

# Woman's Hospital Cancer Annual Report 2024

## Cancer Discussion

In the United States, vulvar and vaginal cancer account for 6% and 1-2%, respectively, of all cancers arising from the female reproductive organs. At Woman's Hospital, vulvar cancers account for 9% and vaginal cancers account for 2% of gynecologic cancer diagnoses. In this report, we reviewed all cases of vulvar and vaginal cancers diagnosed at Woman's Hospital between 2013-2023. During this interval, 219 cases of vulvar cancer and 36 vaginal cancers were identified. The race distribution of women with vulvar and vaginal cancers identified shows that the majority of patients diagnosed with these cancers here at Woman's were Caucasian, which is similar to NCDB reporting (79% and 82%, respectively). 20% of the cases diagnosed at Woman's were in African-American women compared to 9% reported in the NCDB.

### **Vulvar Cancer**

According to the American Cancer Society, it is projected that there will be approximately 6,900 new cases of vulvar cancer diagnosed in 2024 in the United States, with an estimated 1,630 women dying from this type of cancer. At Woman's, the age distribution parallels the distribution by age reported in the NCDB. The majority of cases were diagnosed between the ages of 40-89, with the highest percentage reported between 60-69 years of age (24%). However, 20% of cases were diagnosed between the ages of 30-49. 68% of the cases were squamous cell carcinomas, which are the most common form of vulvar cancer, but we also noted that 6% were basal cell carcinomas, 4% were malignant melanomas, and 4% were extramammary Paget's disease.

The majority of cases of vulvar cancer diagnosed at Woman's were diagnosed as Stage I (55%), 5% as Stage II, 14% as Stage III and 4% as Stage IV. Surgery alone was the mainstay of treatment for most patients (69%) with vulvar cancer at Woman's, and this is consistent with NCBD data. In comparison to the United States National Surveillance, Epidemiology, and End Results (SEER) database, the vulvar cancer incidence rate is higher for all races in Louisiana as reported to the Louisiana Tumor Registry (LTR). However, the mortality rates for all races are lower in Louisiana in comparison to the national database. The 5-year relative survival for all cases of vulvar cancer was 71.3% in the SEER database which is comparable to the 71.2% reported to the LTR, but survival rates were higher at Woman's (76.1%).

There are two major pathways that lead to the development of vulvar malignancies: human papilloma virus infection (HPV) and chronic inflammatory conditions of the vulvar skin such as lichen sclerosus. The HPV infection is often asymptomatic and cleared by the body, but persistent HPV infections can cause between 60-70% of vulvar and vaginal cancers. There are some modifiable (smoking, treatment of lichen sclerosus and vulvar intraepithelial neoplasia (VIN)) and non-modifiable (age, HIV infection or other immunodeficiency syndromes) risk factors for the development of both types of cancer. Of our patients with vulvar cancer at Woman's, 28% of

patients reported current smoking whereas 21% report previous smoking. 46% of patients diagnosed with vulvar cancer have never smoked.

### **Vaginal Cancer**

It is estimated that there will be 8,650 new cases of vaginal (and other female genital) cancer diagnosed in 2024 in the United States, with approximately 1,870 deaths from this cancer, according to the American Cancer Society Annual Report. The best historical estimates indicate that there are roughly 1,400 cases of primary vaginal malignancies diagnosed in the United States. At Woman's, most cases were diagnosed between the ages of 40-89. The highest percentage (33%) of cases were in 60-69-year-olds, and 28% of cases were in patients 50-59 years of age. Again, the primary histology for these cases are squamous cell carcinoma (55%). Additional carcinomas included adenocarcinomas (11%), endometrioid (8%), and 3% in each of the following categories: clear cell, adenoid basal cell, sarcoma, small cell neuroendocrine and leiomyosarcoma.

The majority of patients were diagnosed with Stage I or Stage II disease, 36% and 22% respectively. Stages III and IV disease each represented 11% of our cases. Similarly, the NCDB data indicated that Stage I disease is most commonly diagnosed (22%) with relatively equal distribution of Stages II, III and IV diseases at 16%, 18% and 18%, respectively. The 5-year survival rates for vaginal cancer are similar at Woman's (51.3%) in comparison to the SEER database (52.6%), but survival rates are lower in Louisiana per LTR reporting (45.7%). The greater portion of early-stage cancers diagnosed at Woman's likely contributes to the survival advantage seen in the Woman's patients. Treatment was primarily with a combination of radiation and chemotherapy (33%) followed by surgery, radiation and chemotherapy (17%) and surgery alone (14%). The NCDB reports similar rates of combination radiation and chemotherapy and surgery alone.

Vaginal cancer is also highly linked to persistent HPV infection. Additional risk factors unique to vaginal cancers include the following: exposure to diethylstilbestrol (DES), prior history of cervical cancer or high-grade cervical intraepithelial neoplasia (CIN). Smoking remains a significant modifiable risk factor as well. At Woman's, our patients with vaginal cancer reported smoking at a rate of 28% with an additional 22% reporting previous use. Half (50%) of our patients with vaginal cancer reported no smoking history.

