

The Importance of Long-Acting Reversible Contraception: The Contraceptive CHOICE Project

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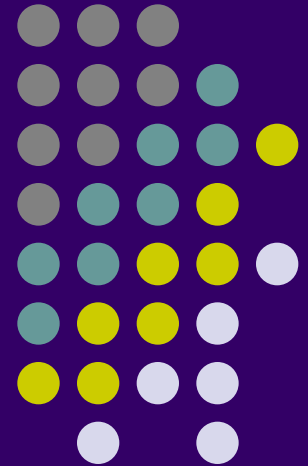
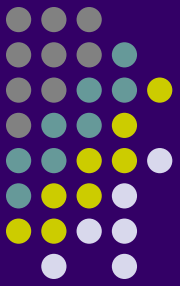
Robert J. Terry Professor

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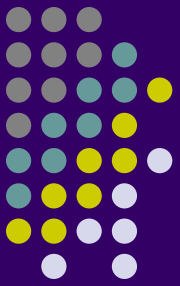
Washington University in St. Louis

School of Medicine

February 22, 2012

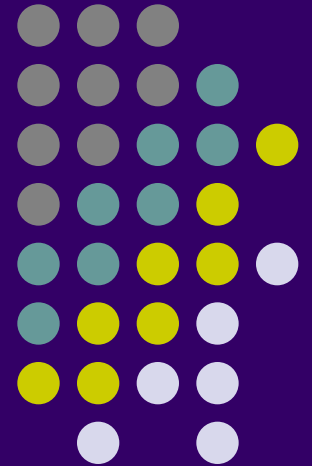
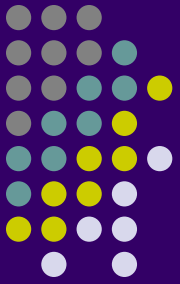


OBJECTIVES



- Describe the preliminary results of the Contraceptive CHOICE
 - Promotion of long-acting reversible contraceptive (LARC) methods
 - Continuation and satisfaction with reversible methods
 - Population outcomes:
 - Abortion
 - Repeat abortion
 - Teen births

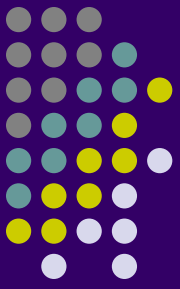
The Contraceptive CHOICE Project



Washington

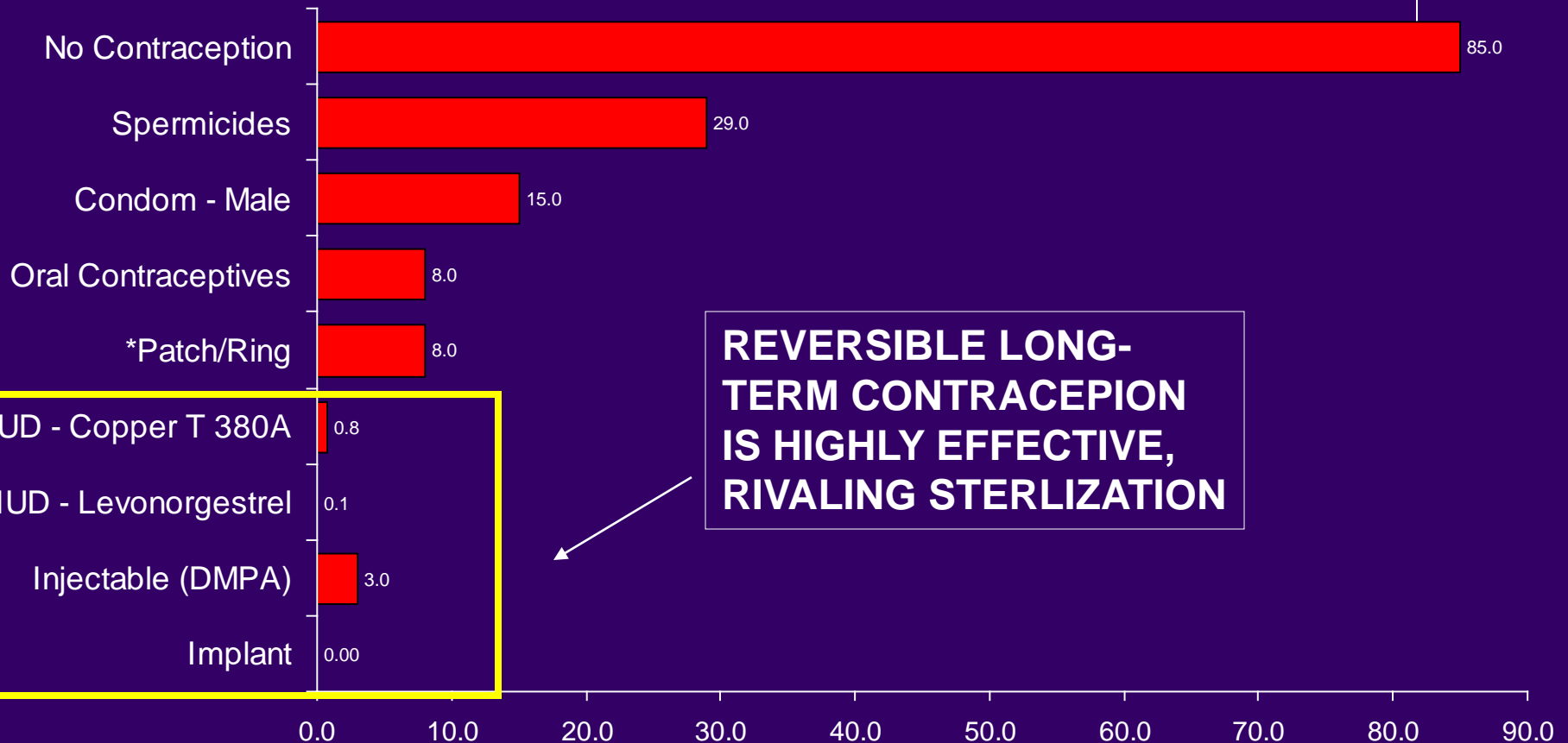
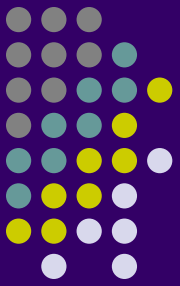
WASHINGTON · UNIVERSITY · IN · ST · LOUIS

