

December 2016

Crisis Mental Health Services and Inpatient Psychiatric Care: *Capacity, Utilization, and Outcomes for Washington Adults*

Washington State offers a range of services for individuals experiencing mental health-related emergencies. Professional staff at community mental health agencies provide short-term crisis assessment, stabilization, and referrals in a variety of settings. In 2015, nearly 38,000 persons received crisis mental health services in Washington State, at an annual cost of \$68 million.

In 2014, the Washington State Legislature directed the Washington State Institute for Public Policy (WSIPP) to “complete a comprehensive assessment of the utilization and capacity needs of (public) crisis mental health services” and to conduct “a longitudinal study of outcomes and public costs for adults receiving . . . crisis response services.”¹ The study direction appears on the next page. This report includes three sections:

- 1) **Background & Service Reach**—crisis mental health funding, service use, and description of clients served,
- 2) **Treatment Facilities**—regional detail on crisis stabilization/triage and inpatient psychiatric treatment beds, and
- 3) **Client Characteristics & Outcomes**—emergency department, hospital, jail and mortality outcomes for adults receiving crisis and commitment services.

Summary

In 2015, nearly 38,000 individuals received crisis mental health services in Washington State, at an annual cost of \$68 million. These community-based services help assess, stabilize, and treat persons experiencing a psychological crisis or emergency.

This legislatively directed study examines characteristics and outcomes for Washington adults with a crisis mental health encounter or involuntary inpatient treatment admission, finding that:

- One-third of all crisis encounters result in an investigation for a possible involuntary commitment.
- Half of all adults with crisis encounters had a previous crisis encounter, jail booking, or both in the last three years.
- In the 12 months following a crisis encounter, nearly half of these adults visited the emergency department and over 10% had a psychiatric hospital admission.

This report also summarizes capacity and utilization information for crisis mental health centers and inpatient psychiatric treatment facilities in Washington. This update shows that between 2011 and 2016 the number of psychiatric treatment beds increased by over 52% (from 632 to 962).

Suggested citation: Burley, M. (2016). *Crisis mental health services and inpatient psychiatric care: Capacity, utilization, and outcomes for Washington adults* (Document Number 16-12-4101). Olympia: Washington State Institute for Public Policy.

¹ Engrossed Substitute Senate Bill 6002, Chapter 221, Laws of 2014.

I. Background & Service Reach

Legislative Direction[#]

[The] Washington state institute for public policy [will] complete a comprehensive assessment of the utilization and capacity needs of crisis mental health services provided by the Department of Social and Health Services. The study shall include, but not be limited to an update to statewide utilization and capacity figures for evaluation and treatment facilities, inpatient psychiatric beds, and regional support network-funded crisis facilities, including an estimate of the effect of the implementation of chapter 280, Laws of 2010 and chapter 335, Laws of 2013 on the capacity of the involuntary commitment system.

a) A longitudinal study of outcomes and public costs for adults receiving regional support network-funded crisis response services compared to adults evaluated for involuntary commitment who are not subsequently committed, and adults who receive a seventy-two hour involuntary commitment. Outcomes may include subsequent jail bookings or convictions, use of publicly funded medical care, and deaths; and

b) A review of practices in other states regarding third-party initiation of a civil commitment petition, and an assessment of the comparative effectiveness of this change compared to other alternative practices for which comprehensive studies are available.

[#]Engrossed Substitute Senate Bill 6002, Chapter 221, Laws of 2014.

Previously published WSIPP reports reviewed state civil commitment practices and compared psychiatric treatment capacity in Washington to other states. See Burley, M., & Scott, A. (2015). *Inpatient psychiatric capacity and utilization in Washington State* (Doc. No. 15-01-4102) and Burley, M., & Morris, M. (2015). *Involuntary civil commitments: Common questions and a review of state practices* (Doc No. 15-07-3401). Olympia: Washington State Institute for Public Policy.

Crisis mental health services in Washington State are provided at no cost to individual clients and are funded by legislatively-directed state funds and Medicaid program dollars (with joint state-federal funding).² In state fiscal year 2015, nearly half (48%) of total funding for crisis mental health services came from non-Medicaid funds.

In Washington, public mental health services are organized within 11 different administrative regions, formerly called Regional Support Networks (RSNs).³ Each region contracts with various mental health agencies to provide crisis mental health services throughout the community. Exhibit 1 (next page) shows annual costs and the number of individuals served by crisis providers in each region.

A 24-hour dedicated crisis hotline is available in every county for persons experiencing a mental health-related crisis.⁴ In serious cases, hotline staff may arrange for in-person follow up by crisis outreach professionals. Persons experiencing a psychiatric emergency may also be referred to a crisis stabilization facility for treatment assistance.

² Individuals are responsible for treatment costs following an involuntary detention—see RCW 71.05.100.

³ In April 2016, ten newly formed Behavioral Health Organizations (BHO) began operating in Washington State, replacing the previous Regional Support Network (RSN) system. BHOs were established by state law to administer local contracts for both mental health and substance use disorder services (2014 E2SSB 6312). For more information, see <http://www.hca.wa.gov/hw/Documents/bhofactsheet.pdf>. For purposes of this report, results are reported by RSN, since this was the administrative structure in place during the study period. Southwest Washington adopted the Fully Integrated Medical Care structure in April 2016.

⁴ WAC 388-877A-0230.

Exhibit 1

Washington State 2015 in-Person Crisis Mental Health Services, by Region

Regional support network	Persons served	Crisis expenditures	
		Medicaid	Non-Medicaid
Chelan Douglas	964	\$1,088,722	\$733,447
Grays Harbor	843	\$964,495	\$161,149
Greater Columbia	6,185	\$7,560,880	\$4,415,191
King	6,847	\$2,590,640	\$10,011,306
North Sound	4,684	\$5,068,160	\$5,468,779
Peninsula	2,660	\$1,788,277	\$702,465
Optum (Pierce)	3,518	\$6,939,617	\$2,699,515
Southwest WA (BHO)	1,525	\$3,107,561	\$1,544,392
Spokane	7,880	\$4,746,153	\$5,019,156
Thurston/Mason	1,486	\$1,428,601	\$1,845,833
Timberlands	973	\$473,762	\$245,363
State total	37,565	\$35,756,867	\$32,846,596

Source: DSHS/DBHR MHD-CIS and Annual Revenue and Expenditure reports for State Fiscal Year 2015 (July 2014-June 2015).

Notes:

Expenditures include all costs (for children and adults) related to involuntary treatment act (ITA) commitments and Crisis Mental Health Services. See https://www.dshs.wa.gov/sites/default/files/BHSIA/dbh/Providers/BHO_Fiscal_Program_Requirements_RE%20Instructions.pdf for definitions.

Persons served exclude crisis hotline and clients with 15 minutes or less of annual service. Non-Medicaid expenditures may include general fund-state revenue (Behavioral Health Organization or BHO contract) as well as local match (millage) or designated sales tax dollars (RCW 82.14.460) transferred to the Department of Social and Health Services (DSHS). Summary does not include local expenditures for crisis mental health services that are not part of an inter-governmental transfer.

Exhibit 2 (next page) lists the primary agencies providing contracted specialty crisis mental health services in each region. These services must be available on a 24-hour basis and offered to all individuals, regardless of ability to pay. Crisis interventions may occur in the community—home, school, and community mental health offices; institutions—jail or detention facilities; and emergency departments or hospitals.

Crisis response specialists assess and de-escalate mental health emergencies, provide appropriate referrals to treatment and support services, and develop plans to prevent future crisis situations. These specialists include certified Designated Mental Health Professionals (DMHPs), who have authority to investigate and detain persons with mental illness that refuse treatment and pose an imminent danger to themselves or others.

Exhibit 2

In-Person Crisis Mental Health Services and Involuntary Treatment Act (ITA) Evaluations by RSN & Providing Agency, 2015

Region	Providing agency	Adults served
Chelan/Douglas	Catholic Family & Child Services	758
Grays Harbor	Columbia Wellness Crisis Services	619
	Behavioral Health Resources	572
Greater Columbia	Central WA Comprehensive Mental Health	2,401
	Benton/Franklin Crisis Response Services [#]	1,456
	Central Washington Comprehensive Mental Health—Walla Walla	467
King	King County Crisis and Commitment Services	5,880
	Downtown Emergency Center	1,264
North Sound	Compass Health	2,436
	Snohomish County Human Services Department	1,565
Peninsula	Kitsap Mental Health	1,228
	Peninsula Community Mental Health	709
Pierce	Multicare Behavioral Health	2,916
	Recovery Innovations, Inc.	1,332
Southwest Behavioral Health	Clark County Crisis Services	768
	Columbia Wellness Crisis Services	404
Spokane	Frontier Behavioral Health Crisis Response	4,032
	Grant Mental HealthCare	570
	Okanogan Behavioral HealthCare and Medical Clinic	450
Thurston/Mason	Behavioral Health Resources	1,341
Timberlands	Cascade Mental HealthCare	665

Notes:

Table lists largest providers of crisis mental health services in each region. Agencies providing services in low-population counties have not been included.