## Comparative Analysis of Local and National Patient Populations

**Figure I**

**Vulvar and Vaginal Malignant Tumors Age at Diagnosis:  
Years 2013-2023**

|                  | Vulvar     |            |               |            | Vagina    |            |               |            |
|------------------|------------|------------|---------------|------------|-----------|------------|---------------|------------|
|                  | Woman's    |            | NCDB*         |            | Woman's   |            | NCDB*         |            |
| Age at Diagnosis | Number     | Percent    | Number        | Percent    | Number    | Percent    | Number        | Percent    |
| Under 20         | 0          | 0          | 44            | <1         | 0         | 0          | 65            | <1         |
| 20-29            | 2          | 1          | 380           | <1         | 1         | 3          | 44            | <1         |
| 30-39            | 15         | 7          | 1,920         | 4          | 0         | 0          | 250           | 2          |
| 40-49            | 28         | 13         | 4,962         | 10         | 4         | 11         | 894           | 9          |
| 50-59            | 41         | 19         | 9,688         | 19         | 10        | 28         | 1,911         | 18         |
| 60-69            | 53         | 24         | 12,406        | 25         | 12        | 33         | 2,785         | 27         |
| 70-79            | 39         | 18         | 11,320        | 22         | 2         | 5          | 2,606         | 25         |
| 80-89            | 32         | 14         | 7,679         | 15         | 6         | 17         | 1,472         | 14         |
| 90-99            | 9          | 4          | 2,138         | 4          | 1         | 3          | 391           | 4          |
| <b>Total</b>     | <b>219</b> | <b>100</b> | <b>50,537</b> | <b>100</b> | <b>36</b> | <b>100</b> | <b>10,418</b> | <b>100</b> |

*\*NCDB data only available for years 2013-2022.*

A total of 219 cases of vulvar cancer were diagnosed during this time.

The age distribution parallels the distribution by age reported in the NCDB. The majority of cases are diagnosed between the ages of 40-89 with the highest percentage reported between 60-69 years of age.

A total of 36 vaginal cancers were diagnosed between 2013-2023.

The age distribution is similar to the age distribution reported in the NCDB. The largest percentage of our cases were diagnosed between 50-69 years of age compared to the largest percentage of cases in the NCDB being between 50-79 years of age.

**Figure II**  
**Vulvar and Vaginal Malignant Tumors**  
**Race: Years 2013-2023**

| Race             | Woman's    |            | NCDB*         |            |
|------------------|------------|------------|---------------|------------|
|                  | Number     | Percent    | Number        | Percent    |
| Caucasian        | 201        | 79         | 50,105        | 82         |
| African American | 50         | 20         | 5,611         | 9          |
| Other**          | 4          | 1          | 5,239         | 9          |
| <b>Total</b>     | <b>255</b> | <b>100</b> | <b>60,955</b> | <b>100</b> |

\*NCDB data only available for 2013-2022.

\*\*Other category includes Native American, Asian and Hispanic.

The race distribution of women with vulvar and vaginal cancers identified between 2013-2023 shows the majority of patients diagnosed with these cancers at Woman's and in the NCDB are Caucasian (79% and 82% respectively). 20% of cases diagnosed at Woman's were in African American women compared to 9% African American women reported in the NCDB. At Woman's, we only reported a 1% "other" category with the NCDB showing 9%. In the NCDB, 8% of patients were Hispanic, 3% were Asian, 1.4 % had unknown/unreported ethnicity and less than 1% were Native American.

**Figure III**  
**Vulvar and Vaginal Malignant Tumors**  
**Year of Diagnosis: Years 2013-2023**

| Year of Diagnosis* | Vulvar     | Vagina    |
|--------------------|------------|-----------|
| 2013               | 19         | 2         |
| 2014               | 25         | 5         |
| 2015               | 25         | 2         |
| 2016               | 15         | 0         |
| 2017               | 15         | 1         |
| 2018               | 17         | 7         |
| 2019               | 12         | 5         |
| 2020               | 15         | 5         |
| 2021               | 22         | 3         |
| 2022               | 32         | 4         |
| 2023               | 22         | 2         |
| <b>Total</b>       | <b>219</b> | <b>36</b> |

\*Year of diagnosis is based on date of first contact.

The number of cases of vulvar cancer diagnosed over the last ten years ranged from a low of 12 cases diagnosed in 2019 to a high of 32 cases diagnosed in 2022. The number of vaginal cases during this time period was 0–7 cases per year.