Call from Anonymous Foundation



- Remove financial barriers to most effective long-term reversible methods
 - IUDs
 - Implanon
- Provide free contraception for enough women in St. Louis Region to make a population impact:
 - Teen Pregnancy
 - Repeat Abortion Procedures

Typical Use - First Year Failure Rates

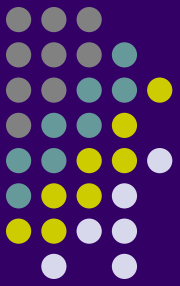


*Estimates in lieu of actual data

Trussell J. Contraception 2004;70:89-96.

**Funk S et al. Contraception 2005;71:319-326.

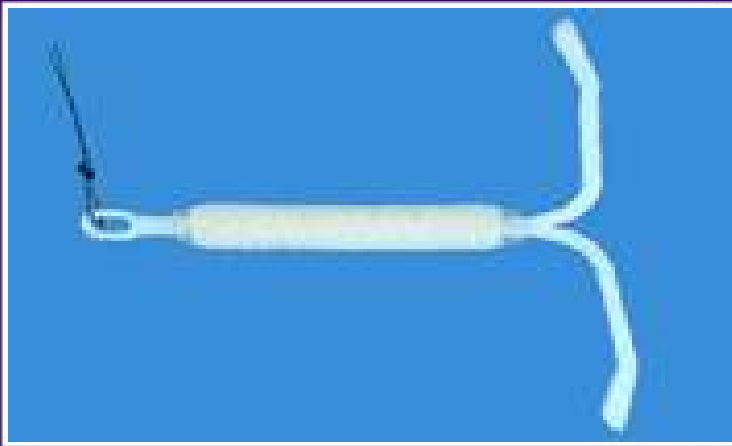
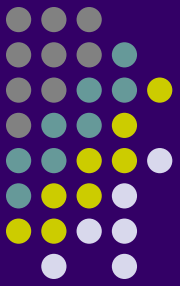
Implanon (subdermal implant)



- Single 4 cm long implant that hides just beneath the skin on the underside of your upper arm and releases the progestin etonogestrel at a rate of 60mcg/day



IUDs Available in the U.S.



LNG IUS

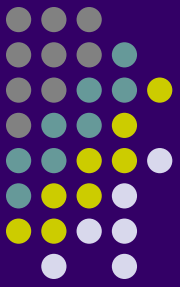
20 mcg levonorgestrel/day
Approved for 5 years' use



