



# Perinatal Electronic Vapor Product Use - PRAMS 2016-2018



## Background

Electronic vapor products (EVPs) comprise a diverse group of devices, including electronic cigarettes (e-cigarettes). EVP users inhale an aerosol that typically contains nicotine, flavorings, and other additives.<sup>1</sup> Nicotine is a developmental toxicant that adversely affects pregnancy and infant outcomes.<sup>2</sup> Therefore, EVPs are not safe for mother or baby during pregnancy.<sup>1,2</sup>

The Pregnancy Risk Assessment Monitoring System (PRAMS) collects site-specific, population-based data on maternal experiences and behaviors before, during, and shortly after pregnancy. Women are sampled for PRAMS between two and six months after having a live birth. PRAMS sites that met or exceeded the response rate threshold for 2018 (55%) are included in overall estimates for this report.

## Women<sup>◇</sup> Using Electronic Vapor Products (EVP)\* Before and During Pregnancy

| PRAMS Indicator                                              | Illinois<br>% (95% CI) <sup>†</sup> |               |               | 31 PRAMS Sites <sup>†</sup><br>% (95% CI) <sup>†</sup> |
|--------------------------------------------------------------|-------------------------------------|---------------|---------------|--------------------------------------------------------|
|                                                              | 2016                                | 2017          | 2018          | 2018                                                   |
| Any EVP use in the past 2 years                              | 4.6 (3.5-6.0)                       | 6.0 (4.6-7.8) | 6.0 (4.7-7.6) | 5.9 (5.5-6.3)                                          |
| Any EVP use in the 3 months before becoming pregnant         | 2.0 (1.3-2.9)                       | 3.1 (2.2-4.5) | 3.5 (2.5-4.8) | 3.4 (3.2-3.8)                                          |
| Any EVP use in the last 3 months of pregnancy                | 0.3 (0.1-0.9)                       | 1.3 (0.7-2.3) | 1.3 (0.8-2.2) | 1.1 (0.9-1.3)                                          |
| Daily <sup>‡</sup> EVP use in the last 3 months of pregnancy | 0.2 (0.1-0.7)                       | 0.5 (0.2-1.2) | 0.7 (0.3-1.4) | 0.5 (0.4-0.7)                                          |

<sup>◇</sup> Women with a recent live birth

\* Electronic vapor products, defined on the PRAMS survey as: "Electronic cigarettes [e-cigarettes] and other electronic nicotine products (such as, vape pens, e-hookahs, hookah pens, e-cigars, e-pipes) are battery-powered devices that use nicotine liquid rather than tobacco leaves, and produce vapor instead of smoke."

<sup>†</sup> 31 PRAMS sites met the 55% response rate threshold for 2018 and include: Alaska, Colorado, Connecticut, Delaware, Georgia, Illinois, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York City, North Dakota, Pennsylvania, Puerto Rico, Rhode Island, South Dakota, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

<sup>†</sup> Weighted percent (95% Confidence Interval)

<sup>‡</sup> Daily EVP use is defined as respondents who reported EVP use of 'once a day' or 'more than once a day'.

## Use of EVPs and Combustible Cigarettes Alone or in Combination During<sup>‡</sup> Pregnancy, Among Women<sup>◇</sup> Who Used EVPS in the Past 2 Years

| PRAMS Indicator       | Illinois<br>% (95% CI) <sup>†</sup> |                  |                  | 31 PRAMS Sites <sup>†</sup><br>% (95% CI) <sup>†</sup> |
|-----------------------|-------------------------------------|------------------|------------------|--------------------------------------------------------|
|                       | 2016                                | 2017             | 2018             | 2018                                                   |
| EVP use only          | 2.4 (0.5-12.0)                      | 3.9 (1.0-14.6)   | 5.6 (1.8-16.1)   | 6.8 (5.3-8.8)                                          |
| Cigarette use only    | 27.9 (17.2-41.9)                    | 30.1 (19.4-43.5) | 23.8 (14.7-36.2) | 21.4 (18.7-24.4)                                       |
| EVP and cigarette use | 5.4 (1.7-16.2)                      | 17.4 (9.2-30.5)  | 16.0 (8.6-27.7)  | 11.9 (9.7-14.5)                                        |