[#]In 2016, Lourdes Health began providing crisis mental health services in Benton and Franklin counties.

Crisis encounters may include a brief intervention to help stabilize the individual, or the individual may be referred for a short-term (up to two-week) residential stay at a crisis respite or diversion facility. Crisis facilities are staffed by trained mental health professionals and may also include peer counselors, chemical dependency specialists, and nursing staff. The stabilization services

may include detoxification services, medication monitoring/management, life skills training, and coordination with other treatment or care providers. More information about the type and location of crisis facilities is provided in the next section.

II. Treatment Facilities

In certain cases, a crisis response encounter may require an extended period to assess, stabilize, and treat the individual at risk. Three types of residential treatment facilities in Washington State are licensed to provide supervised, short-term crisis response and psychiatric treatment:

- 1) Crisis mental health facilities,
- 2) Freestanding evaluation and treatment centers, and
- 3) Community hospitals.

The function and purpose for each of these facilities is described in this section.

1) Crisis Mental Health Facilities

Crisis mental health centers offer staffed assistance to help individuals recover from a mental health crisis and avoid hospitalization. The facilities vary by level of restriction and type of care available:

- a) *Crisis respite centers* are residential treatment facilities that provide supervised care from licensed mental health professionals to individuals on a *voluntary* basis. Supportive counseling, education, life skills training, and medication management services are designed to divert hospital admissions and link the individual to ongoing outpatient treatment.

- b) *Crisis triage facilities* are also short-term residential treatment facilities meant to assess and stabilize persons following a mental health crisis.⁵ A triage facility, however, may be structured as a *voluntary* or *involuntary* placement facility.⁶ A law enforcement officer may take an individual into custody and transport them to an involuntary triage facility. The individual must be assessed by a mental health professional within three hours of arrival and evaluated by a DMHP investigator within 12 hours for a possible involuntary detention. There are three voluntary and one involuntary crisis triage facilities licensed in Washington.

- c) *Crisis stabilization units (CSU)* are secure, locked facilities, established in 2008, for the purpose of accepting *involuntary* crisis mental health patients.⁷ Like involuntary triage facilities, patients at a CSU may be held for up to 12 hours while awaiting a mental health assessment. CSUs, however, maintain a lower staff-to-patient ratio than triage facilities and also provide 24-hour nursing care for patients. There is currently one licensed CSU located in Pierce County that operates four secure beds.

Unfortunately, records provided by RSNs do not include detail about admissions to crisis mental health facilities. However, [Exhibit 3](#) (next page) does list the number of beds available in licensed crisis mental health centers throughout Washington.

⁵ RCW 71.24.035.

⁶ WAC 388-865-0800.

⁷ WAC 388-865-0750.

Exhibit 3

Washington State Adult Crisis Mental Health Licensed Facilities by Region & License/Certification Type

Region	Facility/program name	License type	Funding agency	Beds	City
Greater Columbia	Transitions Triage Center	CTF–involuntary	Lourdes Counseling Center	16	Richland
	Crisis Triage Center/ Sub-Acute Detox	CTF–voluntary	Comprehensive Healthcare	16	Yakima
Grays Harbor	Crisis Clinic	CR	Behavioral Health Resources	10	Hoquiam
Timberlands	CMHC Hospital Diversion House	CR	Cascade Mental Health	5	Centralia
King	Crisis Diversion Facility (acute respite)	CR	Downtown Emergency Services Center	16	Seattle
	Crisis Diversion Interim Services (CDIS)	CR	Downtown Emergency Services Center	30	
North Sound	Skagit County Crisis Center	CR	Pioneer Human Services	5.5	Burlington
	Snohomish County Triage Center	CTF–voluntary	Compass Health	16	Everett
	Whatcom County Crisis Triage	CR	Compass Health	5	Bellingham
Optum Pierce	Recovery Response Center Crisis Stabilization Unit	CSU	Recovery Innovations	16 (4 secure, 12 voluntary)	Fife
Peninsula	Clallam County Respite Center	CR	Peninsula Behavioral Health	6	Port Angeles
Spokane	Calispel Stabilization Unit	CTF–voluntary	Frontier Behavioral Health	16	Spokane
Southwest Washington	Elahan Place	CR	Columbia River Mental Health Services	5	Vancouver
	Lower Columbia Crisis Beds	CR	Columbia Wellness	5	Longview
Thurston/Mason	Thurston County Triage and Crisis Stabilization Unit	CR	Behavioral Health Resources	10	Olympia

Notes:

* CR=Crisis respite; CSU=Crisis stabilization unit; CTF=Crisis triage facility (agency-provided facility name may not reflect licensing type).
A new 16-bed crisis triage facility is planned to open in Walla Walla in early 2018.

2) Freestanding Evaluation and Treatment Centers

Persons requiring psychiatric inpatient treatment and care may be admitted to one of two types of facilities: 1) freestanding evaluation and treatment (E&T) facilities or 2) psychiatric units within a community hospital. Freestanding E&T facilities are licensed solely for mental health treatment and cannot provide acute medical care. These facilities are also limited to 16 beds based on federal regulations that prohibit Medicaid reimbursement to larger institutions—known as the institutions of mental disease—(IMD) exclusion.

A freestanding E&T may also admit involuntary patients on a 72-hour hold or court-ordered 14-day commitment. Patients may be admitted voluntarily as well.

In 2015, 5,106 (voluntary and involuntary) adult patients stayed for an average of 14 days at one of the 13 freestanding E&T centers throughout the state. There were 219 adult treatment beds available, and these beds were utilized frequently, with an average daily census of 195. Many counties only have one E&T facility (or none at all); Pierce County had four operational E&T facilities in 2015, while Spokane and Skagit counties each had two operational facilities.

Exhibit 4

Washington State Freestanding Evaluation and Treatment (E&T) Adult Bed Capacity and Utilization—2015

Facility name	City	Certified beds	Average daily census	Annual admissions	Average length of stay (days)
Bridges (Comprehensive Healthcare)	Yakima	16	14.4	407	10.4
Clark County Evaluation and Treatment Center (Telecare)	Vancouver	11	8.3	261	11.8
Greater Lakes Recovery Center (GHMC)	Parkland	16	15.5	336	17.1
Foothills (Frontier Behavioral Health) Calispel (Frontier Behavioral Health)	Spokane	16	30.0	1,290	8.6
Kitsap Mental Health Services—adult	Bremerton	15	14.7	369	14.7
MDC Evaluation and Treatment Center	Tacoma	16	12.6	210	18.9
Navos Inpatient Services	Seattle	34	31.6	755	15.5
North Sound E&T (Telecare)	Sedro Wooley	16	13.7	298	16.7
Recovery Pathways (Recovery Innovations)	Lakewood	16	13.4	231	21.77
Snohomish County E&T (Compass Health)	Mukilteo	16	13.7	298	16.7
Telecare Recovery Partnership (Telecare)	Lakewood	16	15.6	271	22.0
Thurston County E&T Center (BHR)	Olympia	15	13.9	380	18.9
Total freestanding E&T		219	194.6	5,106	14.4

Source: WSIPP analysis of Division of Behavioral Health and Recovery (DBHR) Service Encounter Reporting System.

Notes:

Utilization figures for facilities operated by Frontier Behavioral Health (Foothills and Calispel) reported together. Reported daily census for Bridges (Yakima) provided by Comprehensive Healthcare. In 2016, Telecare also opened a ten-bed secure E&T facility in Tumwater.

3) Community Hospitals

Inpatient psychiatric hospital beds in Washington State are authorized by the state Department of Health (DOH) through the "Certificate of Need" process. An applicant (typically a health or hospital system) may propose adding new treatment beds to a new or existing hospital. The proposal is approved or denied based on the current regional availability of beds and the projected demand for treatment resources. To admit patients that have been involuntarily detained or committed under the state's involuntary treatment statute (RCW 71.05), the hospital must obtain certification from the Division of Behavioral Health & Recovery (DBHR).⁸

In 2015, approximately 600 adult psychiatric beds were available in community hospitals throughout the state. This number represents the highest bed count reached during the calendar year. In some cases (Cascade Behavioral Health and Yakima Valley Memorial Hospital), beds were added over the course of the year. Larger hospitals (such as Harborview and Fairfax) may also allocate treatment resources according to need, so available beds can fluctuate during this time.

As [Exhibit 5](#) (next page) shows, eight hospitals only admitted patients on a voluntary basis, while 13 accepted both voluntary and involuntary patients. Together, over 15,000 adults were admitted for inpatient psychiatric treatment in 2015, with a total average daily population of 480.

Hospital utilization records (shown in [Exhibit 5](#)) were most recently available for 2015. During 2016, five hospitals added psychiatric treatment beds in current facilities: Harborview (5 beds), Fairfax (18), Cascade Behavioral Health (34), Providence Sacred Heart (18), and Multicare Auburn (12). During this year, new psychiatric hospital beds became available in both Swedish-Ballard (22) and Fairfax-Monroe (30). Overall, 129 new adult treatment beds were added to available capacity in 2016, for a total of 962 beds ([Exhibit 6](#), page 10).