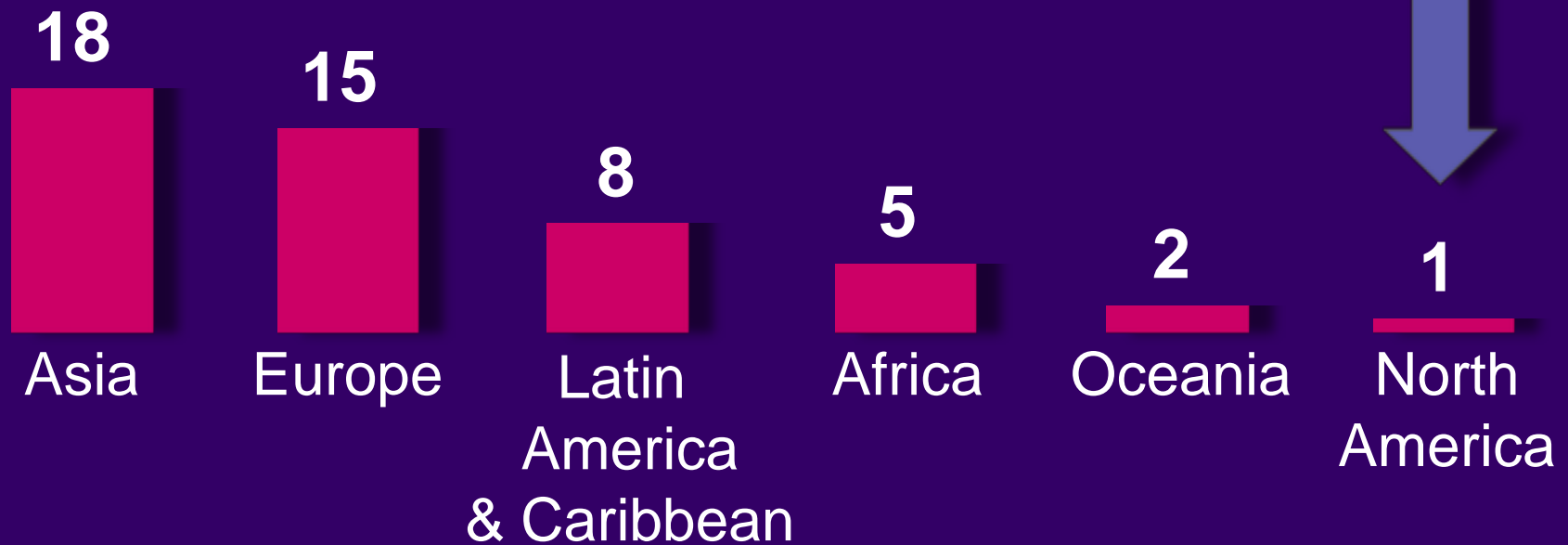
Copper T 380A IUC

Copper ions
Approved for 10 years' use

Worldwide Use of IUDs

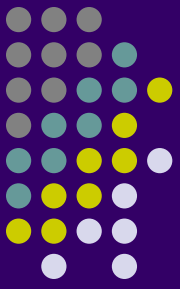


% Use for Married Women of Reproductive Age



Population Reference Bureau. 2002.
Mosher WD, et al. 2004.

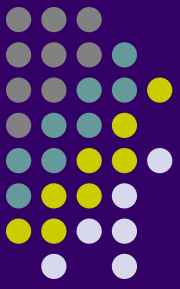
LARC = Long-acting Reversible Contraception



- Improved contraceptive methods
 - Less dependence on compliance
 - Higher continuation rates
 - Contraceptive Implants
 - 70 – 85% at 12 months
 - Intrauterine Contraception
 - 70 – 90% at 12 months



CHOICE: Primary Objectives



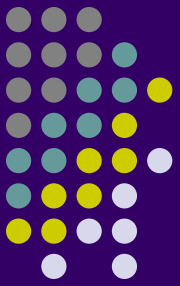
- To increase the acceptance and use of long-term reversible contraceptive (LARC) methods among women of childbearing age
- To measure acceptability, satisfaction, side-effects, and rates of continuation across a variety of contraceptive methods, including long-term reversible methods

CHOICE: Hypotheses



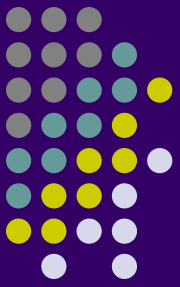
- Increase rates of IUD use in sentinel clinics in STL region:
 - From <1-2% TO
 - 6% or more
- Rates of post-abortal IUD use will increase from <1% to 10% or more
- Use of subdermal implants will increase to 3% or more

CHOICE: Hypotheses

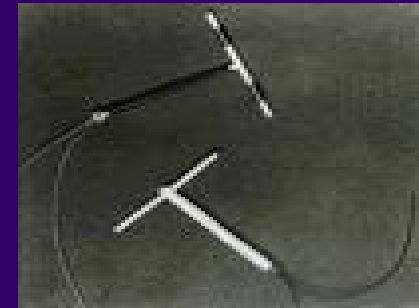


- Continuation rates at 12-months will be greater for IUD and implant vs. other forms of contraception
- Population-Based Outcomes:
 - By end of study
 - Teen pregnancy rates in STL region will decline by 10%
 - Repeat abortion procedures will decline by 10%

