

## **INPATIENT PSYCHIATRIC CAPACITY IN WASHINGTON STATE: ASSESSING FUTURE NEEDS AND IMPACTS (PART ONE)**

Washington State's Involuntary Treatment Act (ITA) allows for individuals to be committed by a court order to a mental hospital or institution against their will for a limited period of time. Involuntary civil commitments are meant to provide for the evaluation and treatment of individuals with a mental disorder who may be either gravely disabled or pose a danger to themselves or others, and who refuse or are unable to enter treatment on their own. An initial commitment may last up to 72 hours, but, if necessary, individuals can be committed for additional periods of 14, 90, and 180 days.<sup>1</sup>

Since the enactment of this statute in 1973, Washington's Involuntary Treatment Act has undergone a number of changes. These changes seek to balance the goals of preserving individual liberty while protecting public safety and providing for the appropriate and timely treatment of individuals with a mental disorder. Exhibit 1 (next page) chronicles key legislative changes that have been made to Washington's ITA statute since 1973.

In 2010, the Washington State Legislature amended the ITA statute by expanding the scope of topics that an investigator may consider for involuntary detention decisions.<sup>2</sup> The Legislature directed the Washington State Institute for Public Policy (Institute) to assess the extent to which commitments may increase when these revised criteria go into effect in 2012. The Legislature also directed the Institute to determine if current inpatient psychiatric capacity is sufficient to meet this potential increased demand.<sup>3</sup>

### **Summary**

The Involuntary Treatment Act (ITA) permits investigators (called Designated Mental Health Professionals, or DMHPs) to detain individuals who, as a result of a mental illness, are gravely disabled or may be a danger to themselves or others. Those who meet the legal criteria (RCW 71.05) for an ITA commitment can be detained for up to 72 hours at an inpatient psychiatric facility.

In 2010, the Washington State Legislature amended the legal guidelines for ITA commitments to allow a DMHP to more fully consider reasonably available information about individuals from credible witnesses and historical records (RCW 71.05.212). These statutory changes will take effect in 2012. The Legislature also directed the Institute to assess the potential impact of these changes.

Based on a survey that asked DMHPs to review ITA cases during a one-week period in 2010, we estimate that the commitment rate could increase from 40 percent to between 45 and 55 percent as a result of these statutory changes. Given this potential increase, we estimate that between 23 and 54 new adult beds at short-term Evaluation and Treatment facilities may be necessary to accommodate this growth in admissions. An additional 19 to 114 inpatient psychiatric beds at community or state hospitals would also be necessary if ITA commitments grow as projected.

<sup>1</sup> See RCW 71.05.240 and RCW 71.05.290

<sup>2</sup> See RCW 71.05.212 and RCW 71.05.245

<sup>3</sup> Laws of 2010, ch. 37 § 204 (3) (e), ESSB 6444

**Exhibit 1**  
**History of Changes to Washington State's Involuntary Treatment Act**

- 1973** Involuntary Treatment Act (ITA) passed with goals of protecting the rights of the mentally ill, and public safety, and encouraging efficient use of community and hospital resources (RCW 71.05).
- 1979** Expansion of ITA criteria for commitment (with definition of grave disability and danger to property).
- 1982** Washington State Supreme Court decision sets standards for non-emergency detentions (*in re Harris*).
- 1991** Administration of involuntary medications under certain conditions.
- 1997** SB 5562 required courts to give great weight to prior history and pattern of decompensation in determining whether to order 90-day less restrictive commitment. These changes also made it easier to file petitions for extended less-restrictive treatment.
- 1998** SSB 6214 expanded the definition of likelihood of serious harm to include generalized threats to safety of others, specified that the court should give great weight to events such as a history of violent acts or commitments, and permitted an automatic return to inpatient commitment when a case manager attests to increased risk of harm. This legislation also changed RCW 10.77 to allow certain people charged with a misdemeanor to move from a criminal to civil commitment.
- 1999** SSB 5011 required Designated Mental Health Professional (DMHP) to consider all reasonably available information regarding history of violent acts, prior commitments, and prior determinations of insanity or incompetency in making determinations for initial commitments.
- 2001** SB 5048 stipulated that courts should give great weight to history of repeated hospitalizations and/or criminal justice involvement when determining whether to order 90-day restrictive or less-restrictive commitment.
- 2004** ESSB 6358 clarified that people who are developmentally disabled, impaired by alcoholism or drug abuse, or suffering from dementia and who otherwise meet ITA criteria are still eligible for commitment.
- 2005** E2SSB 5763 created integrated crisis response pilot programs. The intent of this legislation was to unify the ITA statute (RCW 71.05) with laws directing the treatment of alcoholism, intoxication, and drug addiction (RCW 70.96A). This act created crisis stabilization facilities and secure detox centers in pilot counties and permitted DMHPs to detain individuals considered gravely disabled or presenting a likelihood of serious harm due to mental illness, substance abuse, or both.
- 2006** 2SSB 6793 directed DSHS to allocate a certain number of state hospital beds for use by each RSN and specified that individual RSNs must reimburse DSHS if bed days used exceed this allocation.
- 2007** SB 5533 changed requirements for non-emergency detentions, allowing for immediate detention if a judicial officer makes a probable cause finding based on the sworn statement of a DMHP. This change also eliminated the need for the DMHP to obtain an order to appear in court and then wait 24 hours before detaining an individual if there was no imminent danger present.
- 2009** SHB 1300 provided for release of mental health services information to law enforcement, public health officials, and jail personnel under certain conditions. HB 2025 allowed these treatment records to be released (without patient consent) to licensed mental health or health care professionals.
- ESHB 1349 established additional grounds under which an individual could be ordered to continue a Less Restrictive Alternative (LRA) treatment order.
- 2010** 2SHB 3076 required DMHPs to consider all reasonably available information from credible witnesses. In addition, this legislation allows DMHPs to consider symptoms or behavior that, when standing alone, would not justify commitment but, taken in conjunction with past symptoms or behavior that led to a hospitalization or violent act, may justify a commitment.

Information compiled with assistance of King County Department of Community and Human Services, Mental Health, Chemical Abuse and Dependency Services Division

## Section I: Changes to Washington's ITA Statute

The 2010 Legislature passed 2SHB 3076, which prospectively expanded the issues that should be considered while evaluating individuals for detention under the Involuntary Treatment Act.<sup>4</sup> In Washington State, investigators, called Designated Mental Health Professionals (DMHPs), are responsible for determining if an individual meets the criteria for an involuntary civil commitment.

Broadly speaking, an individual can be involuntarily detained for 72 hours for evaluation and treatment if he or she has a mental disorder and, as a result of that disorder, becomes gravely disabled or poses a risk of serious harm to him or herself or others.

The new statutory changes, which take effect in January 2012, will require DMHPs to consider the following additional factors in an investigation for involuntary treatment admissions:

- All reasonably available historical behavior (including, but not limited to: violent acts, prior commitments, and previous determinations of incompetency or insanity);
- Information from credible witnesses with significant contact and history of involvement with the subject; and
- Symptoms or behavior that may not by themselves constitute grounds for commitment, but indicate a pattern that has been shown to lead to violent activity or severe deterioration.<sup>5</sup>

The 2010 revisions to the statute specify that, if an individual's symptoms or behavior did not previously justify commitment, starting in 2012, a DMHP should consider the following factors in an investigation:

- The observed symptoms are closely associated with symptoms that occurred during previous hospitalizations or violent actions,
- The symptoms represent a "marked and concerning" change in baseline behavior, or
- Continued deterioration is likely without treatment.

These expanded statutory criteria will allow a DMHP to consider evidence from families, neighbors, and friends about how the current behavior of an individual may require immediate treatment in order to prevent future deterioration or harm. As such, these changes may increase the number of individuals who are involuntarily committed to psychiatric facilities beginning in 2012.

During the legislative debate on this bill, some mental health administrators from throughout the state estimated that these new ITA changes could result in a 5 percent increase in involuntary detentions.<sup>6</sup> These estimates were based on analyses of previous increases that occurred following a statutory change.<sup>7</sup> With the passage of this bill, the Legislature also directed the Institute to provide a more detailed and updated picture of the law's impact on ITA commitments. This direction provides the basis for the analysis presented in this paper.

<sup>6</sup> <http://fnspublic.ofm.wa.gov/binaryDisplay.aspx?package=26690>

<sup>7</sup> See, for example: G. L. Pierce, M. L. Durham, & W. H. Fisher. (1985). The impact of broadened civil commitment standards on admissions to state mental hospitals. *The American Journal of Psychiatry*, 142(1), 104–107.

<sup>4</sup> Laws of 2010, ch. 280.

<sup>5</sup> RCW 71.05.212 and RCW 71.05.245

## Study Direction

To estimate the degree to which commitments may increase after these changes take effect in 2012, the Legislature directed the Institute to analyze the following:

- 1) The extent to which the number of persons involuntarily committed for 72 hours, 14 days, and 90 days is likely to increase as a result of the revised statutory guidelines.
- 2) The availability of community treatment capacity to accommodate that increase.
- 3) Strategies for cost-effectively leveraging state, local, and private resources to increase community involuntary treatment capacity.
- 4) The extent to which increases in involuntary commitments are likely to be offset by reduced utilization of correctional facilities, publicly funded medical care, and state psychiatric hospitalizations.<sup>8</sup>

This report addresses the first two tasks in this assignment: estimating increases in involuntary commitments, and the ability of inpatient psychiatric facilities to accommodate any increases. An upcoming report, to be released in late-2011, will look at options for involuntary commitments and how potential increases in commitments may impact other public systems.

## ITA Data and Trends

The ideal projection of future ITA commitments would rely on detailed historical data about state and regional involuntary commitment trends. Unfortunately, statewide administrative records on ITA investigations are widely believed to undercount the actual number of ITA events. This discrepancy in statewide records has been noted elsewhere<sup>9</sup> and may exist for a number of reasons, including:

- Different data systems used in DMHP offices throughout the state,
- Various definitions of what constitutes a crisis investigation versus an ITA investigation, and
- A lack of data validation provisions at the state or regional level.

While available records on ITA investigations are less than ideal, it is worthwhile to start this effort by reviewing the existing data and discerning if there are patterns that may have validity. Exhibit 2 (next page) provides basic information about statewide trends in ITA investigations since 2002.

