DSHS Clients with Mental Health or Substance Abuse Problems and Proximity to Treatment Providers

Snohomish County, Washington

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Information about this Publication

Title: DSHS Clients with Mental Health or Substance Abuse Problems and Proximity to Treatment Providers: Snohomish County, Washington.

Abstract: The maps of DSHS clients with mental health or substance abuse problems were prepared to assist the Snohomish county human services planners to evaluate unmet service needs. The maps and analysis address the question: Are there geographic barriers to clients who need treatment for mental health or substance abuse problems?

Overall, mental health or substance abuse treatment providers are located near areas with the highest concentration (density) of clients with mental health or substance abuse problems. Among clients residing in close proximity to treatment providers, relatively fewer clients have unmet treatment needs. However, as the distance to treatment providers increases, the share of clients with unmet needs grows relatively to the share of clients receiving treatment. Communities located at significant distances from providers (10 to 50 miles) carry a double burden: they have a higher share of residents who have mental health or substance abuse problems and these residents need to travel longer distances to access treatment.

Keywords: Snohomish County, DSHS Clients, Mental Health, Substance Abuse, Treatment Provider, Unmet Needs, Geographic Maps

Geography: Snohomish County, WA

Research Time Period: Fiscal Year 2006-2007

Publication Date: July 2009

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Project Name: Geographic Analysis and Mapping of DSHS Services and Clients

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Cover Design: DSHS Research and Data Analysis Division
Context

The Snohomish County Human Services Department requested maps and analysis from the DSHS Research and Data Analysis Division (RDA) of where DSHS clients with mental health or substance abuse problems reside in relation to treatment providers. The key analytic question is: Are there geographic barriers to clients who need treatment for mental health or substance abuse problems?

RDA used its Integrated Client Services Database to identify DSHS clients who 1) had mental health or substance abuse problems during FY 2006 & 2007, 2) received treatment for mental health or substance abuse problems in 2007, and 3) needed, but did not receive treatment for mental health or substance abuse problems in 2007 (unmet need). Clients were also grouped into 4 categories: those with 1) mental health or substance abuse problems, 2) mental health problems, 3) substance abuse problems, and 4) both mental health and substance abuse problems (co-occurring disorders). Combination of treatment status and health problem type produces thirteen client subgroups (for clients with co-occurring disorders, two types of unmet need were identified: those who received treatment for one, but not the other disorder, and those who did not receive any treatment).

A total of thirteen maps were prepared showing geographic distribution of DSHS clients with mental health or substance abuse problems. (Each client subgroup by problem type and treatment status was mapped). The maps display client density and locations of treatment centers. Density (the number of clients per acre) is used to identify areas of greatest concentration of the clients in Snohomish County. The darker the color on the map, the higher the client density; for consistency, the same density classes are used on all maps.

Additionally, two maps showing distances to the nearest treatment provider were prepared for clients with unmet mental health or substance abuse treatment needs. The distances were determined assuming travel along the street/road network of Snohomish County. A total of seven distance zones were chosen: up to ¾ of a mile to the nearest treatment provider; between ¾ and 1.5 miles; 1.6 to 5 miles; 5.1 to 10 miles; 10.1 to 20 miles; 20.1 to 50 miles, and more than 50 miles.

These distance zones were used to summarize client data. For each client subgroup and distance zone, a sum of clients residing within the zone was calculated. The results are presented in Tables 1, 2, and 3.

Key findings

The highest concentrations of DSHS clients with mental health or substance abuse problems are located in the urban areas of Snohomish County, particularly in the downtown of Everett. Three areas in Everett show concentrations of between 1.5 and 2.7 clients per acre. Several areas along major highways show elevated densities of between 0.5 and 1.5 clients per acre. In general, client density declines with distance from the urban centers.

Maps of clients receiving treatment versus those with unmet needs show a very similar geographic pattern. However, clients with unmet needs are more numerous (64 percent of all clients with mental health or substance abuse problems) and they tend to display slightly higher densities.

