

Youth in Community-Implemented Substance Use Prevention Programs

Service Use, Risk Factors, and Education Experiences

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THE DEPARTMENT OF SOCIAL AND HEALTH SERVICES Division of Behavioral Health and Recovery (DBHR) provides funding and oversight for substance abuse prevention services across Washington. DBHR's prevention goals are to prevent and delay the misuse of alcohol, tobacco and other drugs, reduce the negative consequences of drug misuse, and prevent and reduce alcohol and other drug use disorders. Prevention services are delivered in collaboration with community prevention coalitions, counties, Tribes, statewide organizations, educational service districts, local schools, and state and federal agencies.

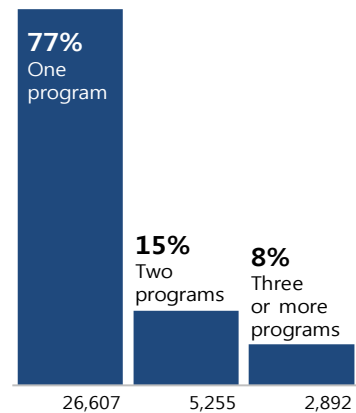
This report provides a profile of youth who received state-funded community-implemented prevention services which were curriculum-based between SFY 2005 and SFY 2013. Due to data restrictions, prevention and intervention services offered through the Office of the Superintendent of Public Instruction (OSPI) could not be included in this report. Community-implemented services account for about one-half of the substance use prevention funds dispersed in Washington by DBHR.

The profile includes demographics, social service use, risk factors, and education experiences of youth who participated in curriculum-based prevention programs. Analyses are descriptive and are limited to youth who received other services from DSHS or the Health Care Authority (in order to capture the other necessary administrative data). This is the first study that integrates prevention service data from community-implemented services with social service and educational records in the state.

Key Findings

- Youth most commonly had their first experience in a DBHR-funded prevention program around age 11 and participated in one program over the study period.**
Seventy-seven percent of youth who received prevention services participated in one program between SFY 2005 and SFY 2013. The median time spent in prevention programming was 5 hours.
- Youth who participated in prevention services were more likely to have a mental health treatment need or substance use issue compared to youth on Medicaid.**
Participants were also less likely to use economic services, to be English language learners, or be involved in the criminal justice system during the baseline period.

Number of Programs



Study Design

DBHR Prevention Services

DBHR funds and manages a number of contracts for prevention programs and services. These include prevention/intervention services in local schools implemented by OSPI and the nine Educational Service Districts in Washington and prevention activities led by community coalitions.¹ This report focuses on youth who participated in curriculum-based prevention programming funded by community coalitions or through Tribal planning and implementation during the period from SFY 2005 to 2013. These services account for about one-half of prevention funds dispersed in Washington State. Curriculum-based prevention programming refers to prevention activities in which the same group of youth meets multiple times using a sequenced curriculum.

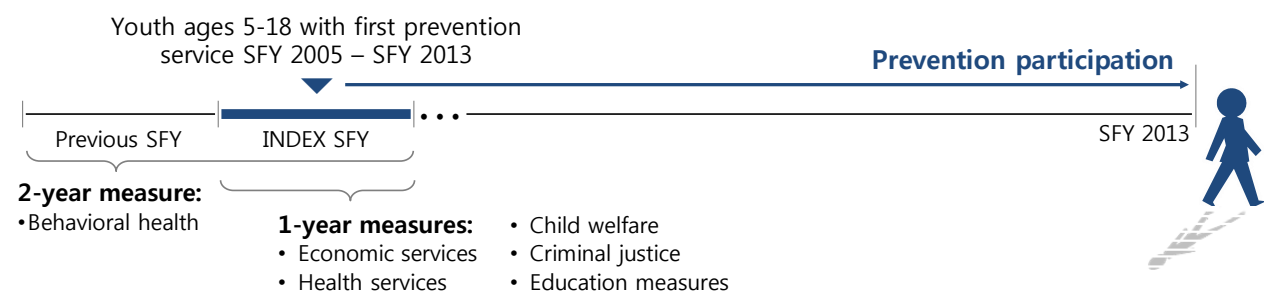
Starting in 2011, the state funding model was redesigned to leverage limited prevention resources in targeted, high-need communities. This effort, the Community Prevention and Wellness Initiative (CPWI), focused services in communities with high levels of underage drinking, youth delinquency, mental health needs, and poor academic performance. Selected communities had to demonstrate a readiness to address the needs within the community to be considered for funding. CPWI provided community coalitions with funding, training, and technical assistance for deploying prevention services in their communities. At the time this report was developed, CPWI had funded 52 communities located in all 39 counties.

