DEPARTMENT OF HEALTH

Report: Hospital-Treated Intimate Partner Violence in Minnesota

MARCH 2019

Background

Intimate Partner Violence (IPV) is a preventable public health and human rights issue. IPV is defined as physical or sexual violence, stalking, and psychological aggression (including coercive tactics) by a current or former intimate partner of the victim (1). In the United States, more than 1 in 3 women (36.4%) experience IPV during their lifetime. Of the various types of IPV measured, physical violence is the most common tactic. The CDC estimates that 31% of all women experience physical violence by an intimate partner (2).

IPV includes many different tactics and may escalate over time and/or occur in cycles. Hospital-treated IPV cases may represent more severe IPV and may indicate the violence has increased in severity or frequency. According to the Jacquelyn Campbell Danger Assessment, women who report that the physical violence has been increasing in severity are over 5 times more likely to be murdered by their intimate partner than those who do not report an increase in physical violence severity (3). Women who report an increase in the frequency of physical violence are over 4 times more likely to be murdered (3).

Methods

This report uses Minnesota hospital discharge data to describe hospital-treated cases of IPV in Minnesota. IPV cases are identified by International Classifications of Diseases (ICD) codes in medical billing records that are suggestive of IPV (see Appendix A for a list of all ICD-10-CM codes used to identify cases). An emergency department (ED) visit or hospitalization that includes one or more of the IPV-related codes is considered a case. This report describes hospital-treated cases (both ED visits and hospitalizations) of IPV among Minnesota residents from 2016 through the first quarter of 2018.

Key Findings

- Females accounted for 83% (n=1,606) of all IPV-related ED visits and hospitalizations occurring between 2016 and the first quarter of 2018. Males accounted for the remaining 17% (n=319).
- Females between the ages of 20 and 39 years old accounted for 63% of all IPV-related ED visits and hospitalizations among females during this time period.

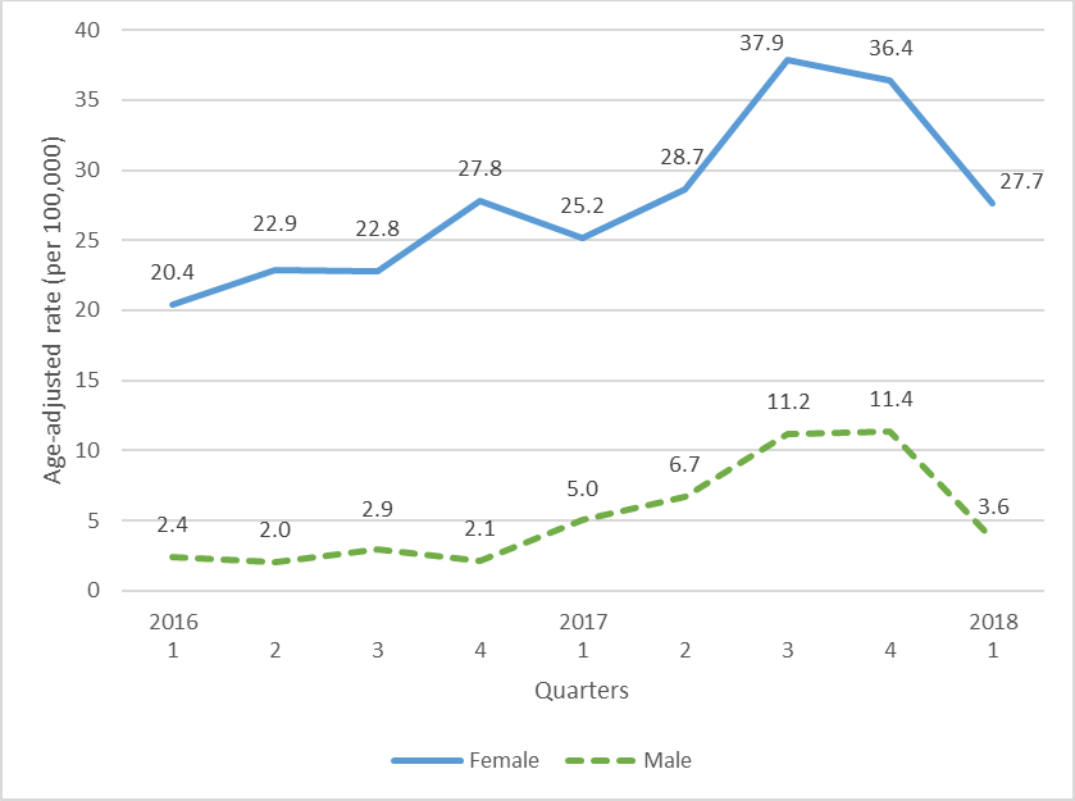
- IPV-related ED visits and hospitalizations appeared to increase from the beginning of 2016 through the end of 2017 for both males and females. These rates, however, decreased during the first quarter of 2018.