There seems to be some evidence of geographic barriers to treatment. There are relatively fewer clients with unmet needs in close proximity to treatment providers, compared to clients receiving treatment. As the distance to treatment providers increases, the share of clients with unmet needs grows relatively to the share of clients receiving treatment.

The ratio of clients with mental health or substance abuse problems to the total population is the highest near the treatment providers (8.9 clients per 100 people). The ratio declines as the...
The distance to the nearest provider increases, reaching 2.5 clients per 100 people at the distance of 5 to 10 miles. The ratio increases afterwards to 3.9 – 4.0 clients per 100 people. This trend is particularly strong for clients with mental health problems. This may indicate that communities located at significant distances from providers suffer twice: they have a higher share of residents who have mental health or substance abuse problems and these residents need to travel longer distances to access treatment.

**Definitions, Data Sources, Methods**

**Definitions.** Clients enrolled in Medicaid or other DSHS-administered low-income medical coverage in FY 2007 are classified as having an indication of mental health problems if the client received treatment, a prescription or a medical procedure for treating mental illness or had a diagnosis of mental illness during FY 2006 or 2007. Clients enrolled in Medicaid or other DSHS-administered Medical coverage in FY 2007 are classified as having a possible alcohol or other drug (AOD) problem if they had received AOD treatment or had a diagnosis, procedure, prescription, or arrest related to substance use, abuse, or dependence during FY 2006 or 2007.

**Data sources.** The data for this study come from RDA’s DSHS Integrated Client Databases (ICDB) that combines information about clients and their services from the Client Services Database (CSDB) to more detailed health risk indicators and client outcomes from RDA’s Client Outcomes Database (CODB). Additionally, 2007 population estimates from Washington State Department of Health were used as denominators to calculate rates. The Snohomish County Human Services Department provided addresses of treatment providers for mental health and substance abuse problems.

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1 Washington State Department of Social and Health Services, Research and Data Analysis, *Integrated Database: Client Services Database and Client Outcomes Database*, June 2009.

## Snohomish County, WA

### Table 1. DSHS Clients with Mental Health or Substance Abuse Problems by Distance to the Nearest Treatment Provider, FY 2007

<table>
<thead>
<tr>
<th>Distance, miles (**)</th>
<th>Clients with Mental Health or Substance Abuse Problems</th>
<th>Clients with Mental Health Problems</th>
<th>Clients with Substance Abuse Problems</th>
<th>Clients with Co-occurring Disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All Receiving treatment</td>
<td>Not receiving treatment</td>
<td>All Receiving treatment</td>
<td>Not receiving treatment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - 0.75</td>
<td>5,190</td>
<td>2,141</td>
<td>3,049</td>
<td>3,747</td>
</tr>
<tr>
<td>0.75 - 1.5</td>
<td>5,619</td>
<td>2,134</td>
<td>3,485</td>
<td>4,412</td>
</tr>
<tr>
<td>1.5 - 5</td>
<td>10,696</td>
<td>3,797</td>
<td>6,899</td>
<td>9,730</td>
</tr>
<tr>
<td>5 - 10</td>
<td>3,035</td>
<td>944</td>
<td>2,091</td>
<td>3,210</td>
</tr>
<tr>
<td>10 - 20</td>
<td>1,460</td>
<td>468</td>
<td>992</td>
<td>1,447</td>
</tr>
<tr>
<td>20 - 50</td>
<td>192</td>
<td>33</td>
<td>159</td>
<td>180</td>
</tr>
<tr>
<td>50+</td>
<td>162</td>
<td>53</td>
<td>109</td>
<td>136</td>
</tr>
<tr>
<td>TOTAL</td>
<td>26,354</td>
<td>9,570</td>
<td>16,784</td>
<td>22,862</td>
</tr>
</tbody>
</table>

(*) The distance to the nearest treatment provider was calculated assuming travel along the street/road network. Trails and other walking paths not accessible to cars were excluded from the analysis. For **all clients**, the distance to any nearest mental health (MH) or substance/alcohol or drug (AOD) abuse treatment provider was determined (24 providers). For **MH clients**, the distance to the nearest MH treatment provider was determined (13 providers). For **AOD clients**, the distance to the nearest AOD treatment providers was determined (11 providers). For clients with co-occurring disorders (**COD**), the distance to both MH and AOD nearest treatment providers was evaluated, and the longer of the two was used in the analysis.