Study Population

The study population included youth ages 5 to 18 who received community-administered curriculum-based prevention services between SFY 2005 and SFY 2013 and had also received social or health services in the state. A total of 34,754 youth received community-administered curriculum-based prevention services in this time period, and were included in this study.² In addition, we identified a subset cohort of 11 to 14 year olds who received prevention programming in SFY 2005 or SFY 2006 which allowed for a longer term follow up of young adult outcomes for these youth.

The study timelines are visualized below. In Study Timeline 1, each participating youth was assigned an index state fiscal year based on the year in which they first received a prevention service. For example, a young person who first received a prevention service in SFY 2008 would be assigned SFY 2008 as their index year. All baseline information is measured relative to each individual youth's index year, which could fall anywhere between SFY 2005 and SFY 2013. Study Timeline 2 focuses only on youth 11-14 whose index year was either SFY 2005 or SFY 2006, to allow sufficient follow-up time to examine young adult outcomes.

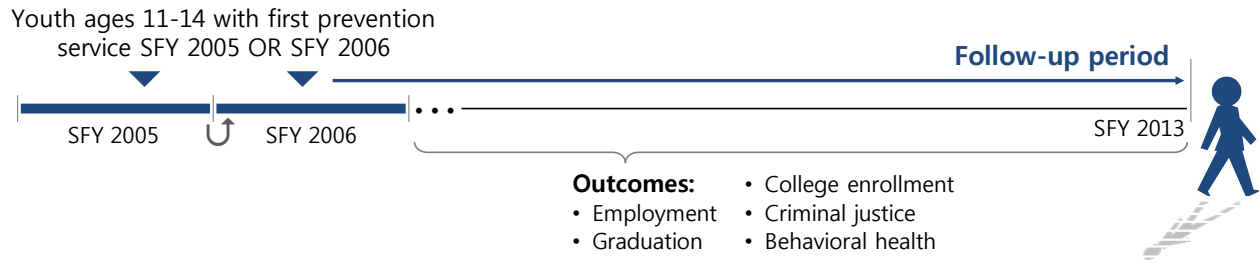
Study Timeline 1: Program Participation and Baseline Information



¹ OSPI data could not be included because a lack of individual identifiers prevented data from being linked to ICDB. However, detailed reports on OSPI prevention activities are available here: <http://www.k12.wa.us/PreventionIntervention/publications.aspx>

² For comparisons to the Medicaid population, we restrict to youth participating in prevention between SFY 2010 and SFY 2013.

Study Timeline 2: Outcomes for a Cohort of Prevention Participants



Data Sources

This study used a cross-agency limited data set that contained data from the DSHS Integrated Client Database (ICDB) maintained by the DSHS Research and Data Analysis Division linked to individual-level data from the P-20 education data warehouse maintained by the Washington State Education Research Data Center (ERDC) of the Office of Financial Management. The education data was both matched and linked to the ICDB data set by ERDC who provided a de-identified extract for analysis. The data set included youth who received DSHS or Health Care Authority Services (including Medicaid) from 2000 to 2012. For this project, prevention service information from DBHR's Performance-Based Prevention System (PBPS) database was also linked to ICDB and education data.

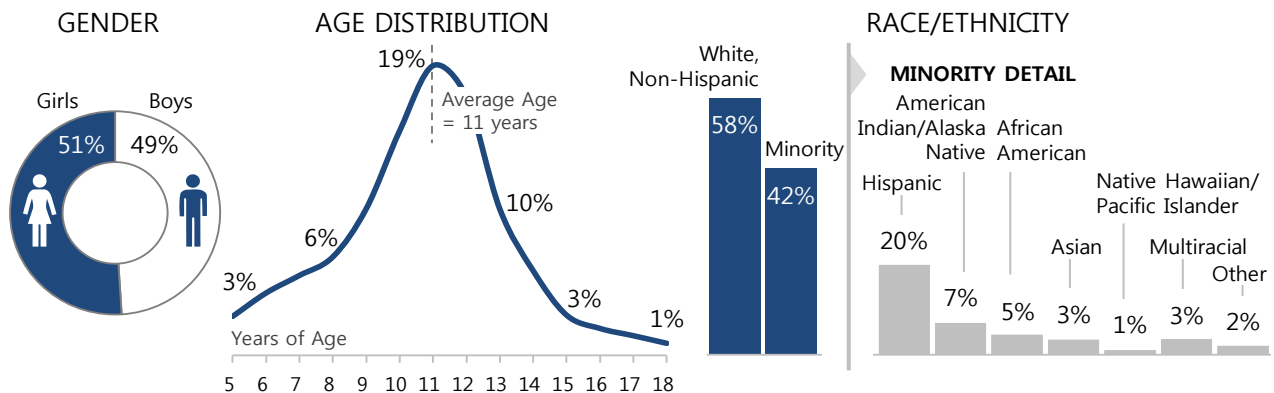
Who participated in prevention programs and what were their program experiences?

