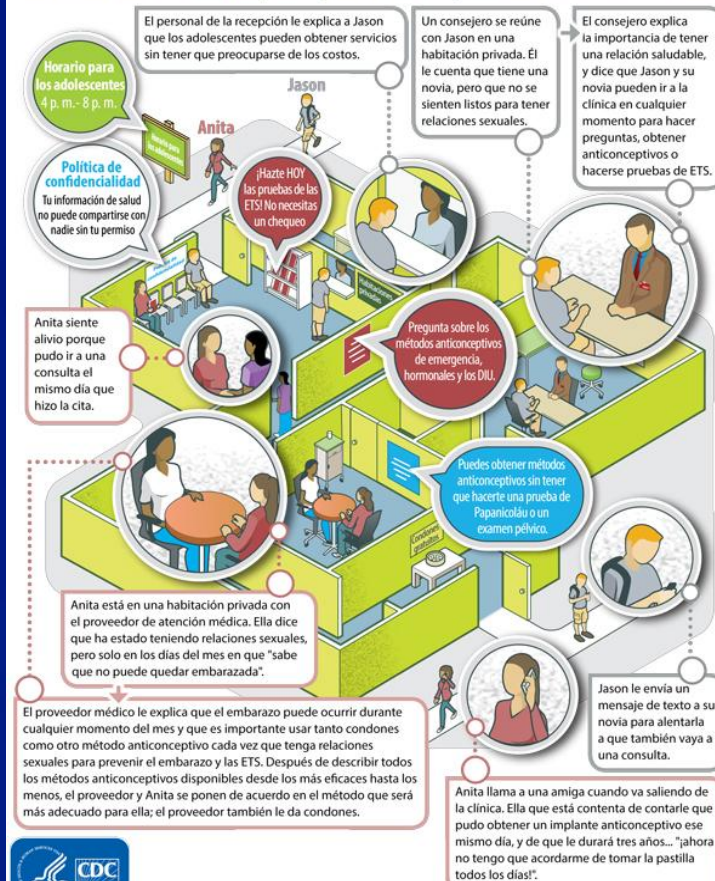


Infographic of Teen-Friendly Reproductive Health Visit

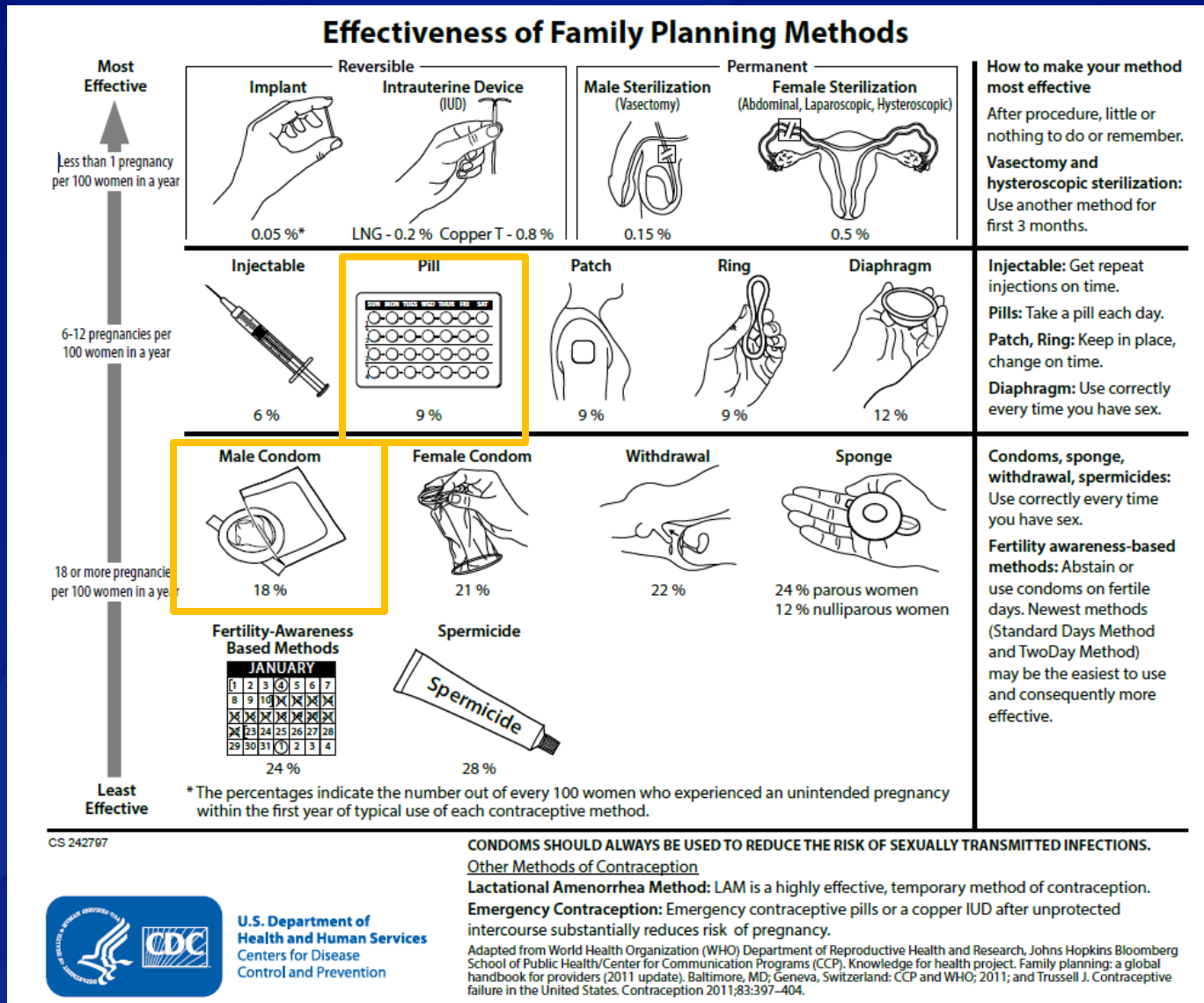
A Teen-Friendly Reproductive Health Visit



Una visita con servicios adaptados para la salud reproductiva de los adolescentes



Effectiveness of family planning methods



Tier 1

Tier 2

Tier 3

Typical Effectiveness of Contraceptive Methods

□ Most effective: <1 pregnancy per 100 women/year

- Single rod progesterone implant
 - Effective 3 years
- Intrauterine device (IUD)
 - Copper IUD: Effective 10 years
 - Two LNG-IUDs: Effective 3 or 5 years

Long acting reversible contraceptives (LARCs)

Most Effective

Typical Effectiveness of Contraceptive Methods

❑ Moderately effective: 6–12 pregnancies per 100 women/year

- Contain estrogen and progestins or progestin alone
 - Injectable
 - Pill
 - Patch
 - Ring
- Barrier: Diaphragm

Moderately Effective

Typical Effectiveness of Contraceptive Methods

❑ **Least effective: ≥ 18 pregnancies per 100 women/year**

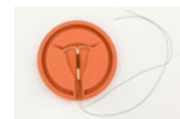
- Male condom
- Female condom
- Withdrawal
- Sponge
- Spermicide
- Fertility-awareness based methods: Standard days method, two days method, ovulation method, and sympto-thermal method

Least Effective

Long Acting Reversible Contraception (LARC)

- ❑ High typical effectiveness
 - Not dependent on adherence
- ❑ Should be first-line recommendations for all adolescents (American College of Obstetricians and Gynecologists, 2012)

Long Acting Reversible Contraception Program



Welcome to the College's Long-Acting Reversible Contraception (LARC) Program web page. This page provides a broad range of materials including clinical guidance, educational materials, and notices of upcoming LARC Program meetings and events. Check back frequently for updates and [sign up](#) for our LARC Program e-newsletter to