Between 2011 and 2016, the number of psychiatric treatment beds increased by 52%. This capacity will increase further in 2017 and beyond with three recently approved hospital projects. These projects include Smokey Point Behavioral Hospital (Marysville), Fairfax/Providence (Spokane), and CHI-Franciscan/Multicare (Tacoma). Each of these hospitals will include approximately 100 new beds.

⁸ WAC 388-865.

Exhibit 5

Washington State Community Hospital Adult Psychiatric Bed Capacity and Utilization—2015

Hospital name	City	Certified beds	Average daily census	Annual admissions	Average length of stay (days)
Hospitals that admit involuntary and voluntary patients					
Cascade Behavioral Health ^a	Tukwila	48*	36	825	16.6
Fairfax	Kirkland	107*	91.2	3,352	10.2
Fairfax—Snohomish	Everett	30	24.2	638	14
Harborview Medical Center	Seattle	61*	56	1,285	16.1
Lourdes Counseling Center	Richland	23	14.8	535	10.2
Navos IMD (West Seattle Psychiatric)	Seattle	40	36.8	767	18.2
Northwest Hospital (geriatric)	Seattle	27	24	395	23.3
Peace Health St. John Medical Center	Longview	22	14.7	611	9
Peace Health St. Joseph's Medical Center	Bellingham	20	14.6	493	11.1
Providence Sacred Heart Medical Center	Spokane	28 [†]	27	1,027	9.8
Skagit Valley Memorial Hospital	Mt Vernon	15	7.8	346	8.27
Swedish Medical Center	Edmonds	23	20.2	523	14.6
Yakima Valley Memorial Hospital	Yakima	12*	8.9	282	11.5
Total		456	376.2	11,079	12.7
Hospitals with voluntary-only admissions					
Cascade (geriatric) ^b	Tukwila	21	-	-	-
Auburn Regional Medical Center (geriatric) ^c	Auburn	24	24	442	20.5
Overlake Hospital Medical Center	Bellevue	14	11.2	836	4.9
Peace Health Southwest Washington Medical Center	Vancouver	14	12.7	393	9.4
Providence St. Peter Hospital	Olympia	17	15.9	699	8.3
St. Joseph Medical Center (CHI Franciscan)	Tacoma	23	20.9	1,167	6.5
Swedish Medical Center—Cherry Hill	Seattle	10	9.6	422	8.5
University of Washington Medical Center	Seattle	14	9.9	419	8.8
Total		151	104.2	4,378	8.6

Source: WSIPP analysis of Comprehensive Hospital Abstract Reporting System (CHARS)—DOH.

Notes:

^a Cascade Behavioral Health increased number of available beds between 2014 and 2016.

^b Cascade Behavioral Health operates a 21-bed voluntary unit for geriatric patients. Utilization numbers for this unit cannot be separated from adult utilization numbers (above).

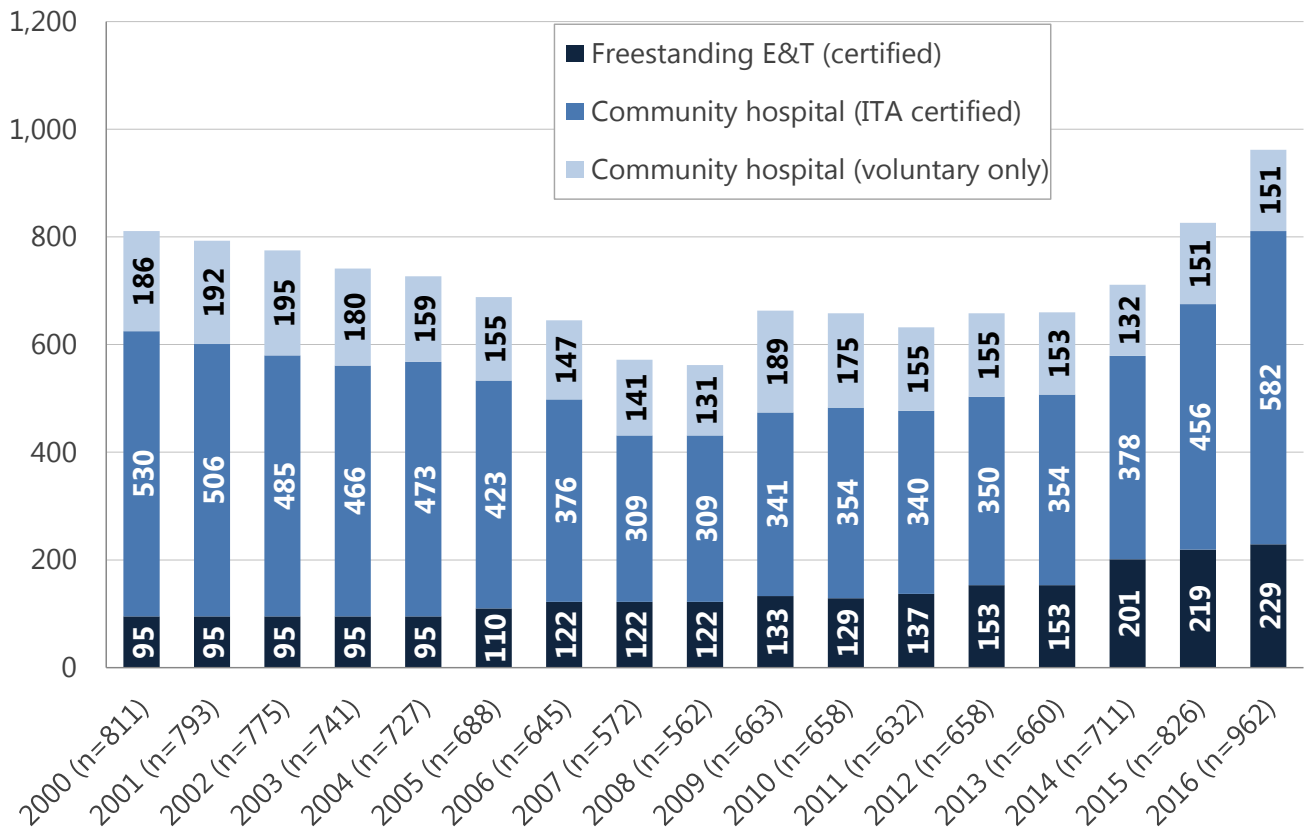
^c Auburn Medical Center utilization also includes eight beds designated for dementia care—16 beds were designated for psychiatric evaluation and treatment.

* Approximate bed capacity—Yakima Memorial Hospital added six beds (to existing six) in late 2015.

[†] Approximate staffed beds—staffing considerations during year prevented full utilization of available beds. Hospital also maintains 10-14 acute treatment beds for psychiatric patients (not included in total).

Exhibit 6

Washington State Adult Psychiatric Treatment Bed Capacity 2000-2016



Source: WSIPP analysis of Community Hospital Abstract Reporting System (CHARS)-DOH data, and Service Encounter Reporting data (Division of Behavioral Health and Recovery).

Bed Capacity and Changes to Involuntary Commitment Laws

In addition to utilization, the legislature directed WSIPP to study the factors associated with inpatient capacity constraints. Specifically, WSIPP was instructed to analyze how a 2013 statutory change to the state’s Involuntary Treatment Act (RCW 71.05.212) might affect the likelihood that a greater number of individuals would be committed to psychiatric treatment (and potentially increase the demand for treatment beds).

Based on our analysis (presented in the [Appendix](#)), we find the recent legislative changes to the ITA law are not associated with increased demands on capacity. While the *number* of persons referred for involuntary inpatient psychiatric treatment has increased in recent years, the involuntary commitment *rate* held steady during this time period.⁹ The next section provides additional information about the characteristics of and outcomes for adults with crisis mental health encounters.

⁹ See Burley, M., Nicolai, C., & Miller, M. (2015). *Washington’s Involuntary Treatment Act: Use of non-emergent petitions and less restrictive alternatives to treatment* (Doc. No. 15-12-3401). Olympia: Washington State Institute for Public Policy.

III. Client Characteristics & Outcomes

To assess outcomes over a 12-month period, we studied the population of Washington State adults with a crisis encounter in 2014 (n = 30,879). Three potential decisions may occur following this initial crisis encounter:

- 1) crisis-only,
- 2) investigation-only, or
- 3) investigation-detention.

Throughout the remainder of this report, outcomes are presented according to these three groups.

The [crisis-only](#) group includes individuals not thought by the crisis responder to pose an immediate danger to themselves or others. These persons may receive a short assessment and referral in the community or be directed to one of the crisis respite facilities ([Exhibit 3](#), page 6). In the remaining cases, a risk of danger to the individual or to other persons may be present, causing a DMHP to conduct an investigation to determine if the individual meets legal criteria for involuntary treatment.

If the DMHP believes an individual does not meet legal commitment criteria, he or she may be released with a referral for voluntary treatment. These individuals constitute the [investigation-only](#) group. Finally, persons that meet the involuntary treatment criteria and are detained for a 72-hour psychiatric evaluation and treatment make up the [investigation-detention](#) group.

