



Exploring Key Dimensions of Pregnancy Intentions

John S Santelli, MD, MPH, Laura Lindberg, PhD, Mark
Orr, PhD, Rachel Jones, PhD, Ilene S Speizer, PhD,
Lawrence B Finer, PhD

Columbia University and Guttmacher Institute



Background

- In the US, 49% of pregnancies unintended
 - Half of these end in abortion
- Unintended pregnancy is associated with adverse health experiences, behaviors, and outcomes
- Unintended pregnancy reflects:
 - Failure of health and social support systems
 - Difficulties for women and couples to achieve their reproductive goals



Measuring Unintended Pregnancy

Conventionally

- Data collected retrospectively re specific pregnancies
- Unintended pregnancies =
 - Unwanted (want no or no more children) +
 - Mistimed (arrived too soon) +
 - Abortion (pregnancies ending as an induced abortion)
- Intended pregnancies =
 - Wanted and on time
 - Overdue



Problems in Measuring Pregnancy Intentions

- Conventional measure dichotomizes all pregnancies
- Simplifies an incredibly complex process
 - Multidimensional: cognitive, emotional, relationship, life circumstances
- Intentions of abortion patients often not measured
- Degree of mistiming varies greatly
 - Mistimed > 2 years: greater social and behavioral risk and greater risk of poor outcomes (Pulley, Klerman)



Conceptual Critiques of Pregnancy Intentions

- Fails to reflect the way people “decide” to have children
- Failure to plan pregnancy/ to form intentions is common
 - Multiple barriers to contraceptive choices & abortion
 - Intentions imperfectly reflect contraceptive use
 - Motivations to have children not only reason to have sex
 - Ignores intentions of male partner, power dynamics
 - Ignores other social pressures, cultural values

New Measures of Pregnancy Intention



- 1995 and 2002 National Surveys of Family Growth (NSFG) added new measures to better understand pregnancy
- New measures:
 - Happiness about a pregnancy, trying to become pregnant, planning the pregnancy, wanting with partner
 - Women's report of partner's intentions



Exploring Key Dimensions of Pregnancy Intentions

In this study, we:

- Explored measures of pregnancy intentions in the 2002 National Survey of Family Growth (NSFG)
- Used several analytic methods including correlations among measures and factor analysis
- Validated “discovered” dimensions: examined correlations of intention measures with
 - **Pregnancy outcomes**
 - *Contraceptive use @ time of pregnancy (planned)*



Research Objectives

- To identify the key dimensions of pregnancy intentions
- To understand how key dimensions of pregnancy intentions vary by age and race/ethnicity

Methods:

Multiple Exploratory Techniques

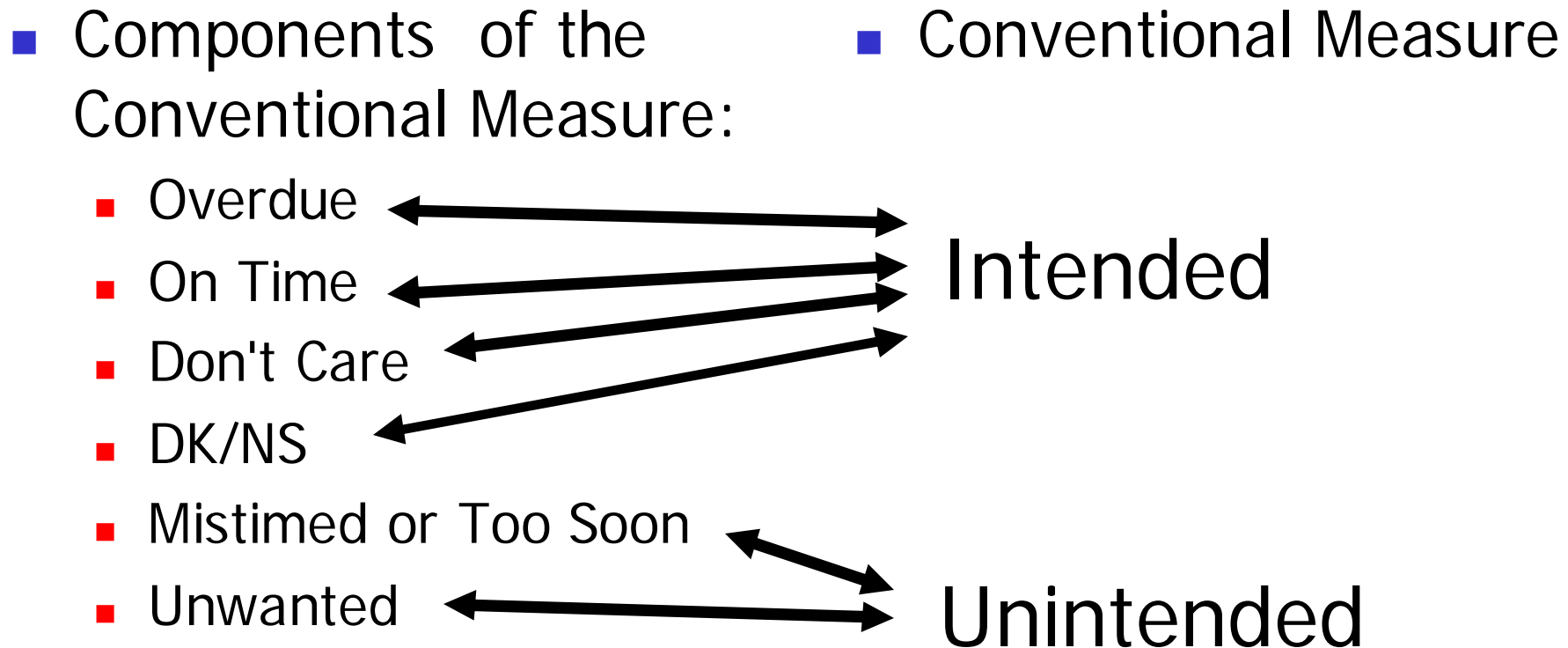
- Correlation among specific measures, exploratory factor analysis, and descriptive statistics
- Deconstructed the conventional measure
- Examined the minor categories: overdue, don't care
- Stratified analyses by gender and race/ethnicity
- Examined bivariate correlations with pregnancy outcomes
 - Live birth, induced abortion, miscarriage
 - Abortion ratios (abortions divided by births)
- Multivariate (logistic) regression to predict outcomes