IPV-related ED visits and hospitalizations

Anyone can be a victim of IPV, though females have the highest rates of IPV-related ED-visits and hospitalizations (4). While transgender, non-binary and intersex individuals experience high rates of IPV, gender identity is not captured by Minnesota hospital data (5).

Figure 1 shows how the rate of hospital-treated IPV has changed over time (after adjusting for age). These rates are shown for both females (blue solid line) and males (green dashed line), by quarter of the year (a quarter is defined as three months; "first quarter" means January through March, "second quarter" is April through June, "third quarter" is July through September and "fourth quarter" is October through December). The rate of IPV-related ED visits and hospitalizations appeared to increase substantially for both females and males between the first quarter of 2016 and third quarter of 2017. However, the rates for both genders decreased substantially from the fourth quarter of 2017 into the first quarter of 2018.

Figure 1. Rate of IPV-related ED visits and hospitalizations



The majority of all IPV-related visits were outpatient (ED) visits; hospitalizations accounted for 10% of all visits among females and 8% among males. Because females experience a much higher burden of hospital-treated IPV compared to males, figures 2 through 4 show data for females only. Figure 2 illustrates the number of all hospital-treated visits for IPV in striped yellow bars and number of hospitalizations for IPV in solid green. Data are shown by age group. The striped yellow bars peak between the ages of 20 and 39, indicating that females between these ages had the highest numbers of all IPV-related visits (63% of all visits among females). The peak of the solid green bars occurs between the ages of 25 and 49, indicating that females between these ages had the highest numbers of IPV-related hospitalizations.

Figure 2. Count of all IPV-related visits compared to hospitalizations, females only