**Figure IV**  
**Vulvar and Vaginal Malignant Tumors**  
**Histologies: Years 2013-2023**

| Cell Types                          | Vulvar     |            | Vagina    |            |
|-------------------------------------|------------|------------|-----------|------------|
|                                     | Woman's    |            | Woman's   |            |
|                                     | Number     | Percent    | Number    | Percent    |
| Squamous Cell Carcinoma In-Situ     | 35         | 16         | 3         | 8          |
| Adenoid Basal Carcinoma             | 0          | 0          | 1         | 3          |
| Adenocarcinoma, NOS                 | 0          | 0          | 4         | 11         |
| Basal Cell Carcinoma                | 12         | 6          | 0         | 0          |
| Basosquamous Cell Carcinoma         | 1          | <1         | 0         | 0          |
| Carcinoma, NOS                      | 1          | <1         | 1         | 3          |
| Clear Cell Adenocarcinoma           | 0          | 0          | 1         | 3          |
| Endometrioid Carcinoma              | 0          | 0          | 3         | 8          |
| Malignant Adnexal Neoplasm          | 1          | <1         | 0         | 0          |
| Malignant Eccrine Spiradenoma, NOS  | 1          | <1         | 0         | 0          |
| Malignant Fibrous Histiocytoma      | 1          | <1         | 0         | 0          |
| Malignant Melanoma                  | 9          | 4          | 0         | 0          |
| Malignant Myoepithelioma            | 1          | <1         | 0         | 0          |
| Paget's Disease Extramammary        | 8          | 4          | 0         | 0          |
| Sarcoma                             | 0          | 0          | 1         | 3          |
| Small Cell Neuroendocrine Carcinoma | 0          | 0          | 1         | 3          |
| Squamous Cell Carcinoma, NOS        | 149        | 68         | 20        | 55         |
| Leiomyosarcoma, NOS                 | 0          | 0          | 1         | 3          |
| <b>Total</b>                        | <b>219</b> | <b>100</b> | <b>36</b> | <b>100</b> |

68% of our cases of vulvar cancer were diagnosed as squamous cell carcinoma, the most common histologic type of cancer for this site. However, 4% of our cancers were malignant melanoma, 4% were extramammary Paget's disease and 6% were basal cell carcinoma.

The types of vaginal cancer diagnosed were 55% squamous cell carcinoma, 11% adenocarcinoma, 8% endometrioid carcinoma, 3% adenoid basal carcinoma, 3% carcinoma NOS, 3% clear cell adenocarcinoma, 3% sarcoma, 3% small cell neuroendocrine carcinoma and 3% leiomyosarcoma.

**Figure V**  
**Vulvar and Vaginal Malignant Tumors**  
**Stage at Diagnosis: Years 2013-2023**

| Stage at Diagnosis             | Vulvar     |            |               |            | Vagina    |            |               |            |
|--------------------------------|------------|------------|---------------|------------|-----------|------------|---------------|------------|
|                                | Woman's    |            | NCDB*         |            | Woman's   |            | NCDB*         |            |
|                                | Number     | Percent    | Number        | Percent    | Number    | Percent    | Number        | Percent    |
| <b>0</b>                       | <b>23</b>  | <b>11</b>  | <b>5,135</b>  | <b>10</b>  | <b>1</b>  | <b>3</b>   | <b>385</b>    | <b>4</b>   |
| <b>I</b>                       | <b>121</b> | <b>55</b>  | <b>22,401</b> | <b>44</b>  | <b>13</b> | <b>36</b>  | <b>2,302</b>  | <b>22</b>  |
| I                              | 10         |            |               |            | 4         |            |               |            |
| IA                             | 45         |            |               |            | 4         |            |               |            |
| IB                             | 66         |            |               |            | 5         |            |               |            |
| <b>II</b>                      | <b>10</b>  | <b>5</b>   | <b>3,438</b>  | <b>7</b>   | <b>8</b>  | <b>22</b>  | <b>1,715</b>  | <b>16</b>  |
| II                             | 10         |            |               |            | 3         |            |               |            |
| 2A                             |            |            |               |            | 3         |            |               |            |
| 2B                             |            |            |               |            | 2         |            |               |            |
| 2C                             |            |            |               |            |           |            |               |            |
| <b>III</b>                     | <b>30</b>  | <b>14</b>  | <b>6,659</b>  | <b>13</b>  | <b>4</b>  | <b>11</b>  | <b>1,841</b>  | <b>18</b>  |
| III                            | 2          |            |               |            | 4         |            |               |            |
| 3A                             | 15         |            |               |            |           |            |               |            |
| 3B                             | 3          |            |               |            |           |            |               |            |
| 3C                             | 9          |            |               |            |           |            |               |            |
| 3D                             | 1          |            |               |            |           |            |               |            |
| <b>IV</b>                      | <b>10</b>  | <b>4</b>   | <b>3,380</b>  | <b>7</b>   | <b>4</b>  | <b>11</b>  | <b>1,851</b>  | <b>18</b>  |
| IV                             |            |            |               |            | 1         |            |               |            |
| 4A                             | 6          |            |               |            |           |            |               |            |
| 4B                             | 4          |            |               |            | 3         |            |               |            |
| <b>Unknown /Not Applicable</b> | <b>25</b>  | <b>11</b>  | <b>9,524</b>  | <b>19</b>  | <b>6</b>  | <b>17</b>  | <b>2,324</b>  | <b>22</b>  |
| <b>Total</b>                   | <b>219</b> | <b>100</b> | <b>50,537</b> | <b>100</b> | <b>36</b> | <b>100</b> | <b>10,418</b> | <b>100</b> |

*\*NCDB data only available for years 2013-2022.*

The majority of cases of vulvar cancer diagnosis at Woman's are Stage 0 or I (66%) compared to NCDB of 54% diagnosed as Stage 0 or I. The NCDB shows 7% of cases diagnosed as Stage IV compared to only 4% at Woman's. The majority of cases of vaginal cancer diagnosed at Woman's were Stage I and II.