Variables Measuring Pregnancy Intentions in the 2002 NSFG

- Components of the Conventional Measure:
 - Overdue
 - On Time
 - Mistimed or Too Soon
 - Unwanted
 - Don't Care
 - Don't know/not sure
- If mistimed, degree of mistiming (in years)
- Attitudinal Measures:
 - Happy to be pregnant
 - Wanted to be pregnant
 - Trying to get pregnant
 - Want a baby with partner
- Women's perception of partner response to conventional question

Deconstructing the Conventional Measure of Pregnancy Intentions





Methods: Correlation Matrices

- 16 x 16 matrix
 - Attitudinal measures
 - Want with partner
 - Each category of conventional measure: woman
 - Each category of conventional measure: partner
- Separate matrices by age (teen and adult women) and by race/ethnicity (Hispanic and non-Hispanic black and white)



Results: Correlation Matrices

- Attitudinal measures highly correlated ($R=0.6 - 0.9$)
 - Wanting, trying, planning, want with current partner
- Woman's response and woman's report of partner responses on conventional variable generally highly correlated ($R=0.4 - 0.6$)
- Teens:
 - Lower correlations compared to adults
 - Odd categories: overdue
- Few differences by race/ethnicity

Methods:

Exploratory Factor Analysis

- Statistically, examines underlying correlation among questions or measures
- Useful to identify underlying factors or dimensions (i.e., latent variables) that account for co-variation among variables



Methods: Factor Analysis

- Separate factor analyses for each level of the Conventional Measure:
 - Overdue
 - On Time
 - Mistimed or Too Soon
 - Unwanted
 - Don't Care
 - Not sure/Don't Know
- Necessary because of correlations between levels of traditional measure (*the problem with the zeros*)



Results: Factor Analysis

- Two key dimensions identified
 - **Desire for pregnancy**
 - Included happiness, planning, trying, wanted with partner
 - **Mistiming**
- Minor categories:
 - **Overdue** (separate from mistiming)
 - **Don't care** (highly related to miscarriage)
- Few substantive differences: age or race/ethnicity