[Crisis Services Study Population](#)

Two-thirds of adults in the study population receive voluntary crisis-only services from the providing mental health agency (n = 20,852). In the remaining cases, a risk of danger to the subject or to other persons is present, and an investigation is conducted to determine if the individual meets legal criteria for involuntary treatment. In nearly half of these cases (n = 4,566), the investigation results in a 72-hour involuntary detention for psychiatric evaluation and stabilization. As [Exhibit 7](#) (next page) shows, these three groups are similar in age, sex, or race/ethnicity.

Over half of persons in the study population qualify for Medicaid (33% traditional Medicaid, 25% Medicaid expansion). While eligibility for Medicaid provides insurance coverage for health care services, publicly-funded outpatient community mental health care services are only available to Medicaid-eligible persons who meet "Access to Care" standards.¹⁰ To meet these requirements, a covered diagnosis (such as schizophrenia, bipolar, or major depressive disorder) must be present, and the individual must experience a level of functional impairment. Nearly six out of ten (58%) persons in the study population meet the criteria established in the Access to Care standards.

¹⁰ See <https://www.dshs.wa.gov/sites/default/files/BHSIA/dbh/Mental%20Health/Access%20to%20Care%20Standards%20v20150701.1.pdf>.

Individuals in the investigation-detention group are the most likely to experience events indicating a need for alcohol and other drug (AOD) treatment. These events include receiving a diagnosis for alcohol or substance abuse disorder, AOD treatment

services or detox, or arrest for a substance use-related offense. While 28% of the crisis-only group had an AOD event, 38% of the investigation-detention group had a potential need for treatment based on these indicators.

Exhibit 7

Characteristics of Adults Receiving in-Person Crisis Mental Health Services and Involuntary Treatment Act (ITA) Evaluation, 2014

Category	Crisis-only	Investigation-only	Investigation-detention	Total
Age group				
18-25	3,536 (17%)	1,011 (19%)	772 (17%)	5,319 (17%)
25-35	5,042 (24%)	1,309 (24%)	1,026 (22%)	7,377 (24%)
35-45	4,031 (19%)	996 (18%)	763 (17%)	5,790 (19%)
45-55	4,027 (19%)	977 (18%)	825 (18%)	5,829 (19%)
55-65	2,503 (12%)	654 (12%)	587 (13%)	3,744 (12%)
65+	1,713 (8%)	514 (9%)	593 (13%)	2,820 (9%)
Male	10,824 (52%)	2,857 (52%)	2,547 (56%)	16,228 (53%)
Race/ethnicity				
White, Non-Hispanic	14,542 (70%)	3,110 (71%)	3,867 (68%)	21,519 (70%)
Non-White	4,988 (24%)	1,215 (24%)	1,314 (27%)	7,517 (24%)
White, Hispanic	1,322 (6%)	241 (5%)	280 (5%)	1,843 (6%)
Medicaid eligibility				
Medicaid eligible	7,122 (34%)	1,550 (28%)	1,431 (31%)	10,103 (33%)
ACA expansion adults	5,430 (26%)	1,278 (23%)	1,028 (23%)	7,736 (25%)
Not eligible	8,300 (40%)	2,633 (48%)	2,107 (46%)	13,040 (42%)
Access to care diagnosis	11,813 (57%)	2,729 (50%)	3,226 (71%)	17,768 (58%)
Potential treatment need—alcohol and other drugs	5,761 (28%)	1,637 (30%)	1,752 (38%)	9,150 (30%)
State total	20,852	5,461	4,566	30,879

Source: WSIPP analysis of DSHS Client Outcome Database (CODB).

Notes:

Crisis hotline and clients with 15 minutes or less of service are excluded.

Previous Contacts

Among the population included for this study, half (n = 15,504) had at least one previous contact with either the crisis mental health system or local jail in the three years prior to 2014.

- **16% (n = 4,938)** had both a jail booking and crisis encounter.
- **19% (n = 6,003)** had a previous crisis encounter or involuntary treatment investigation but no jail booking.
- **15% (n = 4,563)** had a jail booking but no crisis encounter.

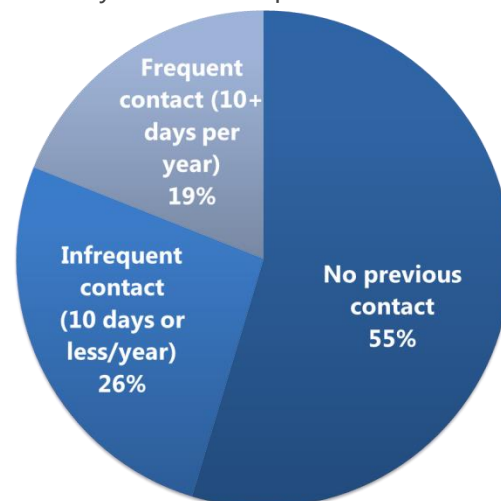
The fact that half of persons with a crisis encounter had no previous encounter while half had prior contact with the local jail or mental health system highlights the diversity among persons receiving crisis services. The situations that lead to a mental health-related crisis vary. In some cases, the unexpected onset of a psychiatric disorder may lead an individual to seek help for the first time. In other cases, side effects from medication or a refusal to take prescriptions may precipitate a crisis situation.

The level of prior treatment engagement can also help differentiate the extent of crisis response and the type of referral and follow-up that occurs. For example, “new” clients that do not have a support system in place may require more thorough assessment compared to clients already under treatment supervision.

At the time of the crisis mental health encounter, less than half (45%) of the study group received publicly-funded outpatient mental health treatment in the previous three years. About one in five (19%) of the study population has been actively engaged in treatment with ten or more treatment sessions per year (Exhibit 8).

Exhibit 8

Adults Receiving in-Person Crisis Mental Health Services in 2014—Previous Publicly-funded Outpatient Treatment



Source: WSIPP analysis of DSHS Client Outcome Database (CODB).

The duration and intensity of assessment, stabilization, and treatment may vary based on client history and the different needs and circumstances of persons with a crisis encounter. The remainder of this section provides information on how these differences relate to outcomes following a crisis mental health service.

Crisis Intervention Outcomes

While this study includes all adults with a crisis encounter in Washington, the results presented in this section do not gauge the effectiveness of these services. Without a similar comparison group that did not receive crisis care, we are unable to determine the cause of observed outcomes. However, this analysis does provide an assessment of how client characteristics and treatment activity are related to outcomes that crisis encounters are intended to influence, such as subsequent hospital admissions, jail bookings, and death. The exhibits in this section present unadjusted outcomes for the 12 months following a crisis service encounter. These unadjusted outcomes, however, may be the result of demographic factors, treatment history, or variation in regional approaches.

To account for these factors, we also estimate adjusted results using a statistical approach called *event history modeling*. These models (presented in the [Appendix](#)) assess all observed risk factors and determine how the level of crisis services, outpatient treatment engagement, and other variables are related to outcomes. Event history models incorporate the occurrence *and* timing of events in determining risk. As opposed to a static, unchanging model, these models also permit the inclusion of time-dependent factors (such as outpatient mental health treatment) that may occur in the months following a crisis encounter.¹¹

¹¹ The adjusted statistical models for each outcome are summarized in the text and detailed in the Appendix. Data on emergency department visits were not available for the entire study population so adjusted models for this outcome are not included in this report.

Emergency department visits. One of the primary reasons for a crisis intervention is to stem the worsening of symptoms that could result in emergency department (ED) visits or psychiatric hospitalization if left unaddressed. Unfortunately, we are unable to follow ED outcomes for all individuals receiving crisis mental health services. However, using Medicaid claims data, we are able to track subsequent ED visits for 23,288 individuals eligible for Medicaid in the 12 months after a crisis encounter (75% of the study population).

As [Exhibit 9](#) shows, nearly half (47%) of Medicaid-eligible adults visit the emergency department in the year following an in-person crisis encounter. This figure excludes those visits that occur on the same day as a crisis service, since medical intervention may be necessary to stabilize the individual.