### Table 2. Percent DSHS Clients with Mental Health or Substance Abuse Problems by Distance to the Nearest Treatment Provider, FY 2007

<table>
<thead>
<tr>
<th>Distance, miles (**)</th>
<th>Clients with Mental Health or Substance Abuse Problems</th>
<th>Clients with Mental Health Problems</th>
<th>Clients with Substance Abuse Problems</th>
<th>Clients with Co-occurring Disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All Receiving treatment</td>
<td>Not receiving treatment</td>
<td>All Receiving treatment</td>
<td>Not receiving treatment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - 0.75</td>
<td>19.7</td>
<td>22.4</td>
<td>18.2</td>
<td>16.4</td>
</tr>
<tr>
<td>0.75 - 1.5</td>
<td>21.3</td>
<td>22.3</td>
<td>20.8</td>
<td>19.3</td>
</tr>
<tr>
<td>1.5 - 5</td>
<td>40.6</td>
<td>39.7</td>
<td>41.1</td>
<td>42.6</td>
</tr>
<tr>
<td>5 - 10</td>
<td>11.5</td>
<td>9.9</td>
<td>12.5</td>
<td>14.0</td>
</tr>
<tr>
<td>10 - 20</td>
<td>5.5</td>
<td>4.9</td>
<td>5.9</td>
<td>6.3</td>
</tr>
<tr>
<td>20 - 50</td>
<td>0.7</td>
<td>0.3</td>
<td>0.9</td>
<td>0.8</td>
</tr>
<tr>
<td>50+</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

(*) The distance to the nearest treatment provider was calculated assuming travel along the street/road network. Trails and other walking paths not accessible to cars were excluded from the analysis. For **all clients**, the distance to any nearest mental health (MH) or substance/alcohol or drug (AOD) abuse treatment provider was determined (24 providers). For **MH clients**, the distance to the nearest MH treatment provider was determined (13 providers). For **AOD clients**, the distance to the nearest AOD treatment providers was determined (11 providers). For clients with co-occurring disorders (**COD**), the distance to both MH and AOD nearest treatment providers was evaluated, and the longer of the two was used in the analysis.

**Snohomish County, WA**

Table 3. Ratio of DSHS Clients with Mental Health or Substance Abuse Problems per 100 Persons by Distance to the Nearest Treatment Provider, FY 2007

<table>
<thead>
<tr>
<th>Distance, miles (*)</th>
<th>Clients with Mental Health or Substance Abuse Problems</th>
<th>Clients with Mental Health Problems</th>
<th>Clients with Substance Abuse Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Clients</td>
<td>Total population</td>
<td>Ratio per 100 people</td>
</tr>
<tr>
<td>0 - 0.75</td>
<td>5,190</td>
<td>58,428</td>
<td>8.9</td>
</tr>
<tr>
<td>0.75 - 1.5</td>
<td>5,619</td>
<td>108,516</td>
<td>5.2</td>
</tr>
<tr>
<td>1.5 - 5</td>
<td>10,696</td>
<td>343,583</td>
<td>3.1</td>
</tr>
<tr>
<td>5 - 10</td>
<td>3,035</td>
<td>121,276</td>
<td>2.5</td>
</tr>
<tr>
<td>10 - 20</td>
<td>1,460</td>
<td>36,766</td>
<td>4.0</td>
</tr>
<tr>
<td>20 - 50</td>
<td>192</td>
<td>4,959</td>
<td>3.9</td>
</tr>
<tr>
<td>50+</td>
<td>162</td>
<td>12,772</td>
<td>1.3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>26,354</td>
<td>686,300</td>
<td>3.8</td>
</tr>
</tbody>
</table>