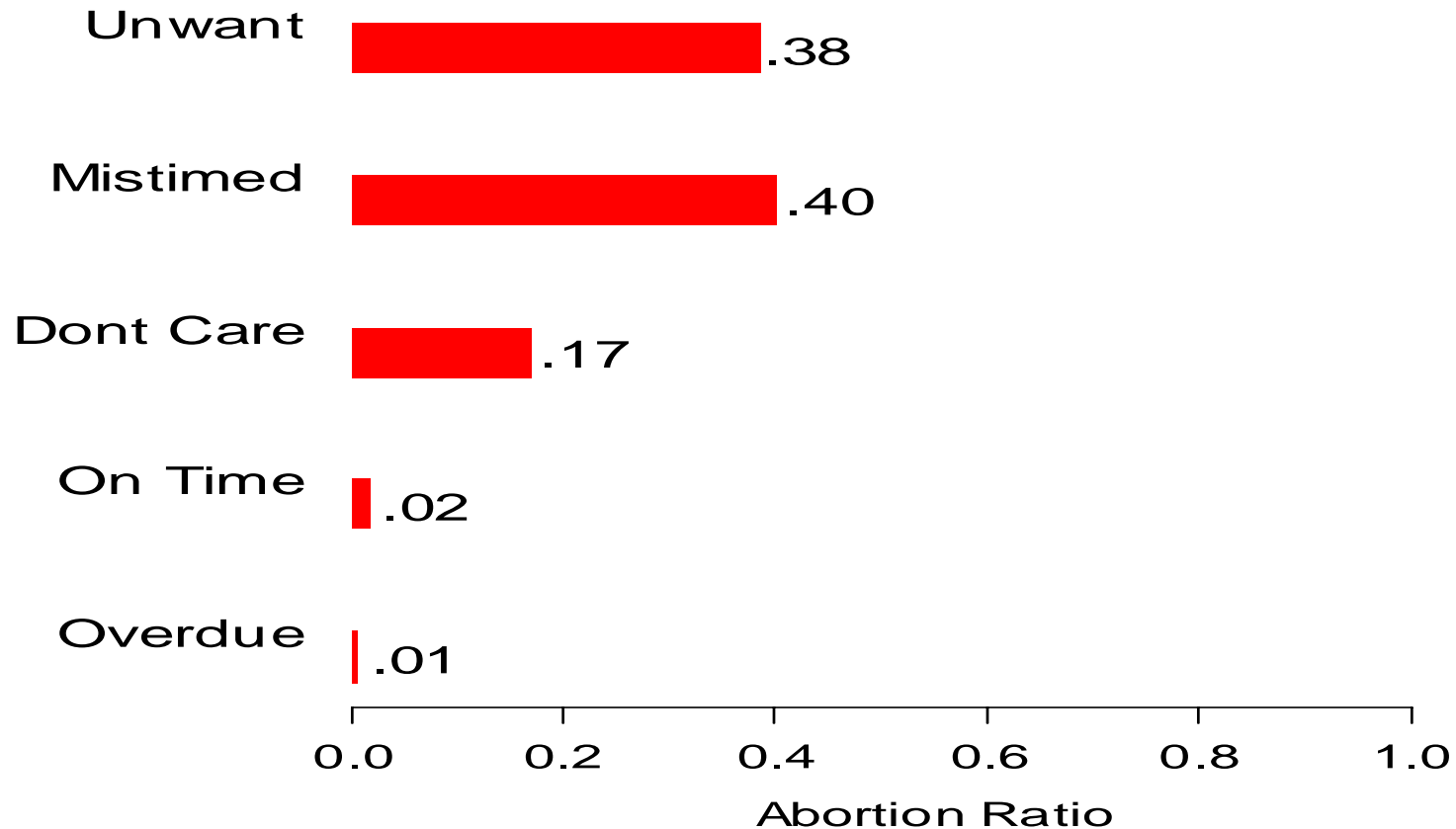


Methods: Predicting Outcomes

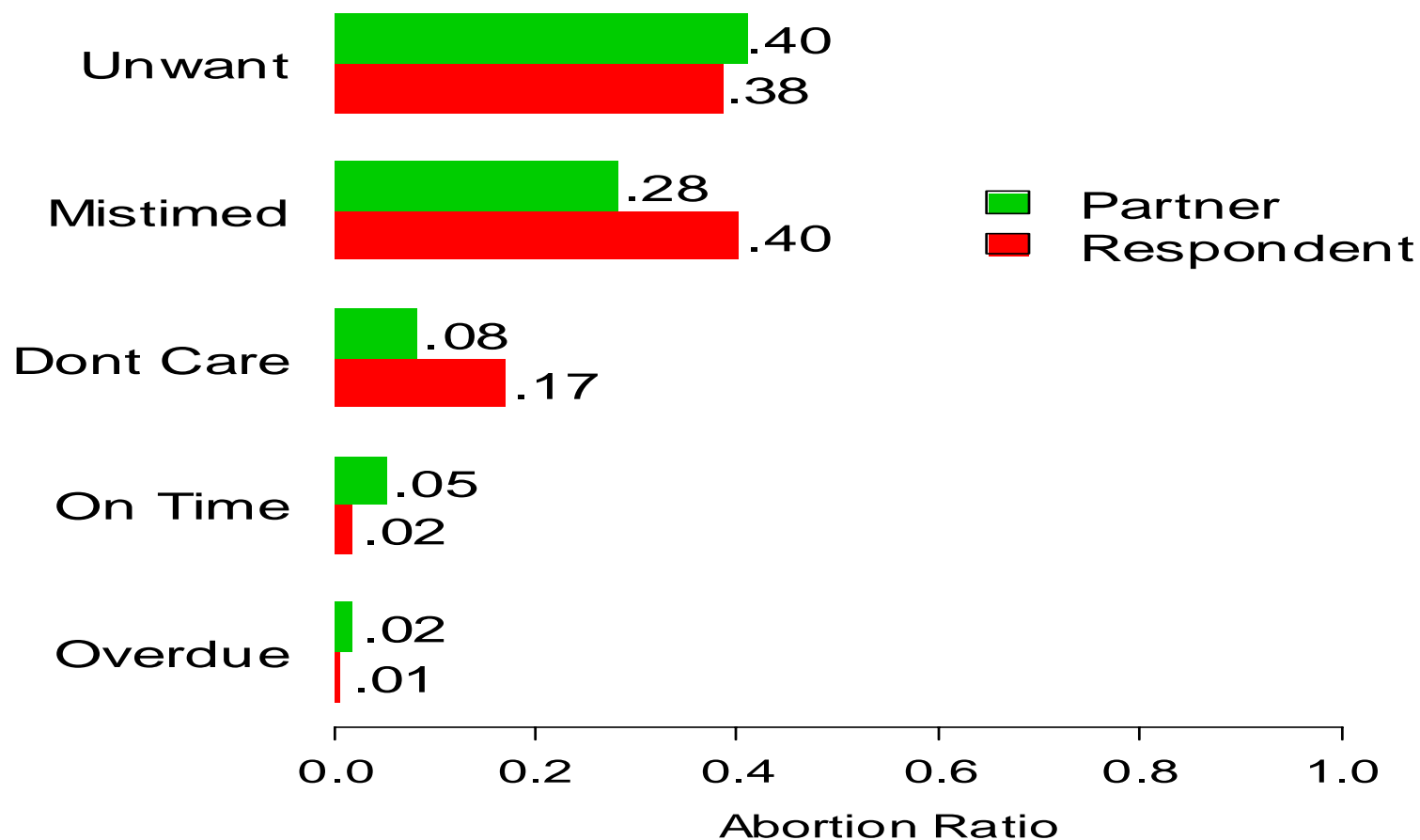
Do our dimensions or categories (or conventional categories) predict birth outcomes?

