



Intimate Partner Violence (IPV)

IPV – also called domestic violence, battering, or spouse abuse – is violence committed by a spouse, ex-spouse, or current or former boyfriend or girlfriend. IPV includes physical, sexual, emotional, verbal and financial abuse. According to the Centers for Disease Control and Prevention (CDC), IPV is a serious, preventable public health problem that affects millions of Americans. This type of violence can occur among heterosexual or same-sex couples and does not require sexual intimacy.¹

Costs of Intimate Partner Violence in the United States

Congress funded the CDC to conduct a study to obtain national estimates of the occurrence of IPV-related injuries, to estimate their costs to the health care system, and to recommend strategies to prevent IPV and its consequences. That study culminated in the report: *Costs of Intimate Partner Violence against Women in the United States in 2003*. While researchers concluded that more qualitative and quantitative data are needed to better determine the full magnitude of IPV and associated human and economic costs, they estimated the costs of intimate partner rape, physical assault, and stalking in excess of \$5.8 billion each year, nearly \$4.1 billion of which is attributable to direct medical and mental health care services. They concluded that the largest proportion of the costs is derived from physical assault victimization because that type of IPV is the most prevalent. The total costs of IPV also included nearly \$0.9 billion in lost productivity from paid work and household chores for victims of nonfatal IPV and \$0.9 billion in lifetime earnings lost by victims of IPV homicide.²

National Intimate Partner and Sexual Violence Survey

The National Intimate Partner and Sexual Violence Survey (NISVS) is an ongoing, nationally representative random digit dial (RDD) telephone survey that collects information about experiences of sexual violence, stalking, and intimate partner violence among non-institutionalized English and/or Spanish-speaking women and men aged 18 or older in the United States. NISVS provides detailed information on the magnitude and characteristics of violence for the nation and for individual states. Some key findings from the latest available data (2010) include:

- More than 1 in 3 women (35.6 percent) and more than 1 in 4 men (28.5 percent) in the United States have experienced rape, physical violence, and/or stalking by an intimate partner in their lifetime. In Pennsylvania, 37.7 percent of women and 27.5 percent of men experienced rape, physical violence, and/or stalking by an intimate partner in their lifetime.
- Among victims of intimate partner violence, women are much more likely to experience multiple forms of rape, stalking, or physical violence than men. In the U.S. more than 1 in 3 female victims experienced multiple forms whereas 92.1 percent of male victims experienced physical violence alone.
- About 1 in 4 women (24.3 percent) and 1 in 7 men (13.8 percent) in the United States have experienced severe physical violence by an intimate partner (e.g., hit with a fist or something hard, beaten, slammed against something) at some point in their lifetime.³



NISVS is designed to provide data for states as well as the nation. The following estimates reflect the proportion of people residing in Pennsylvania and select states with a history of rape, physical violence, and/or stalking by an intimate partner. The lifetime victimization experiences reported by individuals may include violence that occurred elsewhere. Separate tables are provided for women and men (Tables 1-2).

Table 1. Lifetime Prevalence of Rape, Physical Violence, and/or Stalking by an Intimate Partner by State of Residence, Women, U.S., 2010

State	Weighted Percentage	Estimated Number of Victims [^]
High: Oklahoma	49.1%	697,000
Pennsylvania	37.7%	1,927,000
Low: North Dakota	25.3%	64,000
U.S. Total	35.6%	42,420,000

Data Source: NISVS, 2010 (See Endnote 3)
[^]Rounded to the nearest thousand
 Note: An estimate for the District of Columbia was not reported due to the relative standard error >30% or cell size less than or equal to 20.

Table 2. Lifetime Prevalence of Rape, Physical Violence, and/or Stalking by an Intimate Partner by State of Residence, Men*, U.S., 2010

State	Weighted Percentage	Estimated Number of Victims [^]
High: West Virginia	41.2%	286,000
Pennsylvania	27.5%	1,298,000
Low: South Carolina	17.4%	290,000
U.S. Total	28.5%	32,280,000

Data Source: NISVS, 2010 (See Endnote 3)
 *Most of the violence reported by men was physical violence; 2.1% of men, overall, experienced stalking by an intimate partner.
[^]Rounded to the nearest thousand
 Note: An estimate for Vermont was not reported due to the relative standard error >30% or cell size less than or equal to 20.

Selected Risk Indicators and Exposure to IPV.

The Ontario Women’s Health Council, as part of the McMaster University Violence Against Women Research Program funded a study to identify and associate risk indicators with IPV in the emergency department (ED). Conducted in 2004 and 2005, this cross-sectional study involved 768 English-speaking women aged 18–64 years who presented to two emergency departments in Ontario, Canada. They answered questions about risk indicators and completed the Composite Abuse Scale to determine their exposure to IPV. This study was limited to female-male relationships.

Significant associations were found in all but one of the indicators examined (Table 3). The sole indicator examined and found not significantly associated with abuse was pregnancy status. However, it should be noted that while not examined in this study, research supports a significant association between unintended pregnancy and abuse.⁴

Table 3. Indicators with Significant Association to IPV, Women’s Risk Indicator Study, 2004–2005

Indicator	Odds Ratio (with 95% CI)
Relationship: separated, common-law, or single	2.08 (1.17–3.71)
Depression	4.26 (2.11–8.60)
Somatic Symptoms*	4.09 (2.18–7.67)
Male partner employed less than part time	5.12 (2.46–10.64)
Male partner with alcohol problem	4.36 (2.16–8.8)
Male partner with drug problem	4.63 (1.89–11.38)

*psychological distress that manifests itself as body ailments.
 Source: Risk Indicators to Identify Intimate Partner Violence in the Emergency Department (See Endnote 4).



Pennsylvania’s Pregnancy Risk Assessment Monitoring System (PA PRAMS) and IPV

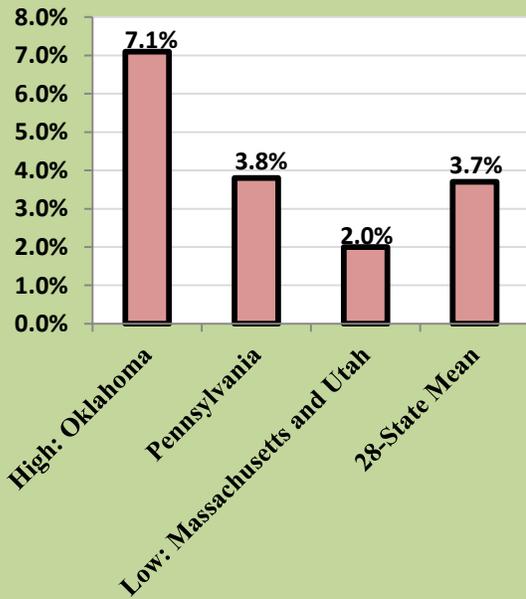
PA PRAMS collects population-based data on maternal attitudes and experiences before, during, and shortly after pregnancy. PA PRAMS data have been collected since 2007, and the project is managed within the Pennsylvania Department of Health’s Division of Child and Adult Health Services.

There are several questions within the PRAMS questionnaire that capture Pennsylvania’s mothers’ self-reported experience with IPV. The next section presents a statewide profile based on response data related to IPV.

Mothers were asked if during the 12 months before they became pregnant their husband or partner pushed, hit, slapped, kicked, choked or physically hurt them in any way. Responses to that question were used to establish physical abuse prevalence before and during pregnancy, by ex-husbands, ex-partners, husbands and partners. The response data for 2010 revealed that Pennsylvania, with 3.8 percent of mothers responding YES to physical abuse before pregnancy, ranked approximately 10th (highest to lowest) of 28 participating PRAMS states nationwide. The percentage responding YES to that question in Pennsylvania was very close to the 28-state mean of 3.7 percent (Figure 1).