(*) The distance to the nearest treatment provider was calculated assuming travel along the street/road network. Trails and other walking paths not accessible to cars were excluded from the analysis. For **all clients**, the distance to any nearest mental health (MH) or substance/alcohol or drug (AOD) abuse treatment provider was determined (24 providers). For **MH clients**, the distance to the nearest MH treatment provider was determined (13 providers). For **AOD clients**, the distance to the nearest AOD treatment providers was determined (11 providers).

DSHS Clients with Mental Health or Substance Abuse Problems, Snohomish County

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

Density of clients, persons per acre

1.51 - 2.7
1.01 - 1.5
0.51 - 1
0.11 - 0.5
0.06 - 0.1
0.01 - 0.05
No clients

Service providers

- Adult mental health
- Youth mental health
- Adult AOD
- Youth AOD

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

The number of clients per acre is used to identify areas of greatest client density in Snohomish County. Density equals total clients residing on an acre of land and in neighboring acres within a 1/2-mile radius, divided by the total acres in that geographic vicinity. This method represents an average number of clients in an area without revealing the actual addresses of individual clients.

Areas without DSHS clients may have other residents or be entirely unpopulated.

DSHS Clients Receiving Treatment for Mental Health or Substance Abuse Problems, Snohomish County

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

Density of clients, persons per acre

1.01 - 1.24  0.06 - 0.1
0.51 - 1     0.01 - 0.05
0.11 - 0.5   No clients

Service providers

- Adult mental health
- Youth mental health
- Adult AOD
- Youth AOD

Areas without DSHS clients may have other residents or be entirely unpopulated.

DSHS Clients Needing but NOT Receiving Treatment for Mental Health or Substance Abuse Problems, Snohomish County

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007 who needed but did not receive treatment for mental health or substance abuse problems.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

The number of clients per acre is used to identify areas of greatest client density in Snohomish County. Density equals total clients residing on an acre of land and in neighboring acres within a 1/2-mile radius, divided by the total acres in that geographic vicinity. This method represents an average number of clients in an area without revealing the actual addresses of individual clients.

Areas without DSHS clients may have other residents or be entirely unpopulated.

DSHS Clients with Mental Health Problems, Snohomish County

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

The number of clients per acre is used to identify areas of greatest client density in Snohomish County. Density equals total clients residing on an acre of land and in neighboring acres within a 1/2-mile radius, divided by the total acres in that geographic vicinity. This method represents an average number of clients in an area without revealing the actual addresses of individual clients.

Areas without DSHS clients may have other residents or be entirely unpopulated.

DSHS Clients Receiving Mental Health Treatment, Snohomish County

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

The number of clients per acre is used to identify areas of greatest client density in Snohomish County. Density equals total clients residing on an acre of land and in neighboring acres within a 1/2-mile radius, divided by the total acres in that geographic vicinity. This method represents an average number of clients in an area without revealing the actual addresses of individual clients.

Areas without DSHS clients may have other residents or be entirely unpopulated.

***DSHS Clients Needing but NOT Receiving Mental Health Treatment, Snohomish County***

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

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Density of clients, persons per acre

- **1.01 - 1.22**
- **0.51 - 1**
- **0.11 - 0.5**
- **0.06 - 0.1**
- **0.01 - 0.05**
- No clients

Service providers

- **Adult mental health**
- **Youth mental health**

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

The number of clients per acre is used to identify areas of greatest client density in Snohomish County. Density equals total clients residing on an acre of land and in neighboring acres within a 1/2-mile radius, divided by the total acres in that geographic vicinity. This method represents an average number of clients in an area without revealing the actual addresses of individual clients.

Areas without DSHS clients may have other residents or be entirely unpopulated.

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

The distance to the nearest treatment provider was calculated assuming travel along the street/road network. Trails and other walking paths not accessible to cars were excluded from the analysis. For clients with mental health (MH) problems, the distance to the nearest MH treatment provider was determined.