- Bi-variate stats with pregnancy outcomes and abortion ratios, stratified analyses
- Logistic regression modeling:
 - Model 1: Live Birth (vs abortion) = Demographics
 - Model 2: Live Birth = Desire + Mistiming + Overdue
 - Model 3: Combines Models 1 + 2
 - Model 4: Model 3 + interaction of R/E and Mistiming

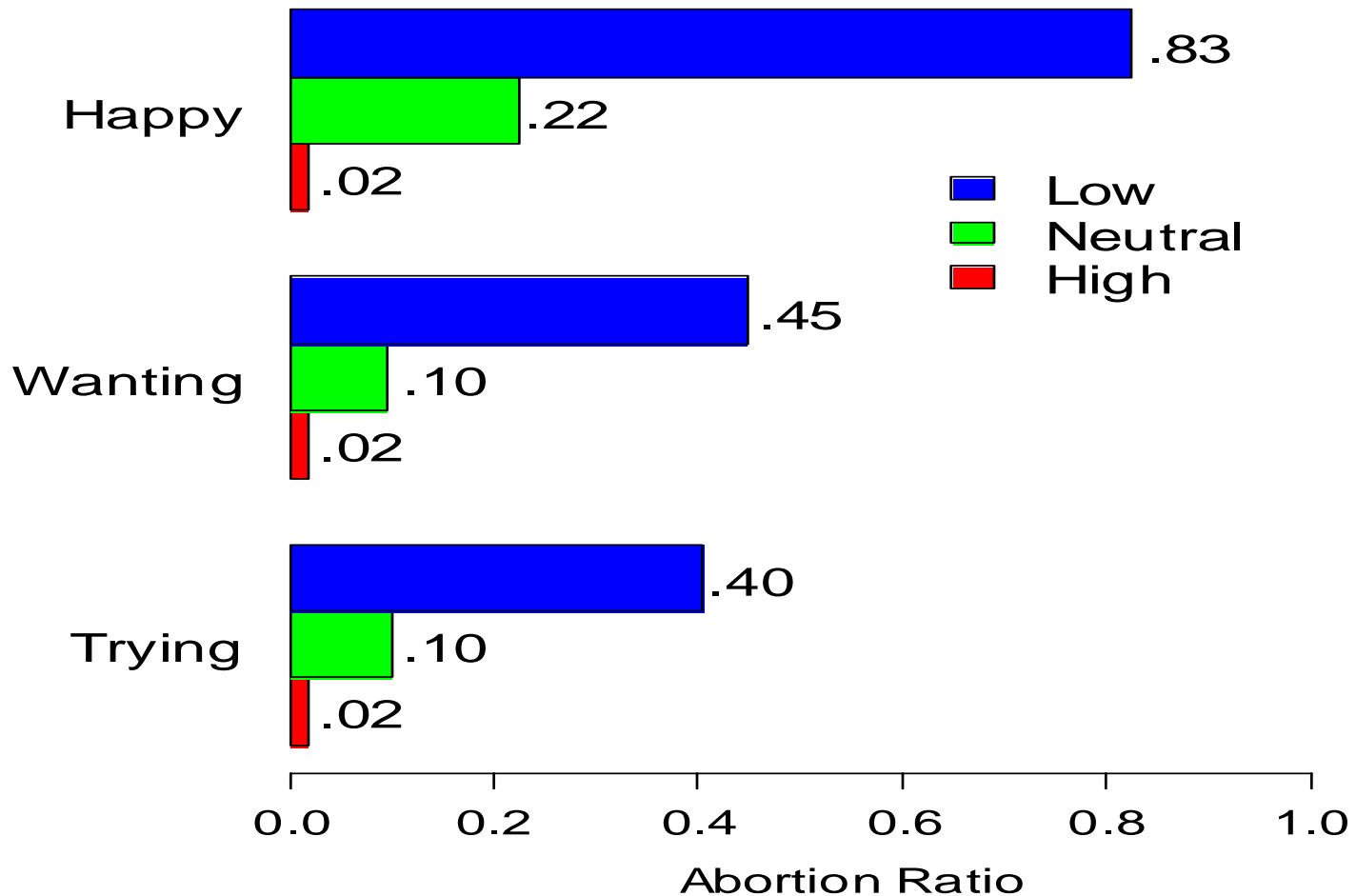
Unadjusted Abortion Ratios, Stratified by Categories of Conventional Question, NSFG, 2002