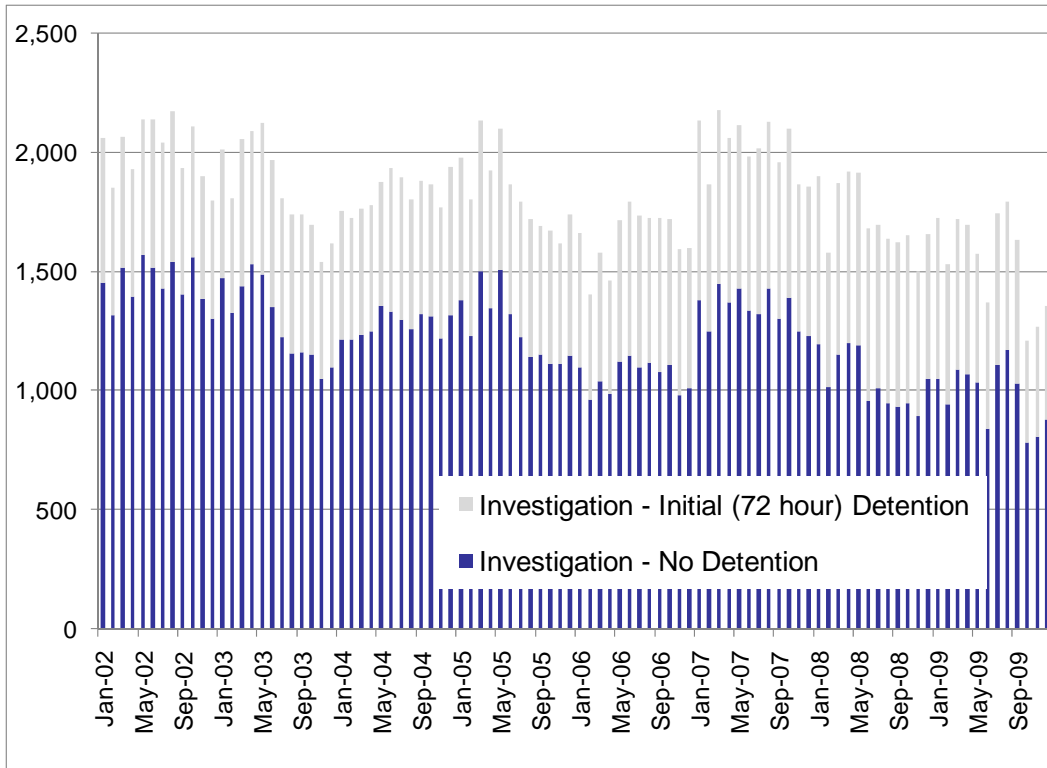
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<sup>8</sup> Laws of 2010, ch. 37 § 204 (3) (e), ESSB 6444

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<sup>9</sup> TriWest Group. (2007). *Statewide transformation initiative involuntary treatment act (ITA) review*. Seattle, WA: Author, p. 14.

**Exhibit 2**  
**Involuntary Treatment Investigations in Washington State by Month: 2002–09**



WSIPP, 2011  
 Based on analysis of DSHS Division of Behavioral Health and Recovery (DBHR) Service Encounter database.

According to state records, 1,500 to 2,000 ITA investigations took place each month between 2002 and 2009 (Exhibit 2). As mentioned earlier, while these numbers likely undercount the actual level of ITA activity, the figures provide a starting point by which to assess potential changes due to the ITA statute. In addition, the legislative direction for this study focuses more on the commitment rate for ITA investigations. That is, to what extent are investigations more likely to result in a commitment decision as a result of the revised ITA criteria?

Exhibit 3 shows that between 28 and 39 percent of ITA investigations result in a 72-hour involuntary treatment commitment. While the legal criteria in the ITA statute serves as the primary factor affecting the commitment rate,

other variables may affect the rate of involuntary commitments as well. These reasons are discussed in the next section.

**Exhibit 3**  
**Rate of Initial (72-Hour) Admissions for ITA Investigations in Washington State**

Year	Involuntary Admission	Voluntary Admission	No Admission
2002	6,751 (28%)	1,161 (5%)	16,206 (67%)
2003	6,757 (30%)	877 (4%)	14,548 (66%)
2004	6,664 (30%)	920 (4%)	14,385 (65%)
2005	6,867 (31%)	910 (4%)	14,245 (65%)
2006	6,959 (35%)	741 (4%)	11,992 (61%)
2007	8,125 (34%)	857 (4%)	15,259 (63%)
2008	8,130 (39%)	663 (3%)	11,821 (57%)
2009	6,833 (37%)	697 (4%)	11,099 (60%)

WSIPP, 2011  
 Based on analysis of DSHS/DBHR Service Encounter database

## ITA Investigations — Implementation of the Law

As noted previously, Washington's ITA statute has been revised over a dozen times since 1973 to clarify appropriate issues that should factor into involuntary commitment decisions. In addition to the investigation guidelines laid out in law, the Department of Social and Health Services (DSHS), in conjunction with other organizations, is responsible for developing and updating the DMHP protocols that serve as guidelines for conducting ITA investigations.<sup>10</sup>

The interpretation and implementation of the ITA law may differ across counties or among individual DMHPs for a variety of reasons.

First, legal practices and court interpretations in relation to the ITA statute differ to some extent. In King County, for example, non-emergency detentions are much more common than in other counties. In most cases, a DMHP will immediately detain individuals meeting commitment criteria if there is an imminent (or emergent) danger to the individual or others. If the risk evaluated by the DMHP is non-emergent, the DMHP can detain the individual after serving him or her with a notice from the court. King County has a judge or commissioner available around the clock, and this notice can be transmitted quickly to a DMHP in order to complete a non-emergent detention.

Second, the availability of community resources may also play a role in placement decisions. In many counties, crisis diversion options allow an individual to receive immediate assistance or a temporary bed to adjust to medication changes or de-escalate. Exhibit 4 (next page) shows the range of crisis diversion facilities available throughout the state.

Finally, as noted in a related report,<sup>11</sup> training for DMHPs in Washington State varies. The Washington DMHP Association offers a one-week training course every year, but DMHPs in larger counties typically receive in-house training. While available resources and court processes differ across counties, a uniform training program may be beneficial for the DMHP protocols.

To assess how changes to the ITA statute may impact investigation decisions, we surveyed DMHP investigators throughout the state about actual cases that they encountered. The next section of this report discusses our approach and details our estimates of how involuntary treatment decisions may increase as a result of the revised ITA statute.

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<sup>10</sup> Department of Social and Health Services (2008, December). *Protocols: Designated Mental Health Professionals*. Olympia, WA: Author. [http://www.dshs.wa.gov/pdf/dbhr/mh/DMHP\\_Protocols\\_Final.pdf](http://www.dshs.wa.gov/pdf/dbhr/mh/DMHP_Protocols_Final.pdf)

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<sup>11</sup> M. Burley. (2011). *ITA investigations: Can standardized assessment instruments assist in decision making?* (Document No. 11-01-3402). Olympia: Washington State Institute for Public Policy.

**Exhibit 4**

**Crisis Intervention and Options for Involuntary Hospitalization: County Resources**

<b>County</b>	<b>Resource</b>
<b>Adams</b>	None
<b>Asotin</b>	None
<b>Benton</b>	Benton Franklin Crisis Response Unit
<b>Chelan</b>	Chelan/Douglas Crisis Respite (six-bed voluntary hospital diversion facility)
<b>Clallam</b>	Second Street House (utilize available beds in boarding facility for crisis)
<b>Clark</b>	Elahan Place (three stabilization beds at Adult Residential Rehabilitation Center)
<b>Columbia</b>	None
<b>Cowlitz</b>	Crisis Support Unit (voluntary five-bed residential facility)
<b>Douglas</b>	Chelan/Douglas Crisis Respite (six-bed voluntary hospital diversion facility)
<b>Ferry</b>	Crisis Stabilization Facility (six-bed facility for Ferry, Stevens, and Lincoln Counties)
<b>Franklin</b>	Benton Franklin Crisis Response Unit
<b>Garfield</b>	None
<b>Grant</b>	Grant Mental Healthcare (outpatient services only)
<b>Grays Harbor</b>	Ten-bed crisis stabilization unit (residential treatment facility)
<b>Island</b>	None
<b>Jefferson</b>	None
<b>King</b>	Downtown Emergency Services Center (ten crisis beds, closing in June 2011). (Mentally Ill and Drug Dependent Jail Crisis Diversion Facility opening in 2011 will serve up to 46 adults at a time)
<b>Kitsap</b>	The Keller House (16-bed crisis and transitional facility)
<b>Kittitas</b>	One unsupervised crisis bed in county plus contracted beds in adjacent county
<b>Klickitat</b>	None (can utilize crisis bed in Yakima County if available)
<b>Lewis</b>	Crisis Respite/Hospital Diversion (two beds)
<b>Lincoln</b>	Crisis Stabilization Facility (six-bed facility for Ferry, Stevens, and Lincoln Counties)
<b>Mason</b>	Thurston-Mason Crisis Stabilization and Transitional Unit (ten beds)
<b>Okanogan</b>	None
<b>Pacific</b>	None (utilize beds in Lewis County)
<b>Pend Oreille</b>	None
<b>Pierce</b>	Recovery Response Center (16 beds) and access to six crisis diversion beds in facilities throughout Pierce County
<b>San Juan</b>	None
<b>Skagit</b>	Adult Residential Treatment Facility (six-bed crisis stabilization and five-bed detox)
<b>Skamania</b>	None
<b>Snohomish</b>	Crisis Triage Program with 11 stabilization beds, five detox beds, and four, 23-hour crisis intervention slots
<b>Spokane</b>	Crisis Triage Services (seven slots, less than 24-hour stay) and Hartson Stabilization Services (seven-bed voluntary placement facility)
<b>Stevens</b>	Crisis Stabilization Facility (6-bed facility for Ferry, Stevens, and Lincoln Counties)
<b>Thurston</b>	Thurston-Mason Crisis Stabilization and Transitional Unit (ten beds)
<b>Wahkiakum</b>	None
<b>Walla Walla</b>	Crisis Respite facility (three beds)
<b>Whatcom</b>	Behavioral Health Triage Center (five beds crisis respite and eight beds detox)
<b>Whitman</b>	None
<b>Yakima</b>	Crisis Triage Center (16-bed detox facility that can be used for crisis stabilization)

WSIPP, 2011

Information based on responses provided by DMHP supervisors in each county.

## Section II: Estimating the Impact of New ITA Criteria on Commitments

The amended ITA statute will require a DMHP to make an assessment about the following factors during an investigation:

- All historical behavior (including, but not limited to, violent acts, prior commitments, and previous determinations of incompetency or insanity).
- Information from credible witnesses who have had significant contact and a history of involvement with the subject.
- Symptoms or behavior that may not by themselves constitute grounds for commitment, could be considered if they indicate a pattern that has been shown to lead to violent activity or severe deterioration.<sup>12</sup>

The existing data systems available for this study do not include the level of detail that would be necessary to model the impact of these new requirements. Given the lack of suitable data, we elected to conduct a survey regarding actual ITA investigations completed by DMHPs throughout the state. The survey asked DMHPs to review actual cases to determine if persons who were not committed might have been detained under the revised ITA criteria. This section describes both the methods utilized for this effort and the survey results.

