



# INFORMATION BRIEF

## Virginia SIS Comparisons for SEVTC and Comprehensive Community Waiver Populations

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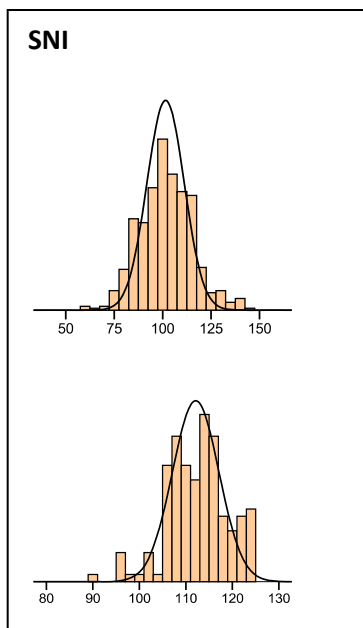
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### Introduction

Virginia has used the Supports Intensity Scale (SIS) for years to write better individual service plans for people in the community and to describe the support needs of the individuals being served. In this HSRI Information Brief the results from the SIS assessments are described and compared for individuals from Southeastern Virginia Training Center (SEVTC) and individuals being served statewide by the state’s comprehensive waiver.

### Results – 1. All Individuals Can Be Served in the Community

Overall, the 156 people at SEVTC and a sample group of 521 people in the Virginia comprehensive waiver have SIS results that can be easily compared. One main conclusion is that these individuals with developmental disabilities are all clinically eligible for Medicaid and each person can be served by the Virginia community comprehensive waiver. The Virginia community ranges of scores for (1) the SIS Support Needs Index (SNI), (2) the sum of Section 1 ABE standard scores (A is Home Living Activities, B is Community Living Activities, and E is Health and Safety Activities) capturing key support needs, (3) the total Medical problems, and (4) the total Behavioral problems for the individuals in the community encompass the range of scores for all of the people at SEVTC. This means that there are people being successfully served with these challenges in the community who are like the people facing these challenges at SEVTC.

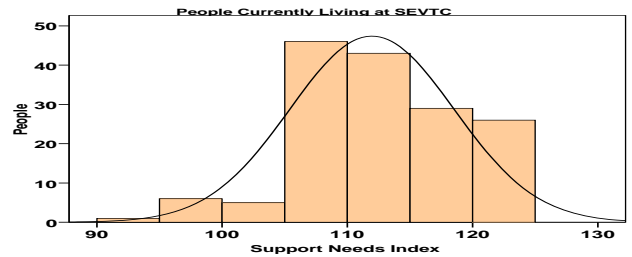
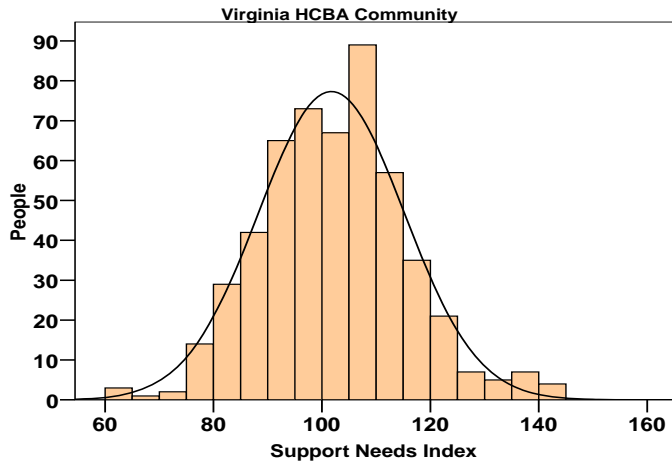


The 521 people being served in the community include people with the same support needs, behavioral challenges, and medical problems -

as the 156 people living at SEVTC.

Community	Minimum	Maximum
ABE	12	52
Medical	0	22
Behavior	0	20
SNI	60	143
<b>SEVTC</b>		
ABE	27	42
Medical	0	22
Behavior	0	20
SNI	90	124

**Results – 2. People Currently Living at SEVTC Have Considerable Needs for Support**



The 156 individuals currently living at the SEVTC have considerable needs for support and are depicted on the graph on the right. Though smaller than the sample group from the community, the 156 people from SEVTC have a higher need for general support needs that staff members, family, and friends can help with. They have statistically higher needs in the key areas of Home Living Activities, Community Living Activities, and Health and Safety Activities and more medical problems than the community sample. The behavioral problems measured by the SIS are statistically the same for the community sample and the people currently living at SEVTC. In the following summary table the SIS results for people from SEVTC represent the greatest needs of all the various comparison groups offered.