Demographics

On average, youth were about 11 years old when they first participated in a prevention program. The majority of participants were white (58 percent); the next largest group was Hispanic youth (20 percent), followed by American Indian youth (7 percent) and African American youth (5 percent). Slightly more female youth participated than males (51 percent compared to 49 percent).

FIGURE 1.

Demographics of Prevention Program Participants, SFY 2005 to SFY 2013



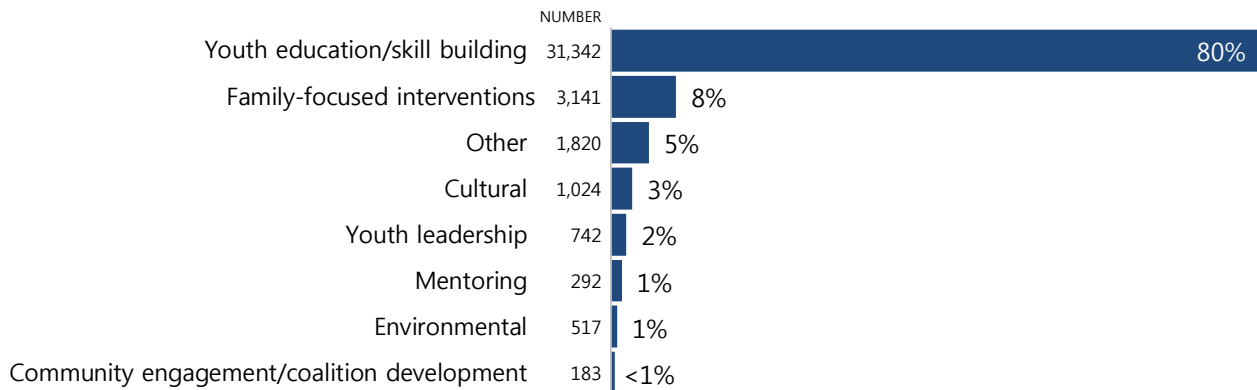
SOURCE: DSHS ICDB-ERDC linked limited data set.

Prevention Program Experiences

The majority of youth participated in programs aimed at youth education and skill building (80 percent). The next most popular type of program for this age range was family-focused interventions (8 percent).³ Very few youth participated in any of the other program types. LifeSkills Training, an evidence-based youth education/skill building curriculum that focuses on “the skills necessary to understand and resist prodrug influences,” was the most frequently implemented individual program.⁴

FIGURE 2.

Program Type for Prevention Program Participants, SFY 2005 to SFY 2013

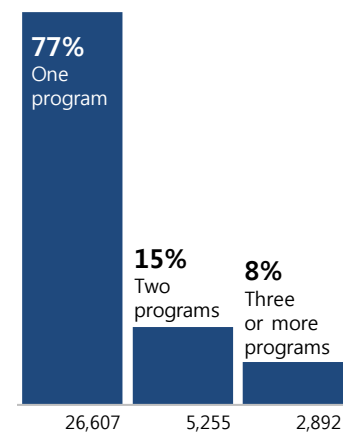


SOURCE: DSHS ICDB-ERDC linked limited data set.

Note: Youth were counted in each program they participated in, so percentages will sum to greater than 100.

FIGURE 3.

Number of Programs



Over three-quarters of youth who received prevention services participated in one prevention program over the study period. Fifteen percent of youth participated in two programs over the study period, while 8 percent participated in three or more programs. The median time youth spent participating in prevention programs over the study period was 5 hours.

SOURCE: DSHS ICDB-ERDC linked limited data set.