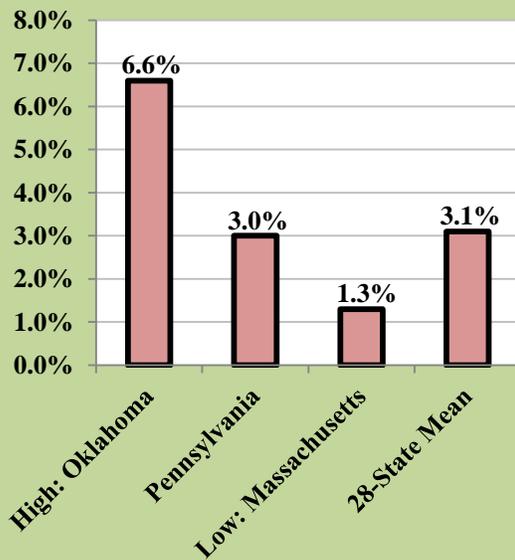
When asked that question in the context of abuse during their pregnancies, 3.0 percent of mothers in Pennsylvania responded YES. This positioned the state approximately 13th in the list of participating PRAMS states nationwide, and again very similar to the 28-state mean of 3.1 percent (figure 2).

Figure 1. Physical Abuse before Pregnancy, 2010



Data Source: PRAMS (28 States), 2010
 Note: Percentages are weighted to population characteristics

Figure 2. Physical Abuse during Pregnancy, 2010

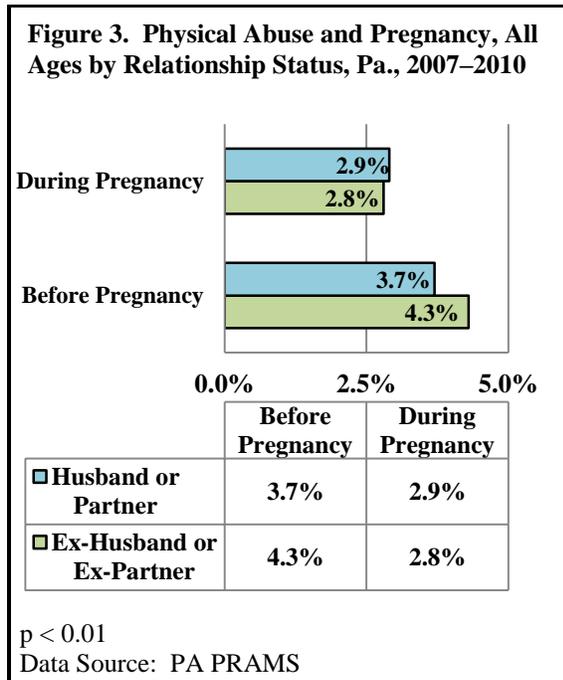


Data Source: PRAMS (28 States), 2010
 Note: Percentages are weighted to population characteristics

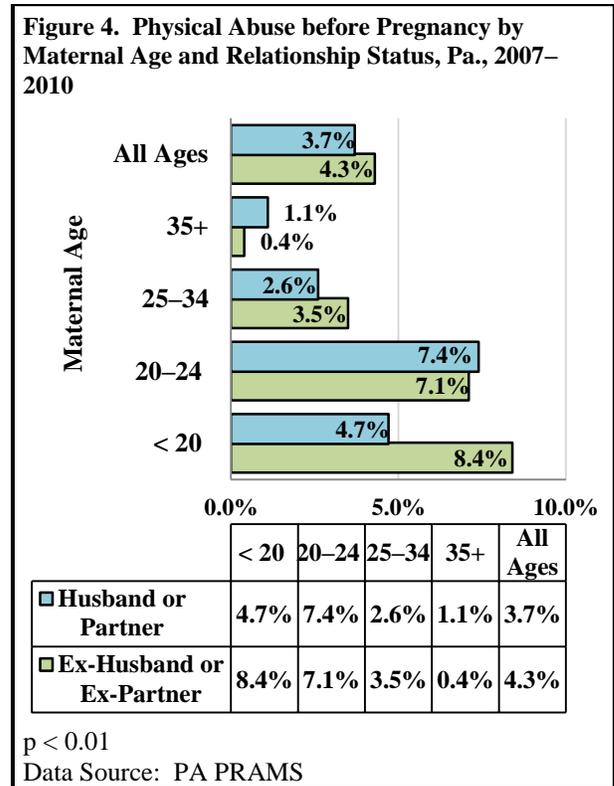


Physical Abuse and Pregnancy

Comparing the frequency of physical abuse before pregnancy with the frequency during pregnancy revealed surveyed mothers (all ages) were more likely to experience physical abuse before rather than during pregnancy, regardless of the relationship status with the abuser (ex/current) [Figure 3].



An examination of Pennsylvania’s combined response data for 2007 through 2010 by maternal age revealed that young mothers (under 25 years of age) were more likely to have experienced physical abuse before pregnancy than older mothers (figure 4).



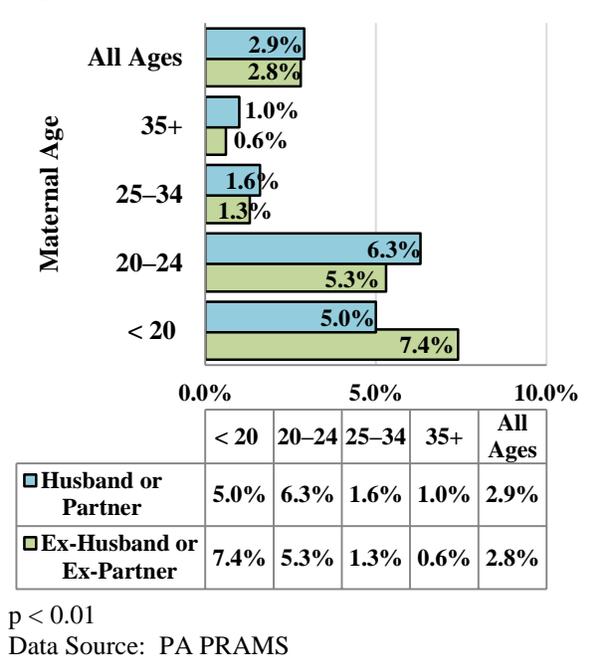
Physical Abuse and Maternal Age

A comparison of younger and older mothers revealed that younger mothers were more likely to report having experienced physical abuse before and during pregnancy than older mothers, regardless of the relationship status with the abuser (ex/current).

A similar result by maternal age was obtained in the context of physical abuse during pregnancy. Young mothers (under 25 years of age) were more likely to have experienced physical abuse during pregnancy than older mothers (Figure 5).



Figure 5. Physical Abuse during Pregnancy by Maternal Age and Relationship Status, Pa., 2007–2010



Physical Abuse and Maternal Education

When examined by maternal education level, it was revealed that mothers with less than 12 years education were significantly more likely to report physical abuse before pregnancy than mothers with more than 12 years education. This is true regardless of the relationship status with their abusers. Mothers with less than 12 years education were 2.3 times more likely to have reported physical abuse by a husband or partner and 3.1 times more likely to have reported physical abuse by an ex-husband or ex-partner than those mothers with more than 12 years education (Table 4).

Table 4. Physical Abuse before Pregnancy by Maternal Education and Relationship Status, Pa., 2007–2010

Maternal Education Level (In Years)	Physical Abuse before Pregnancy by:	
	Husband or Partner (w/95% CI)	Ex-Husband or Ex-Partner (w/95% CI)
Less than 12	5.7% (3.8%–8.6%)	8.9% (5.4%–14.3%)
12	4.9% (3.6%–6.8%)	5.0% (3.0%–8.1%)
More than 12	2.5% (1.9%–3.4%)	2.9% (1.9%–4.5%)

p < .01 (Husband/Partner); p = .02 (Ex-Husband/Ex-Partner); Data Source: PA PRAMS, 2007–2010

Mothers with less than 12 years education were significantly more likely to report having experienced physical abuse during pregnancy than mothers with more than 12 years education. Mothers with less than 12 years education were 2.6 times more likely to have reported physical abuse by a husband or partner and 3.9 times more likely to have reported physical abuse by ex-husband or ex-partner than those mothers with more than 12 years education (Table 5).