**SIS Norm Group and State Waiver SIS Results**

Group or State	People	Total Support Needs Index (Range 38-143)	ABE Support Needs (8-52)	Medical Support (Range 0-32)	Behavioral Support (Range 0-26)
SIS Norms	1,306	100.00	30.00	2.47	4.99
<b>SE Virginia Training Center (SEVTC)</b>	<b>156</b>	<b>111.96</b>	<b>35.37</b>	<b>6.32</b>	<b>5.25</b>
Sample from the Central Virginia Training Center	75	108.95	34.73	3.72	3.80
<b>Comprehensive Adult HCBS Waivers</b>					
<b>Virginia Waiver</b>	<b>521</b>	<b>101.74</b>	<b>30.56</b>	<b>2.43</b>	<b>4.77</b>
Oregon	401	101.00	29.95	3.27	4.98
Colorado	3,631	99.88	29.14	2.83	6.13
Georgia	5,206	98.20	28.72	1.95	3.79
Nebraska	288	100.42	30.11	3.23	4.81
Utah	3,759	100.09	29.96	2.29	4.36

## Comparison of Virginia SIS Results for SEVTC and the Comprehensive Waiver

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### Technical Notes

The SIS Support Needs Index (SNI) is an IQ like score representing support needs with an average of 100 and a standard deviation of 15. The sum of Section 1 ABE standard scores capturing key support needs is normed with the combined standard score of 30. The total Medical problems and total Behavioral problems are weighted-counts of the challenges people face in those important areas. The following tables provide more detailed comparisons of the SIS results from people at SEVTC and people using the Virginia community comprehensive waiver.

The range of these four SIS scores for the SEVTC institution group break into 3 roughly equal groups and the majority of scores of individuals in the Community group also fall into these 3 groups. These findings indicate that there are people in the Community with the same challenges as those faced by the people at SEVTC.

### Support Needs Index Scores

<b>SNI SCORES</b>	90 to 108	109 to 114	115 to 124	TOTAL
Institution Group	30%	34%	36%	100%
Community Group	52%	15%	11%	78%

### Sum of Section 1 ABE Scores

<b>SUM ABE SCORES</b>	27 to 33	34 to 36	37 to 42	TOTAL
Institution Group	30%	31%	39%	100%
Community Group	42%	18%	10%	70%

### Section 3a Medical Scores

<b>MEDICAL SCORES</b>	0 to 2	3 to 7	8 to 22	TOTAL
Institution Group	28%	39%	33%	100%
Community Group	68%	26%	6%	100%

### Section 3b Behavioral Scores

<b>BEHAVIORAL SCORES</b>	0 to 2	3 to 7	8 to 20	TOTAL
Institution Group	35%	35%	30%	100%
Community Group	41%	36%	23%	100%

Comparison of Virginia SIS Results for SEVTC and the Comprehensive Waiver

**Virginia Descriptive Statistics**

Groups from Virginia		People	Minimum	Maximum	Average	Std. Deviation
community	Sum ABE Stand SUM of ABE Standard Score	521	12	52	30.56	6.406
	Section3aTotal Section 3a Medical Total	521	0	22	2.43	3.138
	Section3bTotal Section 3b Behavior Total	521	0	20	4.77	4.592
	Supports Needs Index	521	60	143	101.74	13.441
leaving institution	Sum ABE Stand SUM of ABE Standard Score	156	27	42	35.37	3.283
	Section3aTotal Section 3a Medical Total	156	0	22	6.32	5.284
	Section3bTotal Section 3b Behavior Total	156	0	20	5.27	4.697
	Support Needs Index	156	90	124	111.96	6.569

**Virginia Group Statistics**

Groups from Virginia		People	Average	Std. Deviation	Std. Error Mean
Sum ABE Stand SUM of ABE Standard Score	community	521	30.56	6.406	.281
	leaving institution	156	35.37	3.283	.259
Section3aTotal Section 3a Medical Total	community	521	2.43	3.138	.137
	leaving institution	156	6.32	5.284	.425
Section3bTotal Section 3b Behavior Total	community	521	4.77	4.592	.201
	leaving institution	156	5.25	4.697	.378
Support Needs Index	community group	521	101.74	13.441	.589
	leaving institution	156	111.96	6.569	.519