<sup>‡</sup> Data reported are during the last three months of pregnancy

<sup>◇†</sup> See footnotes in first table

## Women<sup>◇</sup> Reporting EVP Use Before and During Pregnancy, by Characteristics – Illinois, 2018

| Characteristic                                | Any EVP use in 3 months before pregnancy<br>% (95% CI) <sup>†</sup> | Any EVP use in last 3 months of pregnancy<br>% (95% CI) <sup>†</sup> | Daily <sup>‡</sup> EVP use in last 3 months of pregnancy<br>% (95% CI) <sup>†</sup> |
|-----------------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Maternal Race/Ethnicity</b>                |                                                                     |                                                                      |                                                                                     |
| Non-Hispanic White                            | 4.2 (2.9-6.2)                                                       | 1.5 (0.8-2.9)                                                        | 0.7 (0.3-1.9)                                                                       |
| Non-Hispanic Black                            | 1.7 (0.7-4.3)                                                       | 0.4 (0.1-2.8)                                                        | 0.4 (0.1-2.8)                                                                       |
| Hispanic                                      | 3.8 (1.8-7.7)                                                       | 2.1 (0.8-5.5)                                                        | 1.0 (0.2-3.9)                                                                       |
| Non-Hispanic Asian or Pacific Islander        | 0                                                                   | 0                                                                    | 0                                                                                   |
| Non-Hispanic American Indian or Alaska Native | #                                                                   | #                                                                    | #                                                                                   |
| Non-Hispanic Other                            | #                                                                   | #                                                                    | #                                                                                   |
| <b>Maternal Age (years)</b>                   |                                                                     |                                                                      |                                                                                     |
| ≤19                                           | 5.1 (1.3-18.2) <sup>^</sup>                                         | 2.9 (0.4-17.8) <sup>^</sup>                                          | 0 <sup>^</sup>                                                                      |
| 20-24                                         | 7.1 (4.1-12.2)                                                      | 0.7 (0.1-5.0)                                                        | 0                                                                                   |
| 25-34                                         | 3.0 (1.9-4.7)                                                       | 1.7 (0.9-3.1)                                                        | 1.0 (0.5-2.2)                                                                       |
| ≥35                                           | 1.9 (0.8-4.4)                                                       | 0.3 (0.0-2.3)                                                        | 0.3 (0.0-2.3)                                                                       |
| <b>Highest level of education (years)</b>     |                                                                     |                                                                      |                                                                                     |
| <12                                           | 4.1 (1.8-9.4)                                                       | 1.1 (0.2-7.1)                                                        | 0                                                                                   |
| 12                                            | 5.5 (3.2-9.4)                                                       | 1.9 (0.8-4.9)                                                        | 1.0 (0.3-3.4)                                                                       |
| >12                                           | 2.7 (1.8-4.2)                                                       | 1.1 (0.6-2.3)                                                        | 0.7 (0.3-1.7)                                                                       |
| <b>Prenatal WIC Recipient</b>                 |                                                                     |                                                                      |                                                                                     |
| No                                            | 2.8 (1.8-4.4)                                                       | 1.3 (0.7-2.5)                                                        | 0.8 (0.4-1.8)                                                                       |
| Yes                                           | 5.2 (3.3-8.2)                                                       | 1.3 (0.5-3.4)                                                        | 0.2 (0.0-1.7)                                                                       |

Abbreviation: WIC = The Special Supplemental Nutrition Program for Women, Infants, and Children

<sup>◇†</sup> See footnotes in first table

# < 30 respondents, not reported

<sup>^</sup> < 60 respondents, may not be reliable

## Summary

In Illinois, EVP use before and during pregnancy increased from 2016 to 2018.

In Illinois during 2018 among women who used EVPs in the past two years, 23.8% used cigarettes only during the last three months of pregnancy and 16.0% used both cigarettes and EVPs.

## Resources

**E-Cigarettes and Pregnancy:** <https://www.cdc.gov/reproductivehealth/maternalinfanthealth/substance-abuse/e-cigarettes-pregnancy.htm>

**ACOG Smoking Cessation Resources:** <https://www.acog.org/topics/smoking-cessation>

**ACOG Tobacco and Nicotine Cessation Toolkit:** <https://www.acog.org/-/media/project/acog/acogorg/files/pdfs/publications/smoking-cessation-toolkit-2016.pdf>

## References

1. US Department of Health and Human Services. E-cigarette use among youth and young adults: a report of the Surgeon General. Atlanta, GA: US Department of Health and Human Services, CDC; 2016.
2. American College of Obstetricians and Gynecologists. Tobacco and nicotine cessation during pregnancy. ACOG Committee Opinion No. 807. Obstet Gynecol 2020;135:e221–9.

To learn more about PRAMS methods and to see data availability by year visit:

<http://dph.illinois.gov/data-statistics/prams>

THE BEST SOURCE OF DATA ON MOTHERS AND BABIES