Table 5. Physical Abuse during Pregnancy by Maternal Education and Relationship Status, Pa., 2007–2010

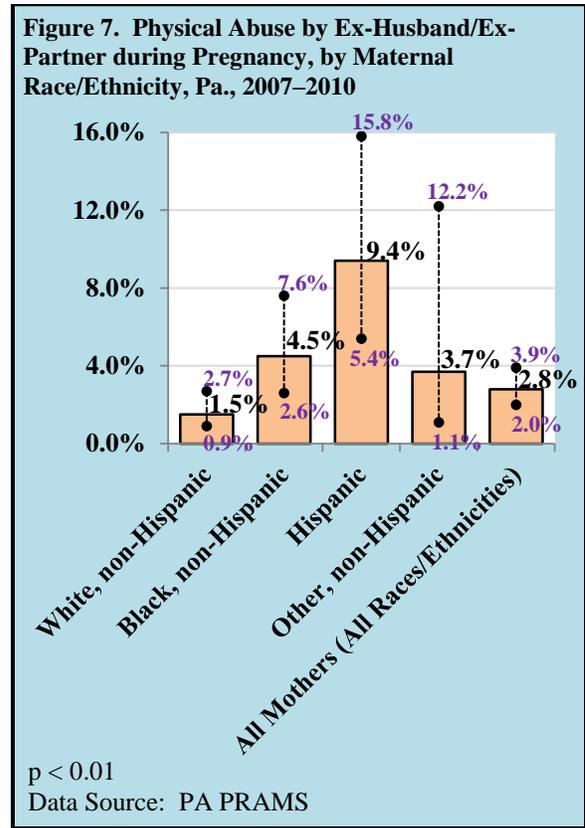
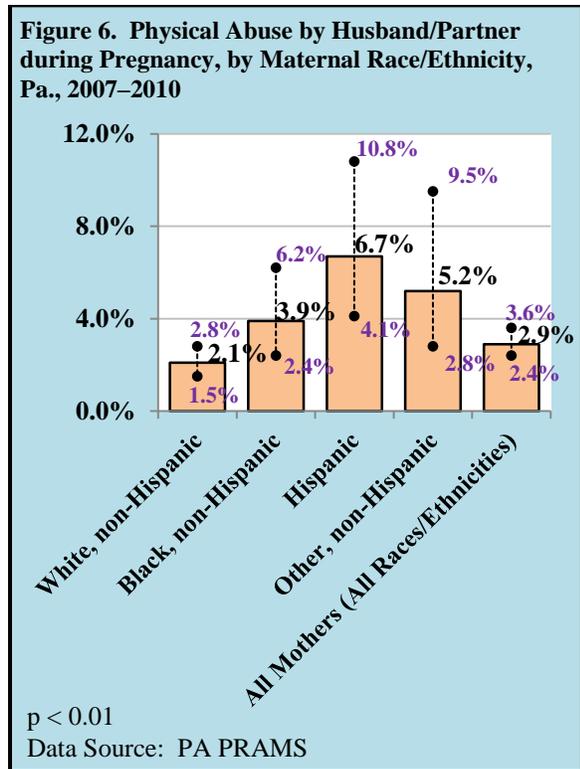
Maternal Education Level (In Years)	Physical Abuse during Pregnancy by:	
	Husband or Partner (w/95% CI)	Ex-Husband or Ex-Partner (w/95% CI)
Less than 12	5.8% (3.8%–8.8%)	7.0% (4.1%–11.7%)
12	2.8% (1.8%–4.2%)	2.6% (1.3%–4.9%)
More than 12	2.2% (1.7%–3.0%)	1.8% (1.1%–2.9%)

p = .02 (husband/partner); p = .02 (ex-husband/ex-partner); Data Source: PA PRAMS



Physical Abuse and Maternal Race/Ethnicity

Analysis of the data by race/ethnicity revealed white, non-Hispanic mothers were least likely to report experiencing physical abuse during pregnancy, regardless of the relationship status with their abusers. Hispanic mothers were those most likely to report having experienced physical abuse during pregnancy. Pennsylvania’s Hispanic mothers were 3.2 times more likely to report physical abuse by their husbands or partners and 6.3 times more likely to report physical abuse by their ex-husbands or ex-partners during their pregnancies than white, non-Hispanic mothers (Figures 6 and 7).



Physical Abuse and Pregnancy Intendedness

Within the PRAMS survey, mothers were asked to think back to just before becoming pregnant and indicate how they felt about becoming pregnant. Possible responses included:

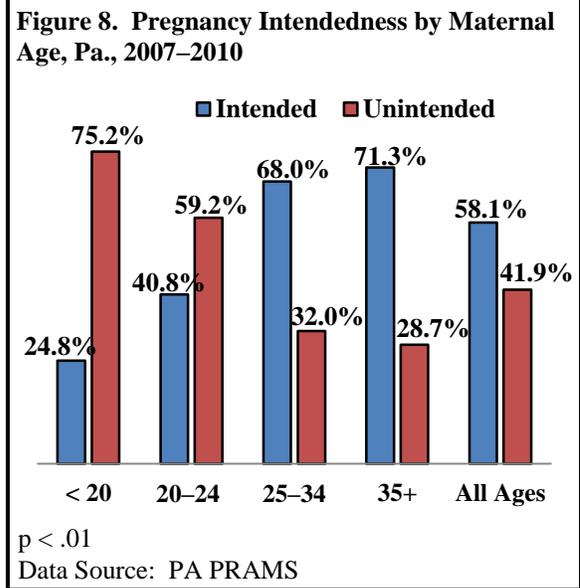
- I wanted to be pregnant sooner.
- I wanted to be pregnant later.
- I wanted to be pregnant then.
- I didn’t want to be pregnant then or at any time in the future.
- I don’t know.



The responses “sooner” and “then” were collapsed into the indicator “intended.” The responses “later” and “not then or any time in the future” were collapsed into “unintended.” The responses “I don’t know” were treated as missing data.

Researchers within the CDC’s Division of Reproductive Health conducted a study to determine if pregnancy intendedness was associated with physical violence. Based on CDC PRAMS survey response data from a sample of 12,612 mothers of infants born during 1990 and 1991, they determined that, overall, women with unwanted pregnancies had 4.1 (95% confidence interval 2.7–6.2) times the odds of experiencing physical violence than women with intended pregnancies.⁵

An examination of the PA PRAMS response data from 2007 through 2010 revealed that 58.1 percent of all mothers (all ages) intended their pregnancies and 41.9 percent did not. Younger mothers were more likely to report unintended pregnancies than older mothers. Approximately three quarters of all teen mothers (mothers under 20 years of age) reported unintended pregnancies (Figure 8).



Pennsylvania mothers (all ages) having indicated an unintended pregnancy were 2.4 times more likely to report having experienced physical abuse by a husband or partner during the 12 months before pregnancy than those indicating an intended pregnancy. Those with unintended pregnancies were 2.7 times more likely to report physical abuse during their pregnancy (Table 6).

Table 6. Physical Abuse by a Husband or Partner and Pregnancy Intention, Pa., 2007–2010

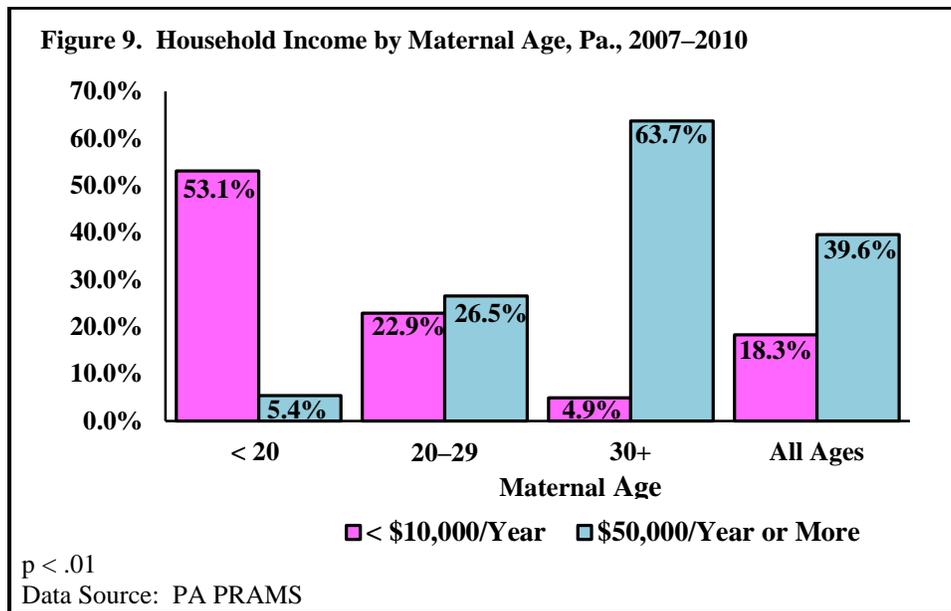
Pregnancy Intention	Experienced Physical Abuse before Pregnancy (w/95% CI)	Experienced Physical Abuse during Pregnancy (w/95% CI)
Unintended	5.6% (4.4%–7.2%)	4.6% (3.5%–6.1%)
Intended	2.3% (1.7%–3.1%)	1.7% (1.2%–2.4%)