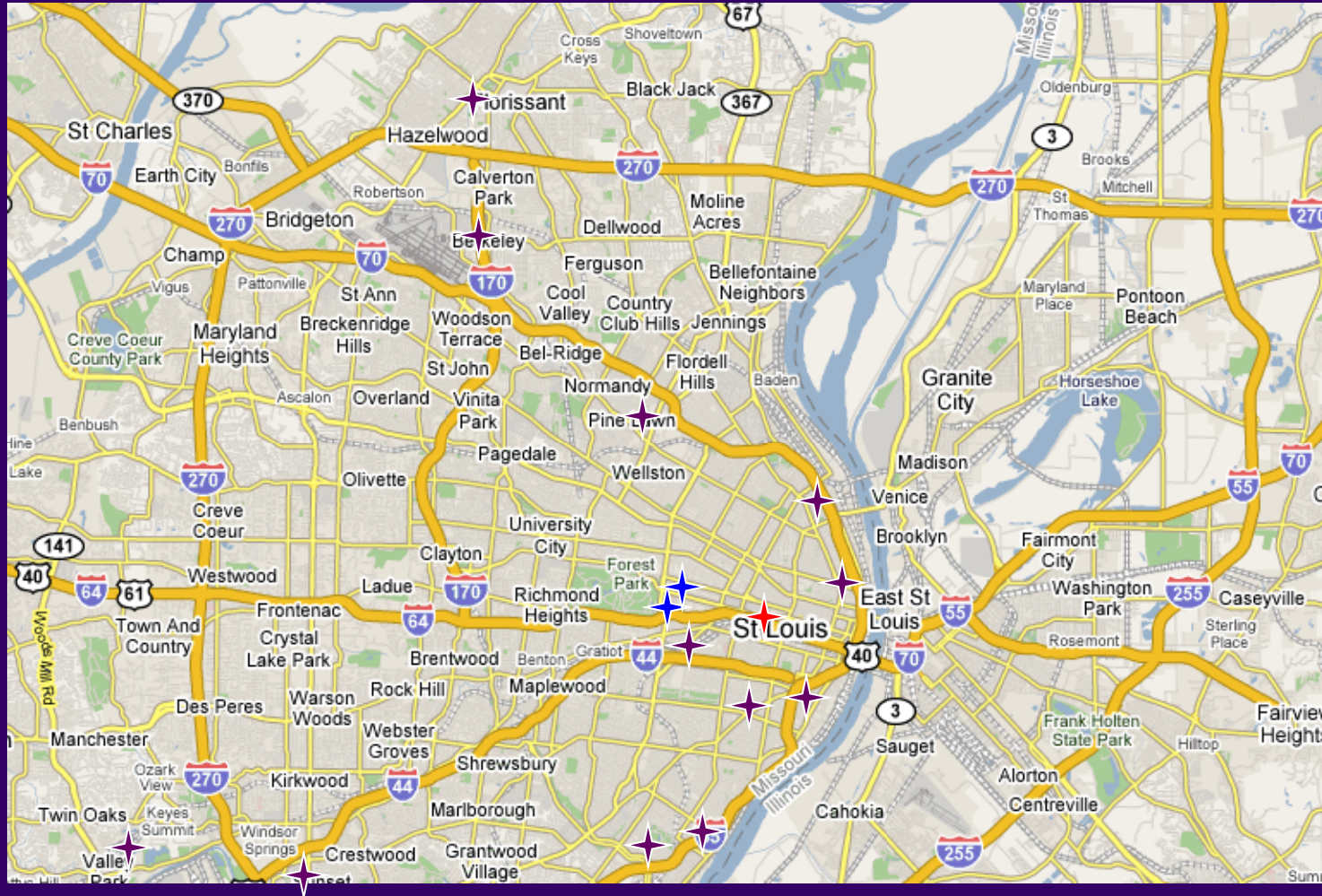
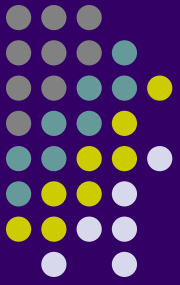
Contraceptive Cohort Study



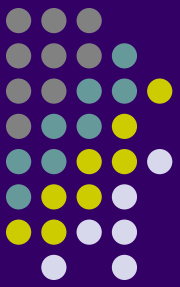
- Recruit 10,000 participants over 4 years
 - Remove cost barriers to long-term methods
 - Copper IUD (ParaGard): \$438
 - 10 years duration
 - LNG IUD (Mirena): \$703
 - 5 years duration
 - Implant (Implanon): \$625
 - 3 years duration
 - Participant choice
 - 2-3 years follow-up