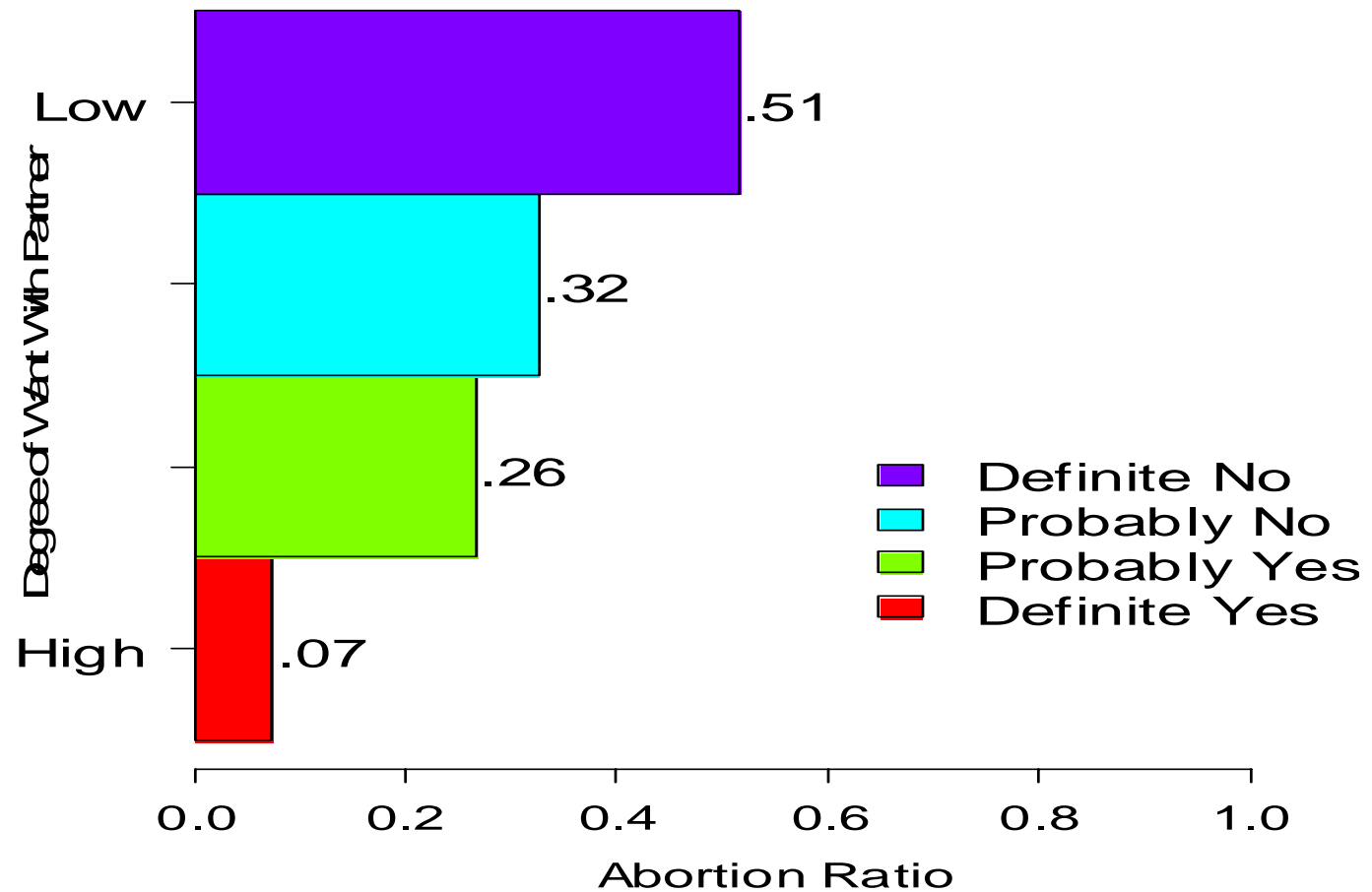
Unadjusted Abortion Ratios, by Conventional Categories and Women's Perception of Partner Intentions, NSFG, 2002