p < .01
Data Source: PA PRAMS



Physical Abuse and Household Income

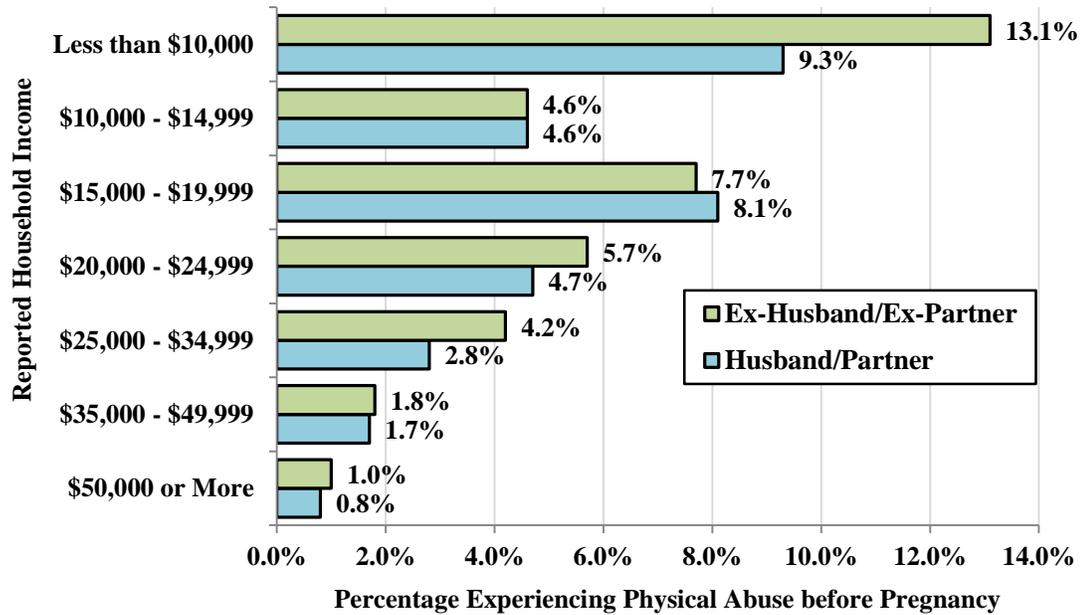
Surveyed mothers were asked to identify their total annual household income during the 12 months before their new baby was born. In doing this, they were asked to include their income, their husbands’ or partners’ income and any other income they received. Not surprisingly, the data revealed a strong association between household income and age. Young mothers reported lower annual household incomes than older mothers. Over half (53.1 percent) of teen mothers reported an annual household income of less than \$10,000. This percentage dropped significantly within the next age group examined, 20 through 29 years of age wherein only less than one quarter (22.9 percent) reported an annual household income of less than \$10,000. It dropped significantly more in the next age group examined, 30 years and older wherein only 4.9 percent reported an annual household income of less than \$10,000. Moreover, this data revealed those mothers 30 years of age and older were approximately 11.8 times more likely than teen mothers to report having an annual household income of \$50,000 or more (Figure 9).



The income and physical abuse data revealed significant differences in the prevalence of physical abuse across the income groups examined, regardless of the relationship status with the abusers. Mothers (all ages) reporting an annual household income of less than \$10,000 were 13.1 times more likely to have experienced physical abuse before pregnancy by an ex-husband or ex-partner, and 11.6 times more likely to have experienced physical abuse before pregnancy by a husband or partner, than mothers with an annual household income of \$50,000 or more (Figure 10). Mothers (all ages) reporting an annual household income of less than \$10,000 were 14.8 times more likely to have experienced physical abuse during pregnancy by an ex-husband or ex-partner, and 11.6 times more likely to have experienced physical abuse during pregnancy by a husband or partner, than those reporting household incomes of \$50,000 or more (Figure 11).



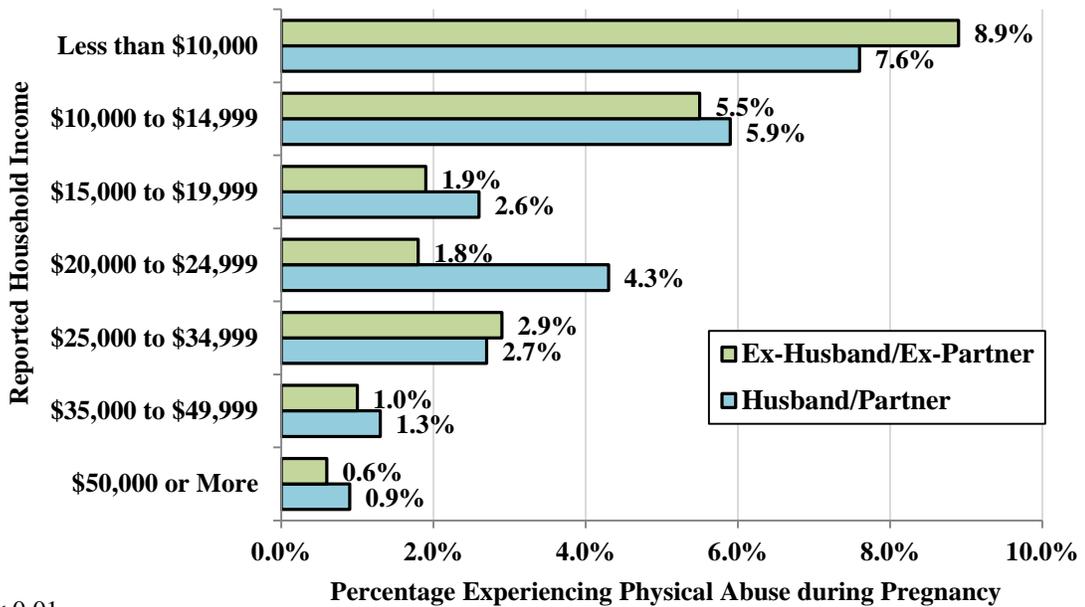
Figure 10. Physical Abuse before Pregnancy and Household Income, Pa., 2007–2010



p < 0.01

Data Source: PA PRAMS, 2007–2010

Figure 11. Physical Abuse during Pregnancy and Household Income, Pa., 2007–2010



p < 0.01

Data Source: PA PRAMS, 2007–2010



Physical Abuse and Women, Infants and Children (WIC) Status

According to the PRAMS response data for 2007 through 2010, mothers enrolled in WIC were significantly more likely to report having experienced physical abuse before and during pregnancy, regardless of the relationship status with the abuser. In the context of abuse by a husband or partner, they were 3.1 times more likely to have experienced physical abuse before pregnancy, and 3.7 times more likely to have experienced physical abuse during pregnancy. In the context of abuse by an ex-husband or ex-partner, mothers enrolled in WIC were 4.7 times more likely to have experienced physical abuse before pregnancy, and 3.9 times more likely to have experienced physical abuse during pregnancy than mothers not enrolled in WIC (Table 7).

