

# Unsatisfactory Specimens & Demographic Errors Report by Submitting Facility

Received January 1, 2015 - December 31, 2015



## Unsatisfactory Specimens

Some specimens are considered unsatisfactory due to the quality of specimen collection or handling. These specimens are tested for extreme values but another specimen must be obtained to complete screening. The need to obtain a repeat specimen could delay diagnosis and treatment of an affected infant.

## Demographic Errors

Some specimens arrive with missing or invalid demographic information. Key demographic fields are necessary for interpreting newborn screening results and for identifying the infant. Missing or invalid information can delay screening results and could delay diagnosis and treatment of an affected infant.

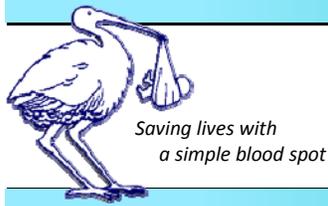
| Submitting Facility                | City          | Total Specimens | Unsat Spec. <sup>1</sup> Error Rate | Demographic Error Rate <sup>2</sup> |
|------------------------------------|---------------|-----------------|-------------------------------------|-------------------------------------|
| Auburn Medical Center              | Auburn        | 1,210           | 1.5%                                | 10.1%                               |
| Capital Medical Center             | Olympia       | 686             | 0.4%                                | 7.4%                                |
| Cascade Valley Hospital            | Arlington     | 220             | 1.8%                                | 14.1%                               |
| Central Washington Hospital        | Wenatchee     | 1,460           | 0.6%                                | 8.6%                                |
| Columbia Basin Hospital            | Ephrata       | 3               | 0%                                  | 100%                                |
| Coulee Medical Center              | Grand Coulee  | 106             | 2.8%                                | 13.2%                               |
| Deaconess Medical Center           | Spokane       | 2,051           | 1.1%                                | 6.6%                                |
| East Adams Rural Health            | Ritzville     | 2               | 0%                                  | 100%                                |
| Evergreen Health                   | Kirkland      | 5,003           | 0.5%                                | 3.8%                                |
| Evergreen Health - Monroe          | Monroe        | 49              | 0%                                  | 20.4%                               |
| Ferry County Memorial Hospital     | Republic      | 2               | 0%                                  | 0%                                  |
| Forks Community Hospital           | Forks         | 120             | 4.2%                                | 3.3%                                |
| Good Samaritan Hospital            | Puyallup      | 2,420           | 1.1%                                | 10.6%                               |
| Grays Harbor Community Hospital    | Aberdeen      | 530             | 0.4%                                | 10.0%                               |
| Group Health Cooperative - Seattle | Seattle       | 215             | 1.9%                                | 7.4%                                |
| Harborview Medical Center          | Seattle       | 115             | 3.5%                                | 39.1%                               |
| Harrison Medical Center            | Silverdale    | 1,883           | 2.2%                                | 5.9%                                |
| Highline Medical Center            | Burien        | 890             | 2.6%                                | 5.3%                                |
| Holy Family Hospital               | Spokane       | 1,674           | 0.5%                                | 3.9%                                |
| Island Hospital                    | Anacortes     | 657             | 2.7%                                | 11.9%                               |
| Jefferson Healthcare               | Port Townsend | 198             | 1.0%                                | 4.5%                                |
| Kadlec Regional Medical Center     | Richland      | 3,203           | 0.8%                                | 5.0%                                |
| Kittitas Valley Healthcare         | Ellensburg    | 384             | 3.4%                                | 7.6%                                |
| Lake Chelan Community Hospital     | Chelan        | 155             | 2.6%                                | 9.7%                                |
| Legacy Salmon Creek Hospital       | Vancouver     | 3,566           | 0.6%                                | 10.0%                               |
| Lewis County Hospital              | Morton        | 1               | 0%                                  | 0%                                  |
| Lincoln Hospital                   | Davenport     | 28              | 17.9%                               | 21.4%                               |
| Lourdes Medical Center             | Pasco         | 23              | 4.3%                                | 34.8%                               |