## Survey Approach

While several approaches were considered for this legislative task, we elected to undertake this online survey for several reasons. First, we decided to survey DMHP investigators directly (rather than use other data sources), since they would be responsible for making decisions under this new law. Second, we wanted to have investigators assess how the revised statute may impact decision making based on real cases they encountered. Instead of talking about these changes in abstract terms, this approach was meant to provide an indication of what these changes may have meant for actual cases. Finally, since approaches may differ by county or region, we decided the survey would include DMHP investigators from throughout the state.

During a one-week period (in November 2010), we asked all DMHPs in the state to complete this survey for each face-to-face investigation that could have resulted in an involuntary treatment commitment. A copy of this survey can be found in the Appendix. To preserve confidentiality, the DMHP and individuals being investigated were not identified in this survey.

It should be noted, that while this survey involved actual cases that took place during the week, the respondents were asked a hypothetical question about whether an investigation would have resulted in a commitment under different ITA guidelines. While these results are informative, it cannot be stated for certain that the same outcome would occur in a real world setting when the law takes effect in 2012.

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<sup>12</sup> RCW 71.05.212 and RCW 71.05.245



## Survey Results — Responses

Since this survey was taken anonymously, we could not determine precisely how many of the licensed DMHPs throughout the state responded to our questions. Nevertheless, we did receive a sizable number of responses about ITA cases in this week-long survey. In total, DMHPs provided information on **388 investigations**. If this survey period resembled a typical or average week, the responses would correspond to about 1,630 investigations per month, which is in the range of reported data (see Exhibit 2).

In all, DMHPs from 30 counties (including 13 Regional Support Networks [RSNs]) provided case information for this effort (see Exhibit 5). After the conclusion of this week-long survey, we reviewed the number of responses with DMHP supervisors at the county level. Based on this review, we are confident that, while some counties (i.e. Pierce and Clark) had only partial participation, the survey response in many counties covered a substantial number of investigations that occurred during this period.

A large percentage of ITA investigations are conducted in King and North Sound<sup>13</sup> RSNs, and supervisors in these regions confirmed that the survey responses in these areas included all investigations conducted that week. Also, a considerable number of ITA investigations occur in Spokane and Greater Columbia<sup>14</sup> RSNs. Supervisors in these areas are also confident that the survey responses included nearly all of the referrals made during this week. Given this information, we believe the results provide a reasonable look at ITA outcomes at a statewide level.

**Exhibit 5**  
**DMHP Case Review Survey Responses**  
**by County**

County	Cases Included in Survey
Adams	1
Asotin	1
Benton	26
Chelan	1
Clallam	6
Clark	5
Columbia	1
Cowlitz	25
Ferry	2
Franklin	6
Grant	3
Grays Harbor	6
Island	3
Jefferson	1
King	83
Kitsap	16
Kittitas	3
Klickitat	1
Mason	1
Okanogan	1
Pacific	1
Pierce	14
Skagit	22
Snohomish	31
Spokane	53
Stevens	4
Thurston	4
Walla Walla	11
Whatcom	13
Yakima	43
<b>Total</b>	<b>388</b>

<sup>13</sup> North Sound RSN includes Whatcom, Skagit, Snohomish and Island Counties.

<sup>14</sup> Greater Columbia RSN includes Yakima, Benton, Walla Walla, Franklin, Kittitas, Columbia, Asotin, and Klickitat Counties

## Survey Results — Information Collected During Investigations

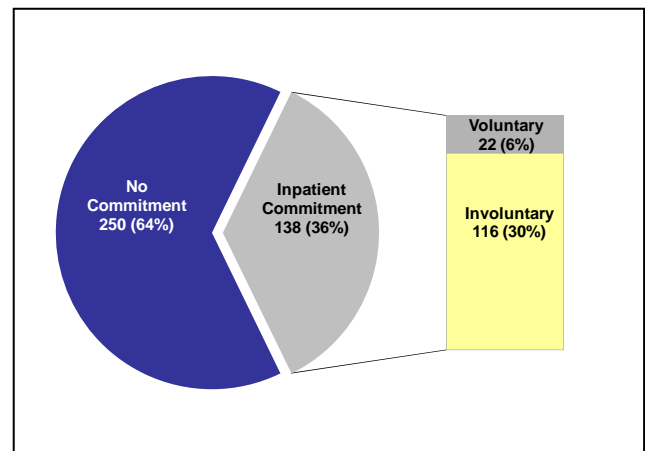
Since the existing ITA statute calls on DMHPs to assess an individual's history of violence, two questions were included about this part of the investigation. In 176 investigations (45 percent), a DMHP was able to access the criminal history of the individual. In most cases, this information came from the local law enforcement agency or jail. Anyone in the state (including DMHPs) can access the statewide WATCH (Washington Access to Criminal History) database, which includes individual conviction records.<sup>15</sup> Records from WATCH were retrieved in 40 of the investigations that were reported in this survey. Another Institute report discusses the possibility of expanded access to criminal records for DMHPs in the state in more detail.<sup>16</sup>

The survey also included a question about whether the DMHP was able to access information about the individual's previous ITA investigations or mental health commitments. In 262 (68 percent) of reported investigations, a DMHP reported accessing previous case records. As noted in a related report, access to historical records for DMHPs throughout the state could be improved further with the implementation of a statewide ITA case management database.<sup>17</sup>

## ITA Commitment Outcomes

Of the 388 investigations reported in this survey, 138 (36 percent) resulted in an inpatient hospital admission or commitment. As Exhibit 6 demonstrates, 30 percent of investigations (116) resulted in an involuntary commitment.

**Exhibit 6**  
**ITA Investigation Commitment Rate**  
**N=388**



WSIPP, 2011

In terms of the legal grounds for commitment, a DMHP may include several reasons in the outcome for each investigation. In this survey, DMHPs listed the following reasons for commitments (multiple answers could be selected):

- gravely disabled (46 percent)
- danger to self (45 percent)
- danger to others (25 percent)
- danger to property (5 percent)

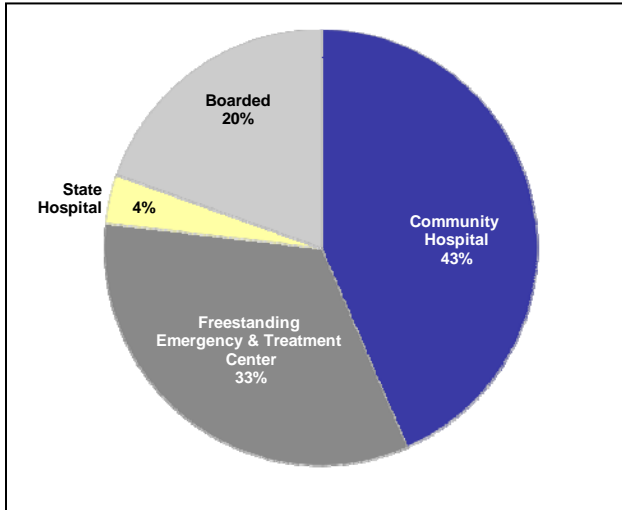
<sup>15</sup> For the public, fees for a background check are \$10, but these fees are waived for government or non-profit organizations. See <http://fortress.wa.gov/wsp/watch>

<sup>16</sup> Burley, 2011

<sup>17</sup> Ibid.

Exhibit 7 shows where each of the 138 commitments reported in this survey took place.

**Exhibit 7**  
**ITA Commitment Location**



WSIPP, 2011

Most of the commitments in the survey were to either an inpatient psychiatric unit of a community hospital (43 percent) or a freestanding evaluation and treatment center (33 percent).<sup>18,19</sup> One in five commitments (20 percent) were placed in a temporary, or “boarded,” location. If a certified inpatient bed is not immediately available, an individual may be placed in a hospital emergency department or non-psychiatric hospital bed. More detail about psychiatric bed utilization is provided later in this report. However, it should be noted that boarding an ITA patient is not a preferable outcome for a treatment admission. In many cases, the locations where ITA patients are boarded may not be staffed or equipped to handle the acute psychiatric needs of these individuals.

<sup>18</sup> Section III discusses the different types of inpatient psychiatric facilities in greater detail.

<sup>19</sup> Commitments made to state hospitals included two at Western State Hospital and three at Eastern State Hospitals. Neither state hospital routinely receives 72-hour involuntary commitments.

## Estimating Potential Increases in ITA Commitments

The purpose of the DMHP case review survey was to determine if forthcoming changes in the ITA statute (to take effect in 2012) may result in additional involuntary commitments. To estimate the impact of these changes, this survey included an additional series of questions for investigations that *did not* result in a commitment.

Exhibit 8 outlines the questions asked for the 250 investigations where a commitment did not occur (see Exhibit 6 for reference). The questions followed the legislative language<sup>20</sup> that expands the scope of investigations to determine if an ITA commitment is appropriate.

**Exhibit 8**  
**Presence of New Commitment Criteria in DMHP Case Review Survey**

Did findings in the investigation show...	Cases (Percent)
1) similarities to past behaviors that led to violent acts or deterioration?	75 (30%)
2) a substantial change from usual behavior, and treatment appeared necessary?	85 (34%)
3) the subject had a history of one or more violent acts (within the last three years)?	42 (17%)
4) the subject had previously been found incompetent or insane under RCW 10.77?	83 (33%)
any of the historical indicators listed above (1-4)	140 (56%)
5) credible witnesses were involved with this investigation and appeared to have substantial interest and knowledge about the subject's situation?	143 (57%)
<b>Total Investigations (no commitment)</b>	<b>250</b>

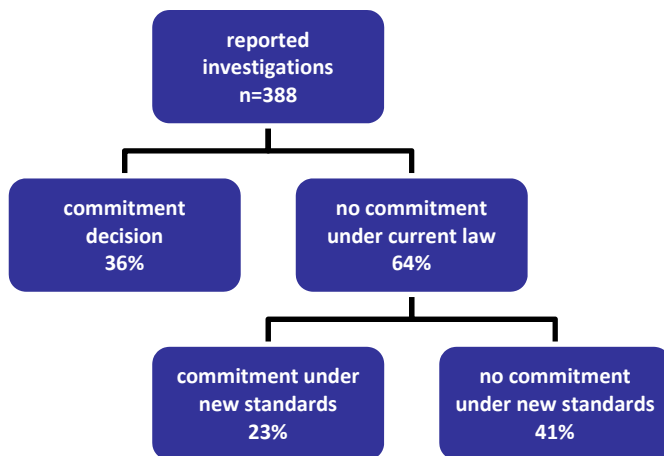
<sup>20</sup> RCW 71.05.212 and RCW 71.05.245

In about a third of the cases without a commitment, the DMHP reported that the individual had symptoms or behavior that either indicated likely future deterioration or violent acts, or pointed to a need for treatment. When these factors were present, the final survey question asked the DMHP:

“..would you have decided to detain this person if permitted by law and there were not viable less restrictive alternatives to inpatient psychiatric treatment?”