Comparison of Virginia SIS Results for SEVTC and the Comprehensive Waiver

Virginia Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. 2-tailed	Mean Difference	Std. Error Difference	Lower	Upper
Sum ABE Stand ABE Standard Score	Equal variances assumed	48.888	.000	-9.109	674	.000	-4.862	.534	-5.909	-3.814
	Equal variances not assumed			-12.733	517.088	.000	-4.862	.382	-5.612	-4.111
Section3aTotal Section 3a Medical Total	Equal variances assumed	95.227	.000	-11.449	674	.000	-3.918	.342	-4.590	-3.246
	Equal variances not assumed			-8.774	187.334	.000	-3.918	.447	-4.799	-3.037
Section3b Total Section 3b Behavior Total	Equal variances assumed	.508	.476	-1.191	674	.234	-.503	.423	-1.333	.326
	Equal variances not assumed			-1.175	247.771	.241	-.503	.428	-1.346	.340
Support Needs Index	Equal variances assumed	63.371	.000	-9.246	674	.000	-10.324	1.117	-12.516	-8.131
	Equal variances not assumed			-13.152	540.382	.000	-10.324	.785	-11.866	-8.782

## Appendix: Validity Results of the SIS

- ✓ **Face Validity.** Developed to measure the construct of supports, the SIS has greater face validity than the ICAP or other traditional assessments. The assessment of support needs using the SIS is done directly by persons with first-hand knowledge of the individual. The SIS directly measures the level of supports needed to enable an individual to participate successfully in the life of his or her community. It necessarily looks at more than skills and deficits, considering motivation, health, etiology, problem behavior, environment and other variables influencing the need for supports. By measuring individual support needs directly, it avoids the error inherent in inferring support needs statistically based on adaptive and maladaptive behavior scales. It is transparent. The SIS assessment of needed supports is more explicit and straightforward than other traditional instruments, and hence is a more open platform for the stakeholder deliberation and decision-making that attends individual resource allocation and payment processes. The SIS uses multi-point scales to rate the type (monitoring – full physical assistance), frequency (none to hourly) and intensity (no time to more than 4 hours in a 24 hour period) of supports needed by an individual to participate in 57 distinct aspects of life in their communities. Behavioral, health and other factors affecting support needs are considered.
- ✓ **Content Validity.** To assure its content validity, the SIS was constructs were tested by 74 professionals working in the field of developmental disabilities. Using a Q-sort methodology, they narrowed the 130 candidate support indicators to 57, and reduced the 12 domains containing these indicators to seven. This makes the instrument more concise while still asking the right questions. Efforts have been made to see the efficacy of the SIS in predicting extraordinary support needs (N=274)<sup>1</sup>.
- ✓ **Internal Consistency.** The SIS is internally consistent<sup>2</sup>. It has good inter-item reliability (all items or subscales in the measure are measuring the same construct). The internal consistency reliability coefficients for all the SIS subscales, computed using Cronbach's Alpha method<sup>3</sup>, exceeded .90, which is the level widely accepted as demonstrating an acceptable level of internal consistency in assessment scales. The SIS also has a high degree of inter-rater reliability<sup>4</sup>: the SIS Index (total score) correlation coefficient was .87 (same interviewer, different respondent), .90 (different interviewer, same respondents), and .85 (different interviewer and different respondents) (N=40).
- ✓ **Construct and criterion validity.** The high correlation of SIS subscale scores with one another shows that the SIS measure has good construct validity, meaning that scores on the SIS are highly correlated with scores on measures of other constructs (for example, adaptive behavior and intelligence) that are believed to be correlated with the construct measured by the SIS. To establish its criterion validity, the SIS measures of support needs were correlated with an independently constructed "criterion measure" - a Likert-type scale of support needs. All correlation coefficients exceeded the .35 minimum level required to demonstrate criterion-related validity<sup>5</sup>. Support for the construct validity of the Supports Intensity Scale based on clinician rankings of need (N=50) was explored in Ontario Canada in 2009.<sup>6</sup>

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<sup>1</sup> Wehmeyer, M., Chapman, T. E., Little, T.D., Thompson, J. R., Shalock, R., and Tassé, M. J. Efficacy of the Supports Intensity Scale (SIS) to Predict Extraordinary Support Needs. *American Journal of Intellectual and Developmental Disabilities*, 114(1), 3-14.

<sup>2</sup> Tassé, M. J. Thompson, J. R. & McLaughlin, C. (2006). *Inter-interviewer and inter-respondent concordance on the Supports Intensity Scale*. Poster presentation at the International Summit for the Alliance on Social Inclusion. May 3-5. Montreal, Canada.

<sup>3</sup> Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334.

<sup>4</sup> Thompson, J. ( Feb 21, 2006). SIS reliability: preliminary findings and procedures. Email from J. Thompson to J. Ashbaugh.

<sup>5</sup> Hammill, D.D., Brown, L., and Bryant, B.R. (1992). *A consumer guide to tests in print*. Austin, TX: Pro-Ed.

<sup>6</sup> Weiss, J. A., Lunsky, Y., Tassé, M. J., & Durbin, J. (2009). Support for the construct validity of the Supports Intensity Scale based on clinician rankings of need. *Research in Developmental Disabilities*. 30, 933-941.