WIC Status	Experienced Physical Abuse before Pregnancy:		Experienced Physical Abuse during Pregnancy:	
	By Husband or Partner (w/95% CI)	By Ex-Husband or Ex-Partner (w/95% CI)	By Husband or Partner (w/95% CI)	By Ex-Husband or Ex-Partner (w/95% CI)
Non-WIC	2.0% (1.4%–2.7%)	1.8% (1.0%–3.3%)	1.4% (1.0%–2.1%)	1.3% (0.7%–2.4%)
WIC	6.2% (4.9%–7.8%)	8.4% (6.2%–11.3%)	5.2% (4.0%–6.7%)	5.1% (3.5%–7.4%)

p < 0.1
Data Source: PA PRAMS

Who is on WIC during Pregnancy?

Based on the weighted PA PRAMS response data for the period 2007 through 2010:*

- Unmarried mothers are 3.6 times more likely to report being on WIC during their pregnancy than married mothers.
- Mothers with less than 12 years education are 2.6 times more likely to report being on WIC during their pregnancy than mothers with more than 12 years education.
- Mothers under 20 years of age are 1.6 times more likely to report being on WIC during their pregnancy than mothers aged 20 through 29 years, and 3.5 times more likely than mothers 30 years of age and older.
- Hispanic as well as black, non-Hispanic mothers are more likely to report being on WIC during their pregnancy than white, non-Hispanic mothers. Hispanic mothers are 2.3 times more likely to report being on WIC than white, non-Hispanic mothers. Black, non-Hispanic mothers are 2.0 times more likely to report being on WIC.
- Low income mothers are significantly more likely to report being on WIC during their pregnancy. Program eligibility is based on income.

*All demographic variables tabulated with maternal WIC status resulted in p values less than .01 (p < .01)



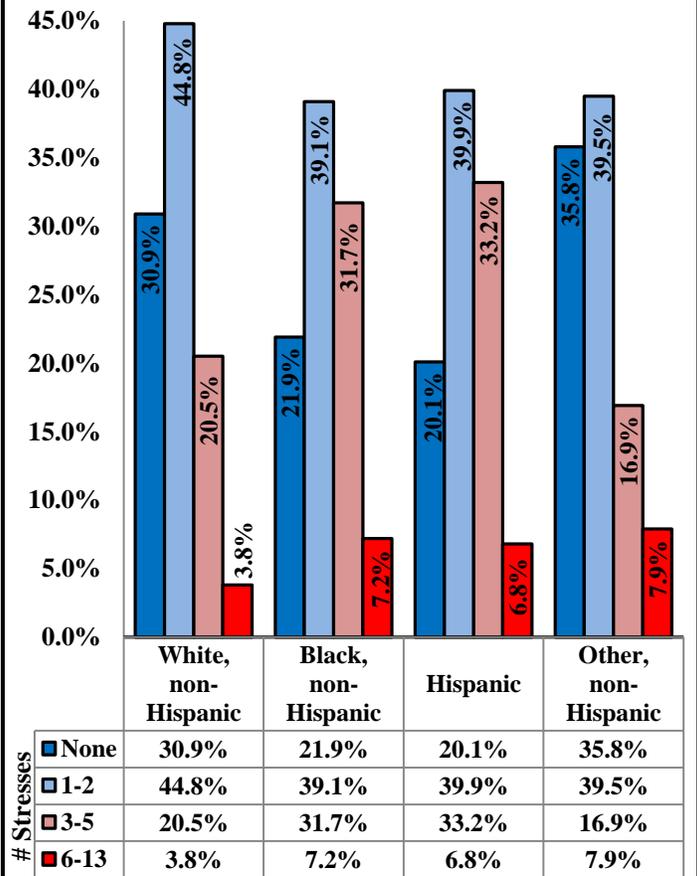
Maternal Demographics and Stress

Within the PRAMS questionnaire, mothers were asked to identify things that may have happened during the 12 months before their new baby was born. Mothers chose as few or as many from a list of possible options. Possible responses to that question include:

- A close family member was very sick and had to go into the hospital
- You got separated or divorced from your husband or partner
- You moved to a new address
- You were homeless
- Your husband or partner lost his job
- You lost your job even though you wanted to go on working
- You argued with your husband or partner more than usual
- Your husband or partner said he did not want you to be pregnant
- You had a lot of bills you could not pay
- You were in a physical fight
- You or your husband or partner went to jail
- Someone very close to you had a bad problem with drinking or drugs
- Someone very close to you died.

Examining responses to this question by maternal race/ethnicity revealed that those mothers identified as other, non-Hispanic were most likely to experience none of the stresses identified (35.8 percent) as well as the ones most likely to experience the most (6–13, 7.9 percent)[Figure 12].

Figure 12. Number of Stresses during 12 Months before Baby was Born by Maternal Race/Ethnicity, Pa., 2007–2010



p < .01
Data Source: PA PRAMS

Examining responses to this question by maternal age revealed teen mothers were those most likely to experience the highest number of stresses (6–13). Furthermore, 42.7 percent of teen mothers reported three or more stresses, and 85.3 percent reported at least one stress. Mothers 30 years of age and older were those most likely to report no stresses compared to the other two age groups examined. Mothers 30 years of age and older were 2.8 times more likely to report no stresses as were teen mothers, and



1.8 times more likely to do so than mothers 20 through 29 years of age (Table 8).

Table 8. Percentage of mothers reporting stresses during the 12 months before baby was born by maternal age, Pa., 2007–2010

Maternal Age (In Years)	Number of Stresses Reported:				
	None	1–2	3–5	6–13	Total
< 20	14.6%	42.6%	34.7%	8.0%	100.0%
20–29	22.9%	43.1%	27.5%	6.5%	100.0%
30+	40.2%	43.6%	14.3%	1.8%	100.0%
All Ages	29.0%	43.2%	23.0%	4.8%	100.0%

p < .01
Data Source: PA PRAMS

An examination by maternal education revealed mothers with more than 12 years of education were those most likely to report experiencing none of the stresses listed. Mothers with 12 or less years of education were those most likely to report experiencing the greatest number of stresses (Table 9).

Table 9. Percentage of mothers reporting stresses during 12 months before baby was born by maternal education, Pa., 2007–2010

Maternal Education (In Years)	Number of Stresses Reported:				
	None	1–2	3–5	6–13	Total
Less than 12	22.7%	39.3%	31.4%	6.6%	100.0%
12	24.4%	40.7%	27.6%	7.4%	100.0%
More than 12	32.8%	45.6%	18.4%	3.2%	100.0%
All Ages	29.0%	43.3%	22.9%	4.8%	100.0%

p < .01
Data Source: PA PRAMS

An examination by household income revealed mothers with the lowest annual household income (less than \$10,000) were those most likely to report the highest number of stresses. Mothers with the highest income (\$50,000 or more) were those most likely to report having experienced none of

the stresses listed. Mothers reporting an annual household income of less than \$10,000 were 25 times more likely to report having experienced at least six of the stresses listed than were those mothers reporting a household income of \$50,000 or more. Mothers reporting an annual household income of \$50,000 or more were 2.5 times more likely to report having experienced none of the stresses listed than were those mothers reporting an annual household income of less than \$10,000 (Table 10).

Table 10. Percentage of mothers reporting stresses during the 12 months before baby was born by household income, Pa., 2007–2010

Household Income	Number of Stresses Reported:				
	None	1–2	3–5	6–13	Total
Less than \$10,000	16.0%	31.4%	40.0%	12.5%	100.0%
\$10,000–\$14,999	16.8%	41.9%	32.1%	9.3%	100.0%
\$15,000–\$19,999	12.4%	40.9%	39.3%	7.5%	100.0%
\$20,000–\$24,999	22.7%	42.8%	26.3%	8.2%	100.0%
\$25,000–\$34,999	26.0%	41.8%	26.9%	5.3%	100.0%
\$35,000–\$49,999	33.0%	45.8%	19.6%	1.6%	100.0%
\$50,000 or More	40.6%	48.3%	10.6%	0.5%	100.0%
Total	29.0%	43.0%	23.2%	4.9%	100.0%

p < .01
Data Source: PA PRAMS

Mothers receiving WIC services while pregnant were significantly more likely to have reported experiencing at least six of the stresses on the list than were non-WIC mothers. Mothers enrolled in WIC were 3.7 times more likely to report at least six stresses than those mothers not enrolled. Furthermore, mothers not enrolled in WIC were twice as likely to have reported experiencing none of the stressed identified (Table 11).