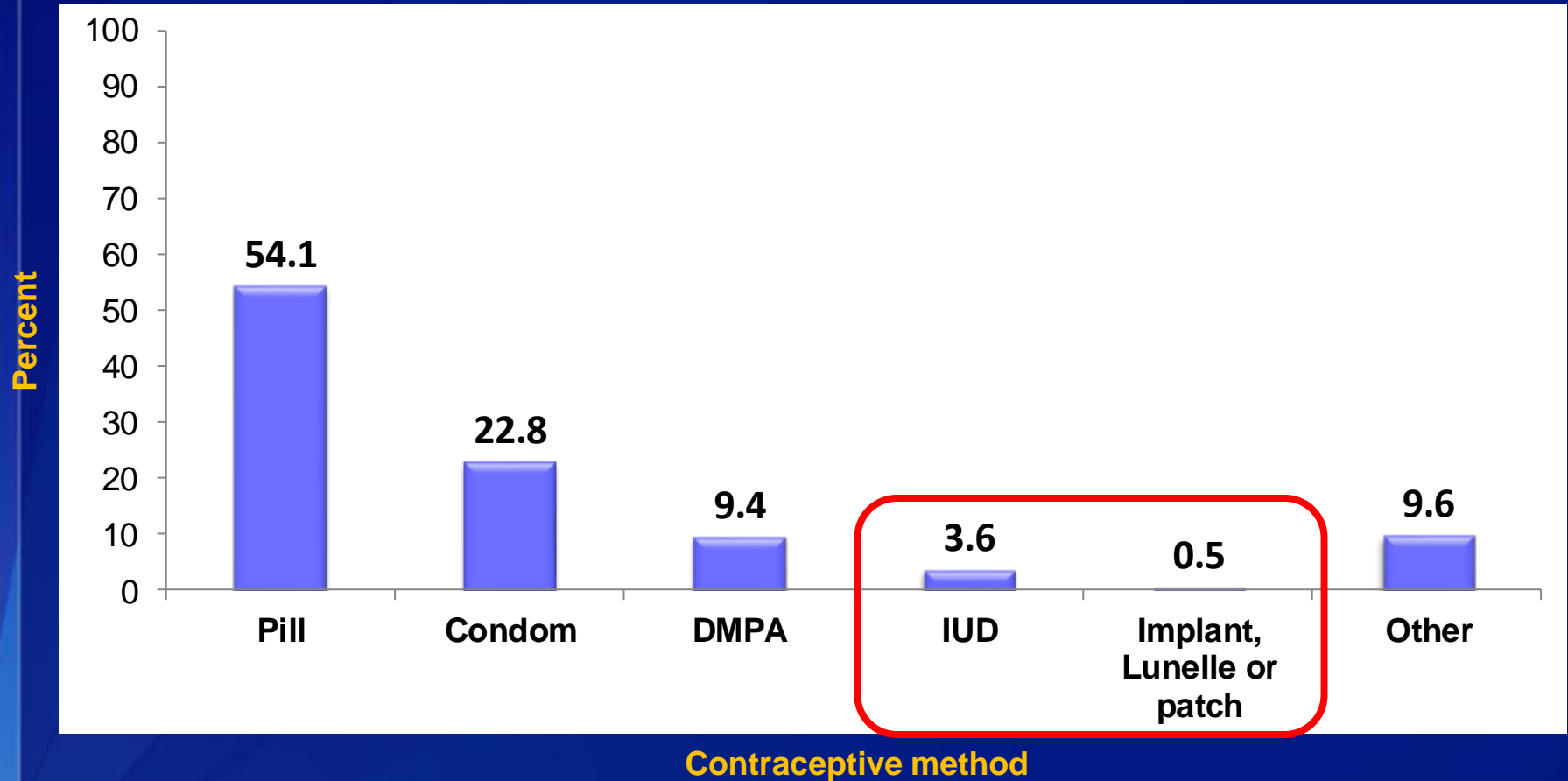
receive regular updates.