**Figure VI**  
**Vulvar and Vaginal Malignant Tumors First Course of Treatment: Years 2013-2023**

| Treatment First Course         | Vulvar     |            |               |            | Vagina    |            |               |            |
|--------------------------------|------------|------------|---------------|------------|-----------|------------|---------------|------------|
|                                | Woman's    |            | NCDB*         |            | Woman's   |            | NCDB*         |            |
|                                | Number     | Percent    | Number        | Percent    | Number    | Percent    | Number        | Percent    |
| Surgery                        | 151        | 69         | 33,524        | 66         | 5         | 14         | 1,470         | 14         |
| Surgery/Chemotherapy           | 2          | 1          | 482           | 1          | 0         | 0          | 202           | 2          |
| Surgery/Immunotherapy          | 2          | 1          | 0             | 0          | 0         | 0          | 0             | 0          |
| Surgery/Radiation              | 19         | 9          | 3,142         | 6          | 3         | 8          | 621           | 6          |
| Surgery/Radiation/Chemotherapy | 19         | 9          | 3,267         | 6          | 6         | 17         | 737           | 7          |
| Chemotherapy                   | 1          | <1         | 432           | 1          | 1         | 3          | 559           | 5          |
| Chemotherapy/Immunotherapy     | 1          | <1         | 0             | 0          | 0         | 0          | 0             | 0          |
| Hormone Therapy                | 1          | <1         | 20            | <1         | 0         | 0          | 17            | <1         |
| Hormone/Immunotherapy          | 1          | <1         | 0             | 0          | 0         | 0          | 0             | 0          |
| Immunotherapy                  | 0          | 0          | 0             | 0          | 1         | 3          | 0             | 0          |
| Radiation                      | 3          | 1          | 1,686         | 3          | 3         | 8          | 1,443         | 14         |
| Radiation/Chemotherapy         | 13         | 6          | 3,570         | 7          | 12        | 33         | 3,300         | 32         |
| Other Specified Therapy        | 0          | 0          | 2,103         | 4          | 0         | 0          | 774           | 7          |
| None                           | 6          | 3          | 2,311         | 5          | 5         | 14         | 1,295         | 12         |
| <b>Total</b>                   | <b>219</b> | <b>100</b> | <b>50,537</b> | <b>100</b> | <b>36</b> | <b>100</b> | <b>10,418</b> | <b>100</b> |

*\*NCDB data only available for years 2013-2022.*

The majority of patients with vulvar cancer were treated with surgery alone at Woman's and in the NCDB.

The majority of patients with vaginal cancer were treated with radiation and chemotherapy in both Woman's data and the NCDB.

**Figure VII**  
**Vulvar and Vaginal Malignant Tumors**  
**Smoking History: For Years of Diagnosis: 2013-2023**

| <b>Woman's</b>           |               |                |               |                |
|--------------------------|---------------|----------------|---------------|----------------|
| <b>Smoking History</b>   | <b>Vulvar</b> |                | <b>Vagina</b> |                |
|                          | <b>Number</b> | <b>Percent</b> | <b>Number</b> | <b>Percent</b> |
| Current Cigarette Smoker | 61            | 28             | 10            | 28             |
| Previous Use             | 45            | 21             | 8             | 22             |
| Never Used               | 101           | 46             | 18            | 50             |
| Unknown                  | 12            | 5              | 0             | 0              |
| <b>Total</b>             | <b>219</b>    | <b>100</b>     | <b>36</b>     | <b>100</b>     |

Of our patients with vulvar cancer, 28% reported that they currently smoke and 21% say they had a previous history of smoking. 46% reported no history of ever smoking.

It is reported that 28% of our vaginal cancer patients are current smokers with an additional 22% claiming to have a history of previous use. 50% of patients with vaginal cancer have never been smokers.