CHOICE: Recruitment Sites

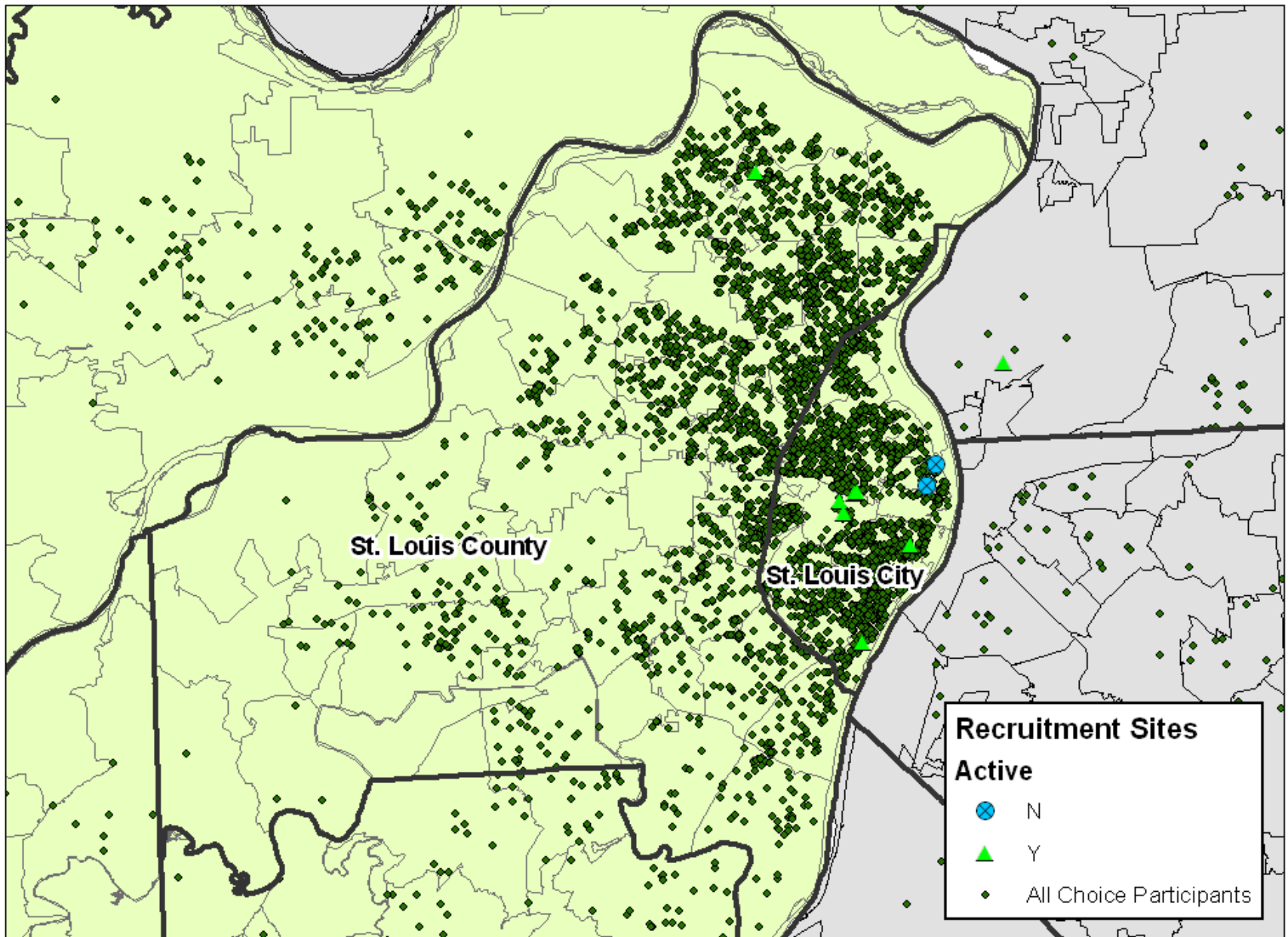


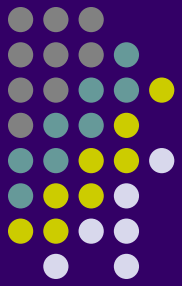
CHOICE: Inclusion Criteria



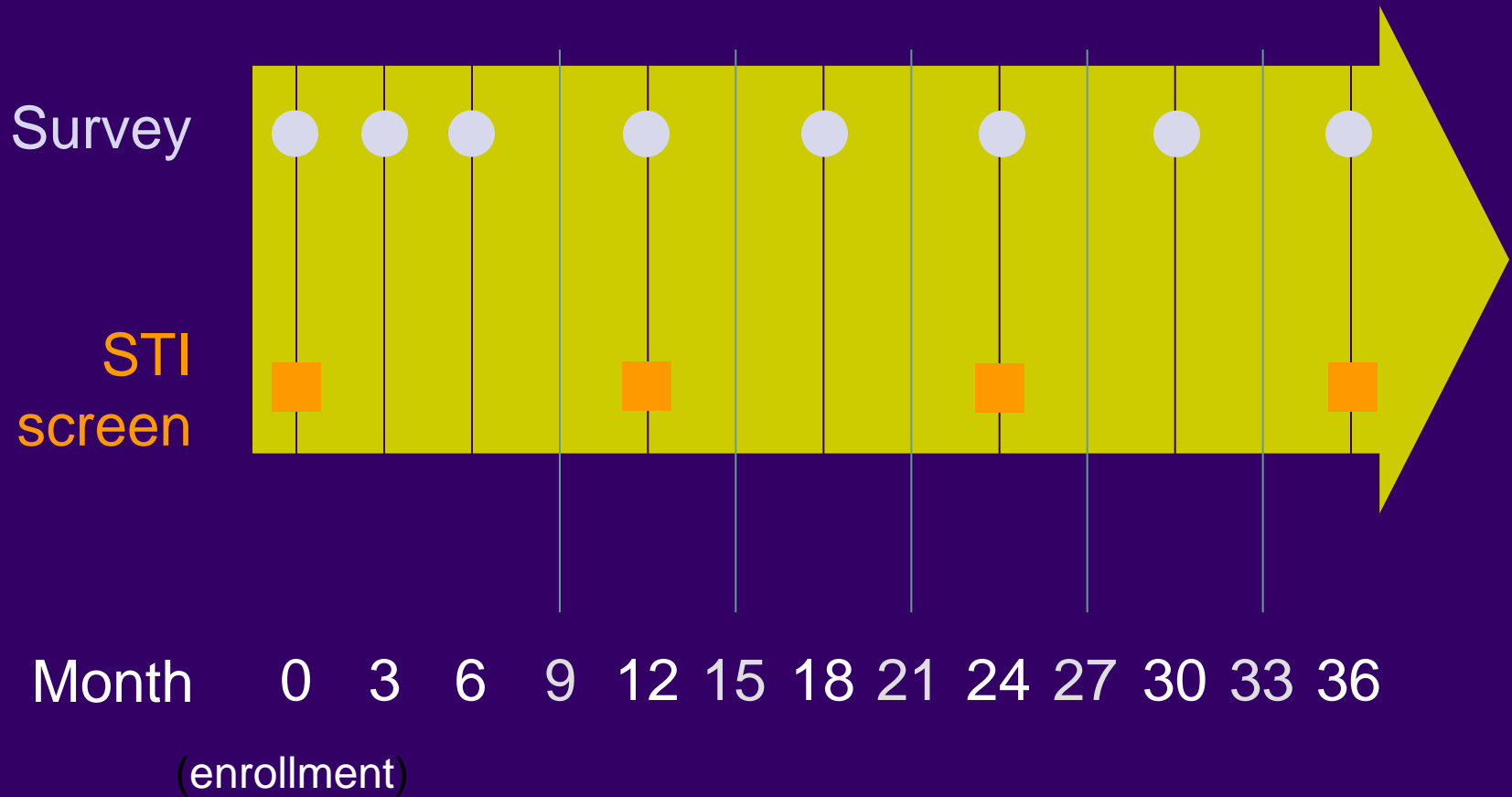
- 14-45 years
- Primary residency in STL City or Country
- Sexually active with male partner
(or soon to be)
- Does not desire pregnancy during next 12 months
 - Desires reversible contraception
- Willing to try a new contraceptive method

Choice Participants in St. Louis City and County

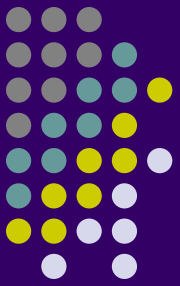




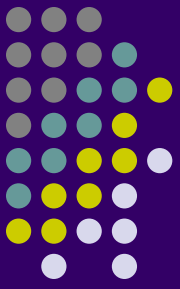
Study Subject Timeline



CHOICE Recruitment



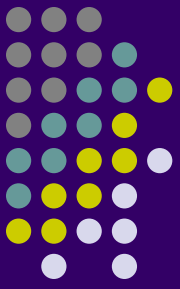
- Began August 2007
- Will complete recruitment of 9,250 women September 2011
- Phone follow-up rates:
 - 93% at 6 months
 - 89% at 12 months
 - 87% at 18 months
 - 85% at 24 months



CHOICE: Baseline Data

- Mean age: 25 years
 - 14 – 25 years of age: 61%
 - 14-17: 5%
 - 18-20: 22%
- 49% are African American
- 34% had a high school education or less
- 33% receive public assistance
- 40% have trouble paying for basic necessities.