About the Long-Acting Reversible Contraception Program

The LARC Program provides information and guidance on LARC methods, specifically the contraceptive implant and intrauterine devices (IUDs), to reduce unintended pregnancy by increasing access to the full range of contraceptive methods. [Learn more](#)

Contraceptive Method Use among Teens



Mosher WD, et al. National Center for Health Statistics. Vital Health Stat 2010;23:9
DMPA, Depotmedroxyprogesterone acetate
IUD, Intrauterine device

Teens and LARCs

❑ Why teens do not use LARCs

- Cost
- Knowledge
- Accessibility



❑ Community-wide Initiatives

- Majority of teens have not heard of methods other than pills and condoms
- Other barriers: Confidentiality, unfavorable hours, transportation



Whitaker AK, et al. Contraception 2008;78:211-7
Mestad R, et al. Contraception 2011;84:493-8
Tyler CP, et al. Obstet Gynecol 2012;119:762-71
Madden T, et al. Contraception 2010;81:112-6

Teens and LARCs



❑ Why providers do not offer LARCs

- Patient preference
- Concerns about safety
- Not trained in IUD insertion
- IUDs not available



❑ Community-wide Initiatives

- 70% of providers had “never” or “not often” prescribed an IUD to teens for these reasons

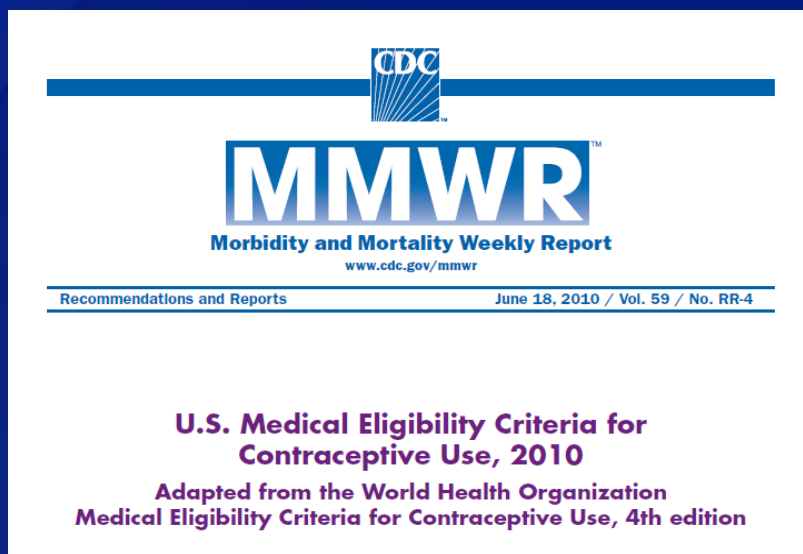
IUD, Intrauterine device

Whitaker AK, et al. Contraception 2008;78:211-7; Mestad R, et al. Contraception 2011;84:493-8

Tyler CP, et al. Obstet Gynecol 2012;119:762-71; Madden T, et al. Contraception 2010;81:112-6

U.S. Medical Eligibility Criteria for Contraceptive Use (MEC)

- ❑ First U.S. edition, adapted from the WHO
- ❑ Evidence-based guidelines for which contraceptive methods can be used safely by women with certain characteristics and medical conditions
 - 17 contraceptive methods and >120 medical conditions



WHO, World Health Organization

U.S. MEC for Contraceptive Use: Recommendations for Teens

❑ Teens can safely use all methods of contraception

- Including implants and IUDs

❑ Teens with medical conditions and characteristics

- Obesity
- Smoking
- Diabetes
- Sexually transmitted infections
- HIV

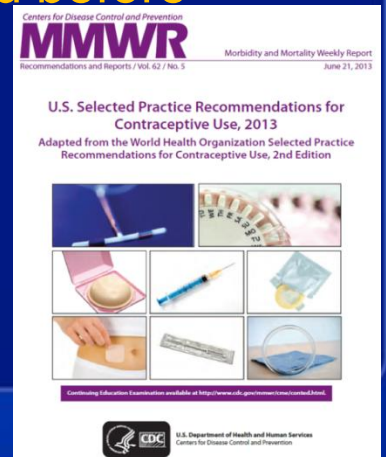


IUD, Intrauterine device

U.S. Selected Practice Recommendations for Contraceptive Use (SPR)