³ Family-focused interventions are recorded in PBPS as ‘parenting education.’ We refer to them here as family-focused interventions in order not to imply that youth in these programs were parents. Instead, the vast majority were youth participating with their parents in family-focused programs aimed at improving family communication and norms about alcohol and drug use.

⁴ Refer to the LifeSkills Training website for details: <https://www.lifeskillstraining.com/overview.php>

What other services did youth receive and what risk factors did they face?

To examine services and risk factors of youth who participated in prevention programs, we selected the subset of youth who participated between SFY 2010 and SFY 2013. This allowed us to compare service use and risk factors of prevention program participants to the larger Medicaid population of the same age over the same time period.

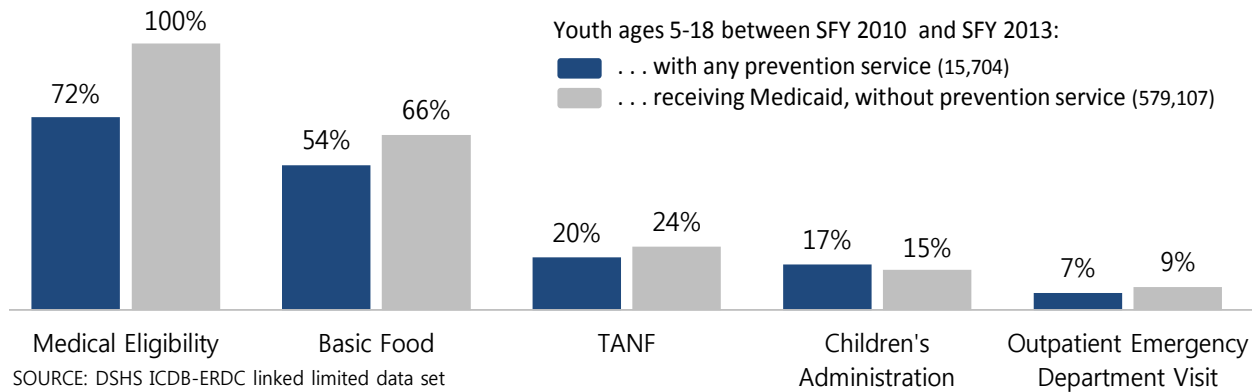
Economic Services, Health Services, and Child Welfare Involvement

Of the 15,704 youth in our study cohort, 72 percent received Medicaid services, 54 percent received Basic Food, and 20 percent received TANF in the same year they participated in prevention activities. Compared to the Medicaid population of the same age range, prevention program participants were somewhat less likely to receive Basic Food or TANF. All students in the Medicaid comparison population received Medicaid services, by definition. These figures indicate that prevention participants were somewhat less economically disadvantaged than the broader Medicaid population.

Seventeen percent of prevention program youth interacted with the child welfare system through DSHS Children's Administration and 7 percent had an outpatient Emergency Department (ED) visit during the year they received prevention services. These rates differ only slightly from the rates of the comparison Medicaid population.

FIGURE 4.

Economic Services, Health Services, and Child Welfare Involvement



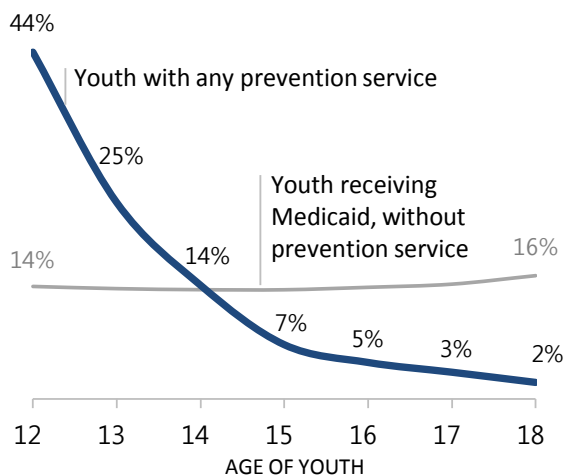
Criminal Justice Involvement and Behavioral Health

For measures of criminal justice involvement and behavioral health conditions, we limit the cohort to youth who were 12-18 when they received a prevention service. This age restriction was necessary because of concerns about the reliability of each of the measures for youth under 12 years of age.

FIGURE 5.

Most Youth in Prevention Programs Were at the Younger End of 12-18 Age Range

Youth ages 12-18 between SFY 2010 and SFY 2013:



SOURCE: DSHS ICDB-ERDC linked limited data set.