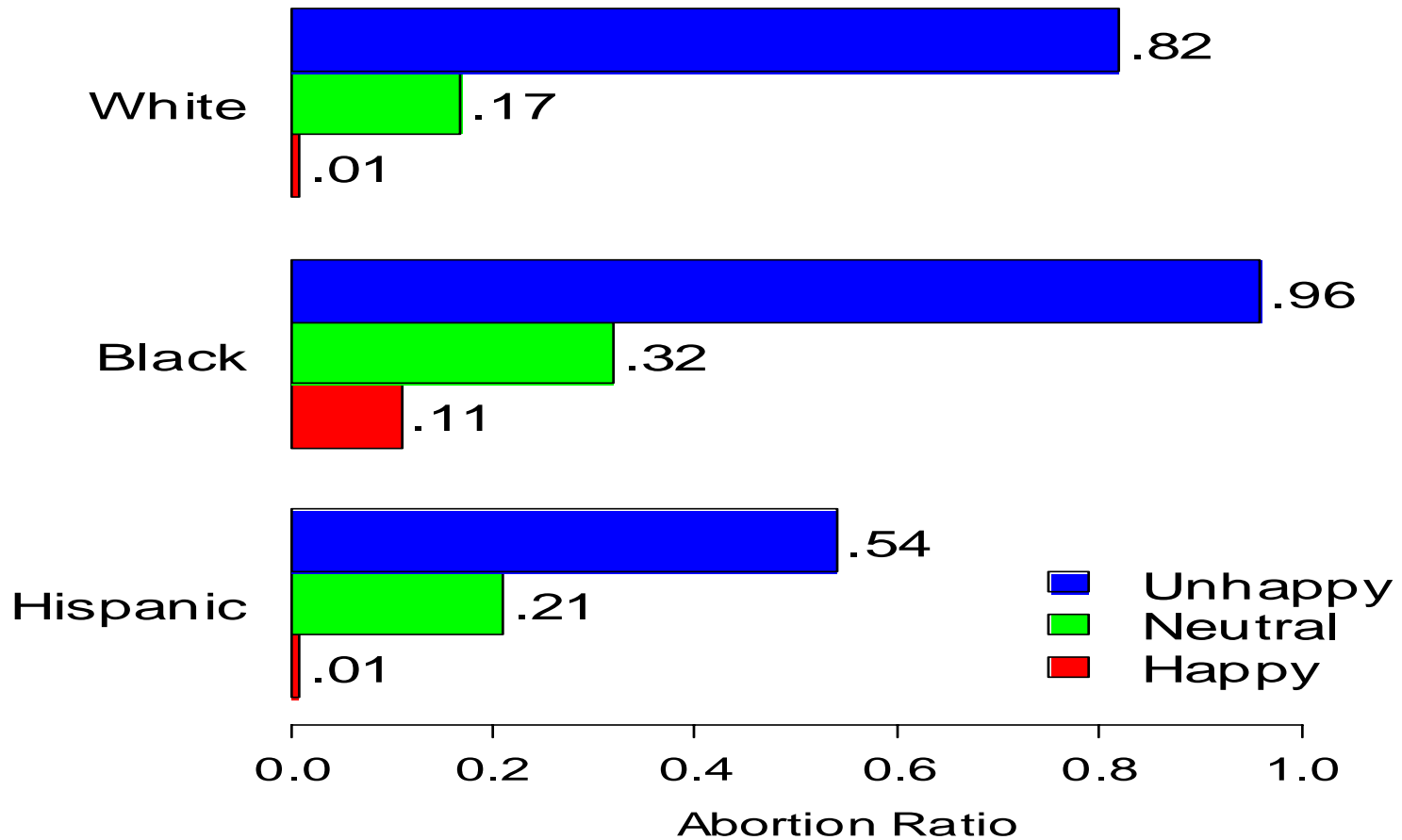
Unadjusted Abortion Ratios, by Attitudes About Pregnancy, NSFG, 2002



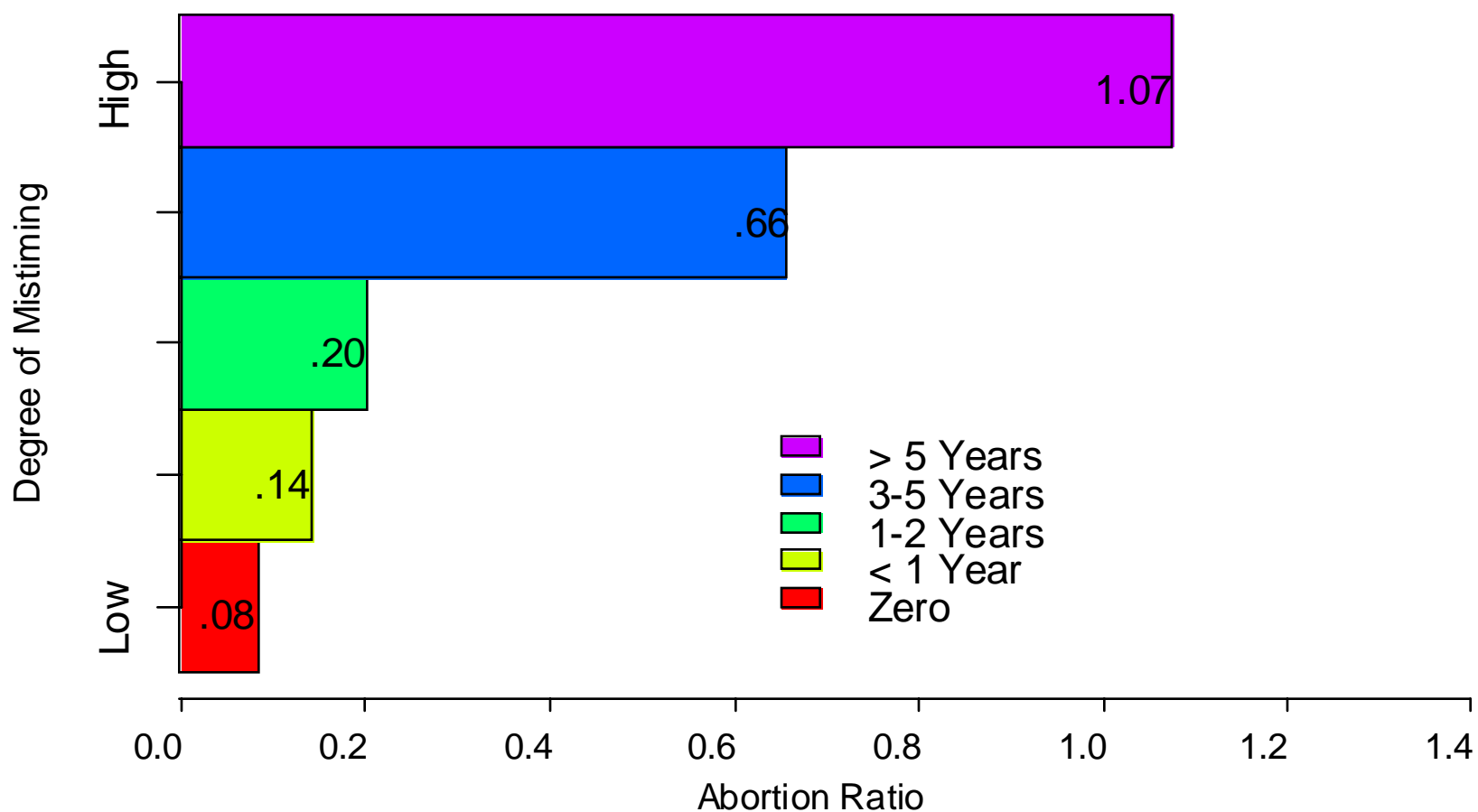
Unadjusted Abortion Ratios, by Degree of Wanting Pregnancy with Partner, NSFG, 2002