Exhibit 9 shows that in 23 percent of all investigations, a DMHP reported that the individual did not meet the current criteria for commitment, but he or she may have ordered a commitment had the new statutory guidelines been in effect.

**Exhibit 9**  
**Potential New Commitments**  
**Under Revised ITA Criteria (Survey Results)**



WSIPP, 2011  
DSHS/DBHR Service Encounter database

This survey suggests that after new ITA revisions take effect in 2012, 72-hour commitments could increase from 36 percent to 59 percent of investigations. This figure may be considered an upper range, however, for a number of reasons.

First, to date, there has been no training (or revisions to DMHP protocols) to help investigators determine the meaning or intent of the new commitment criteria.<sup>21</sup> The new statutory guidelines require a DMHP to use considerable judgment about “substantial changes from usual behavior” that may represent or lead to further deterioration or danger. It is possible that legal opinions or administrative rules may have to be established to help delineate what constitutes an appropriate commitment in these circumstances.

Second, the response to this question may be inflated somewhat, since there is not an actual “cost” to saying that a commitment would have occurred. That is, with actual commitments, a DMHP would need to be prepared to justify the decision in court documents or testimony. A DMHP may take a more cautious approach to the commitment decision when applying the expanded guidelines to actual investigations (after 2012).

While these caveats should be noted, this survey estimate still exceeds the 5 percent increase that was estimated prior to implementation of this legislation. The remainder of this report discusses how an increase in psychiatric hospitalizations may impact inpatient psychiatric facilities in the state.<sup>22</sup> Since the size of this impact is uncertain, we will examine how many inpatient beds may be necessary if the rate increases from the current level to a commitment rate of 45 percent, 50 percent, or 55 percent of all investigations.

<sup>21</sup> DMHP training and ITA protocol revisions are being planned for 2011.

<sup>22</sup> It is important to note that the 36 percent of investigations that led to a commitment included both involuntary (30 percent) and voluntary (6 percent) admissions. Since psychiatric beds are utilized in both cases, we model increases in the commitment rate regardless of legal status at admission.

### Section III: Inpatient Psychiatric Capacity

The legislative direction for this study called for an examination of “the extent to which the number of persons involuntarily committed for 3, 14, and 90 days is likely to increase as a result of the revised commitment standards.”<sup>23</sup> The survey described in the previous section estimated how the *initial* (72- hour) commitment decision may be affected by the revised statute. Following this initial commitment, a court determines if the individual continues to meet criteria for extended involuntary commitment, lasting either 14, 90, or 180 days. At each stage, the court may also dismiss the civil commitment petition or, if appropriate, order a less restrictive alternative, such as mandatory outpatient treatment. If an individual does not meet the terms of the least restrictive alternative, the order can be revoked and a commitment reinstated.

Exhibit 10 (next page) provides an outline of the commitment process under Washington State’s Involuntary Treatment Act. Using data provided by the Regional Support Networks (RSNs) and state psychiatric hospitals, we also looked at ITA investigations that occurred in 2009 and determined the percentages of individuals who went through each stage in this process. Of the 18,629 persons investigated by a DMHP in 2009, an initial psychiatric admission (voluntary and involuntary) occurred in 7,530 cases (40 percent).<sup>24</sup> As mentioned earlier, an admission may occur to one of the following locations:

- **Evaluation and Treatment (E&T) Facilities:** E&T centers are freestanding, 16-bed residential facilities certified by DSHS to provide mental health services and help stabilize and return individuals to the community.
- **Inpatient Psychiatric Beds in Community Hospitals:** Several hospitals in the state include a unit that specializes in serving psychiatric needs of patients. Not all of these hospitals, however, are certified to accept patients involuntarily admitted to treatment.
- **Single-Bed Certification:** When certified ITA beds are not available at licensed psychiatric facilities, a DMHP may ask a hospital to request a *single-bed certification* to hold involuntary treatment clients. This certification is provided by DSHS on a case-by-case basis and often occurs in emergency departments, which may not have the staffing or structure to house involuntarily admitted patients.

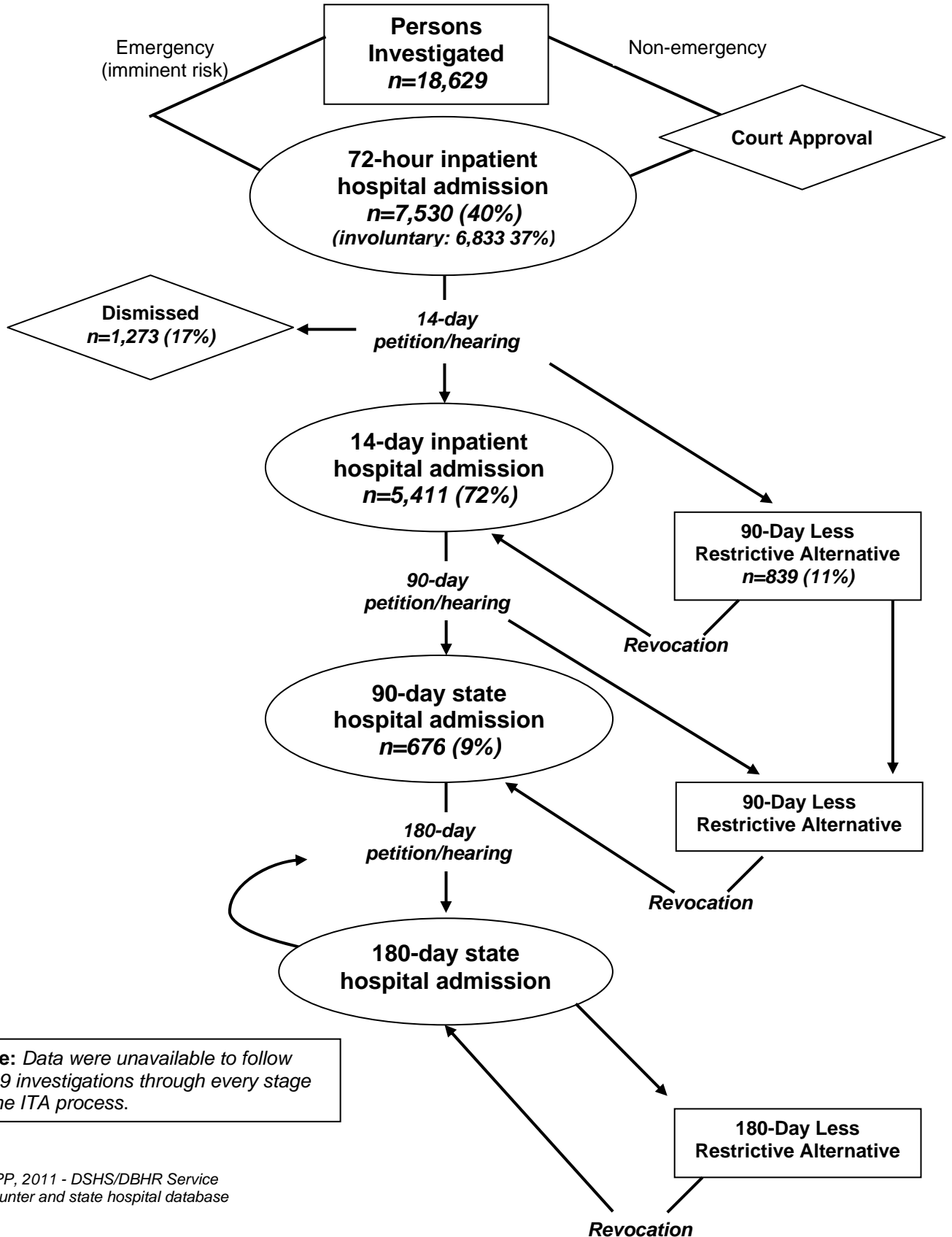
Details about the size, location, and utilization of these facilities will be discussed in greater depth later in this report. For the purpose of explaining the ITA process, it should be noted that individuals can be admitted to one of the above facilities for the initial (72-hour) hospitalization.<sup>25</sup> If a judge finds that the individual still meets the ITA criteria, the individual can be ordered to remain in inpatient treatment for an additional 14 days. Based on the data examined for 2009 investigations, we estimate that 72 percent of initial hospitalizations resulted in an extended (14-day) inpatient psychiatric commitment.

<sup>23</sup> Laws of 2010, ch. 37 § 204 (3) (e), ESSB 6444

<sup>24</sup> An additional 697 persons (4 percent) were referred to voluntary inpatient mental health services.

<sup>25</sup> In 2009, approximately 15 percent of initial 72-hour commitments in eastern Washington were sent to Eastern State Hospital. This percentage, however, will likely decrease with the opening of Foothills E&T in mid-2009.

**Exhibit 10**  
**Washington State Mental Health Commitment Process**  
**Persons With ITA Investigation (2009)**



**Note:** Data were unavailable to follow 2009 investigations through every stage in the ITA process.

Following a 14-day inpatient hospital stay (or least restrictive alternative), individuals who are still gravely disabled or a danger to themselves or others may be ordered for an extended 90-day commitment. These extended commitments generally take place at one of the two state hospitals that admit adult psychiatric patients. Western State Hospital (located in Steilacoom, Washington) and Eastern State Hospital (located in Medical Lake, Washington) have about 750 civil commitment beds available for patients who have been referred through the RSN system. As Exhibit 10 indicates, 9 percent of the initial ITA commitments that took place in 2009 ultimately resulted in a 90-day inpatient psychiatric stay at one of the state hospitals.

The best method to determine how changes in the ITA statute may impact hospital stays would be to model the decision-making process that occurs in each county court. The numbers of commitments at the county level are too small in some cases, however, to generate reliable estimates. As an alternative to this approach, we examined the commitment process that takes place within each state hospital catchment area. Western State Hospital provides evaluation and inpatient treatment for patients residing in 18 counties in western Washington, while Eastern State Hospital serves patients located in the remaining 21 counties. Exhibit 11 lists the counties in each service area.