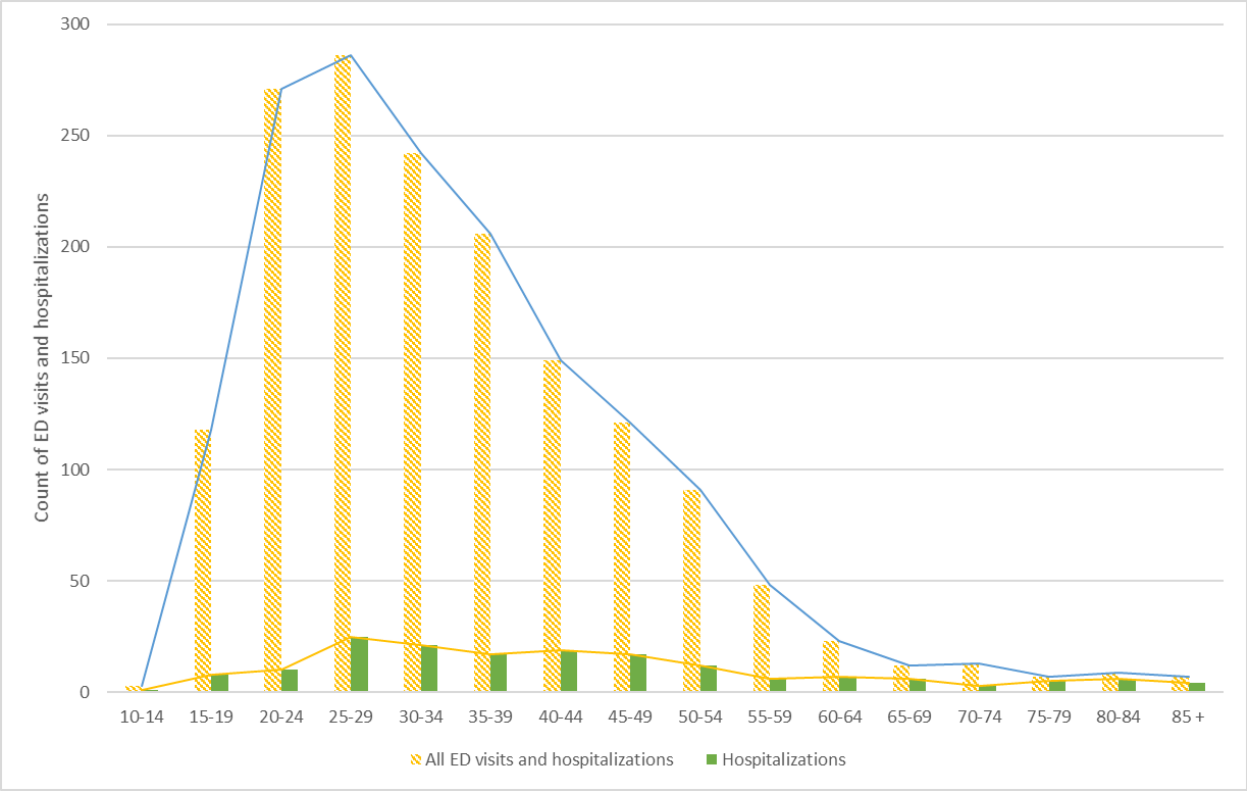


Figure 3 also depicts data for females only and shows how the rate of hospital-treated IPV has changed over time (after adjusting for age). The dotted red line shows the change in rate for treatment lasting only one day, while the solid green line shows the change in rate for treatment that lasted two or more days. These data are shown by quarter.

Among females, the rate of IPV-related visits that lasted two or more days tripled between the first quarter of 2016 and the fourth quarter in 2017 (1.2 per 100,000 to 3.6 per 100,000), but then decreased in the first quarter of 2018 (Figure 3). The rate of visits that lasted one day increased between the first quarter of 2016 and the third quarter in 2017 (19.3 per 100,000 to 35.2 per 100,000), but then decreased.