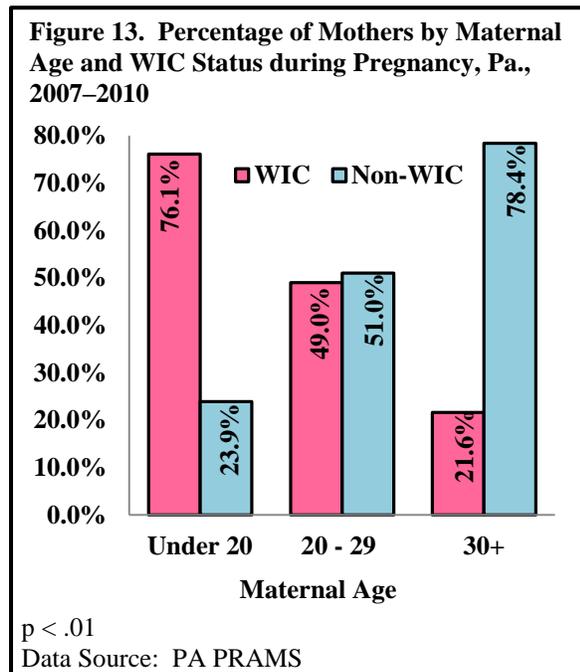


Table 11. Percentage of mothers reporting stresses during the 12 months before baby was born by WIC status during pregnancy, Pa., 2007–2010

WIC Status	Number of Stresses Reported:				
	None	1–2	3–5	6–13	Total
Non-WIC	36.8%	45.0%	15.9%	2.3%	100.0%
WIC	17.6%	40.5%	33.4%	8.5%	100.0%
Total	29.0%	43.2%	23.0%	4.9%	100.0%

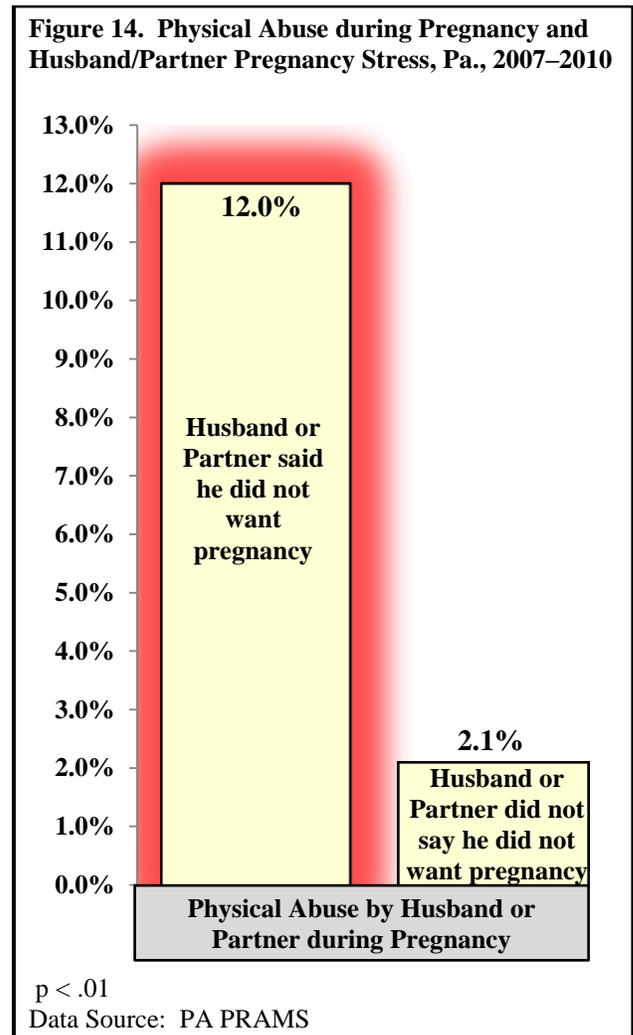
p < .01
Data Source: PA PRAMS

Based on the 2,297 mothers surveyed for whom maternal age and WIC status were determined between 2007 and 2010, teen mothers were significantly more likely to be on WIC during their pregnancy than older mothers. Over three quarters (76.1 percent) of the teen respondents were on WIC during their pregnancy (Figure 13).

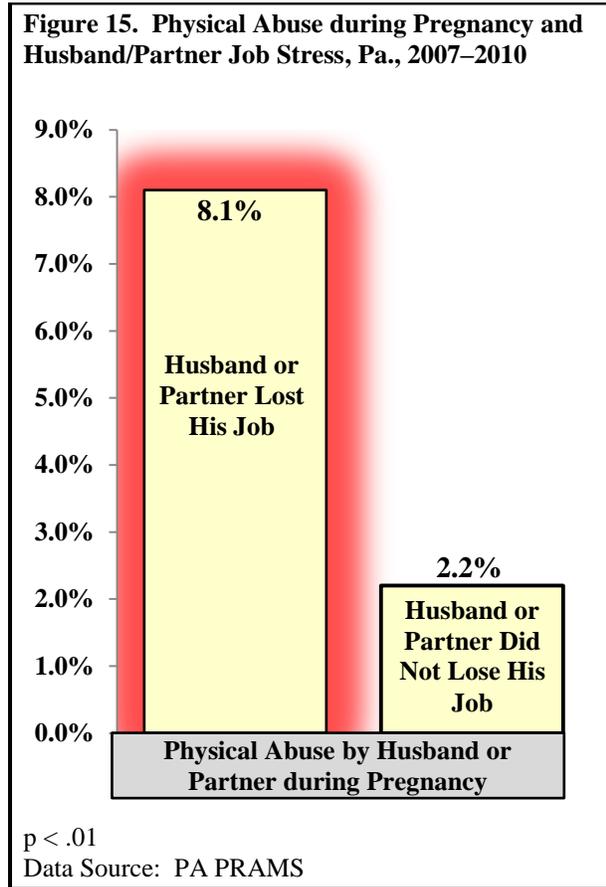


Physical Abuse and Stress

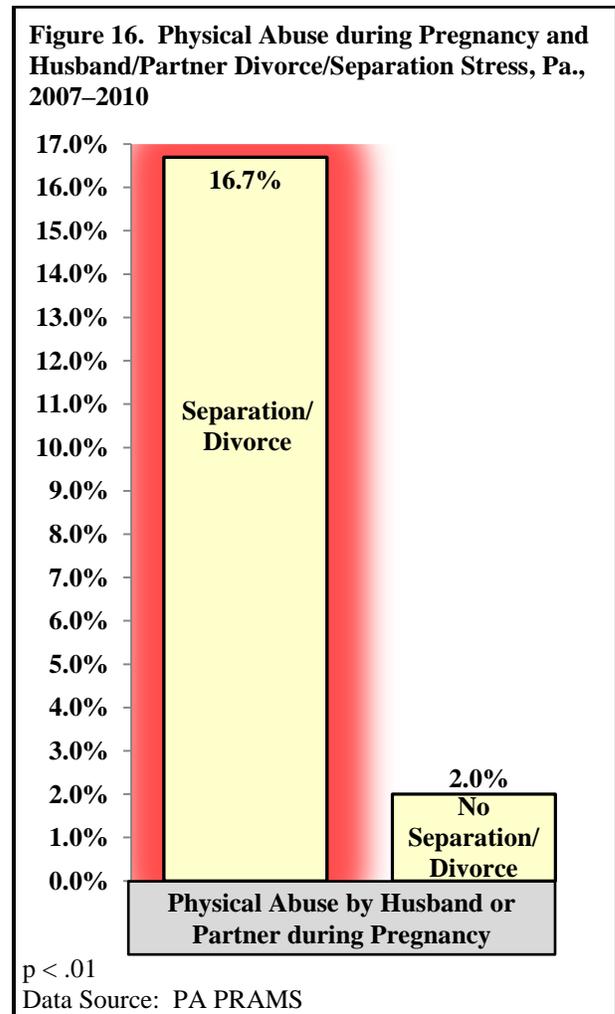
Within the PRAMS questionnaire, mothers were asked to identify things that may have happened during the 12 months before their new baby was born. One of the response options was: “Your husband or partner said he did not want you to be pregnant.” This was compared to the response data related to physical abuse by a husband or partner during pregnancy. It revealed that those mothers indicating their husband or partner had told them they didn’t want the pregnancy were approximately 5.7 times more likely to have experienced physical abuse during pregnancy (Figure 14).