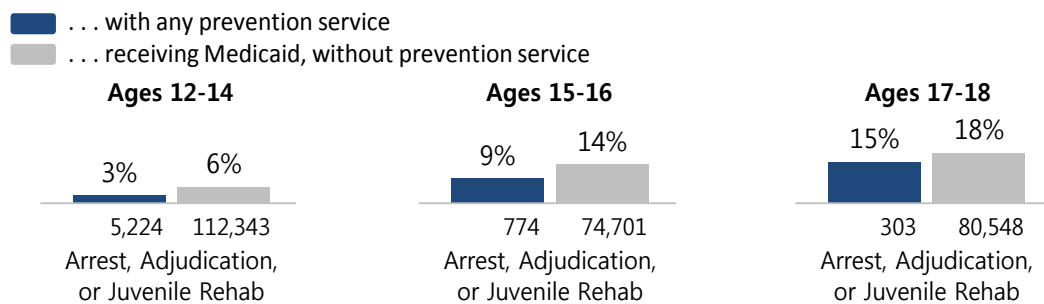
Criminal justice involvement and behavioral health conditions are directly related to age with both occurring more as young people get older. Since the prevention service population within the 12-18 year-old age range was at the younger end of the distribution relative to the full Medicaid population (see Figure 5), we examined both criminal justice involvement and behavioral health conditions within smaller age groups.

Youth engaged in prevention services tended to be less involved in the criminal justice system, as denoted by arrest, adjudication, or Juvenile Rehabilitation participation, than Medicaid youth of the same age during the baseline period (Figure 6).⁵ This pattern was found at each age range we examined. Therefore, youth engaged in prevention programs tended to be less risky in terms of criminal behavior than Medicaid youth.

FIGURE 6.

Criminal or Juvenile Justice System Involvement

Youth between SFY 2010 and SFY 2013:



SOURCE: DSHS ICDB-ERDC linked limited data set.

To examine behavioral health risk factors, we limited the prevention population to youth who had publicly funded medical coverage. This restriction was necessary because behavioral health conditions were not observable for youth without medical records in the state's administrative databases. As with criminal justice involvement, we examined behavioral health risks within smaller age ranges to ensure a fair comparison. Behavioral health conditions were identified using a combination of diagnoses, prescriptions and services related to mental health and substance abuse, as well as substance-related arrests.

⁵ Counts of youth in each age range are available under the corresponding bar graphs.

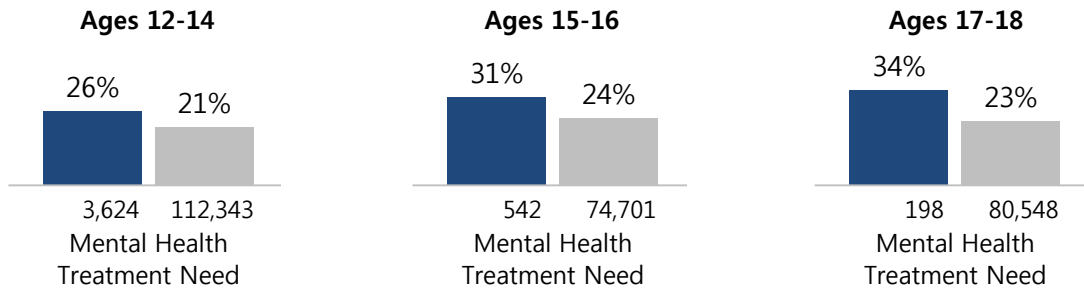
Within each age range, youth who participated in prevention programs were slightly more likely than the Medicaid population to have an identified mental health treatment need. Youth who participated in prevention services were also more likely to have identified substance use disorders, though this was only the case for youth ages 15 and older. Our findings suggest that prevention services were reaching youth in the state that would benefit from substance use prevention and mental health promotion services.

FIGURE 7

Mental Health Treatment Need

Youth between SFY 2010 and SFY 2013:

- . . . with any prevention service (among those with medical eligibility only)
- . . . receiving Medicaid, without prevention service



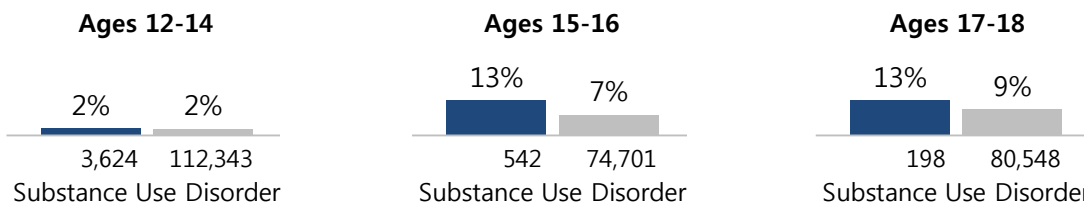
SOURCE: DSHS ICDB-ERDC linked limited data set.