Figure 3. Rate of IPV-related visits by length of stay, females only

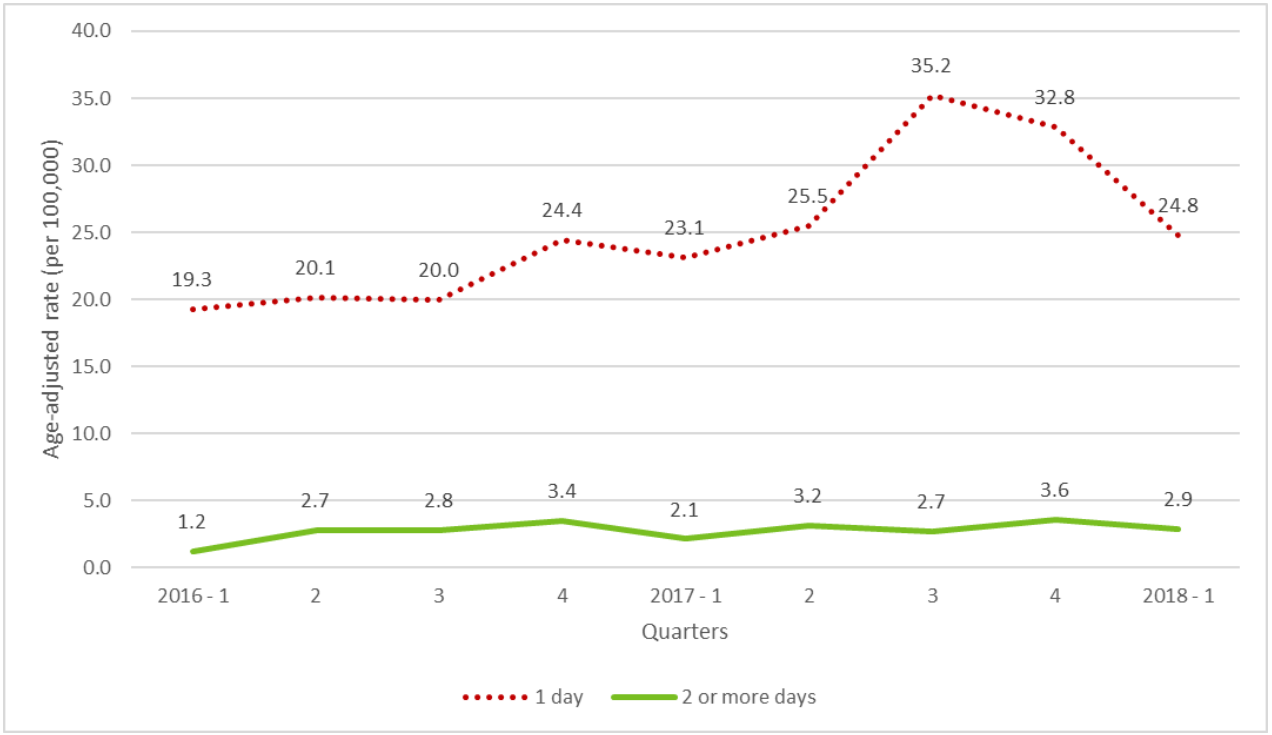


Figure 4 depicts the principal diagnoses for all IPV-related visits among females between 2016 and the first quarter of 2018. The main reason for the ED visit or hospitalization (principal diagnosis) for half of all IPV-related visits among females was confirmed or suspected adult or child abuse, neglect, or maltreatment (42% confirmed and 8% suspected). The next most common principal diagnosis was head injuries (13%), followed by physical abuse complicating pregnancy, childbirth, or the 6 weeks following birth (4%). The 10th revision of the International Classification of Diseases (ICD-10-CM) codes corresponding to the principal diagnoses are shown in Table 1 (6).