CHOICE Baseline Data



- Reproductive history:
 - 48% nulliparous
 - 66% experienced an unintended pregnancy
 - 21% had 3 or more unintended pregnancies
 - 40% history of abortion
 - 39% history of sexually transmitted infection (STI)
- Current STI:
 - 6% current STI (trichomoniasis, GC, CT)

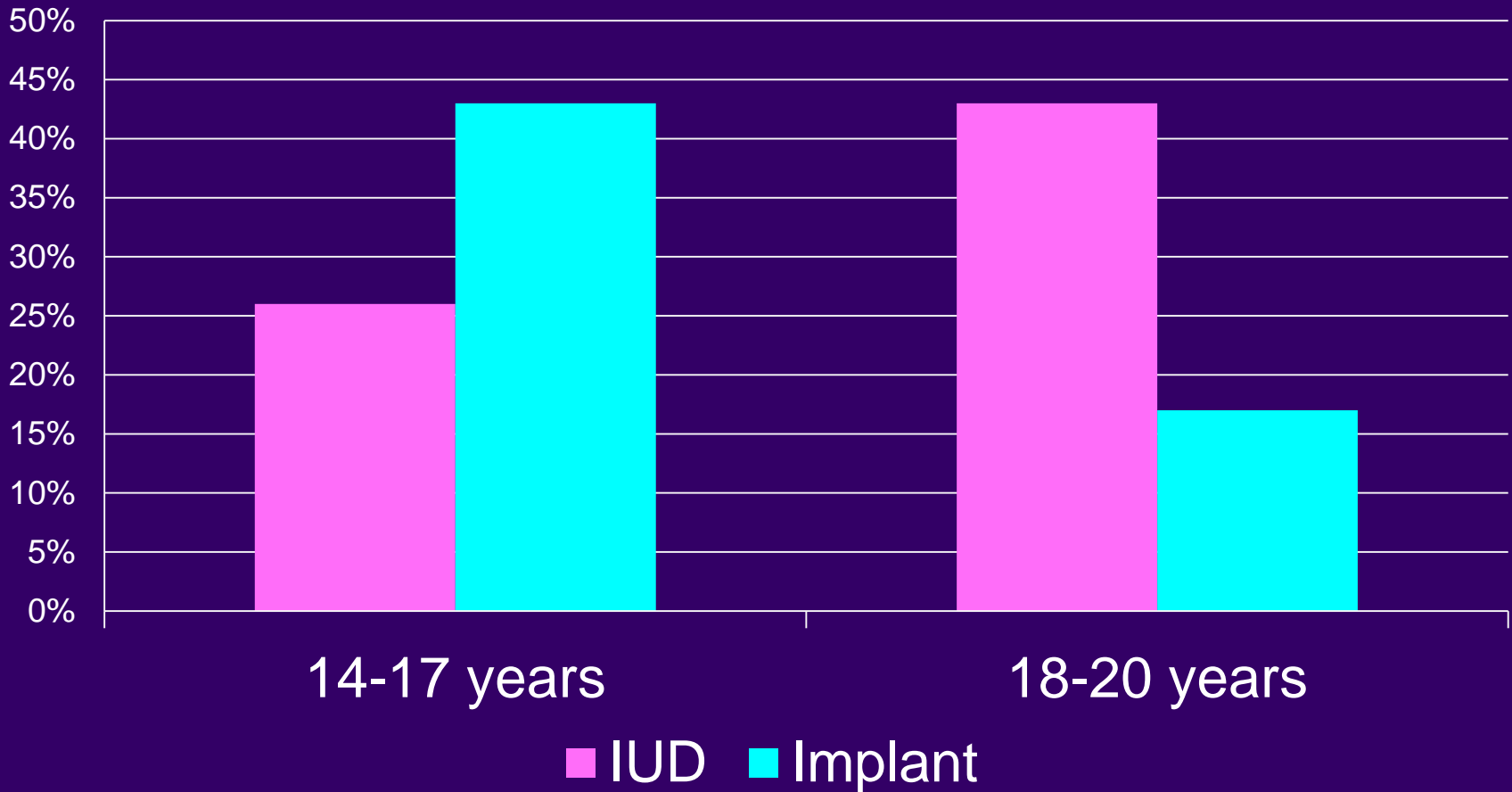
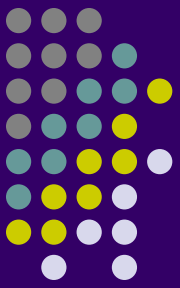


What do women choose?