**Figure VIII**

| <b>Vaginal Cancer, 5-Year Relative Survival, All Malignant Cases, 2010-2020 (Followed into 2021)</b> |       |                          |          |           |          |              |          |
|--|-------|--------------------------|----------|-----------|----------|--------------|----------|
|  |       | U.S. (SEER) <sup>1</sup> |          | Louisiana |          | LTR Region 2 |          |
|  |       | N                        | Relative | N         | Relative | N            | Relative |
| All Races/Ethnicities  | 12 mo | 2,273                    | 76.70%   | 177       | 77.30%   | 25           | 90.2%#   |
| All Races/Ethnicities  | 24 mo | 2,273                    | 64.10%   | 177       | 61.30%   | 25           | 69.70%   |
| All Races/Ethnicities  | 36 mo | 2,273                    | 58.10%   | 177       | 55.3%#   | 25           | 64.4%#   |
| All Races/Ethnicities  | 48 mo | 2,273                    | 55.40%   | 177       | 49.90%   | 25           | 51.3%#   |
| All Races/Ethnicities  | 60 mo | 2,273                    | 52.60%   | 177       | 45.7%#   | 25           | 51.3%#   |
| Non-Hispanic White   | 12 mo | 1,418                    | 76.00%   | 115       | 75.80%   | 16           | 83.0%#   |
| Non-Hispanic White   | 24 mo | 1,418                    | 63.20%   | 115       | 57.40%   | 16           | 54.20%   |
| Non-Hispanic White   | 36 mo | 1,418                    | 57.10%   | 115       | 55.0%#   | 16           | 54.2%#   |
| Non-Hispanic White   | 48 mo | 1,418                    | 54.70%   | 115       | 49.30%   | 16           | 44.6%#   |
| Non-Hispanic White   | 60 mo | 1,418                    | 52.00%   | 115       | 46.0%#   | 16           | 44.6%#   |
| Non-Hispanic Black   | 12 mo | 331                      | 79.40%   | 56        | 82.90%   | ~            | ~        |
| Non-Hispanic Black   | 24 mo | 331                      | 66.00%   | 56        | 71.3%#   | ~            | ~        |
| Non-Hispanic Black   | 36 mo | 331                      | 59.0%#   | 56        | 60.1%#   | ~            | ~        |
| Non-Hispanic Black   | 48 mo | 331                      | 56.6%#   | 56        | 54.5%#   | ~            | ~        |
| Non-Hispanic Black   | 60 mo | 331                      | 51.9%#   | 56        | 47.4%#   | ~            | ~        |

| <b>Vaginal Cancer, 5-Year Relative Survival, Localized, 2010-2020 (Followed into 2021)</b> |       |                          |          |           |          |              |          |
|--|-------|--------------------------|----------|-----------|----------|--------------|----------|
|  |       | U.S. (SEER) <sup>1</sup> |          | Louisiana |          | LTR Region 2 |          |
|  |       | N                        | Relative | N         | Relative | N            | Relative |
| All Races/Ethnicities  | 12 mo | 653                      | 90.70%   | 62        | 88.9%#   | ~            | ~        |
| All Races/Ethnicities  | 24 mo | 653                      | 82.60%   | 62        | 80.1%#   | ~            | ~        |
| All Races/Ethnicities  | 36 mo | 653                      | 78.40%   | 62        | 71.1%#   | ~            | ~        |
| All Races/Ethnicities  | 48 mo | 653                      | 76.60%   | 62        | 62.60%   | ~            | ~        |
| All Races/Ethnicities  | 60 mo | 653                      | 73.20%   | 62        | 60.2%#   | ~            | ~        |
| Non-Hispanic White   | 12 mo | 424                      | 90.00%   | 43        | 87.2%#   | ~            | ~        |
| Non-Hispanic White   | 24 mo | 424                      | 81.30%   | 43        | 75.8%#   | ~            | ~        |
| Non-Hispanic White   | 36 mo | 424                      | 77.30%   | 43        | 71.0%#   | ~            | ~        |
| Non-Hispanic White   | 48 mo | 424                      | 75.30%   | 43        | 63.10%   | ~            | ~        |
| Non-Hispanic White   | 60 mo | 424                      | 73.00%   | 43        | 63.1%#   | ~            | ~        |
| Non-Hispanic Black   | 12 mo | 89                       | 92.5%#   | 16        | 94.3%#   | ~            | ~        |
| Non-Hispanic Black   | 24 mo | 89                       | 83.1%#   | 16        | 94.3%*#  | ~            | ~        |
| Non-Hispanic Black   | 36 mo | 89                       | 74.7%#   | 16        | 85.0%#   | ~            | ~        |
| Non-Hispanic Black   | 48 mo | 89                       | 72.5%#   | 16        | 69.0%#   | ~            | ~        |
| Non-Hispanic Black   | 60 mo | 89                       | 66.1%#   | 16        | 52.7%#   | ~            | ~        |