Areas without DSHS clients may have other residents or be entirely unpopulated.

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

Density of clients, persons per acre

- 1.01 - 1.1
- 0.51 - 1
- 0.11 - 0.5
- 0.06 - 0.1
- 0.01 - 0.05
- No clients

Service providers

- Adult AOD
- Youth AOD

The number of clients per acre is used to identify areas of greatest client density in Snohomish County. Density equals total clients residing on an acre of land and in neighboring acres within a 1/2-mile radius, divided by the total acres in that geographic vicinity. This method represents an average number of clients in a area without revealing the actual addresses of individual clients.

Areas without DSHS clients may have other residents or be entirely unpopulated.

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

The number of clients per acre is used to identify areas of greatest client density in Snohomish County. Density equals total clients residing on an acre of land and in neighboring acres within a 1/2-mile radius, divided by the total acres in that geographic vicinity. This method represents an average number of clients in an area without revealing the actual addresses of individual clients.

Areas without DSHS clients may have other residents or be entirely unpopulated.

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

Density of clients, persons per acre

<table>
<thead>
<tr>
<th>Service providers</th>
<th>Density of clients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult AOD</td>
<td>0.51 - 0.68</td>
</tr>
<tr>
<td>Youth AOD</td>
<td>0.11 - 0.5</td>
</tr>
<tr>
<td></td>
<td>0.06 - 0.1</td>
</tr>
<tr>
<td></td>
<td>0.01 - 0.05</td>
</tr>
<tr>
<td></td>
<td>No clients</td>
</tr>
</tbody>
</table>

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

The distance to the nearest treatment provider was calculated assuming travel along the street/road network. Trails and other walking paths not accessible to cars were excluded from the analysis. For clients with substance abuse problems (alcohol or other drugs/AOD), the distance to the nearest AOD treatment provider was determined.

Areas without DSHS clients may have other residents or be entirely unpopulated.

DSHS Clients with Co-occurring Mental Health and Substance Abuse Problems, Snohomish County

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

The number of clients per acre is used to identify areas of greatest client density in Snohomish County. Density equals total clients residing on an acre of land and in neighboring acres within a 1/2-mile radius, divided by the total acres in that geographic vicinity. This method represents an average number of clients in an area without revealing the actual addresses of individual clients.

Areas without DSHS clients may have other residents or be entirely unpopulated.

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

The number of clients per acre is used to identify areas of greatest client density in Snohomish County. Density equals total clients residing on an acre of land and in neighboring acres within a 1/2-mile radius, divided by the total acres in that geographic vicinity. This method represents an average number of clients in an area without revealing the actual addresses of individual clients.

Areas without DSHS clients may have other residents or be entirely unpopulated.

DSHS Clients NOT Receiving Adequate Treatment for Co-occurring Mental Health and Substance Abuse Problems, Snohomish County

Density of clients, persons per acre

- **0.51 - 0.59**
- **0.11 - 0.5**
- **0.06 - 0.1**
- **0.01 - 0.05**
- **No clients**

Service providers

- Adult mental health
- Youth mental health
- Adult AOD
- Youth AOD

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007 who needed but did not receive treatment for one or both co-occurring disorders.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

Areas without DSHS clients may have other residents or be entirely unpopulated.

Density of clients, persons per acre

- 0.06 - 0.1
- 0.01 - 0.05
- No clients

Service providers

- Adult mental health
- Youth mental health
- Adult AOD
- Youth AOD

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007 who needed but did not receive any treatment for the co-occurring disorders.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

The number of clients per acre is used to identify areas of greatest client density in Snohomish County. Density equals total clients residing on an acre of land and in neighboring acres within a 1/2-mile radius, divided by the total acres in that geographic vicinity. This method represents an average number of clients in an area without revealing the actual addresses of individual clients.

Areas without DSHS clients may have other residents or be entirely unpopulated.