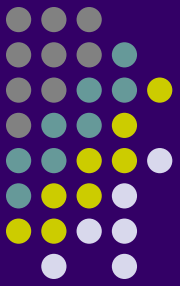
LNG-IUS	46.9
Copper T380A	10.5
Implant	12.4
DMPA	7.1
Pills	11.0
Ring	9.6
Patch	2.2
Diaphragm	<1.0

} LARC: 69.8%

Choice of LARC Methods in Adolescents

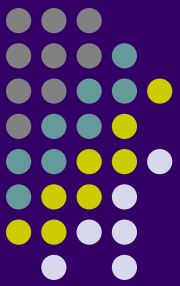


Evaluation of CHOICE



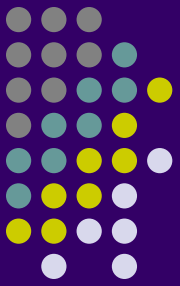
- Outcomes
 - Short term:
 - Continuation & satisfaction
 - Long-term
 - Population-based outcomes
 - Unplanned pregnancies:
 - Repeat Abortions
 - Teen births

Continuation



Method	Starting Total	Using at 12 Months	Continuation Rate (%)
LNG-IUS	1,890	1654	87.5
Cu-IUD	434	365	84.1
Implant	522	435	83.3
Any LARC	2,846	2453	86.2
DMPA	313	176	56.2
Pills	478	263	55.0
Patch	99	49	49.5
Ring	431	234	54.2
Non-LARC	1321	723	54.7

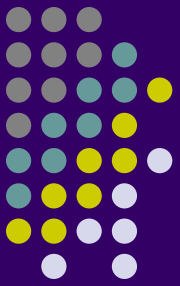
Continuation & Satisfaction at 12 months (OCPs as referent group)



Method	Continuation RR*	95% CI (Continuation)	Satisfaction RR*
LNG-IUS	1.24	1.17, 1.33	1.25
Cu-IUD	1.19	1.10, 1.29	1.18
Implant	1.16	1.07, 1.25	1.12
DMPA	0.99	0.89, 1.10	0.96
Pills	1.0	referent	1.0
Patch	0.76	0.61, 0.94	0.75
Ring	0.95	0.86, 1.04	0.95

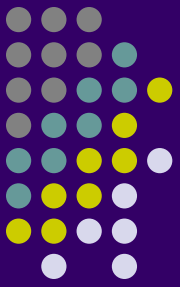
- No evidence that age, education, income, BMI, gravidity, parity, history of unintended pregnancy or AB are confounders.

IUD Use for Adolescents

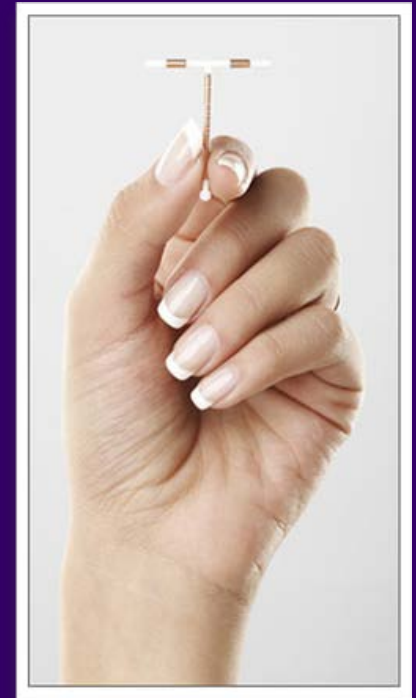


- Continuation & satisfaction did NOT differ by age group.
- Appropriate for **properly selected** and counseled adolescents
- **Encourage consistent and correct use of condoms**

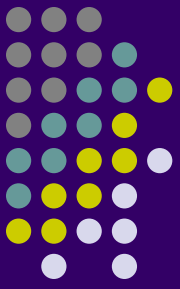
Why are WE so excited about CHOICE?



- IOM recommendations:
 - Women's preventive services
 - Opportunity to serve as a model site
- Shape health care
 - Family Planning saves \$\$
 - \$1.00 SAVES \$3.74
- Opportunity to impact public health
 - Unintended pregnancy
- Individual benefit to patients



Bottom Line: Take-home Messages



- LARC Methods are THE most effective contraceptive options
 - Forgettable
 - Not dependent on compliance/adherence
- CHOICE Project: A Model?
 - LARC methods are FIRST LINE
 - Contraceptive methods are FREE
- Policy Implications:
 - Cost-savings: reduce unintended pregnancies!