| Vaginal Cancer, 5-Year Relative Survival, Regional, 2010-2020 (Followed into 2021) |       |                          |          |           |          |              |          |
|--|-------|--------------------------|----------|-----------|----------|--------------|----------|
|  |       | U.S. (SEER) <sup>1</sup> |          | Louisiana |          | LTR Region 2 |          |
|  |       | N                        | Relative | N         | Relative | N            | Relative |
| All Races/Ethnicities  | 12 mo | 914                      | 82.50%   | 60        | 84.30%   | ~            | ~        |
| All Races/Ethnicities  | 24 mo | 914                      | 70.20%   | 60        | 65.0%#   | ~            | ~        |
| All Races/Ethnicities  | 36 mo | 914                      | 63.00%   | 60        | 61.8%#   | ~            | ~        |
| All Races/Ethnicities  | 48 mo | 914                      | 59.00%   | 60        | 53.2%#   | ~            | ~        |
| All Races/Ethnicities  | 60 mo | 914                      | 57.6%#   | 60        | 51.0%#   | ~            | ~        |
| Non-Hispanic White   | 12 mo | 558                      | 82.60%   | 35        | 82.40%   | ~            | ~        |
| Non-Hispanic White   | 24 mo | 558                      | 71.10%   | 35        | 63.0%#   | ~            | ~        |
| Non-Hispanic White   | 36 mo | 558                      | 63.10%   | 35        | 60.3%#   | ~            | ~        |
| Non-Hispanic White   | 48 mo | 558                      | 60.00%   | 35        | 49.9%#   | ~            | ~        |
| Non-Hispanic White   | 60 mo | 558                      | 58.5%#   | 35        | 46.3%#   | ~            | ~        |
| Non-Hispanic Black   | 12 mo | 139                      | 82.60%   | 23        | 89.6%#   | ~            | ~        |
| Non-Hispanic Black   | 24 mo | 139                      | 68.30%   | 23        | 69.2%#   | ~            | ~        |
| Non-Hispanic Black   | 36 mo | 139                      | 63.0%#   | 23        | 65.2%#   | ~            | ~        |
| Non-Hispanic Black   | 48 mo | 139                      | 58.1%#   | 23        | 59.4%#   | ~            | ~        |
| Non-Hispanic Black   | 60 mo | 139                      | 54.4%#   | 23        | 59.4%#   | ~            | ~        |

| Vaginal Cancer, 5-Year Relative Survival, Distant, 2010-2020 (Followed into 2021) |       |                          |          |           |          |              |          |
|---|-------|--------------------------|----------|-----------|----------|--------------|----------|
|   |       | U.S. (SEER) <sup>1</sup> |          | Louisiana |          | LTR Region 2 |          |
|   |       | N                        | Relative | N         | Relative | N            | Relative |
| All Races/Ethnicities   | 12 mo | 474                      | 54.80%   | 40        | 56.40%   | ~            | ~        |
| All Races/Ethnicities   | 24 mo | 474                      | 36.40%   | 40        | 33.10%   | ~            | ~        |
| All Races/Ethnicities   | 36 mo | 474                      | 30.5%#   | 40        | 28.1%#   | ~            | ~        |
| All Races/Ethnicities   | 48 mo | 474                      | 27.70%   | 40        | 28.1%#   | ~            | ~        |
| All Races/Ethnicities   | 60 mo | 474                      | 24.4%#   | 40        | 22.5%#   | ~            | ~        |
| Non-Hispanic White  | 12 mo | 312                      | 53.40%   | 29        | 52.9%#   | ~            | ~        |
| Non-Hispanic White  | 24 mo | 312                      | 32.40%   | 29        | 23.40%   | ~            | ~        |
| Non-Hispanic White  | 36 mo | 312                      | 27.2%#   | 29        | 23.4%#   | ~            | ~        |
| Non-Hispanic White  | 48 mo | 312                      | 24.8%#   | 29        | 23.4%#   | ~            | ~        |
| Non-Hispanic White  | 60 mo | 312                      | 22.1%#   | 29        | 20.5%#   | ~            | ~        |
| Non-Hispanic Black  | 12 mo | 66                       | 65.70%   | ~         | ~        | ~            | ~        |
| Non-Hispanic Black  | 24 mo | 66                       | 48.2%#   | ~         | ~        | ~            | ~        |
| Non-Hispanic Black  | 36 mo | 66                       | 40.6%#   | ~         | ~        | ~            | ~        |
| Non-Hispanic Black  | 48 mo | 66                       | 40.6%#   | ~         | ~        | ~            | ~        |
| Non-Hispanic Black  | 60 mo | 66                       | 39.2%#   | ~         | ~        | ~            | ~        |

Kaplan-Meier method. Ederer II method used for cumulative expected.

~ Statistic not displayed due to less than 16 cases.

\* The relative cumulative survival is over 100 percent and has been adjusted.

# The relative cumulative survival increased from a prior interval and has been adjusted.

<sup>1</sup>U.S. incidence rate estimates are from the Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute, 17 regions.

LTR Region 2: Ascension, Assumption, East Baton Rouge, East Feliciana, Iberville, Livingston, Pointe Coupée, St. Helena, Tangipahoa, West Baton Rouge and West Feliciana.

The Louisiana Tumor Registry is supported by the SEER Program (NCI), the National Program of Cancer Registries (CDC), the State of Louisiana, the LSU Health Sciences Center-New Orleans, and host institutions.