- ❑ **Guidance for health care providers on common, yet complex issues in management of contraception**
 - Published in 2013 as a CDC MMWR
- ❑ **Examples of guidance**
 - When to start contraception
 - SPR: Guidance around “quick start” - starting a woman on contraception on the same day as her visit
 - What exams and tests are needed before starting contraception
 - SPR: Guidance on the few exams or tests needed before starting contraception

http://www.who.int/reproductivehealth/publications/family_planning/9241562846index/en/index.html



CDC Contraceptive Guidance

Healthcare Provider tools

 **Summary Chart of U.S. Medical Eligibility Criteria for Contraceptive Use, 2010** 

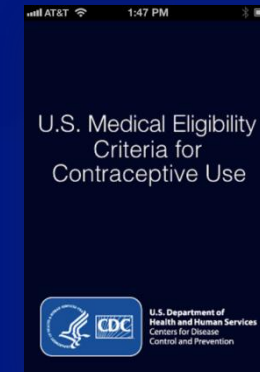
Key:

- 1: No restriction (method can be used)
- 2: Advantages generally outweigh theoretical or proven risks
- 3: Theoretical or proven risks usually outweigh the advantages
- 4: Unacceptable health risk (method not to be used)

This summary chart only contains a subset of the recommendations from the US MEC. For complete guidance, see www.cdc.gov/reproductivehealth/USMEC.

Most contraceptive methods do not protect against sexually transmitted infections (STIs). Consistent and correct use of the male latex condom reduces the risk of STIs and HIV.

Condition	Method	Combined pill, patch, ring	Progestin-only pill	Injectable	Intrauterine	Uterine IUD	Copper IUD
Age		1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
Smoking		1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
Weight		1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
Medical History		1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
Contraindications		1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
STIs		1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
Other		1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4



Smart phone app



Pocket-size wheel

Summary charts in English and Spanish

<http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/USMEC.htm>

Quality Family Planning (QFP) Recommendations

New CDC-OPA* recommendations, *Providing Quality Family Planning Services* (QFP)

- ❑ Define what services should be offered in a family planning visit, and describe how to do so
- ❑ Support consistent application of quality care across settings and provider types
- ❑ Translate research into practice, so the most evidence-based approaches are used

Office of Population Affairs (OPA)
*Expected release date Spring 2014



QFP Recommendations for Teens

- ❑ Provide quality contraceptive counseling
- ❑ Offer confidential services and observe all relevant state laws and any legal obligations
- ❑ Provide comprehensive information about how to prevent pregnancy
- ❑ Encourage communication between the adolescent and his or her parent(s) or guardian(s) about sexual and reproductive health
- ❑ Educate pregnant adolescents about contraceptive options for the post-pregnancy period, including benefits of immediate postpartum insertion of LARC



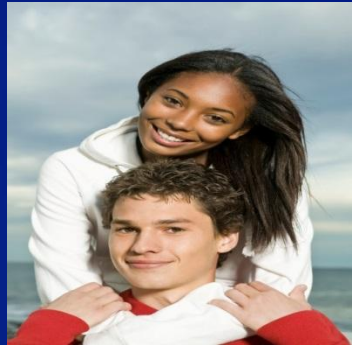
Dissemination

- ❑ Increase awareness among providers
- ❑ Develop & disseminate provider training materials
- ❑ Evaluate use of guidance documents



Summary

- ❑ Teen pregnancy rate in the U.S. is declining, but still high
- ❑ Most teen pregnancies are due to non-use or inconsistent use of contraception
- ❑ As a demonstration project, CDC's community-wide initiatives will provide useful information on prevention efforts using the 5 component model
- ❑ CDC's evidence-based guidance can help providers to manage contraception



www.cdc.gov/teenpregnancy



For more information please contact Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, GA 30333

Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348

E-mail: cdcinfo@cdc.gov Web: www.cdc.gov

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