**Exhibit 11**  
**Washington State Psychiatric Hospitals'**  
**County Service Areas**

State Hospital	Counties Primarily Served
<b>Eastern State Hospital</b>	Adams, Asotin, Benton, Chelan, Columbia, Douglas, Ferry, Franklin, Garfield, Grant, Kittitas, Klickitat, Lincoln, Okanogan, Pend Oreille, Skamania, Spokane, Stevens, Walla Walla, Whitman, Yakima
<b>Western State Hospital</b>	Clallam, Clark, Cowlitz, Grays Harbor, Island, Jefferson, King, Kitsap, Lewis, Mason, Pacific, Pierce, San Juan, Skagit, Snohomish, Thurston, Wahkiakum, Whatcom

For the reported 7,530 initial commitments that took place statewide in 2009, about three-quarters (5,774) occurred within the Western State Hospital catchment area. To determine the impact of these changes by region, we looked at the various ITA outcomes (described in the flowchart on the previous page) for both western and eastern Washington counties. Exhibit 12 (next page) shows these regional results.

As mentioned in the previous section, we estimate that the initial commitment rate could increase from 40 percent<sup>26</sup> to between 45 and 55 percent as a result of the ITA statute changes that will take effect in 2012. To analyze the effect of this statutory change, we based our estimates on the number of ITA investigations that took place in 2009. If the total number of ITA investigations changes, these estimates would need to be revised from the existing 2009 baseline.

<sup>26</sup> The base rate includes involuntary (37 percent) and voluntary (3 percent) commitments. Note that while the survey results indicated a 36 percent commitment rate, we will use the rate indicated from RSN data (shown in Exhibit 10).



We also assume that the only change resulting from this statute will be an increase in *initial* psychiatric hospitalizations resulting from ITA investigations. The rate of initial admissions that become 14- or 90-day commitments stays constant in our projections. Given these parameters, we estimate that there will be between 853 and 2,716 *additional* 72-hour ITA-related admissions (voluntary and involuntary) each year starting in 2012 (see Exhibit 12).

If these individuals require the same extended treatment services as previous patients, between 612 and 1,951 *additional* persons may remain hospitalized for a 14-day involuntary stay. Finally, 90-day involuntary commitments to state hospitals could increase by 122 to 388 persons each year as a result.

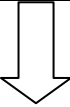
The estimates displayed in Exhibit 12 are meant to provide a range of the potential impact of upcoming changes to ITA criteria. Ultimately, the effect of these changes will depend on the practices of DMHP investigators throughout the state, the legal interpretation of each county court, and the ability of the state's inpatient hospitals to accommodate additional patients.

The remainder of this report examines the capacity of inpatient psychiatric hospitals in the state. After describing current capacity, we will analyze utilization trends and bed availability.

**Exhibit 12**  
**Additional Annual ITA Admission Estimates by State Hospital Catchment Area, Beginning 2010**

Region	Investigations	72-Hour Admissions	14-Day Admissions	90-Day Admissions
Eastern State	4,381	1,756	1,199	251
Western State	14,248	5,774	4,212	425
<b>State Total</b>	<b>18,629</b>	<b>7,530</b>	<b>5,411</b>	<b>676</b>



		<i>Additional</i> 72-Hour	<i>Additional</i> 14-Day	<i>Additional</i> 90-Day
Eastern State	<b>45 percent commitment rate</b>	215	147	31
Western State		638	465	91
<b>State Total</b>		853	612	122
Eastern State	<b>50 percent commitment rate</b>	435	297	62
Western State		1,350	985	193
<b>State Total</b>		1,785	1,282	255
Eastern State	<b>55 percent commitment rate</b>	654	446	93
Western State		2,062	1,505	295
<b>State Total</b>		2,716	1,951	388

WSIPP, 2011 - DSHS/DBHR Service Encounter and state hospital database



## Evaluation and Treatment Centers

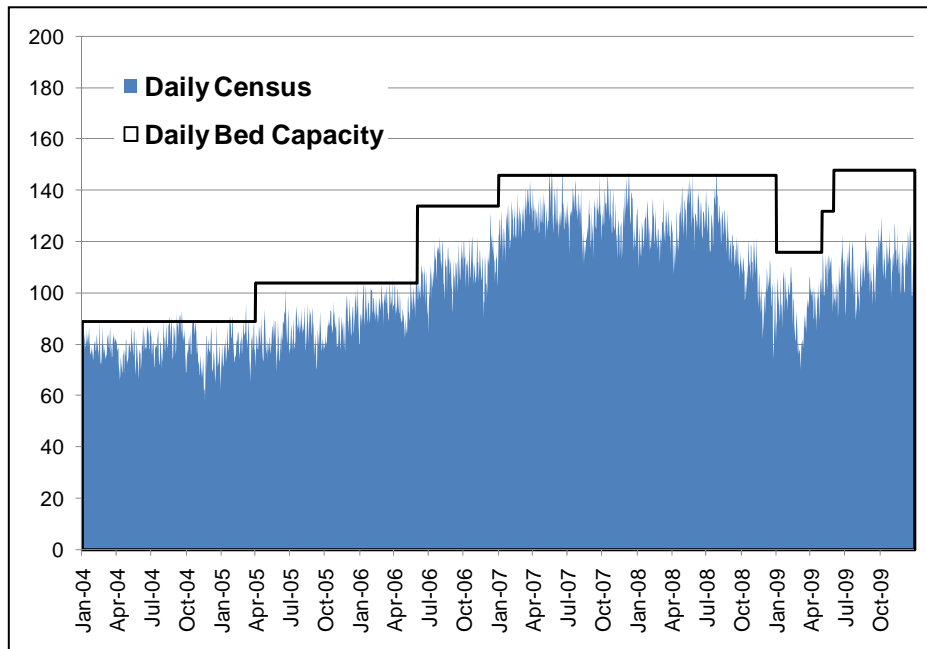
Evaluation and Treatment (E&T) centers are standalone inpatient psychiatric facilities designed to serve individuals who may be involuntarily committed because they pose an actual or imminent danger to self, others, or property as a result of mental illness. E&T centers are staffed by licensed psychiatrists, nurses, and other mental health professionals. In 2004, only four E&T centers were in operation in Washington State. Since that time, however, five additional E&T facilities have opened and are available to accept involuntarily admitted patients.

Exhibit 14 (next page) shows the nine Evaluation and Treatment centers that operated in Washington in 2009, the most recent year for which utilization data are available. Two new E&T facilities opened in Spokane and Yakima

Counties that year. The center in Yakima (Two Rivers Landing) was designed to serve youth only. In Pierce and Clark Counties, a private company (Telecare) assumed operation of E&T centers in 2009 and 2010. Finally, in late 2010, North Sound Mental Health Administration closed one of two Evaluation and Treatment centers operating in this region.

Since looking at average census numbers could mask some of the spikes in utilization that may occur throughout the year, we examined how the daily census at E&T centers compared to capacity over time (Exhibit 13). Tracking these peaks and valleys in admissions is important, because once E&T facilities are at or near capacity, alternative resources must be located to handle involuntary treatment admissions. The conclusion of this report discusses the role of this variability when considering what constitutes a sufficient number of available beds.

**Exhibit 13**  
**Statewide Daily Census and Capacity at Evaluation and Treatment Centers**



WSIPP, 2011  
DSHS/DBHR Service Encounter database

**Exhibit 14**  
**Washington State Evaluation and Treatment Centers: 2009 Utilization**

<b>E&amp;T Center (Provider)</b>	<b>City (RSN)</b>	<b>Opened</b>	<b>Beds</b>	<b>Average Daily Census</b>	<b>Admissions</b>	<b>Average Length of Stay (Days)</b>
Navos (West Seattle Psychiatric)	Seattle (King)	Jan 1984	34	28.0	867	12.0
Kitsap Mental Health Services <sup>a</sup>	Bremerton (Peninsula)	Jan 1986 Jan 1989	15 (adult) 10 (youth)	10.7 6.1	368 154	10.8 14.6
Snohomish (Compass Health)	Mukilteo (North Sound)	Jan 1992	15	13.9	346	14.6
North Sound (Compass Health) <sup>b</sup>	Sedro Woolley (North Sound)	Jan 1994	15	14.5	392	13.6
Thurston/Mason (Behavioral Health Resources)	Olympia (Thurston/Mason)	Apr 2005	15	13.5	453	10.6
Pierce County <sup>c</sup>	Tacoma (Pierce)	May 2006	30/16 <sup>c</sup>	15.8	386	14.4
Hotel Hope (Columbia River Mental Health) <sup>d</sup>	Vancouver (Southwest)	Dec 2006	12	7.7	358	7.8
Two Rivers Landing (Central Washington Comprehensive Mental Health) <sup>e</sup>	Yakima (Greater Columbia)	Apr 2009	16 (youth)	3.0	82	9.3
Foothills (Spokane Mental Health)	Spokane (Spokane)	May 2009	16	11.7	380	7.8
<b>Total</b>			<b>138 (adult) 26 (youth)</b>	<b>115.8 (adult) 9.1 (youth)</b>	<b>3,550 (adult) 236 (youth)</b>	<b>11.2 (adult) 12.7 (youth)</b>

<sup>a</sup> Adult inpatient unit includes 15 beds; youth inpatient unit includes 10 beds.

<sup>b</sup> Closed in November 2010.

<sup>c</sup> The 30-bed Pierce County E&T Center closed in early 2009. A 16-bed E&T facility (operated by Telecare) opened in October 2009. E&T admission data for 2009 were not available for Pierce County, so 2008 figures are included.

<sup>d</sup> In 2010, the 12-bed Clark County Telecare Evaluation and Treatment Center opened, following the closure of Hotel Hope.