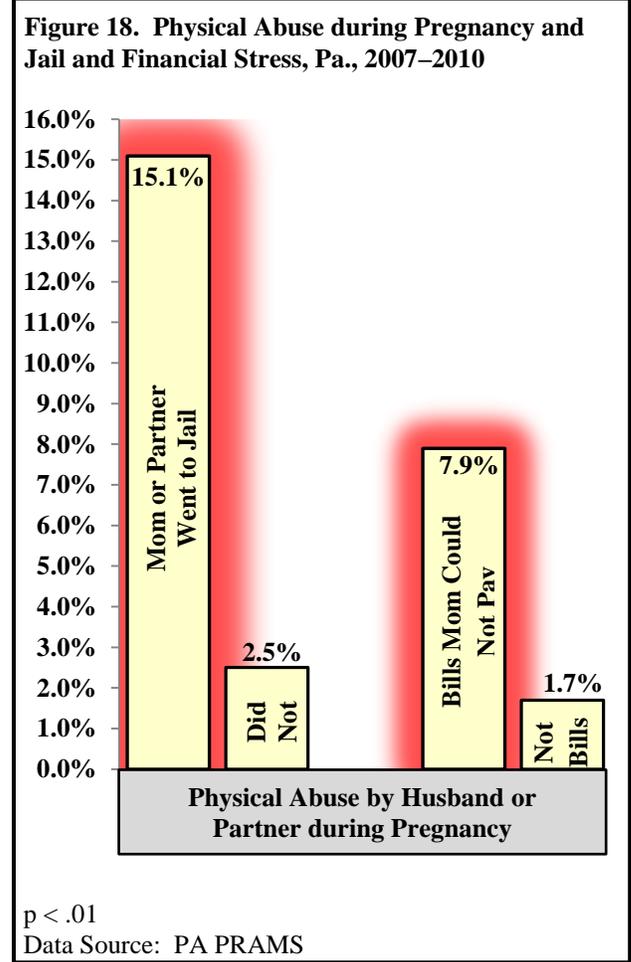
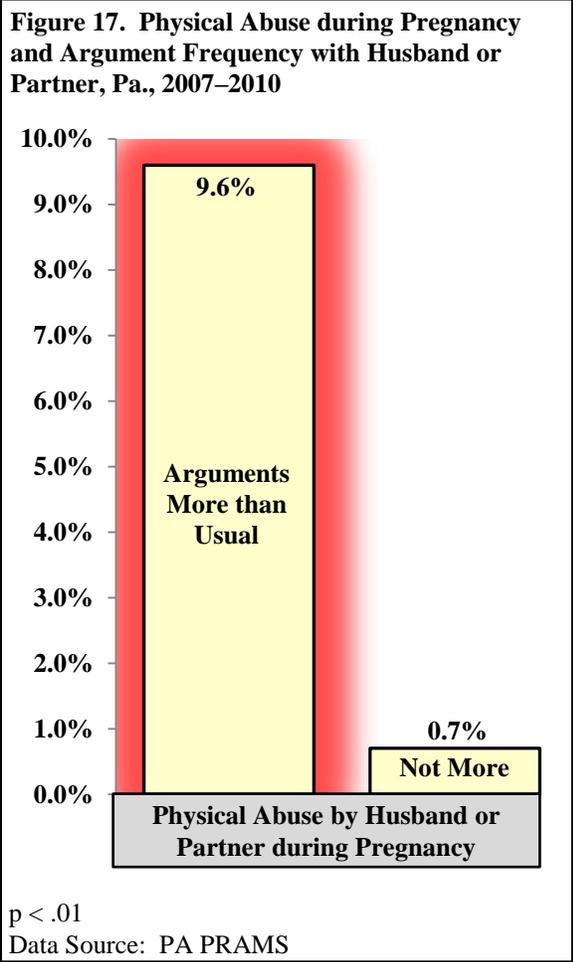
Another response option for this question was “Your husband/partner lost his job.” Mothers having reported this were approximately 3.7 times more likely to report experiencing physical abuse during pregnancy (Figure 15).



Another response option for this question was “You got separated or divorced from your husband or partner.” This data revealed mothers reporting a separation or divorce were approximately 8.4 times more likely to have reported physical abuse by a husband or partner during pregnancy (Figure 16).



Mothers indicating they argued with their husbands or partners more than usual during the 12 months before their new baby was born were approximately 13.7 times more likely to report physical abuse during pregnancy (Figure 17).



Those mothers indicating they, or their partners, went to jail during the 12 months before their new baby was born were approximately six times more likely to report experiencing physical abuse during pregnancy. Those indicating they had a lot of bills they could not pay during the 12 months before their new baby was born were 4.6 times more likely to report having experienced physical abuse during pregnancy (Figure 18).



Physical Abuse and Postpartum Depression

In an effort to explore what, if any, association exists between mothers' reported experience with physical abuse and postpartum depression, survey response data on both topics were examined. Postpartum depression is a serious condition that can interfere with daily routine activities such as thinking, sleeping and eating. Untreated, postpartum depression may last for many months or longer.

Depression is more than just feeling "blue" or "down in the dumps" for a few days. It's a serious illness that involves the brain. With depression, sad, anxious, or "empty" feelings don't go away and interfere with day-to-day life and routines. These feelings can be mild to severe. Postpartum depression may appear to be the baby blues at first. However, the signs and symptoms are more intense and longer lasting, and they can eventually interfere with a mother's ability to care for her new baby.

Within the PA PRAMS questionnaire, mothers were asked about their experience with postpartum depressive symptoms. They were provided a list of feelings and experiences that women sometimes have after childbirth. They were asked to read each item to determine how well it described their feelings and experiences. They were asked to identify the frequency of each feeling by applying a number scale to each one. When the sum of the scale codes from all three feelings equaled or exceeded 10, then the mother was identified as one experiencing postpartum depressive symptoms.

Examining the frequency of mothers reporting physical abuse by a husband or partner during pregnancy with the frequency of those reporting postpartum depressive symptoms revealed a significant disparity between those experiencing and those not experiencing physical abuse. Physically abused mothers were 3.4 times more likely to report postpartum depressive symptoms than mothers not abused (Table 12).

Table 12. Physical Abuse by Husband/Partner during Pregnancy and Postpartum Depression, Pa., 2007–2010

Physical Abuse during Pregnancy ↓	Postpartum Depressive Symptoms		
	NO (w/95% CI)	YES (w/95% CI)	Total
NO	90.7% (89.1%–92.1%)	9.3% (7.9%–10.9%)	100.0%
YES	68.1% (52.8%–80.3%)	31.9% (19.7%–47.2%)	100.0%

p < .01
Data Source: PA PRAMS

Health Care Worker Talk on Physical Abuse

Between 2007 and 2010, approximately 53.9 percent (n = 2,079; WSUM = 272,550) of mothers who completed a PA PRAMS survey reported they did receive a talk/discussion by a health care worker (doctor, nurse, or other health care worker) on the issue of physical abuse by husbands and partners, during one or more of their prenatal care visits.