*Compiled by Ingrid Wagner, MPH of the Louisiana Tumor Registry, on 05/08/2024*

| <b>Vulvar Cancer, 5-Year Relative Survival, All Malignant Cases, 2010-2020 (Followed into 2021)</b> |       |                          |          |           |          |              |          |
|---|-------|--------------------------|----------|-----------|----------|--------------|----------|
|   |       | U.S. (SEER) <sup>1</sup> |          | Louisiana |          | LTR Region 2 |          |
|   |       | N                        | Relative | N         | Relative | N            | Relative |
| All Races/Ethnicities   | 12 mo | 9,415                    | 88.30%   | 642       | 89.60%   | 132          | 86.60%   |
| All Races/Ethnicities   | 24 mo | 9,415                    | 80.80%   | 642       | 83.20%   | 132          | 80.4%#   |
| All Races/Ethnicities   | 36 mo | 9,415                    | 77.00%   | 642       | 78.70%   | 132          | 79.10%   |
| All Races/Ethnicities   | 48 mo | 9,415                    | 74.00%   | 642       | 74.90%   | 132          | 76.7%#   |
| All Races/Ethnicities   | 60 mo | 9,415                    | 71.30%   | 642       | 71.20%   | 132          | 76.1%#   |
| Non-Hispanic White  | 12 mo | 7,135                    | 87.70%   | 465       | 90.10%   | 97           | 84.30%   |
| Non-Hispanic White  | 24 mo | 7,135                    | 80.10%   | 465       | 83.10%   | 97           | 78.8%#   |
| Non-Hispanic White  | 36 mo | 7,135                    | 76.40%   | 465       | 79.60%   | 97           | 78.8%#   |
| Non-Hispanic White  | 48 mo | 7,135                    | 73.50%   | 465       | 75.90%   | 97           | 77.6%#   |
| Non-Hispanic White  | 60 mo | 7,135                    | 70.70%   | 465       | 72.20%   | 97           | 77.4%#   |
| Non-Hispanic Black  | 12 mo | 740                      | 90.30%   | 156       | 88.50%   | 31           | 94.4%#   |
| Non-Hispanic Black  | 24 mo | 740                      | 84.0%#   | 156       | 82.6%#   | 31           | 85.4%#   |
| Non-Hispanic Black  | 36 mo | 740                      | 79.20%   | 156       | 75.20%   | 31           | 78.8%#   |
| Non-Hispanic Black  | 48 mo | 740                      | 76.30%   | 156       | 71.50%   | 31           | 70.8%#   |
| Non-Hispanic Black  | 60 mo | 740                      | 72.8%#   | 156       | 67.0%#   | 31           | 70.8%#   |

**Vulvar Cancer, 5-Year Relative Survival, Localized, 2010-2020 (Followed into 2021)**

|                       |       | U.S. (SEER) <sup>1</sup> |          | Louisiana |          | LTR Region 2 |          |
|-----------------------|-------|--------------------------|----------|-----------|----------|--------------|----------|
|                       |       | N                        | Relative | N         | Relative | N            | Relative |
| All Races/Ethnicities | 12 mo | 5,631                    | 97.40%   | 400       | 97.90%   | 79           | 96.1%#   |
| All Races/Ethnicities | 24 mo | 5,631                    | 93.60%   | 400       | 93.70%   | 79           | 94.6%#   |
| All Races/Ethnicities | 36 mo | 5,631                    | 91.20%   | 400       | 90.00%   | 79           | 93.80%   |
| All Races/Ethnicities | 48 mo | 5,631                    | 89.10%   | 400       | 86.20%   | 79           | 91.0%#   |
| All Races/Ethnicities | 60 mo | 5,631                    | 86.70%   | 400       | 83.30%   | 79           | 90.6%#   |
| Non-Hispanic White    | 12 mo | 4,274                    | 97.00%   | 292       | 97.5%#   | 58           | 96.1%#   |
| Non-Hispanic White    | 24 mo | 4,274                    | 93.10%   | 292       | 92.40%   | 58           | 95.3%#   |
| Non-Hispanic White    | 36 mo | 4,274                    | 91.00%   | 292       | 89.40%   | 58           | 95.3%#   |
| Non-Hispanic White    | 48 mo | 4,274                    | 88.80%   | 292       | 85.20%   | 58           | 92.7%#   |
| Non-Hispanic White    | 60 mo | 4,274                    | 86.20%   | 292       | 82.50%   | 58           | 92.7%#   |
| Non-Hispanic Black    | 12 mo | 462                      | 99.4%#   | 93        | 99.50%   | 17           | 100.0%*# |
| Non-Hispanic Black    | 24 mo | 462                      | 96.0%#   | 93        | 96.6%#   | 17           | 95.9%#   |
| Non-Hispanic Black    | 36 mo | 462                      | 92.30%   | 93        | 90.90%   | 17           | 91.0%#   |
| Non-Hispanic Black    | 48 mo | 462                      | 90.4%#   | 93        | 89.0%#   | 17           | 85.1%#   |
| Non-Hispanic Black    | 60 mo | 462                      | 87.5%#   | 93        | 85.0%#   | 17           | 85.1%#   |