| Submitting Facility                  | City                     | Total Specimens | Unsat Spec. <sup>1</sup> Error Rate | Demographic Error Rate <sup>2</sup> |
|--------------------------------------|--------------------------|-----------------|-------------------------------------|-------------------------------------|
| Madigan Army Medical Center          | Joint Base Lewis-McChord | 4,093           | 0.5%                                | 3.6%                                |
| Mason General Hospital               | Shelton                  | 271             | 0.7%                                | 6.3%                                |
| Mid Valley Hospital                  | Omak                     | 228             | 1.3%                                | 3.9%                                |
| Mount Carmel Hospital                | Colville                 | 249             | 5.6%                                | 14.1%                               |
| Mary Bridge Children's Hospital      | Tacoma                   | 54              | 3.7%                                | 64.8%                               |
| Naval Hospital - Bremerton           | Bremerton                | 1               | 0%                                  | 0%                                  |
| Naval Hospital - Oak Harbor          | Oak Harbor               | 1               | 0%                                  | 100%                                |
| Newport Community Hospital           | Newport                  | 141             | 0.7%                                | 4.3%                                |
| North Valley Hospital                | Tonasket                 | 145             | 1.4%                                | 6.9%                                |
| Northwest Hospital                   | Seattle                  | 1,824           | 0.8%                                | 2.6%                                |
| Olympic Memorial Hospital            | Port Angeles             | 975             | 0.4%                                | 4.8%                                |
| Othello Community Hospital           | Othello                  | 820             | 0.5%                                | 3.8%                                |
| Overlake Hospital Medical Center     | Bellevue                 | 4,172           | 0.5%                                | 3.4%                                |
| PeaceHealth Southwest Medical Center | Vancouver                | 2,356           | 0.8%                                | 10.4%                               |
| Prosser Memorial Hospital            | Prosser                  | 448             | 0.2%                                | 7.6%                                |
| Providence Centralia Hospital        | Centralia                | 637             | 5.5%                                | 13.7%                               |
| Providence Everett Medical Center    | Everett                  | 5,242           | 1.0%                                | 11.3%                               |
| Providence St Peter Hospital         | Olympia                  | 2,306           | 4.2%                                | 3.6%                                |
| Pullman Regional Hospital            | Pullman                  | 451             | 3.8%                                | 5.3%                                |
| Sacred Heart Medical Center          | Spokane                  | 5,034           | 0.7%                                | 7.7%                                |
| Saint Clare Hospital                 | Tacoma                   | 3               | 0%                                  | 33.3%                               |
| Saint Elizabeth Hospital             | Enumclaw                 | 448             | 2.7%                                | 6.7%                                |
| Saint Francis Hospital               | Federal Way              | 1,835           | 0.4%                                | 5.9%                                |
| Saint John Medical Center            | Longview                 | 836             | 1.8%                                | 6.0%                                |
| Saint Joseph Hospital - Bellingham   | Bellingham               | 2,254           | 1.1%                                | 6.1%                                |
| Saint Joseph Hospital - Chewelah     | Chewelah                 | 16              | 0%                                  | 12.5%                               |
| Saint Joseph Hospital - Tacoma       | Tacoma                   | 5,973           | 0.5%                                | 6.9%                                |
| Saint Mary Medical Center            | Walla Walla              | 584             | 0.7%                                | 3.6%                                |
| Samaritan Hospital                   | Moses Lake               | 1,061           | 0.6%                                | 4.1%                                |
| Seattle Children's Hospital          | Seattle                  | 598             | 1.0%                                | 25.9%                               |
| Skagit Valley Hospital               | Mount Vernon             | 1,169           | 1.5%                                | 5.5%                                |
| Summit Pacific Medical Center        | Elma                     | 43              | 2.3%                                | 25.6%                               |
| Sunnyside Community Hospital         | Sunnyside                | 1,095           | 1.8%                                | 4.7%                                |
| Swedish Medical Center - Ballard     | Seattle                  | 1,309           | 1.5%                                | 5.0%                                |
| Swedish Medical Center - Cherry Hill | Seattle                  | 3               | 0%                                  | 66.7%                               |
| Swedish Medical Center - Edmonds     | Edmonds                  | 1,757           | 1.1%                                | 3.0%                                |
| Swedish Medical Center - First Hill  | Seattle                  | 8,354           | 4.0%                                | 17.3%                               |
| Swedish Medical Center - Issaquah    | Issaquah                 | 1,347           | 2.4%                                | 5.3%                                |
| Tacoma General Hospital              | Tacoma                   | 3,903           | 1.5%                                | 5.2%                                |