FIGURE 8

Substance Use Disorder

Youth between SFY 2010 and SFY 2013:

- . . . with any prevention service (among those with medical eligibility only)
- . . . receiving Medicaid, without prevention service



SOURCE: DSHS ICDB-ERDC linked limited data set.

What were youth’s educational experiences when they participated in prevention programs?

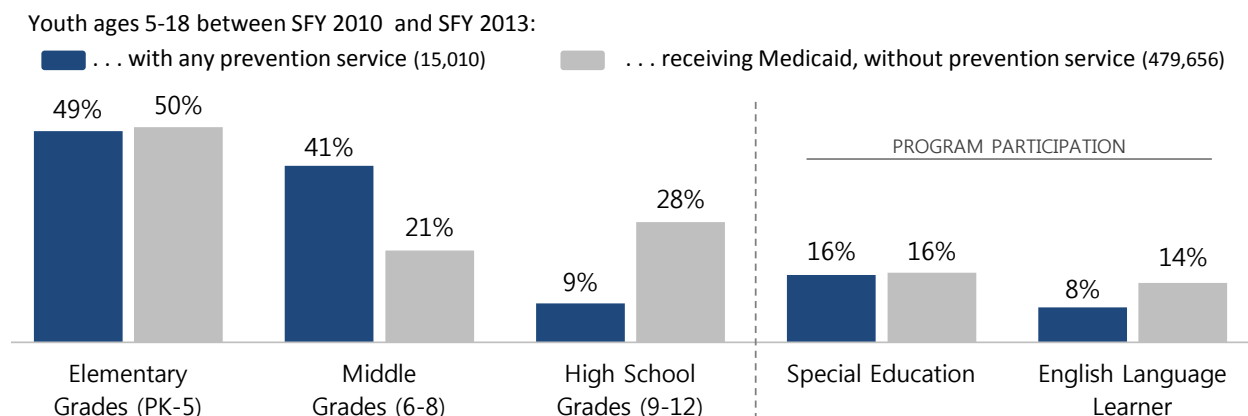
To examine the educational experiences of youth who participated in prevention services between SFY 2010 and SFY 2013, we limited our sample to youth with educational records in the same year they participated in prevention.

Education Experiences

The majority of youth ages 5 to 18 who received their first prevention service in SFY 2010 through SFY 2013 were in the elementary or middle school grades. Fewer than 10 percent were in high school when receiving their first prevention service. About 16 percent of both youth receiving prevention services and Medicaid youth received special education services. However, fewer youth who received prevention services were English Language Learners (8 percent) than in the general Medicaid population (14 percent).

FIGURE 9.

Grade Level and Education Program Participation of Prevention Participants



SOURCE: DSHS ICDB-ERDC linked limited data set.

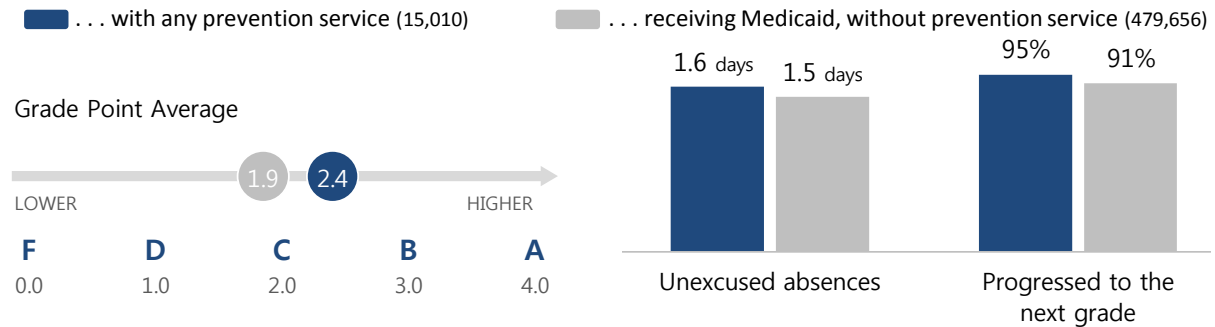
Youth who received prevention services had higher GPA (2.4) than the Medicaid population (1.9). Youth in both groups had comparable absenteeism: those involved in prevention programs missed on average 1.6 days of school compared to 1.5 days for the Medicaid population.⁶ Ninety-five percent of prevention participants progressed to the next grade as expected after the year they received prevention services. The comparable figure for Medicaid youth was 91 percent.