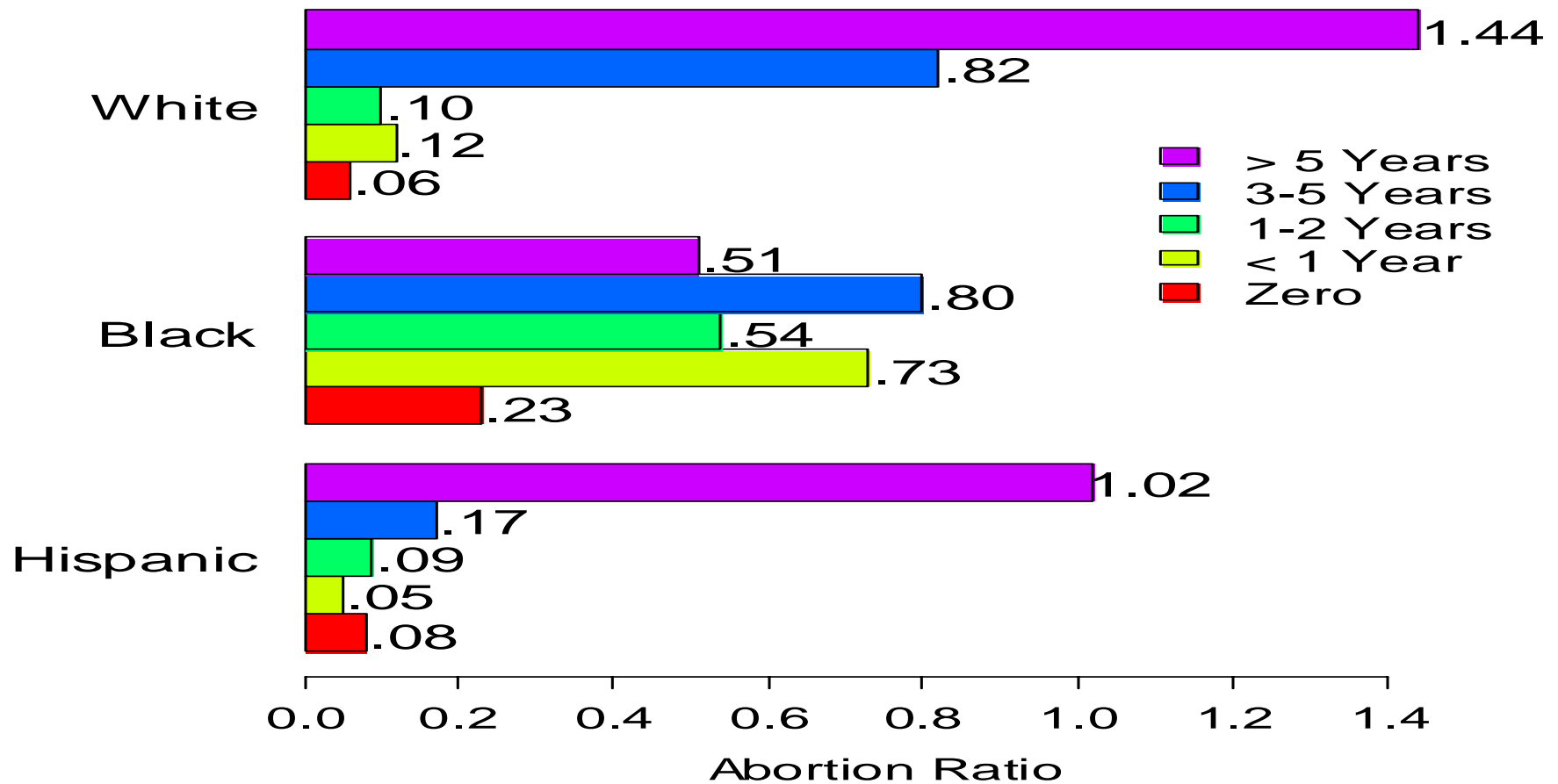
Unadjusted Abortion Ratios, by Pregnancy Happiness and Race/Ethnicity, NSFG, 2002