Exhibit 9

Emergency Department Visits in 12-Months Following Crisis Encounter: Medicaid Eligible

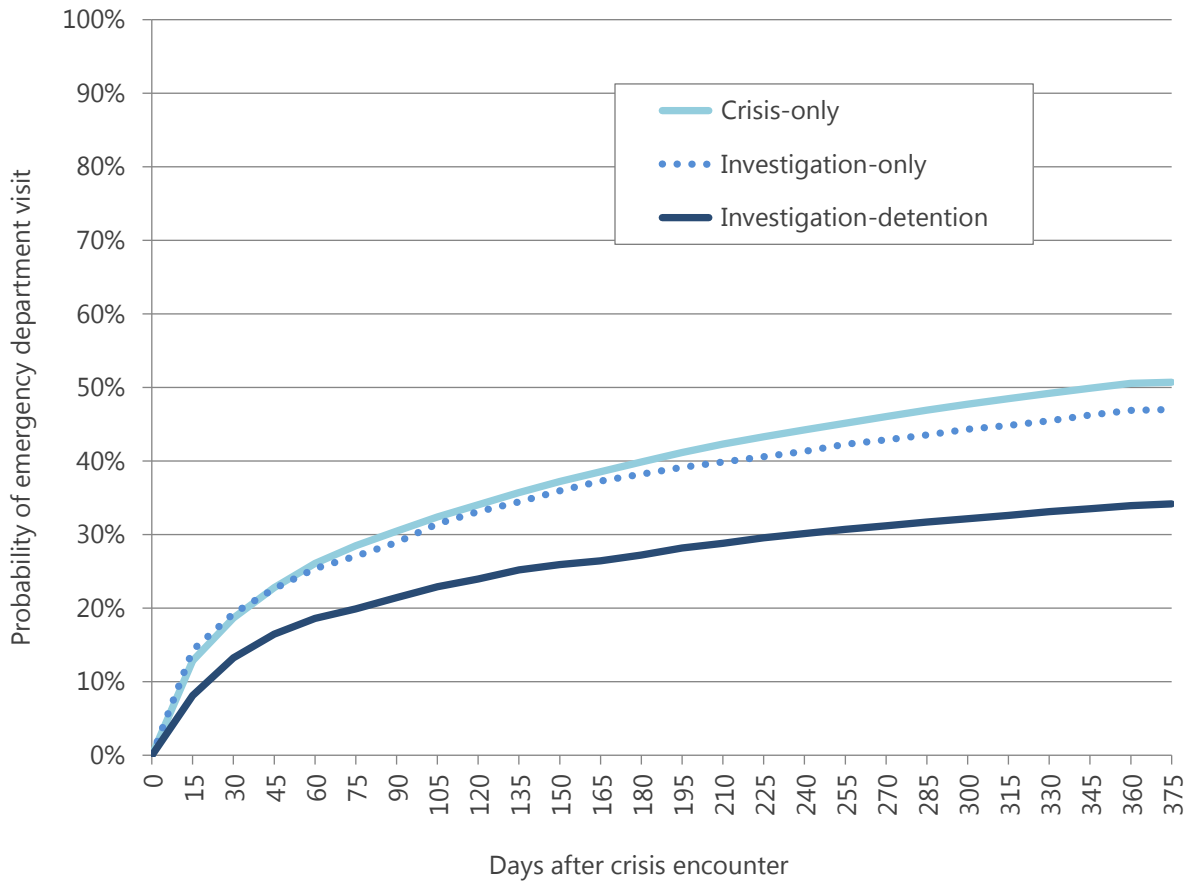
Number of emergency department visits	Adults (%)
None	12,269 (53%)
1-2	4,253 (18%)
3-5	3,588 (15%)
6+	3,178 (14%)
Total	23,288

Source: WSIPP analysis of DSHS Client Outcome Database (CODB).

While 18% of eligible adults had just one or two ED visits during this period, one out of seven (14%) persons in this group were frequent ED users, with six or more visits over the course of 12 months. Outcomes for the crisis-only and ITA investigation groups are included in [Exhibit 10](#).

Exhibit 10

12-month Unadjusted Emergency Department Outcomes Following in-Person Crisis Intervention, 2014



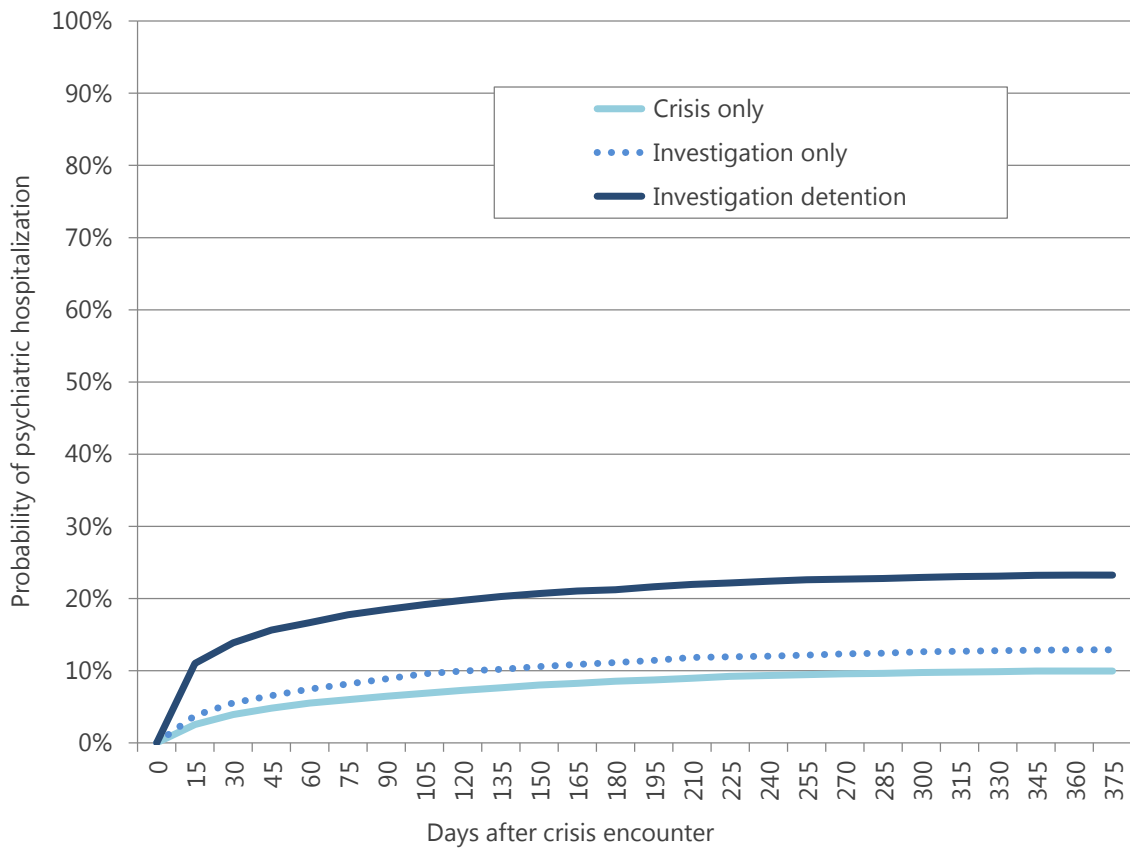
Source: WSIPP analysis of DSHS Client Outcome Database (CODB).

Over time, persons with an ITA investigation and detention are less likely to have a subsequent ED visit compared to persons with a crisis encounter that do not meet involuntary treatment criteria. In some cases, persons held for a 72-hour involuntary treatment are subsequently committed by a court for an extended (14-day) treatment period, which may explain the lower rate of ED visits in the short term for this group. Over the course of the entire 12 months, however, the risk of entering the ED continues to increase for all persons with a crisis mental health encounter or ITA investigation.

Psychiatric hospitalization. To explore hospital-related outcomes for adults with crisis encounters, we examine data from DOH's statewide Community Hospital Reporting System (CHARS), reimbursement claims for publicly-paid psychiatric hospitalizations (Medicare and Medicaid) and reported admissions to 16-bed mental health E&T facilities.

Exhibit 11

12-month Unadjusted Psychiatric Hospitalization Outcomes Following in-Person Crisis Intervention, 2014



Intervention type	Adults	12-month hospital admissions
Crisis-only	20,852	2,077 (10%)
Investigation-only	5,461	704 (13%)
Investigation-detention	4,566	1,061 (23%)
Total	30,879	3,842 (12%)

Source: WSIPP analysis of DSHS Client Outcome Database (CODB).

By definition, persons with an involuntary treatment admission are hospitalized immediately following the investigation that occurs as a result of the crisis encounter. To follow hospitalization outcomes in a consistent manner, we exclude any hospital episode where a patient was admitted for

inpatient treatment within two days of a crisis encounter. We analyze any subsequent hospital admissions that occur following this initial treatment episode.

Among 30,879 adults with a crisis encounter in 2014, 12% had a psychiatric hospitalization within the next 12 months. As [Exhibit 11](#) shows, the probability of later hospitalizations varies by intervention type, from a 10% for crisis-only encounters to 23% for adults following an involuntary treatment detention.

The event history model (see [Exhibit A4](#) in the [Appendix](#)) indicates that an individual's age, sex, and race had little or no influence on the risk of subsequent psychiatric hospitalization following a crisis intervention. Factors that relate to adjusted risk of hospitalization include the following:

- Each prior hospital stay in the three years before the crisis encounter was associated with a 14% higher risk of a subsequent admission.
- Clients with crisis response services in King, Spokane, and Pierce counties had the highest risk of psychiatric hospitalization (after controlling for caseload differences). The adjusted risk of subsequent hospitalization was lower in Southwest Behavioral Health, Greater Columbia, Grays Harbor, and Chelan.
- Persons eligible for publicly-funded services had a 75% higher risk of subsequent hospitalizations.
- Relative to crisis-only clients, the investigation-only group had a 36% higher risk and persons with an involuntary detention had a 68% higher risk of later hospitalizations (after controlling for treatment history, demographic and regional differences).