⁶ The reliability of OSPI absence data in SFY 2010, SFY 2011, and SFY 2012 could not be validated against aggregate reports provided by districts. Therefore, the absence counts reported here may be subject to measurement error.

FIGURE 10.

GPA, Unexcused Absences, and Grade Progression of Prevention Participants

Youth ages 11-14 in SFY 2005 or SFY 2006:



In summary, youth who participated in prevention services were similar to, or in some cases had fewer risk factors than, the Medicaid population. In terms of participation in special education and school absences, youth receiving prevention services were similar to the Medicaid population. However, youth who participated in prevention activities were less likely to be English Language Learners and had higher grade point averages than the Medicaid population as a whole.

What were later outcomes for youth after participating in prevention programming?

To evaluate longer-term outcomes, we selected a cohort of 11 to 14 year olds who received prevention services in SFY 2005 or SFY 2006 in order to measure outcomes when they would have been 18 to 22 (SFY 2013).

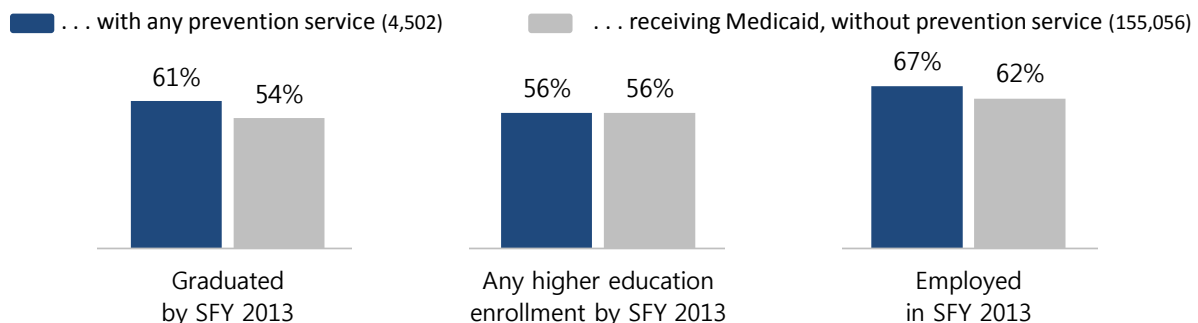
Education and Employment Outcomes as Young Adults

By the time they were 18 to 22 years old, 61 percent of prevention participants had graduated from high school. In the Medicaid population of the same age, the graduation rate was 54 percent. Fifty-six percent of prevention participants had enrolled in state community or technical colleges or four-year universities by SFY 2013. Two-thirds of youth who received prevention services were employed in at least one quarter in SFY 2013.

FIGURE 11.

Education and Employment for a Cohort of Prevention Participants

Youth ages 11-14 in SFY 2005 or SFY 2006:



SOURCE: DSHS ICDB-ERDC linked limited data set.

Criminal Justice Involvement and Behavioral Health as Young Adults

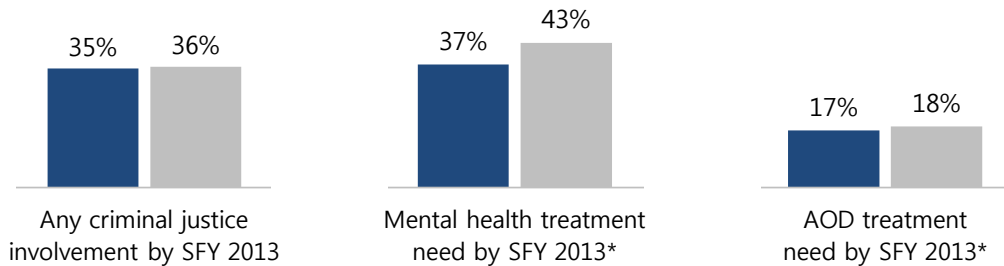
About one-third of prevention participants were involved in the criminal justice system by the end of SFY 2013, (using a broad measure which includes any arrests, convictions, or Juvenile Rehabilitation involvement). Thirty-seven percent had evidence of a mental health treatment need and 17 percent had a substance use treatment need identified by SFY 2013.