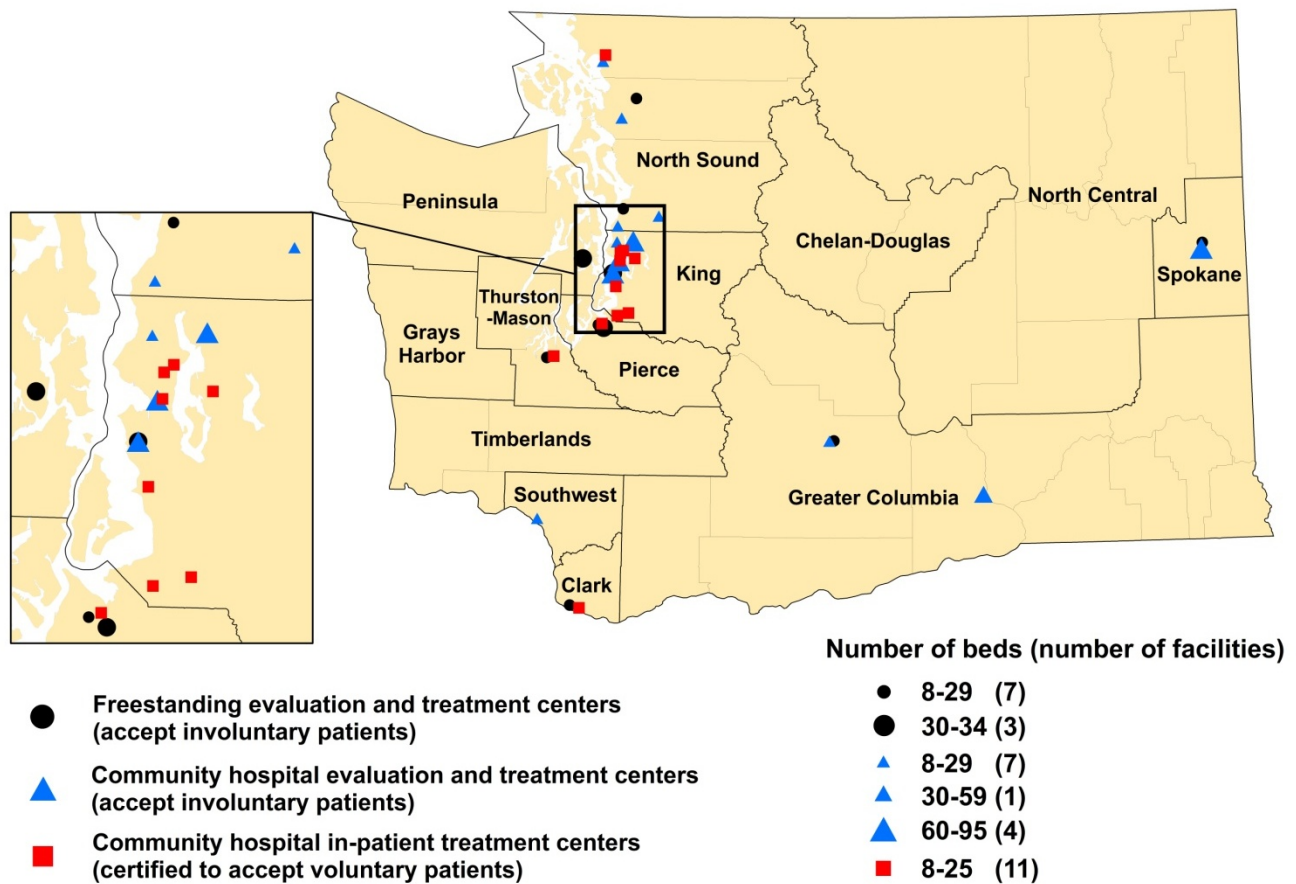
<sup>e</sup> Serves youth aged 11 to 17.

As Exhibits 13 and 14 demonstrate, available beds at Evaluation and Treatment centers have been frequently utilized for ITA commitments. Two new facilities that opened in mid-2009 in Spokane and Yakima increased the number of beds available statewide. The effect of these additions, however, will have the greatest impact in Eastern Washington. Since the utilization of inpatient psychiatric beds is a regional issue, estimates of necessary capacity should take local resources into account. The next subsection of this report discusses the availability and suitability of community hospital beds throughout the state.

## Community Hospitals

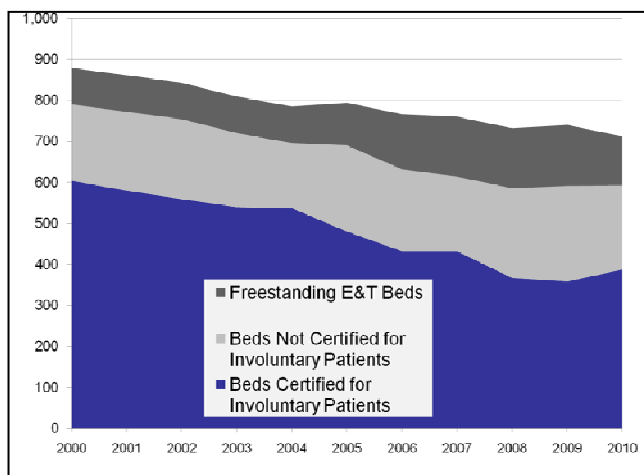
The community hospitals in Washington State can provide both medical and psychiatric care for patients with mental health needs. Specialized licensing and staffing, however, is necessary for hospitals that admit involuntary treatment patients. In 2009, 12 community hospitals were certified to accept ITA patients, while an additional 13 hospitals were certified to accept psychiatric patients on a voluntary basis only (Exhibit 15).

**Exhibit 15**  
**Washington State Inpatient Psychiatric Facilities by Regional Support Network, 2009**



For our analysis of community hospital utilization, we used data from the Department of Health’s Comprehensive Hospital Abstract Reporting System (CHARS). The CHARS database includes admission and discharge information from each of the 94 community hospitals in Washington State. While these data provide a wealth of information about hospitalizations in the state, they do not clarify whether or not the patient was admitted as a result of an ITA investigation.

**Exhibit 16**  
**Inpatient Psychiatric Provider Capacity**  
**2000–10**



WSIPP, 2011  
 Source: WSIPP analysis of Washington State Hospital Association (WSHA) publications

Between 2002 and 2009, the number of initial ITA commitments stayed relatively constant (see Exhibit 3). The number of inpatient psychiatric beds available to accommodate both public- and private-pay admissions, however, declined steadily during this period. In 2000, there were 790 staffed psychiatric beds in community hospitals and 604 of those beds were certified to accept ITA patients (Exhibit 16). In 2000, there were also 89 beds in freestanding Evaluation and Treatment centers for a total of 879 psychiatric beds statewide.

By 2009, hospitals reported 590 psychiatric beds with 356 of those beds certified for ITA admissions. While beds at freestanding E&T centers increased to 148, the number of beds overall decreased to 740. As mentioned previously, nearly half of ITA commitments involved a patient who had become gravely disabled. Many of these disabilities involved medical conditions that could only be treated at community hospitals, since E&T centers are not equipped to handle medical cases. Community hospitals are a necessary and highly utilized resource for ITA-related psychiatric admissions.

Exhibit 17 (next page) shows the utilization levels for community hospitals in Washington State with psychiatric units. In 2009, there were 9,137 admissions to hospitals that were certified to accept involuntary patients. On any given day, approximately 272 persons were in residence at one of these facilities. As mentioned previously, not all of these admissions involved an ITA investigation. However, if an E&T bed was not available, or the patient required medical care, an ITA commitment would most likely go to one of these hospitals that is certified and staffed for involuntary patients.

The other hospitals listed in Exhibit 17 have psychiatric units and beds available. These hospitals, however, are not certified to accept involuntary treatment patients. If a DMHP wanted to detain an individual, a “single-bed certification” (from the Department of Social and Health Services) would have to be obtained by the DMHP from one of these hospitals, which would permit the facility to accept an involuntary admission.

**Exhibit 17**  
**Washington State Community Hospitals With Inpatient Mental Health Units, 2009**

	City	Beds	Average Daily Census	Admissions	Average Length of Stay (Days)
<b>Hospitals Certified to Accept ITAs (12)</b>					
Fairfax Hospital <sup>a</sup>	Kirkland	26 (adult) 19 (youth)	22.6 14.1	927 546	8.9 9.4
Harborview Medical Center	Seattle	61	53.8	1,130	17.4
Lourdes Counseling Center <sup>b</sup>	Richland	18 (adult) 4 (youth)	13.7 2.1	574 65	8.7 11.7
Navos (West Seattle Psychiatric) <sup>c</sup>	Seattle	34	32.3	694	17.0
Northwest Hospital and Medical Center <sup>c</sup>	Seattle	27	25.0	601	15.2
St. John Medical Center	Longview	22	9.0	470	7.0
St. Joseph's Medical Center	Bellingham	10	7.2	269	9.8
Providence Sacred Heart Medical Center <sup>d</sup>	Spokane	46 (adult) 24 (youth)	34.6 16.2	1,582 405	8.0 14.6
Skagit Valley Memorial Hospital	Mt Vernon	15	7.8	482	5.9
Stevens Hospital	Edmonds	18	14.0	493	10.4
Valley General Hospital	Monroe	14	6.7	262	9.4
Yakima Valley Memorial Hospital	Yakima	18	13.1	637	7.5
<b>Total ITA Certified</b>		<b>309 (adult) 47 (youth)</b>	<b>239.8 32.4</b>	<b>8,121 1,016</b>	<b>10.8 11.6</b>
<b>Hospitals With Psychiatric Inpatient Beds, Non-ITA (13)</b>					
Auburn Regional Medical Center <sup>e</sup>	Auburn	25	21.1	624	12.4
Children's Hospital <sup>f</sup>	Seattle	20 (youth)	17.7	635	10.2
Fairfax Hospital <sup>a</sup>	Kirkland	50	29.5	1,273	8.4
Harrison Memorial Hospital <sup>g</sup>	Bremerton	12	1.5	122	4.7
Highline Community Hospital	Burien	20	15.8	419	13.8
Overlake Hospital Medical Center	Bellevue	11 (adult) 3 (youth)	10.4 1.2	951 107	4.0 4.2
St. Joseph's Medical Center	Bellingham	10	4.1	206	7.3
Providence St. Peter Hospital	Olympia	17	15.1	638	8.6
St. Francis Community Hospital	Federal	10	7.6	660	4.2
St. Joseph Medical Center	Tacoma	16	14.2	1027	5.1
Southwest Washington Medical Center	Vancouver	16	11.1	539	7.5
Swedish Medical Center	Seattle	10	8.6	419	7.5
University of Washington Medical Center	Seattle	14	11.5	527	8.0
<b>Total Non-ITA</b>		<b>211 (adult) 23 (youth)</b>	<b>150.5 18.9</b>	<b>7,405 742</b>	<b>7.6 9.2</b>

<sup>a</sup> Currently staffed for 95 psychiatric beds. Any of these beds can be used for ITA admissions. However, beds are allocated to ITA and non-ITA beds in this exhibit based on the most common configuration during this time period.

<sup>b</sup> Stopped taking youth ITA admissions in mid-2009.

<sup>c</sup> Operates 34 hospital ITA beds. An additional 34 are classified as E&T beds reserved for King County RSN patients.

<sup>d</sup> Geriatric beds for patients 60 years and older.

<sup>e</sup> Added 13 beds (38 total) in December 2009.

<sup>f</sup> Began accepting ITA patients in 2010.

<sup>g</sup> Closed in May 2009.

Of the hospitals that accept involuntary patients, Exhibit 17 shows that there were 309 adult beds available in 2009. And, on average, 240 adults occupied these beds each day with an average length of stay of about 11 days. Using average figures to determine what may constitute an adequate capacity level, however, may be problematic. More information is needed since many of these hospitals have different wards that can only accommodate certain types of patients.

Fairfax Hospital, for example, has 95 total beds available, and all of these beds are certified for ITA patients. These beds, however, are allocated to specialized wards. The child and adolescent ward has 19 beds and can only accept patients under age 18. Patients who require a higher level of supervision or seclusion would be admitted to the 34-bed acute care unit. Some facilities, such as Northwest Hospital and Medical Center also have specialized geriatric units and can only admit senior patients.