Healthy People (HP) and Intimate Partner Violence

The U.S. HP 2020 topics include a series of objectives under the subtopic of Injury and Violence Prevention (IVP) that are related specifically to intimate partner violence (targets IVP-39.1–IVP-39.4). However, these objectives are currently inactive and under development. There has been no baseline estimate and target values set as of the date of this report.⁶

Risk Factors for IPV

On its webpage dedicated to Intimate Partner Violence, the CDC lists numerous individual, relational, community and societal risk factors associated with intimate partner violence. These factors are ones associated with a greater likelihood of IPV victimization or perpetration. Some factors for IPV victimization and perpetration are the same. In addition, some risk factors for victimization and perpetration are associated with one another; for example, childhood physical or sexual victimization is a risk factor for future IPV perpetration and victimization (Table 13).⁷

Table 13. Risk Factors for Intimate Partner Violence	
Individual Risk Factors	
✓	Low self-esteem
✓	Low income
✓	Low academic achievement
✓	Young age
✓	Aggressive or delinquent behavior as a youth
✓	Heavy alcohol and drug use
✓	Depression
✓	Anger and hostility
✓	Antisocial personality traits
✓	Borderline personality traits
✓	Prior history of being physically abusive
✓	Having few friends and being isolated from other people
✓	Unemployment
✓	Emotional dependence and insecurity
✓	Belief in strict gender roles (e.g., male dominance and aggression in relationships)
✓	Desire for power and control in relationships
✓	Perpetrating psychological aggression
✓	Being a victim of physical or psychological abuse (consistently one of the strongest predictors of perpetration)
✓	History of experiencing poor parenting as a child
✓	History of experiencing physical discipline as a child
Relationship Factors	
✓	Marital conflict-fights, tension, and other struggles
✓	Marital instability-divorces or separations
✓	Dominance and control of the relationship by one partner over the other
✓	Economic stress
✓	Unhealthy family relationships and interactions
Community Factors	
✓	Poverty and associated factors (e.g., overcrowding)
✓	Low social capital-lack of institutions, relationships, and norms that shape a community's social interactions
✓	Weak community sanctions against IPV (e.g., unwillingness of neighbors to intervene in situations where they witness violence)
Societal Factors	
✓	Traditional gender norms (e.g., women should stay at home, not enter workforce, and be submissive; men support the family and make the decisions)
Source: CDC	



Preventing IPV

While most people understand physical violence such as pushing, hitting, kicking or choking to be violence, fewer people associate other, less direct, forms of abuse and coercion with domestic violence. In 2011, the Pennsylvania Coalition Against Domestic Violence (PCADV) partnered with the Center for Survey Research at Penn State Harrisburg to conduct a statewide landline and cell phone survey about Pennsylvanians’ knowledge, attitudes, and beliefs about domestic violence. That survey was intended to inform and shape PCADV’s statewide Public Awareness Campaign and guide its statewide plan for the prevention of domestic violence. Respondents were asked to identify a series of situations/scenarios on a scale from one to five, with five definitely being domestic violence. Based on that response data, it is clear that while most people clearly recognize physical violence as domestic violence (98.4 percent), fewer associate things like abusing or threatening to abuse one’s pets, taking or destroying property, and controlling resources such as money, vehicles and time as forms of domestic violence (Table 14).⁸

The Pennsylvania Coalition Against Domestic Violence (PCADV)

PCADV’s 60 community-based programs and statewide office are joined in a coalition, acting on behalf of domestic violence victims and their children. The community programs and statewide coalition form interconnecting links in a chain of services so victims can find safety, obtain justice and build new lives free of abuse.

Table 14. Pennsylvanian’s Beliefs about Domestic Violence, Pa., 2011

Scenario	Percentage of Respondents Rating 4 or 5
Physical Violence such as pushing, hitting, kicking or choking	98.4%
Forcing someone to have sex or perform sexual acts	97.9%
Threatening to harm someone or their family members	95.8%
Forcing someone to watch pornography	90.7%
Sabotaging birth control or getting someone pregnant against their will	90.6%
Keeping someone from friends, family, or work	84.0%
Harassment by persistent email, calls, or texts	78.2%
Controlling resources such as money, vehicles and time	74.3%
Insulting criticizing, embarrassing or ignoring someone	74.0%
Taking or destroying property	73.5%
Disclosing the sexual orientation of an individual without their consent	68.6%
Abusing or threatening to abuse pets	67.7%

Source: PCADV

It is important to note that the above total percentages reflect combined responses from both sexes. There does appear to be some difference in viewpoints about abuser tactics by sex. For instance, when asked if controlling resources such as money, vehicles, and time was domestic violence, 60.7 percent of men agreed or strongly agreed while 80.9 percent of females agreed or strongly agreed (Total = 74.3 percent).



Community-wide prevention efforts should include a significant focus on strategies and initiatives that are designed to prevent violence before it starts. Primary prevention activities can and should work in concert with existing intervention programs, and can include enhanced efforts to work within schools, workplaces and other settings to inform. Primary prevention efforts can include initiatives designed to promote healthy relationships among youth and address attitudes and beliefs that condone, encourage or facilitate IPV.

Summary

IPV is a serious and preventable problem. The negative effects of IPV are far reaching, and the associated costs impact society on many levels through direct medical and mental health services as well as lost productivity.

According to the latest available data from the NISVS (2010), over one third of women and over one quarter of men have experienced rape, physical violence, and/or stalking by an intimate partner in their lifetime. Female victims were significantly more likely to report multiple forms of IPV whereas 92.1 percent of the male victims reported physical violence alone.

According to a 2004-2005 study conducted by the Ontario Women's Health Council, strong associations exist between specific indicators and IPV. Women identified as single or separated, depressed, with unemployed or under-employed partners, or with partners having a problem with alcohol or drugs are all at an increased risk of IPV.

Based on 2010 PRAMS survey response data, the percentage of mothers experiencing physical abuse before and during pregnancy was very similar to the 28-state mean for all

participating PRAMS states nationwide. Based on that, 3.8 percent of the state's mothers experienced physical abuse by a husband or partner during the 12 months before their pregnancy. The 28-state mean was 3.7 percent. In the context of physical abuse by a husband or partner during pregnancy, 3.0 percent of the state's mothers experienced abuse. The 28-state mean was 3.1 percent.

An analysis of the 2007 through 2010 PA PRAMS survey response data revealed significant association between IPV and maternal age, maternal education and maternal race/ethnicity. Mothers under 25 years of age were more likely to report experiencing physical abuse before and during their pregnancies than mothers 25 years of age and older. Mothers with less than 12 years education were more likely to report experiencing physical abuse than mothers with more than 12 years education. White, non-Hispanic mothers were least likely to report experiencing physical abuse during their pregnancies.

It is generally accepted that unintended pregnancies are associated with poor health outcomes for mothers and infants. The PA PRAMS data for the period 2007 through 2010 revealed 58.1 percent of mothers (all ages) intended their pregnancies and 41.9 percent did not. However, there is an inverse relationship between maternal age and the percentage of mothers reporting unintended pregnancies. Teen mothers were significantly more likely to report an unintended pregnancy (75.2 percent) than mothers 35 year of age and older (28.7 percent). The data on pregnancy intendedness was examined with the data on physical abuse during pregnancy.



Those mothers (all ages) having reported unintended pregnancies were most likely to have also reported experiencing physical abuse during pregnancy.

Since young age, unintended pregnancy and low income have all been associated with a higher risk for IPV, young mothers (including teen mothers) represent a particularly vulnerable subpopulation.

Increased relationship stress was revealed to be strongly associated with increased prevalence of physical abuse. Those mothers having reported that their husband or partner said he did not want the pregnancy were approximately 5.7 times more likely to have experienced physical abuse during pregnancy. Those having reported stress related to a husband or partner losing a job were 3.7 times more likely to have experienced physical abuse during pregnancy. Mothers having reported stress associated with a separation or divorce were approximately 8.4 times more likely to have experienced physical abuse during pregnancy. Those having reported stress associated with more than usual argumentation with a husband or partner during the 12 months before their new baby was born were 13.1 times more likely to have experienced physical abuse during pregnancy.

The impacts of IPV can be significant and long lasting. The response data revealed that those mothers physically abused were approximately 3.4 times more likely to have experienced postpartum depressive symptoms than those not physically abused.

IPV prevention strategies should include a significant focus on primary efforts to stop violence before it happens. Reaching school-age kids with information

designed to support and facilitate healthy relationship building is important.

Only a little more than half (53.9 percent) of the mothers who completed a PRAMS survey reported having received a talk or discussion by a health care worker (doctor, nurse, or other health care worker) on the topic of physical abuse by husbands and partners as part of a prenatal care visit. This indicates there remains many missed opportunities for reaching and informing women about IPV.

Endnotes

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