**Vulvar Cancer, 5-Year Relative Survival, Regional, 2010-2020 (Followed into 2021)**

|                       |       | U.S. (SEER) <sup>1</sup> |          | Louisiana |          | LTR Region 2 |          |
|-----------------------|-------|--------------------------|----------|-----------|----------|--------------|----------|
|                       |       | N                        | Relative | N         | Relative | N            | Relative |
| All Races/Ethnicities | 12 mo | 2,589                    | 80.30%   | 16        | 8        | 36           | 74.00%   |
| All Races/Ethnicities | 24 mo | 2,589                    | 66.30%   | 16        | 8        | 36           | 57.0%#   |
| All Races/Ethnicities | 36 mo | 2,589                    | 59.40%   | 16        | 8        | 36           | 54.4%#   |
| All Races/Ethnicities | 48 mo | 2,589                    | 54.50%   | 16        | 8        | 36           | 51.8%#   |
| All Races/Ethnicities | 60 mo | 2,589                    | 50.70%   | 16        | 8        | 36           | 48.6%#   |
| Non-Hispanic White    | 12 mo | 1,997                    | 79.80%   | 12        | 2        | 24           | 64.20%   |
| Non-Hispanic White    | 24 mo | 1,997                    | 65.80%   | 12        | 2        | 24           | 46.4%#   |
| Non-Hispanic White    | 36 mo | 1,997                    | 58.80%   | 12        | 2        | 24           | 46.4%#   |
| Non-Hispanic White    | 48 mo | 1,997                    | 54.10%   | 12        | 2        | 24           | 46.4%#   |
| Non-Hispanic White    | 60 mo | 1,997                    | 50.20%   | 12        | 2        | 24           | 46.4%#   |
| Non-Hispanic Black    | 12 mo | 191                      | 78.60%   | 41        | 41       | ~            | ~        |
| Non-Hispanic Black    | 24 mo | 191                      | 68.0%#   | 41        | 41       | ~            | ~        |

|                    |       |     |        |    |        |   |   |
|--------------------|-------|-----|--------|----|--------|---|---|
| Non-Hispanic Black | 36 mo | 191 | 61.50% | 41 | 55.4%# | ~ | ~ |
| Non-Hispanic Black | 48 mo | 191 | 57.70% | 41 | 47.40% | ~ | ~ |
| Non-Hispanic Black | 60 mo | 191 | 53.1%# | 41 | 42.3%# | ~ | ~ |

| <b>Vulvar Cancer, 5-Year Relative Survival, Distant, 2010-2020 (Followed into 2021)</b> |       |                          |          |           |          |              |          |
|---|-------|--------------------------|----------|-----------|----------|--------------|----------|
|   |       | U.S. (SEER) <sup>1</sup> |          | Louisiana |          | LTR Region 2 |          |
|   |       | N                        | Relative | N         | Relative | N            | Relative |
| All Races/Ethnicities   | 12 mo | 631                      | 49.60%   | 46        | 57.40%   | ~            | ~        |
| All Races/Ethnicities   | 24 mo | 631                      | 34.90%   | 46        | 53.2%#   | ~            | ~        |
| All Races/Ethnicities   | 36 mo | 631                      | 29.10%   | 46        | 51.8%#   | ~            | ~        |
| All Races/Ethnicities   | 48 mo | 631                      | 25.4%#   | 46        | 47.2%#   | ~            | ~        |
| All Races/Ethnicities   | 60 mo | 631                      | 22.1%#   | 46        | 39.2%#   | ~            | ~        |
| Non-Hispanic White  | 12 mo | 467                      | 47.20%   | 29        | 66.50%   | ~            | ~        |
| Non-Hispanic White  | 24 mo | 467                      | 33.20%   | 29        | 59.7%#   | ~            | ~        |
| Non-Hispanic White  | 36 mo | 467                      | 28.30%   | 29        | 59.7%#   | ~            | ~        |
| Non-Hispanic White  | 48 mo | 467                      | 25.2%#   | 29        | 53.3%#   | ~            | ~        |
| Non-Hispanic White  | 60 mo | 467                      | 22.5%#   | 29        | 44.1%#   | ~            | ~        |
| Non-Hispanic Black  | 12 mo | 53                       | 58.2%#   | 17        | 41.7%#   | ~            | ~        |
| Non-Hispanic Black  | 24 mo | 53                       | 49.1%#   | 17        | 41.7%#   | ~            | ~        |
| Non-Hispanic Black  | 36 mo | 53                       | 42.9%#   | 17        | 36.3%#   | ~            | ~        |
| Non-Hispanic Black  | 48 mo | 53                       | 37.7%#   | 17        | 36.3%#   | ~            | ~        |
| Non-Hispanic Black  | 60 mo | 53                       | 31.3%#   | 17        | 30.4%#   | ~            | ~        |

Kaplan-Meier method. Ederer II method used for cumulative expected.

~ Statistic not displayed due to less than 16 cases.

\* The relative cumulative survival is over 100 percent and has been adjusted.

# The relative cumulative survival increased from a prior interval and has been adjusted.

<sup>1</sup>U.S. incidence rate estimates are from the Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute, 17 regions.

LTR Region 2: Ascension, Assumption, East Baton Rouge, East Feliciana, Iberville, Livingston, Pointe Coupée, St. Helena, Tangipahoa, West Baton Rouge and West Feliciana.

The Louisiana Tumor Registry is supported by the SEER Program (NCI), the National Program of Cancer Registries (CDC), the State of Louisiana, the LSU Health Sciences Center-New Orleans, and host institutions.

*Compiled by Ingrid Wagner, MPH of the Louisiana Tumor Registry, on 05/08/2024*