Jail bookings. Recent research on Washington's jail population found that 58% of recent Medicaid recipients with a jail booking also had an identified mental health treatment need.¹² While previous studies examined the mental health needs for adults in jail, this analysis reports on the likelihood of jail bookings among the adult population receiving crisis mental health services in Washington.

For the 30,879 adults with crisis services in 2014, over one in five (22%) were booked into a Washington State jail in the year following a crisis mental health encounter. Persons with an involuntary treatment detention had the lowest 12-month jail booking rate, with 18% jailed following release from an involuntary treatment hold. Conversely, 23% of adults in the crisis- or investigation-only groups were booked into jail over this 12-month period ([Exhibit 12](#), next page).

Persons held for involuntary mental health treatment are deemed to be at high risk of danger to themselves or others. Based on this analysis, it appears that this risk may largely be due to a grave disability or danger to self—these individuals are at slightly lower risk of criminal activity compared to other persons with a crisis mental health encounter.

¹² Henzel, P., Mayfield, M., Soriano, A., & Felver, B. (2016). *Behavioral health needs of jail inmates in Washington State* (Doc. No. 11.226). Olympia: Washington State Department of Social and Health Services, Research and Data Analysis. Available from: <https://www.dshs.wa.gov/sites/default/files/SESA/rda/documents/research-11-226a.pdf>.

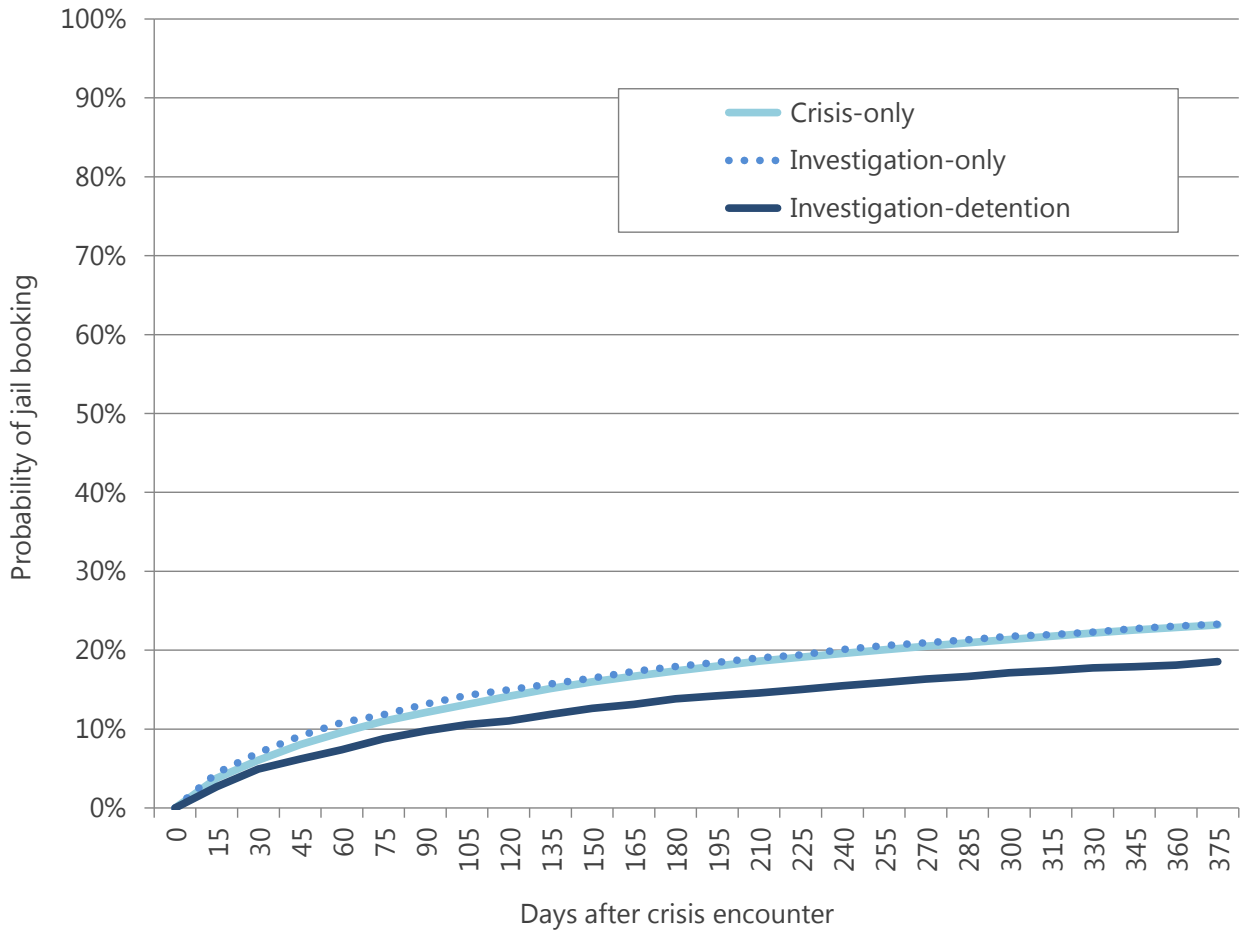
The event history model accounted for an individual's level of risk and other factors to estimate the adjusted probability of a jail booking following crisis services. The results (see [Exhibit A5](#) in the [Appendix](#)) demonstrated the following:

- Demographic factors showed a strong relationship to likelihood of a jail event. Age was inversely related to jail bookings—each year of age was associated with a 2% reduction in jail risk. Compared to women, men were 65% more likely to enter jail.
- Each prior booking in the last three years was related to a 14% higher risk of a subsequent jail booking. Persons with a potential need for alcohol or drug treatment had a 76% higher risk of jail bookings.

Mortality. Mental health crisis responders are trained to de-escalate situations that may pose a danger to public safety or may result in an individual causing harm to him or herself. Suicide prevention and intervention involves identifying the likelihood and immediacy of a potential suicide threat and engaging at-risk individuals in appropriate treatment and monitoring. Given the scope of this study, we cannot identify a causal link between crisis mental health responses and prevention of suicide. However, we are able to track mortality rates and cause of death for adults in the study. Overall, 935 persons (3% of the study population) died in the year following a crisis response ([Exhibit 13](#), page 20). Unadjusted mortality rates are highest among adults with an involuntary treatment detention. However, most of these deaths are from natural causes—only 10% of deaths were attributed to suicide (n = 20). In contrast, 19% of deaths for persons in the investigation-only group are deaths by suicide (n = 38).

Exhibit 12

12-month Unadjusted Jail Booking Outcomes Following Crisis Intervention, 2014



Intervention type	Adults	12-month jail bookings
Crisis-only	20,852	4,789 (23%)
Investigation-only	5,461	1,262 (23%)
Investigation-detention	4,566	829 (18%)
Total	30,879	6,880 (22%)

Source: WSIPP analysis of DSHS Client Outcome Database (CODB) and Jail Booking Reporting System (JBRS).

Exhibit 13

12-month Mortality Outcomes Following Crisis Intervention, 2014

Intervention type	Adults	12-month mortality outcomes	Death by suicide (% deaths)
Crisis-only	20,852	526 (3%)	66 (13%)
Investigation- only	5,461	201 (4%)	38 (19%)
Investigation-detention	4,566	208 (5%)	20 (10%)
Total	30,879	935 (3%)	124 (13%)

Source: WSIPP analysis of DSHS Client Outcome Database (CODB) and DOH Vital Statistics data.

With the small observed number of suicides that occurred during the study period, we could not create reliable statistical models for this outcome. However, nearly all (95%) of the observed death by suicide events occurred for nonelderly individuals (under age 65). To determine risk of death among this population, we developed an event history model (see [Exhibit A6](#) in the [Appendix](#)) and found the following:

- Adjusted risk of death was four times higher for persons age 45-54 and over eight times higher for those age 55-64 relative to younger adults. Men had a 60% higher risk compared to women.
- There were no observed regional differences in adjusted mortality rates.
- Nonelderly clients with high-cost medical conditions had a 32% increased likelihood of death.¹³

¹³ Client health status was determined using the Combined Diagnostic and Pharmacy Based Risk Adjustment (CDPS+Rx) model. See "The Revision of CDPS and the Development of a Combined Diagnostic and Pharmacy Based Risk Adjustment Model", Available from: http://cdps.ucsd.edu/CDPS_Update.pdf. High cost defined as CDPS score of 1.5 or higher.

- Nonelderly adults with an involuntary treatment detention had a 24% higher risk of death, while mortality risk for adults in the investigation-only group was 47% higher compared to the crisis-only group.

Summary of Outcomes

This longitudinal analysis of crisis mental health services provides a wide-ranging look on adverse outcomes following a crisis encounter. Without a similar control group, this study cannot conclusively determine the extent to which crisis services alter client outcomes. However, this research illustrates the intersection between the crisis mental health/involuntary treatment system and other systems that serve persons experiencing psychiatric emergencies. The findings are summarized in [Exhibit 14](#).