Figure 4. Principal diagnoses of all identified IPV-related visits, females only

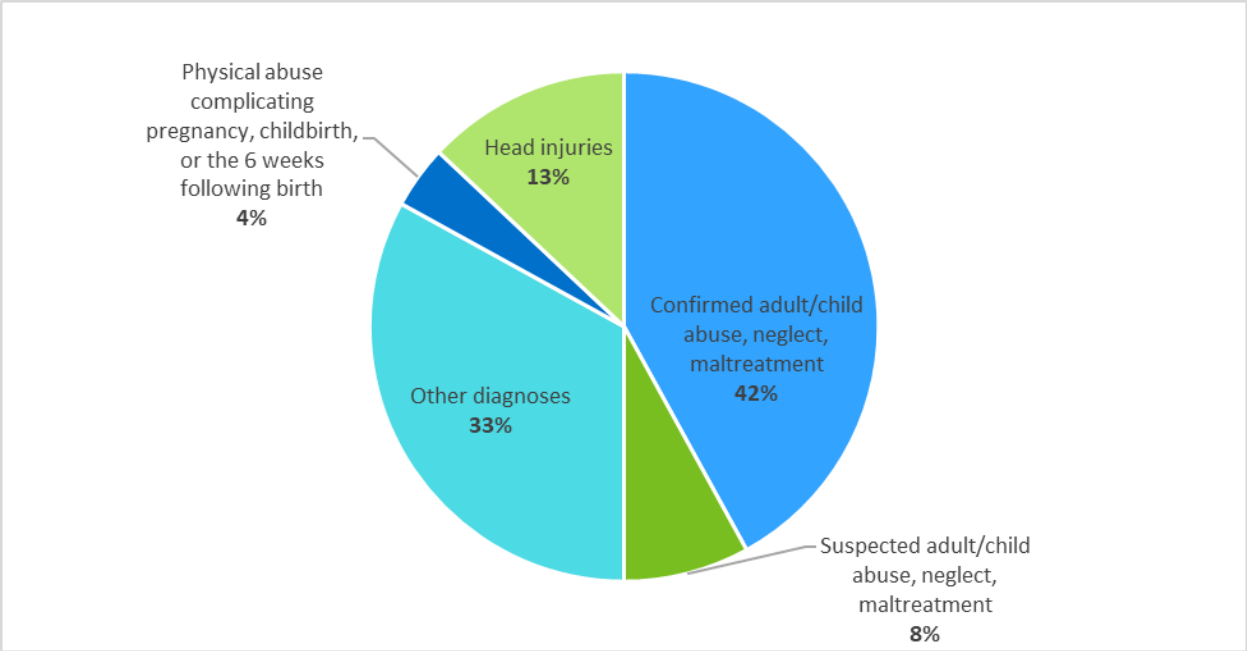


Table 1. ICD-10 codes for principal diagnoses

Principal diagnosis description	ICD-10-CM codes
Adult and child abuse, neglect and other maltreatment, confirmed	T74
Adult and child abuse, neglect and other maltreatment, suspected	T76
Injuries to the head	S00 – S09
Physical abuse complicating pregnancy, childbirth and the puerperium	O9A3

Discussion

This report focuses on describing hospital-treated IPV cases, because the presentation of patients to an ED or hospital provides an opportunity to improve the healthcare system's ability to support IPV victims and prevent further violence. A better understanding of these patients can inform intervention and prevention strategies and contribute to more effective approaches.

The rate of IPV-related ED visits and hospitalizations increased between the first quarter of 2016 and third quarter of 2017 for both genders and then decreased. This pattern may indicate a true increase in the rate of IPV-related visits, but it is difficult to interpret this fluctuation in rates with only two years and one quarter of data. Females ages 25-29 years old had the highest number of all IPV-related ED visits and hospitalizations, after which age the numbers decreased steadily. This indicates a need to focus more prevention activities on this age group.

It is important to recognize that while hospital-treated IPV cases are important to discuss in and of themselves, Minnesota hospital data likely only represent a small percentage of all cases of IPV in Minnesota (7). These data do not provide information about all gender identities, nor do they include information pertaining to the socioeconomic status of patients. This data source also lacks good quality data about patient race or ethnicity; as such, racial differences in hospital-treated IPV in Minnesota were not discussed in this report. As IPV affects individuals of different gender identities, socioeconomic statuses, races and ethnicities differently, the inability to examine the experience of IPV among these various populations is a limitation of the Minnesota hospital data.

The data presented here are almost certainly an underestimate of all victims of IPV who seek medical treatment and of all Minnesotans experiencing IPV victimization. It is well known that not all victims of IPV seek medical care, and some may be treated by emergency medical services in the field only or at clinic visits, neither of which are included in Minnesota's hospital discharge data. One survey of females in Minnesota found that while the majority of IPV victims sustained injuries, only 38% sought medical care (7). According to the 2016 Minnesota Crime Victimization Survey, only 7% of those who experienced IPV sought medical attention (8). Additionally, not all healthcare providers screen for IPV and not all victims disclose that the cause of their injuries are related to IPV (4).

However, though these data likely represent only a small percentage of all IPV cases in Minnesota, the results can still be useful for guiding prevention activities. These cases are important to examine as hospital-treatment for injuries identified to be IPV-related represent a point of intervention.

Approximately 21 Minnesotans are killed every year by an intimate partner (9). According to the Minnesota Coalition for Battered Women, 22 women and 3 men were killed in 2015, 18 women in 2016 and 19 women in 2017 (9). An examination of fatal IPV cases warrants a separate analysis; thus, another report describing fatal IPV in Minnesota is forthcoming.