Unadjusted Abortion Ratios, by the Degree of Pregnancy Mistiming, NSFG, 2002



Unadjusted Abortion Ratios, by Pregnancy Mistiming and Race/ Ethnicity, NSFG, 2002



Logistic Regression Model 3: Predicting Live Birth (vs Abortion), NSFG, 2002

	Odds Ratio	P-value
Age at Preg. Outcome	0 . 98	0 . 45
Cohabit W/ Father at Conception.	2 . 41	0 . 00
Black	0 . 62	0 . 05
Hispanic	1 . 06	0 . 87
Other	0 . 40	0 . 00
% Poverty Level ÷100	0 . 78	0 . 00
Desire Additive (0-6)	2 . 14	0 . 00
Mistiming (in Years)	0 . 78	0 . 00
Pregnancy Overdue (0, 1)	5 . 67	0 . 01



Conclusions

- Reaffirm early notions about timing and wanting

However-

- Suggest both of these are dimensions not categories
- Minor categories are distinct

Also-

- Find similar decision-making dimensions among young and old and among racial and ethnic groups
- Mistiming much less important for black women



Limitations (and Next Steps)

- Self reported data, based on recall
- Abortion at underreported (only 47% in NSFG)
 - Plan to adjust abortion ratios
- Not yet examined impact of SES
 - SES may be critical in understanding mistiming
- Plan to examine pregnancy intentions and contraceptive use at time of pregnancy



Implications

- Need to improve the way we categorize intentions
 - Conventional questions are good, happiness question is an improvement
 - Conventional dichotomous measure severely limited
- Stop talking about “ambivalence” and start talking complexity and nuance
- Focusing on mistiming and desire may produce more effective programs to help women and men to realize their reproductive goals



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Intended Pregnancy Conventional Measure, NSFG

Right before you became pregnant with your (nth) pregnancy, which ended in (date/this time), did you yourself want to have a(nother) baby at any time in the future?

- Yes
- Not sure, don't know
- No

So would you say you became pregnant too soon, at about the right time, or later than you wanted?

- Too soon
- Later
- Right time
- Didn't care

How much sooner than you wanted did you become pregnant? (units -- months or years)



NSFG Happiness and Father Intentions

Please look at the scale on Card 39. On this scale, a one means that you were **very unhappy to be pregnant and a ten means that you were very happy to be pregnant**. Tell me which number on the card best describes how you felt when you found out you were pregnant.

Right before you became pregnant (this time/that (Nth) time,) did the father want you to have a(nother) baby at any time in the future?

- Yes
- No
- Not sure, don't know



Some Other NSFG Intentions Measures

- Trying to get pregnant

Look at the scale on Card 40, where a 0 means trying hard not to get pregnant, and a 10 means trying hard to get pregnant. If you had to rate how much you were trying to get pregnant or avoid pregnancy right before you got pregnant (this time/that time), how would you rate yourself?

- Wantedness" of pregnancy—

11-point scale (wanted to avoid pregnancy to wanted to get pregnant)

Methods: Variable Information for Logistic Regression

Age At Preg. Outcome = Actual Age in Years at Pregnancy Outcome

Cho

Cohabit Begin = live with father Or Married at time of conception

% Poverty / 100 = Self-explanatory

Desire Additive =

Happiness/10	+
Wanting/11	+
Trying/11	+
Want With Partner/4	+
On Time (No=0, Yes=1)	+
(Unwanted (No=0, Yes= -1)	

Logistic Regression Model 4: Predicting Live Birth (vs Abortion), NSFG, 2002

	Odds Ratio	P-value
Age at Preg. Outcome	0 . 9 8	0 . 4 8
Cohabit W/ Father at Conception.	2 . 4 2	0 . 0 0
Black	0 . 4 5	0 . 0 1
Hispanic	1 . 0 2	0 . 9 7
Other	0 . 7 6	0 . 4 5
% Poverty Level ÷ 100	0 . 7 7	0 . 0 0
Desire Additive (0-6)	2 . 1 4	0 . 0 0
Mistiming in Years	0 . 7 6	0 . 0 0
Pregnancy Overdue	5 . 3 4	0 . 0 1
Black X Mistiming	1 . 2 0	0 . 0 9
Hispanic X Missing	1 . 0 1	0 . 8 8
Other X Mistiming	0 . 7 0	0 . 0 5

Predicted Regression Line, Model 4: Predicting Live Birth (vs Abortion), NSFG, 2002