Exhibit 14

Summary of 12-month Outcomes Following Crisis Intervention, 2014

Post-crisis encounter outcome	Crisis-only	Investigation-only	Investigation-detention
Emergency department (Medicaid only)	50%	47%	34%
Psychiatric hospitalization	10%	13%	23%
Jail booking	23%	23%	18%
Mortality— all	3%	4%	5%

Source: WSIPP.



Appendix

Crisis Mental Health Services and Inpatient Psychiatric Care: Capacity, Utilization, and Outcomes

Analysis of Statutory Changes and Available Beds

Washington State's Involuntary Treatment Act (ITA) authorizes a treatment commitment when an investigator determines that an individual, as a result of a mental illness, is either gravely disabled or a danger to self or others. In recent years, the Washington State Legislature expanded statutory commitment criteria with three notable revisions:

1. New legal criteria explicitly permit an investigator to consider **historical behavior or prior commitments** in deciding if treatment was necessary.
2. Information regarding the need for treatment can be obtained from **credible witnesses**, which includes anyone with "significant contact and involvement with the person."
3. If an individual does not present as dangerous or gravely disabled, but demonstrates "marked and concerning" **changes in symptoms or behavior that have previously led to a past incidents** or deterioration of mental health, a civil commitment may be warranted.¹⁴

These statutory revisions were originally proposed in 2010¹⁵ and scheduled to take effect by January 2012. In 2011, the legislature delayed implementation of these criteria until July 2015.¹⁶ However, a final legislative change in 2013¹⁷ accelerated the adoption of this statute and new commitment criteria were enacted in **July 2014**.

In the month following the implementation of new commitment criteria, the Washington State Supreme Court issued a major ruling regarding treatment requirements for individuals subject to the state's involuntary commitment laws. The August 2014 decision held that patients could not be detained, or "boarded," in emergency departments or other temporary arrangements without proper psychiatric treatment.¹⁸ The court ruling prohibited further involuntary placements unless the admitting hospital or treatment facility could attest that required psychiatric treatment would be provided to patients. To ensure that adequate treatment resources were available, the court granted a request by the state of Washington to stay the ruling until **December 2014**.

These two events—the adoption of new commitment criteria and a directive to provide an adequate number of psychiatric treatment beds—represented a notable change to the system for mental health commitments in Washington State. Since both of these changes occurred at approximately the same time (July & December 2014), it is not feasible to estimate the effect of one event independent of the other. However, this direct shift in the legislative and legal landscape creates an opportunity to examine how psychiatric treatment bed availability (or lack thereof) may affect involuntary commitment decisions.

An inter-relationship between two systems can make it difficult to identify possible cause and effect relationships. In this case, legal changes that result in an increase (decrease) on the involuntary commitment rate may affect the decision to make more (less) treatment beds available. Conversely, the

¹⁴ RCW 71.05.212.

¹⁵ Second Substitute House Bill 3076, Chapter 280, Laws of 2010.

¹⁶ Substitute House Bill 2131, Chapter 6, Laws of 2011, 2nd Special Session.

¹⁷ Engrossed Substitute Senate Bill 5480, Chapter 335, Laws of 2013.

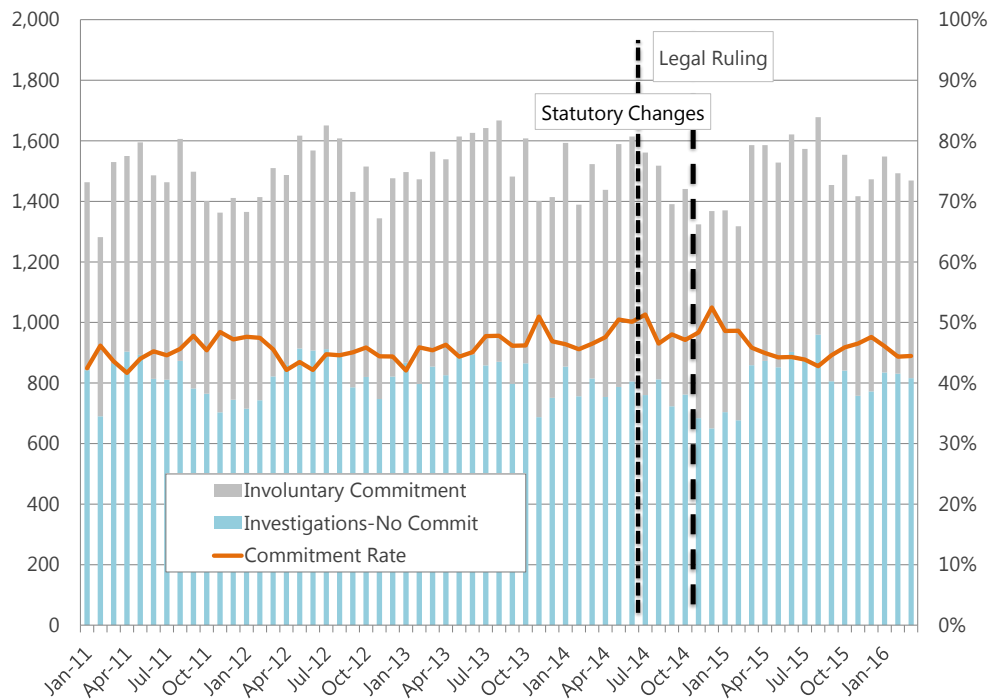
¹⁸ IN RE: the DETENTION OF D.W., No. 90110-4, SUPREME COURT OF WASHINGTON, 181 Wn.2d 201 (2014).

addition (or reduction) of psychiatric beds may affect the probability that an involuntary commitment takes place.

When this type of interdependency is present, the underlying relationship may be estimated when an unexpected external event—such as a judicial mandate—occurs to the system. The results presented here are based on an analysis of the relationship between bed capacity and commitment rates in the period before and after the 2014 court ruling and statutory changes.

Exhibit A1 shows that there were between 1,400 and 1,600 ITA investigations conducted every month in Washington State between 2011 and 2016. The percentage of these investigations that resulted in an initial commitment fluctuated during this period, but slowly increased from 42% in early 2011 to over 50% by late 2014. The months with the highest commitment rates during this period occurred in July 2014 (51%), when the statutory changes took effect, and December 2014 (53%), when the stay on the court ruling was lifted.

Exhibit A1
Washington State Adult Monthly Involuntary Commitment Rate
2011-2016



Source: WSIPP analysis of Service Encounter Reporting data (Division of Behavioral Health and Recovery).

To determine how fluctuations in commitment rates were influenced by legal and statutory changes, we created a dataset that included monthly totals of investigations and commitments for each of the 12 courts in Washington State that hear ITA cases. The dataset also included information about the caseload composition (age, sex, race) in each court region. Finally, we included monthly psychiatric bed capacity for nearby hospitals and E&T facilities in each area.

[Exhibit A2](#) (next page) presents the results of the statistical analysis that estimates the probability of commitment, based on the combined effect of these various factors. This model indicates that race and gender differences in the caseload mix in each court were not significantly related to changes in the commitment rate. In addition, the number of beds licensed in each region for a given month did not show a statistically significant relationship to commitment rates. As a practical matter, this finding is consistent with the intent of the law—commitment decisions are made based on investigator diagnosis and assessment of risk (not bed availability or client characteristics).

After considering available capacity and other regional factors, the model determines the extent to which commitment rates changed in the period before and after July 2014 (when statutory changes took effect). As shown in [Exhibit A2](#) (next page), there was a small, but temporary, increase in the predicted commitment rate immediately after this period. However, in the months following the statutory changes, the adjusted commitment rate declined steadily. This analysis illustrates that while utilization remained high for psychiatric treatment facilities, this trend did not appear to be influenced by the results of involuntary treatment investigations.

Exhibit A2

Commitment Rate Model and Predicted Effect of 2014 Changes to ITA Statute—
Mixed Effects Regression Model

Variable	Coefficient	Lower 95% confidence limit	Upper 95% confidence limit	p
Fixed effects				
Intercept	34.878	22.722	46.994	<0.001
Time trend (linear)	0.042	-0.132	0.216	0.639
New statute implemented (Jul 2014)	9.885	2.123	17.647	0.013
Time by statutory change interaction	-0.198	-0.353	-0.043	0.012
Monthly bed total	0.999	0.995	1.002	0.458
Percent caseload male	0.016	-0.065	0.096	0.706
Percent caseload Caucasian	0.025	-0.079	0.129	0.636
Percent caseload senior	0.118	-0.032	0.266	0.122
Random effects—court jurisdiction				
Standard deviation of time trend	0.282	0.183	0.436	
Standard deviation of intercept	12.520	2.743	8.150	