In addition to specialized units within these community hospitals, other considerations must be taken into account when admitting ITA patients. In rooms with multiple beds, for example, factors such as age, sex, and diagnosis are considered when making placement decisions. Also, for patients exhibiting violence, the proper setting and security measures must be in place to ensure the safety of other patients and staff. If these dedicated psychiatric beds are not available at the time of detention, a DMHP may have to locate an available bed that may not be staffed to handle the needs of ITA patients. This process, called single-bed certification, is discussed further in the next section.

## Single-Bed Certifications

Both Evaluation and Treatment facilities and community hospitals with the necessary certification can admit ITA patients. An exception to this requirement may be granted by DSHS through the *single-bed certification process*. To meet the criteria for this certification, the individual must:

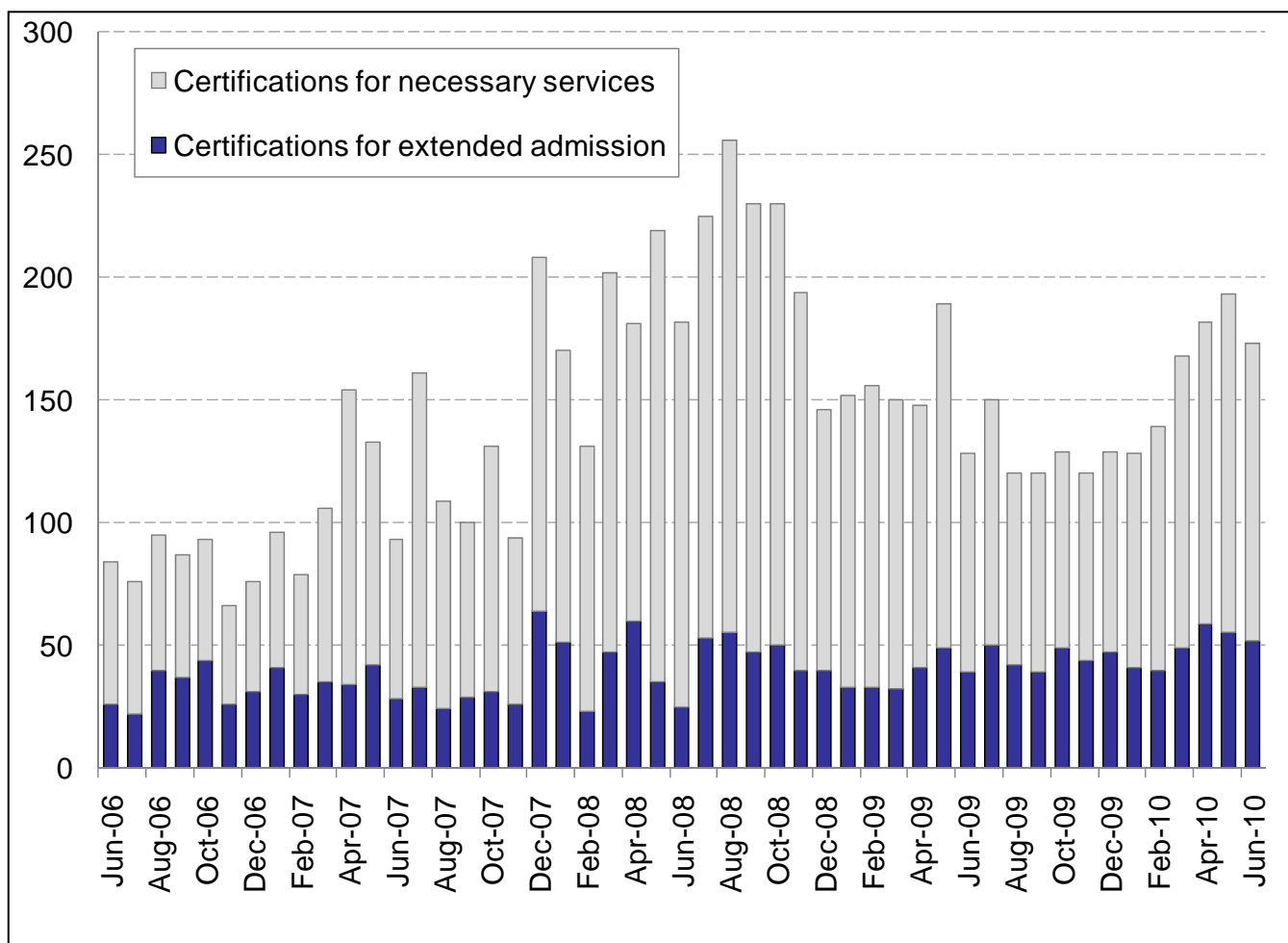
- 1) require services that are not available at a certified facility or a state psychiatric hospital; or
- 2) be ready for discharge from inpatient services within the next 30 days, and being at a community facility would facilitate continuity of care, consistent with treatment needs.<sup>27</sup>

About 50 certifications are issued each month that allow an ITA patient to remain admitted past the statutory time period (but not longer than 30 days). As Exhibit 18 shows, however, most of the single-bed certifications are given when necessary services are not available at certified institutions. This may occur for two reasons. First, a patient may have medical or other needs that cannot be met at some facilities (like E&T centers). Second, a lack of available bed space at a hospital certified for involuntary admissions may require a DMHP to seek a bed elsewhere.

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<sup>27</sup> WAC 388-865-0526

**Exhibit 18**  
**Single-Bed Certifications for ITA Admissions in Washington State**



WSIPP, 2011  
 WSIPP Analysis of data provided by DSHS Division of Behavioral Health and Recovery

After a decline from mid-2008 to mid-2009, the number of single-bed certifications began to increase starting in 2010 (see Exhibit 18). By the end of 2010, nearly 200 single bed certifications were issued every month. It should be noted that beds designated through the single-bed certification process may not be a comparable alternative to beds located in a licensed facility. Many of these admissions are to hospital emergency departments or facilities without resources to meet all the treatment needs of an ITA patient.

A follow-up to this report (to be completed in 2011) will look at the relationship between ITA commitments and the utilization of other facilities such as emergency departments, correctional facilities, and state psychiatric hospitals. The final section to this report looks at existing treatment capacity and analyzes how many ITA beds may be necessary to meet increases in initial commitments that may result from statutory revisions.

### Section III: Bed Capacity Necessary to Accommodate Future ITA Commitments

In order to determine how an existing system, such as a hospital, can accommodate an inflow of patients, three pieces of information are necessary. First, *the arrival process*, or in this case, admission rate provides the frequency by which patients enter the system. Second, *the service process*, or length of stay, gives the overall time that patients stay in the system. And finally, the *number of servers*, or beds, sets the capacity constraint for how many patients can be served at a given time.

The interaction of these three variables is explained with mathematical formulas developed in queuing models. In a variety of fields, queuing theory is used to study measures such as waiting time, expected number receiving services, and the likelihood of finding a system empty or full. In the hospital setting, the realistic capacity of the system to handle patients may differ from the actual capacity. Since the number of patients entering the system is not predictable or constant, the hospital must anticipate that demand will fluctuate over time. Given this variability, occupancy rates are best described in terms of the probability that the hospital will have a given number of patients in residence at any given time.<sup>28</sup>

To analyze the ability of the inpatient psychiatric system to handle additional patients, we followed these steps:

- 1) Developed a queuing model based on the actual admission rate and length of stay that occurred in freestanding E&T centers during 2009.<sup>29</sup> This model allows us to evaluate how many beds would be needed to maintain a certain occupancy level with an increased admission rate.
- 2) Refined the models to assess the occupancy levels by region (western and eastern Washington) and age.

We developed one model for western Washington and another for eastern Washington (see Exhibit 11) to assess the adequacy of bed space in each of these regions.

- 3) Determined how many commitments were not sent to an E&T center. Community inpatient psychiatric beds are the only remaining *certified* alternative for ITA-related admissions. Therefore, we ran the same queuing model based on the admission rate and length of stay observed for community hospital patients (see Exhibit 17).

Two of the E&T facilities in the state are designated solely for children. E&T admissions for youth (aged 12 to 17) represent a relatively small (7 percent) portion of total entries. We found that the existing capacity for youth beds was sufficient to handle projected increases in admissions, so these models are not presented here.

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<sup>28</sup> M. L. McManus, M. C. Long, A. Cooper, & E. Litvak. (2004, January 01). Queuing theory accurately models the need for critical care resources. *Anesthesiology*, 100(5), 1271.

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<sup>29</sup> To develop this model, we utilized the Queuing Toolpak Excel Add-In: <http://apps.business.ualberta.ca/aingolfsson/qtp/>



## Adequacy of E&T Bed Space

Exhibits 19 and 20 show how increasing admissions at E&Ts in each region would impact occupancy rates. In 2009, there were 106 adult beds in E&T facilities located throughout western Washington.<sup>30</sup> Given the most recent information about admission rates and length of stay, we calculate that E&T centers in western Washington operated at an occupancy rate of **83 percent** during 2009.

Determining the optimal occupancy rate or adequate number of beds for hospitals remains a trade-off. If occupancy levels are too high, there will not be enough beds to meet demand. And, if the occupancy rate remains low, the unused beds result in an additional cost to the system that is not efficient. An 85 percent occupancy rate has been set as a common target for *large* hospitals. Some specialized units or smaller hospitals with less flexibility, however, may require a lower occupancy target. Maternity wards, for example, have a recommended target occupancy level of 75 percent.<sup>31</sup>

Inpatient psychiatric facilities in this state, however, do not operate in isolation. If a bed is not available at one facility, an admission can be sought at an alternative hospital or E&T center. Therefore, for the purpose of this analysis, we investigated how many beds would be necessary to achieve an occupancy level of 75 percent and maintain the current maximum occupancy level (83 percent).

For E&T facilities within western Washington, there were 2,776 adult admissions in 2009 (voluntary and involuntary), or 7.61 entries per day. These patients stayed 11.6 days, on average, yielding an occupancy rate of 83 percent ( $[11.6 \times 7.61] / 106$  beds). If the ITA admission rate increased to 45 percent of investigations, an additional 23 beds would be necessary to maintain the present occupancy level. If the ITA admission rate grew to 55 percent, 52 additional beds would be required.

To achieve an occupancy rate of 75 percent for freestanding E&T centers, a total of 117 beds (11 additional) would have been necessary in 2009. If initial admissions increase to between 45 and 55 percent of all investigations, 38 to 70 additional beds would be necessary to stay at 75 percent occupancy.