Prevention

Primary prevention is a systematic process that *promotes* healthy environments and behaviors and *reduces* the likelihood or frequency of an injury or traumatization. Primary prevention efforts are actions taken that aim to stop the harm from happening in the first place. An investment in prevention is essential to ending intimate partner violence. The Minnesota Department of Health's Sexual Violence Prevention Program recommends an intersectional approach to prevention using evidence-based strategies from the Centers for Disease Control (CDC) technical packages on Sexual Violence Prevention and Intimate Partner Violence Prevention (10-11).

Resources for IPV

Victims of IPV may call the toll free **National Domestic Violence Hotline** (http://www.thehotline.org) at 1-800-799-7233 or 1-800-787-3224 (TTY). The hotline is available 24 hours a day and provides crisis intervention, information about domestic violence and referrals to local services that can help.

Day One Hotline (http://dayoneservices.org/) is a resource in Minnesota for victims of IPV, sexual violence, and human trafficking. The hotline is available 24 hours a day, 7 days a week: 1-866-223-1111.

Minnesota Coalition for Battered Women - https://www.mcbw.org/

Mending the Sacred Hoop - https://mshoop.org/

Minnesota Indian Women's Sexual Assault Coalition - http://miwsac.org

Minnesota Coalition Against Sexual Assault - https://www.mncasa.org/

For a list of more resources, go to the Minnesota Department of Health's Sexual Violence Prevention Program website: https://www.health.state.mn.us/communities/svp/

Suggested Citation

Wiens T, Menanteau B, Roesler J. Report: Hospital-Treated Intimate Partner Violence in Minnesota. March 2019. Injury and Violence Prevention Section, Minnesota Department of Health.

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Appendices

Appendix A

ICD-10-CM codes used to identify cases of hospital-treated IPV

Description of Code	ICD-10-CM codes
Adult and child abuse, confirmed, initial encounter	T74.11
Adult and child abuse, suspected, initial encounter	T76.11
Spouse or partner, perpetrator of maltreatment and neglect	Y07.0

Appendix B

Table for Figure 1

Table 1. Rate of IPV-related ED visits and hospitalizations

Quarter	Female	Male
2016, first quarter	20.4	2.4
2016, second quarter	22.9	2.0
2016, third quarter	22.8	2.9
2016, fourth quarter	27.8	2.1
2017, first quarter	25.2	5.0
2017, second quarter	28.7	6.7
2017, third quarter	37.9	11.2
2017, fourth quarter	36.4	11.4
2018, first quarter	27.7	3.6

Table for Figure 2

Table 2. Count of all IPV-related visits compared to hospitalizations, females only

Age group	All ED visits and hospitalizations	Hospitalizations
10-14	3	1
15-19	118	8
20-24	271	10
25-29	286	25
30-34	242	21
35-39	206	17
40-44	149	19
45-49	121	17
50-54	91	12
55-59	48	6
60-64	23	7
65-69	12	6
70-74	13	3
75-79	7	5
80-84	9	6
85 +	7	4

Table for Figure 3

Table 3. Rate of IPV-related visits by length of stay, females only

Quarter	1 day	2 or more days
2016, first quarter	19.3	1.2
2016, second quarter	20.1	2.7
2016, third quarter	20.0	2.8
2016, fourth quarter	24.4	3.4
2017, first quarter	23.1	2.1
2017, second quarter	25.5	3.2
2017, third quarter	35.2	2.7
2017, fourth quarter	32.8	3.6
2018, first quarter	24.8	2.9

Table for Figure 4

Table 4. Principal diagnoses of all identified IPV-related visits, females only

Principal diagnosis (females only)	Percent of all principal diagnoses for IPV ED visits and hospitalizations
Confirmed adult/child abuse, neglect, maltreatment	42%
Suspected adult/child abuse, neglect, maltreatment	8%
Head injuries	13%
Physical abuse complicating pregnancy, childbirth, or the 6 weeks following birth	4%
Other diagnoses	33%

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March 2019

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