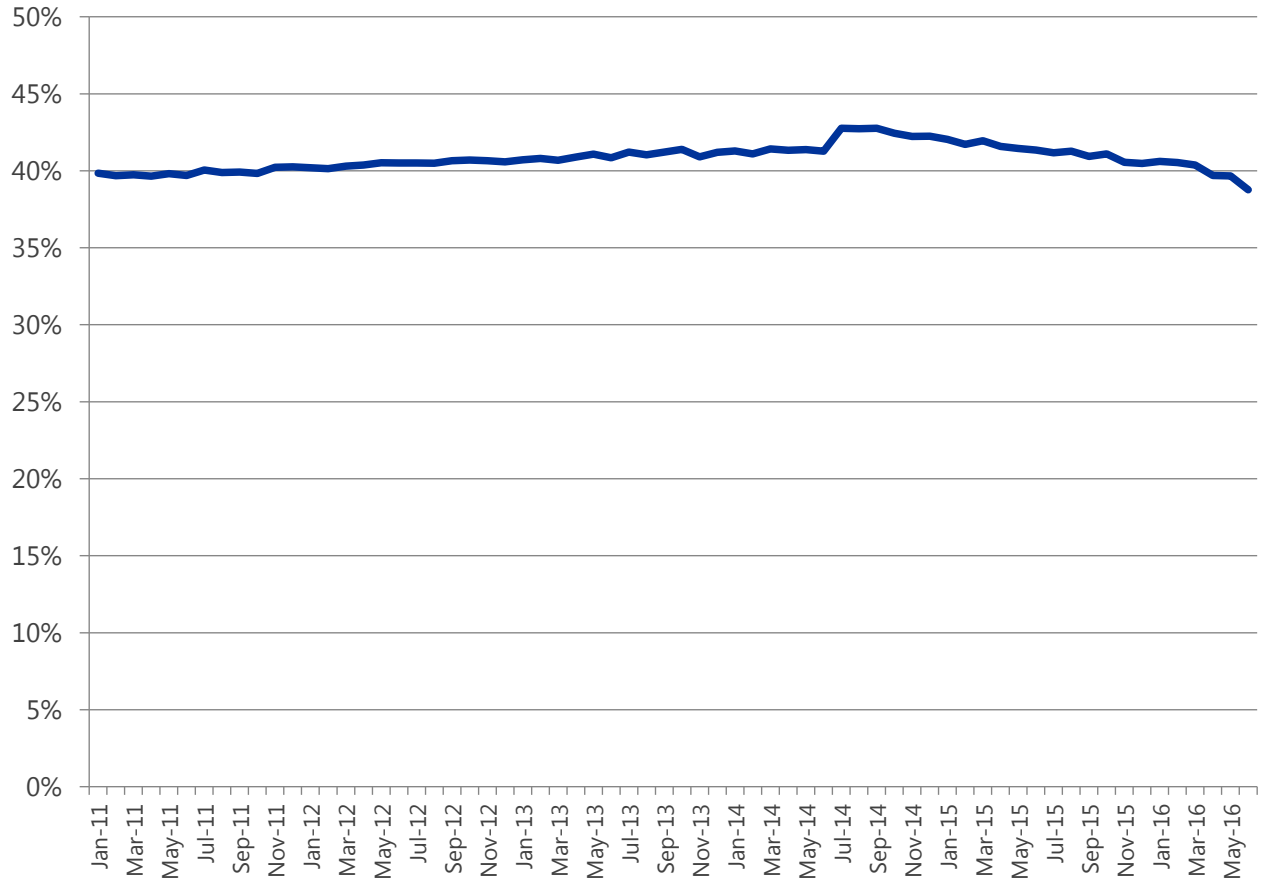
Notes:

N courts = 11 log likelihood ratio = -2268.5893.

N court-months (observations) = 675 LR test vs. linear model: $\chi^2(2) = 574.51$ ($p < 0.001$).

Exhibit A3

Predicted Probability of Involuntary Treatment Commitment
January 2011-June 2016



Source: WSIPP analysis—fitted results from Exhibit A2.

Exhibit A4

Psychiatric Hospitalization Outcomes—Event History Model

Variable	Hazard rate	Lower 95% confidence limit	Upper 95% confidence limit	p
Fixed effects				
Age	0.999	0.996	1.001	0.182
Male	1.042	0.976	1.112	0.222
Nonwhite	1.000	0.926	1.079	0.999
Hispanic	0.884	0.767	1.02	0.092
Crisis intervention time (each 30 minute)	0.999	0.995	1.002	0.458
Previous psychiatric hospitalizations (last three years)	1.168	1.153	1.183	<0.001
Covered diagnosis (access to care)	1.823	1.679	1.979	<0.001
Alcohol/other drug event	1.160	1.080	1.246	<0.001
Investigation-only*	1.319	1.198	1.452	<0.001
Investigation-detention*	1.743	1.601	1.897	<0.001
Prior crisis intervention (days)	1.005	1.003	1.007	<0.001
Outpatient treatment days (following crisis intervention)	1.064	1.059	1.069	<0.001
Random effects (RSN)				
Chelan/Douglas	0.590	0.433	0.803	<0.001
Grays Harbor	0.811	0.600	1.096	0.022
Greater Columbia	0.719	0.593	0.871	0.002
King	1.436	1.206	1.711	<0.001
North Sound	1.031	0.856	1.242	0.552
Peninsula	1.008	0.824	1.233	0.966
Pierce	1.193	0.99	1.438	0.034
Southwest Behavioral Health	0.887	0.72	1.093	0.028
Spokane	1.146	0.958	1.371	0.001
Thurston/Mason	1.363	1.109	1.676	0.384
Timberlands	0.816	0.624	1.067	0.478

Notes:

Likelihood Ratio: 2682.6205*reference crisis-only.

Bold hazard rates significant at p < 0.05.

Exhibit A5

A. III. Jail Booking Outcomes—Event History Model

Variable	Hazard rate	Lower 95% confidence limit	Upper 95% confidence limit	p
Fixed effects				
Age	0.978	0.976	0.979	<0.001
Male	1.654	1.574	1.737	<0.001
Nonwhite	1.054	0.999	1.112	0.057
Hispanic	1.133	1.036	1.239	0.006
Crisis intervention time (each 30 minute)	0.998	0.996	1.001	0.286
Previous jail bookings (last three years)	1.142	1.138	1.146	<0.001
Investigation-only*	1.053	0.982	1.13	0.146
Investigation-detention*	0.750	0.693	0.812	<0.001
Prior crisis intervention (days)	1.006	1.004	1.008	<0.001
Covered diagnosis (access to care)	0.969	0.919	1.021	0.233
Alcohol/other drug event	1.769	1.681	1.861	<0.001
Outpatient treatment days (following crisis intervention)	0.980	0.974	0.986	<0.001
Random effects (RSN)				
Chelan/Douglas	1.041	0.914	1.184	0.320
Grays Harbor	0.946	0.821	1.091	0.432
Greater Columbia	1.002	0.920	1.092	0.946
King	0.874	0.797	0.958	0.053
North Sound	1.002	0.914	1.098	0.963
Peninsula	1.043	0.941	1.156	0.146
Pierce	0.866	0.788	0.952	0.049
Southwest Behavioral Health	0.966	0.871	1.072	0.492
Spokane†	1.243	1.146	1.348	<0.001
Thurston/Mason	0.949	0.839	1.072	0.391
Timberlands	1.068	0.946	1.206	0.028

Notes:

Likelihood ratio: 6075.732.

*Reference crisis-only.

Bold hazard rates significant at p < 0.05.

†During the time this study took place, Spokane County Jail was the only jail in the state that also contracted directly with the RSN as an authorized community mental health agency (see http://www.hca.wa.gov/documents/health_homes/RSN%20_CMHAContactList.pdf). While clients in Spokane were 24% more likely to have subsequent jail booking, the population with recorded crisis services in this region differed from other areas, which may influence criminal justice related outcomes.

Exhibit A6

Mortality Outcomes—Event History Model

Variable	Hazard rate	Lower 95% confidence limit	Upper 95% confidence limit	p
Fixed effects				
Age 25-34	1.422	0.967	2.091	0.074
Age 35-44	2.366	1.634	3.427	<0.001
Age 45-54	3.956	2.787	5.615	<0.001
Age 55-64	8.452	5.998	11.909	<0.001
Male	1.603	1.375	1.869	<0.001
Nonwhite	0.749	0.615	0.912	0.004
Hispanic	0.762	0.533	1.089	0.136
Diagnosis risk score	1.323	1.287	1.360	<0.001
Crisis intervention time (each 30 minute)	0.998	0.989	1.007	0.659
Investigation-only*	1.474	1.225	1.774	<0.001
Investigation-detention	1.242	1.008	1.532	0.042
Prior days of outpatient treatment	0.999	0.998	1.000	0.013
Random effects (RSN)				
Chelan/Douglas	0.999	0.980	1.019	0.953
Grays Harbor	1.000	0.981	1.02	0.990
Greater Columbia	1.000	0.981	1.020	0.998
King	1.001	0.982	1.021	0.856
North Sound	1.000	0.981	1.020	0.951
Peninsula	1.000	0.980	1.019	0.962
Pierce	1.001	0.982	1.021	0.863
Southwest Behavioral Health	0.999	0.979	1.019	0.891
Spokane	1.000	0.980	1.019	0.957
Thurston/Mason	1.000	0.980	1.020	0.981
Timberlands	0.999	0.980	1.019	0.939

Notes:

Likelihood ratio: 698.3899.

*Reference crisis-only.

Bold hazard rates significant at p < 0.05.

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