The E&T facility in eastern Washington had a much lower occupancy level in 2009. Based on the average length of stay (7.8 days) and admission rate (1.4 per day) at the eastern Washington E&T, the current (2009) occupancy rate was calculated at 70 percent. This lower occupancy rate may be attributed to the recent startup in 2009 of two E&T centers in eastern Washington (see Exhibit 14). If the occupancy level were allowed to increase to the higher rate (83 percent), only two additional beds in eastern Washington may be needed to handle the rise in admissions.

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<sup>30</sup> Admissions for Pierce County were not available in 2009, so these beds are excluded from calculations.

<sup>31</sup> L. V. Green. (2002). How many hospital beds? *Inquiry*, 39(4), 400–412.

**Exhibit 19**

**Treatment Capacity Targets for Adult Evaluation and Treatment Beds—Western Washington**

	Base Rate	New Commitment Rate		
		45 Percent	50 Percent	55 Percent
Commitments to E&T Facilities	<b>2,776</b>	3,376	3,751	4,126
Admission Rate (per day)	7.61	9.25	10.28	11.31
Length of Stay (days)	11.6	11.6	11.6	11.6
<b>Bed capacity necessary for occupancy level of 75 percent</b>	<b>117</b>	<b>144</b>	<b>160</b>	<b>176</b>
<b>Additional beds...</b>	<b>11</b>	<b>38</b>	<b>54</b>	<b>70</b>
<b>Bed capacity to maintain current occupancy level (83 percent)</b>	<b>106</b>	<b>129</b>	<b>144</b>	<b>158</b>
<b>Additional beds...</b>		<b>23</b>	<b>38</b>	<b>52</b>

**Exhibit 20**

**Treatment Capacity Targets for Adult Evaluation and Treatment Beds—Eastern Washington**

	Base Rate	New Commitment Rate		
		45 Percent	50 Percent	55 Percent
Commitments to E&T Facilities*	<b>521</b>	670	744	819
Admission Rate (per day)	1.43	1.84	2.04	2.24
Length of Stay (days)	7.8	7.8	7.8	7.8
<b>Bed capacity necessary for occupancy level of 75 percent</b>	<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>
<b>Additional beds...</b>		<b>2</b>	<b>4</b>	<b>6</b>
<b>Bed capacity at 83 percent occupancy level</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>18</b>
<b>Additional beds...</b>		<b>0</b>	<b>0</b>	<b>2</b>

\*Annualized

Note: 2009 commitments shown do not include 273 commitments for youth (age 12 to 17).

## Adequacy of Community Hospital Bed Space

As discussed earlier, community hospitals in Washington State are not required to report the legal status of admitted patients. In 2009, there were **309 adult psychiatric beds** available at community hospitals licensed to accept ITA patients (see Exhibit 17). These beds were utilized by **8,121 adults** in 2009, including both voluntary and involuntary patients. For the purpose of this analysis, we estimate that **3,937 (48 percent) of these patients** were admitted following an ITA investigation.

This estimate is derived by subtracting the 3,297 (2,776 + 521) adult E&T admissions (shown on previous page) from the 7,530 initial ITA admissions reported in 2009. This result (4,233) is multiplied by 93 percent (total percentage of adult commitments to all ages) for the estimated involuntary total—3,937.

If the commitment rate for ITA investigations increases to 45 percent, we estimate that *involuntary* psychiatric inpatient hospital admissions would increase to 4,429. These additional 492 patients would increase *total* psychiatric admissions to 8,613 adults per year (voluntary and involuntary).

Based on admission rates and lengths of stay for adult psychiatric patients in these hospitals, the occupancy rate in 2009 was 78 percent. In order to maintain this occupancy level, given projected increases in commitments, an additional 19 to 114 beds would be needed (Exhibit 21). It should be noted that more psychiatric beds are currently available in community hospitals. Only 309 of these beds, however, are currently certified for ITA patients.

**Exhibit 21**  
**Treatment Capacity for Adult Community Hospital Psychiatric Beds**

	Base Rate	New Commitment Rate		
		45 Percent	50 Percent	55 Percent
Total Inpatient Psychiatric Admissions (Voluntary and Involuntary)	8,121	8,613	9,597	11,074
Estimated ITA-related Admissions	3,937	4,429	4,921	5,413
Total Admission Rate (per day)	22.25	23.60	26.29	30.34
Length of Stay (days)	10.8	10.8	10.8	10.8
<b>Bed capacity to maintain current occupancy level (78 percent)</b>	309	328	366	423
<b>Additional beds...</b>		<b>19</b>	<b>57</b>	<b>114</b>

## Conclusion

While these new statutory criteria for ITA investigations do not take effect until 2012, the potential increase in commitments will have an impact on the state's inpatient treatment capacity. Based on a survey of DMHP investigators who reviewed actual ITA cases, we estimate that the current commitment rate (40 percent) could increase as a result of these statutory changes. If between 45 and 55 percent of all ITA investigations resulted in an initial commitment, additional psychiatric bed capacity would be required for newly admitted patients.

Exhibit 22 summarizes the results of the analysis presented in this paper. If the ITA-related admission rate increases from the current level of 40 percent to 45 percent of all investigations (low estimate), we would anticipate 853 new psychiatric admissions each year. This number of new patients would require 42 additional inpatient beds in either freestanding Evaluation and Treatment centers or psychiatric units of community hospitals.

If the commitment rate increases to 55 percent (high estimate), an additional 2,716 admissions may occur each year and an additional 168 beds would be necessary. These capacity estimates are based on anticipated requirements for 72-hour and 14-day hospital admissions. Based on previous trends, approximately 14 percent of these new commitments will have an extended, 90-day commitment to a state psychiatric hospital. This translates into between 122 and 388 new 90-day commitments each year, requiring between 6 and 25 new beds.

These estimates provide a reasonable assessment of the resources necessary to adequately accommodate admissions for ITA-related admissions. Estimates like the one presented in this report could be improved with better data on ITA investigations, detail on single-bed certifications, and legal status at admission to community hospitals. This report serves as a starting point to discuss inpatient psychiatric treatment trends in the state. Future research planned by the Institute will look at the impact of ITA admissions on other community resources as well.

**Exhibit 22**  
**Summary of Additional ITA-Related Admissions and Beds Required**

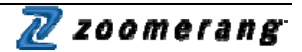
Projected increases resulting from changes to ITA statute	Low Estimate	High Estimate
<b>Community Hospital and Freestanding Evaluation and Treatment Centers</b>		
Number of new inpatient psychiatric admissions <sup>1</sup>	853	2,716
Number of new inpatient psychiatric beds required <sup>2</sup>	42	168
<b>State Psychiatric Hospitals</b>		
Number of new 90 day psychiatric admissions <sup>1</sup>	122	388
Number of additional state hospital beds required <sup>3</sup>	6	25

<sup>1</sup> See page 16 for admission estimates

<sup>2</sup> Assumes 83 percent occupancy level

<sup>3</sup> Bed estimate for state hospitals (90-day admissions) is derived by multiplying the number of new inpatient (hospital and E&T) beds required by 14 percent (ratio of new 90-day admissions to new 72-hour admissions).

# APPENDIX: DMHP CASE REVIEW SURVEY



## Designated Mental Health Professional (DMHP) Investigation Case Review Survey

Page 1 - Heading

Thank you for your assistance with the DMHP case review survey. This survey will provide the Washington State Legislature with information about the impact of changes to ITA laws.

For each investigation completed between November 7th (12am) and November 13th (11:59 pm), please answer the following questions:

Page 1 - Question 1 - Choice - One Answer (Drop Down)

[Mandatory]

County

- Adams
- Asotin
- Benton
- Chelan
- Clallam
- Clark
- Columbia
- Cowlitz
- Douglas
- Ferry
- Franklin
- Garfield
- Grant
- Grays Harbor
- Island
- Jefferson
- King
- Kitsap
- Kittitas
- Klickitat
- Lewis
- Mason
- Okanogan
- Pacific
- Pend Oreille
- Pierce
- San Juan
- Skagit
- Skamania
- Snohomish

- Spokane
- Stevens
- Thurston
- Wahkiakum
- Walla Walla
- Whatcom
- Whitman
- Yakima

Page 1 - Question 2 - Choice - One Answer (Drop Down)

[Mandatory]

Investigation Date

- November 7
- November 8
- November 9
- November 10
- November 11
- November 12
- November 13

Page 1 - Question 3 - Choice - One Answer (Drop Down)

[Mandatory]

Investigation Time

- 12:00 AM to...
- 11:30 PM

Page 1 - Question 4 - Yes or No

Were you able to access the criminal history of this individual?

- Yes
  - No
  - If yes, indicate source
- 

Page 1 - Question 5 - Yes or No

Were you able to access information about previous ITA investigations or commitments for this individual?

- Yes
- No

Page 1 - Question 6 - Yes or No

[Mandatory]

Did this investigation result in a hospital admission or detention?

- Yes [Skip to 2]
- No [Skip to 3]

Page 2 - Question 7 - Rating Scale - One Answer (Horizontal)

Type of admission:

- Involuntary
- Voluntary

Page 2 - Question 8 - Choice - Multiple Answers (Bullets)

Where was the subject detained or admitted?

- Community Hospital
- Freestanding E&T
- State Hospital
- Boarded/Temporary Placement (include location)

Page 2 - Question 9 - Choice - Multiple Answers (Bullets)

[Mandatory]

Grounds for detention

- Danger to self
- Danger to others
- Danger to property
- Grave disability (health and safety or loss of cognitive volitional control)
- N/A (voluntary admission)

Unconditional Skip to End

Page 3 - Heading

New detention criteria under the involuntary treatment act (RCW 71.05) will take effect in 2012. In the future, new evidence can be factored into the detention decision.

Please indicate if any of the following pieces of information were present in the case:

Page 3 - Question 10 - Yes or No

Symptoms or behavior were similar to past behaviors that led to violent acts or deterioration

- Yes
- No

Page 3 - Question 11 - Yes or No

Symptoms or behavior represented a substantial change from usual behavior, and treatment appeared necessary

- Yes
- No

Page 3 - Question 12 - Yes or No

The subject had a history of one or more violent acts (within the last three years)

- Yes
- No

Page 3 - Question 13 - Yes or No

The subject had previously been found incompetent or insane under RCW 10.77

- Yes
- No

Page 3 - Question 14 - Yes or No

Credible witnesses (i.e. friends, neighbors, landlords) were involved with this investigation and appeared to have substantial interest and knowledge about the subject's situation

- Yes
- No

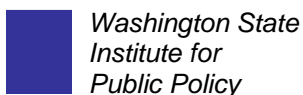
Page 3 - Question 15 - Choice - One Answer (Bullets)

If any of the above factors were present, would you have decided to detain this person if permitted by law and there were not viable less restrictive alternatives to inpatient psychiatric treatment?

- Yes
- No
- Please explain if necessary

For further information, contact Mason Burley at  
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