| Submitting Facility                     | City             | Total Specimens | Unsat Spec. <sup>1</sup> Error Rate | Demographic Error Rate <sup>2</sup> |
|---|------------------|-----------------|-------------------------------------|-------------------------------------|
| Three Rivers Hospital                   | Brewster         | 146             | 1.4%                                | 4.8%                                |
| Toppenish Community Hospital            | Toppenish        | 766             | 3.0%                                | 4.4%                                |
| Trios Health Hospital                   | Kennewick        | 2,218           | 1.7%                                | 5.4%                                |
| University of Washington Medical Center | Seattle          | 2,319           | 3.1%                                | 8.2%                                |
| Valley Hospital And Medical Center      | Spokane          | 1,047           | 1.1%                                | 13.6%                               |
| Valley Medical Center                   | Renton           | 4,087           | 2.2%                                | 7.7%                                |
| Virginia Mason Hospital                 | Seattle          | 255             | 0.4%                                | 8.2%                                |
| Walla Walla General Hospital            | Walla Walla      | 283             | 2.8%                                | 10.2%                               |
| Whidbey General Hospital                | Coupeville       | 311             | 3.2%                                | 7.1%                                |
| Whitman Hospital and Medical Center     | Colfax           | 93              | 0%                                  | 1.1%                                |
| Willapa Harbor Hospital                 | South Bend       | 8               | 12.5%                               | 75.0%                               |
| Yakima Valley Memorial Hospital         | Yakima           | 4,986           | 0.9%                                | 4.9%                                |
| <b>All Hospital Specimens</b>           | <b>Statewide</b> | <b>105,409</b>  | <b>1.5%</b>                         | <b>7.6%</b>                         |
| <b>Non-Hospital Specimens</b>           | <b>Statewide</b> | <b>64,823</b>   | <b>2.4%</b>                         | <b>43.9%</b>                        |
| All Birth Center Specimens              | Statewide        | 333             | 3.9%                                | 31.2%                               |
| All Midwife Specimens                   | Statewide        | 5,074           | 5.1%                                | 28.2%                               |
| All Clinic and Laboratory Specimens     | Statewide        | 59,416          | 2.2%                                | 45.3%                               |
| <b>All Washington State Births</b>      | <b>Statewide</b> | <b>170,232</b>  | <b>1.8%</b>                         | <b>21.4%</b>                        |

<sup>1</sup> See [Key 1: Unsatisfactory Specimen Descriptions](#) for descriptions and causes of unsatisfactory specimens

<sup>2</sup> Includes specimen cards with one or more missing or invalid demographic field



# Washington State Newborn Screening Program

## Key: Unsatisfactory Specimen Descriptions

Received January 1, 2015 - December 31, 2015

Some specimens are considered unsatisfactory due to the quality of specimen collection or handling. These specimens are tested for extreme values but another specimen must be obtained to complete screening. The need to obtain a repeat specimen could delay diagnosis and treatment of an affected infant.

| Unsatisfactory Specimen Errors   |  |   |
|----------------------------------|--|---|
| Error                            | Description  |   |
| <b>Layered or Supersaturated</b> | Blood was layered, clotted or supersaturated. Caused by: <ul style="list-style-type: none"> <li>• Repeated application of blood to the same filter paper circle</li> <li>• Blood applied to both sides of the filter paper</li> <li>• Blood clotting in a capillary tube</li> <li>• Application of too much blood</li> </ul>   |   |
| <b>Incompletely Saturated</b>    | Blood did not completely soak through the filter paper or not enough blood on the filter paper. Caused by: <ul style="list-style-type: none"> <li>• Filter paper circles not fully saturated or not completely filled</li> <li>• Application of small blood spots</li> <li>• Blood applied to both sides of the filter paper</li> </ul>  |   |
| <b>Contaminated</b>              | Blood was diluted, discolored, contaminated or exhibited serum rings. Caused by: <ul style="list-style-type: none"> <li>• Alcohol not completely drying before skin puncture</li> <li>• Puncture site squeezed or 'milked' to expel blood</li> <li>• Improper drying of specimen</li> <li>• Exposure to high temperatures</li> <li>• Filter paper contact with gloved or ungloved hands, or by substances such as alcohol, feeding or antiseptic solutions, hand lotion or powder</li> </ul> |   |
| <b>Specimen Too Old</b>          | Specimen was delayed in transit and is too old for testing due to deterioration of the dried blood spots. <ul style="list-style-type: none"> <li>• Specimens received more than 14 days after collection are too old for hemoglobin and galactosemia testing</li> <li>• Specimens received more than 30 days after collection are too old for all tests</li> </ul>   |   |
| <b>Abraded</b>                   | Specimen surface was scratched, dented, or abraded. Caused by: <ul style="list-style-type: none"> <li>• Improper application of blood with capillary tube or other device</li> </ul>   |   |
| <b>Partial Unsuitable</b>        | Validation of the preliminary screening results was not possible due to the unsuitability of the residual blood. Caused by: <ul style="list-style-type: none"> <li>• Partial abrasion, contamination, damage, or oversaturation of residual blood</li> <li>• Insufficient quantity of blood</li> </ul>   |   |
| <b>Other Unsuitables</b>         | Ambiguous Degradation  | Hemoglobin screening results indicate degradation or chemical modification of hemoglobins present causing assay interference. |
|                                  | Damaged Specimen   | Specimen was damaged during transport and blood sample may be torn or contaminated by rain and/or other substances.           |
|                                  | Old Collection Card  | Specimen was submitted on a collection card past its expiration date. Cards expire three years after their manufacture date.  |
|                                  | Received in Plastic  | Specimen was received in a sealed plastic bag and may be damaged by heat exposure and moisture accumulation.                  |
|                                  | No Blood   | Specimen card received with no blood on filter paper nor valid refusal signature.   |