FIGURE 12.

Criminal Justice and Behavioral Health for a Cohort of Prevention Participants

Youth ages 11-14 in SFY 2005 or SFY 2006:

■ . . . with any prevention service (4,502) ■ . . . receiving Medicaid, without prevention service (155,056)



SOURCE: DSHS ICDB-ERDC linked limited data set.

Few major differences between prevention recipients and the Medicaid population were found during the follow up. Prevention participants were more likely to graduate from high school than the Medicaid population as a whole, but were similar on other outcomes including employment, higher education enrollment, and criminal justice involvement. Participating youth were slightly less likely to have an indication of mental health or substance use disorder treatment need.

Since this study is purely descriptive, we cannot attribute the difference in graduation to participation in prevention programs. The population that participated in prevention programs was less likely to have key risk factors at baseline, including lower use of economic services and better educational performance as measured by GPA. Therefore, pre-existing differences cannot be ruled out as the reason for any differences during the follow up period.

Discussion

This report is the first state-wide study of youth participants in community-implemented, curriculum-based prevention programs that links education, social service, and other outcome measures. The report provides a profile of who participated in community-administered, curriculum-based prevention programs, what other DSHS services they used, what risk factors they faced, and what educational and young adult outcomes they experienced.

We found that youth participated in a limited amount of prevention programming: most students were involved in one program over their K-12 years and for about 5 hours total. One major limitation of this study was that we could only examine participation in community-implemented, curriculum-based services. We were unable to look at participation in OSPI-based prevention/intervention services⁷ or in other types of prevention services (e.g. one-time events or drop-in activities). Community-implemented prevention accounts for about one-half of state funds for prevention. With identified data from these other services, a broader look at prevention participation could be created.

Overall, we find that youth who participated in community-administered, curriculum-based prevention programs were quite similar to the Medicaid population as whole. On a few areas, youth who participated in prevention programs tended to have lower rates of key risk factors including lower use of economic services, higher GPAs, and lower criminal justice involvement. However, youth participating in prevention services tended to have higher incidences of mental health conditions and substance use disorders. This suggests that community-based prevention services tended to reach students who were at risk in terms of behavioral health conditions, but did not necessarily reach youth with other risk factors. However, we were again limited in our conclusions since we were unable to examine school-based prevention services which include interventions with youth who are at high risk of initiating or who have already initiated substance use. School-administered prevention services may be more likely to target indicated youth.

Youth who participated in prevention programs were also similar to the broader Medicaid population in terms of outcomes, though a few differences emerged. Prevention participants were somewhat more likely to graduate from high school and be employed by the time they were 18 to 22 years old and somewhat less likely to exhibit a mental health treatment need. However, this study is descriptive and cannot distinguish the impacts of prevention programming from pre-existing differences between populations. Further, in general it can be challenging to show impacts of community-based initiatives on individuals. Even with the limitations of this study, it offers useful descriptive information on the social service use and education experiences of prevention participants that has not been available before.

Future Directions

For this study, we were restricted to the use of data in the PBPS data system for prevention services that were recorded at the individual level. Many prevention activities were either not recorded at the individual level or did not include the identifying information on clients needed to link to the ICDB. For example, data collected in PBPS for OSPI's prevention and intervention services does not include youth-level identifiers, and therefore could not be included in the analysis. If complete participant and program detail, as well as service dates and locations, were recorded consistently in a prevention data system, this would allow for more sophisticated evaluation of specific programs, particularly those that are new and innovative.

⁷ OSPI data could not be included because a lack of individual identifiers prevented data from being linked to ICDB. However, detailed reports on OSPI prevention activities are available here: <http://www.k12.wa.us/PreventionIntervention/publications.aspx>

STUDY DESIGN AND OVERVIEW

This study provides information about youth who participated in community-based prevention programming overseen by the Division of Behavioral Health and Recovery (DBHR) between SFY 2005 and SFY 2013. This study was approved for an Exempt Determination by the Washington State Institutional Review Board.

DATA SOURCES AND MEASURES

This study used a cross-agency de-identified limited data set that contained data from the DSHS Integrated Client Database (ICDB) maintained by the Research and Data Analysis Division linked to individual-level data from the P-20 education data warehouse maintained by the Washington State Education Research Data Center (ERDC) of the Office of Financial Management. The ERDC completed linking and matching to provide RDA with de-identified limited education data for analysis. The limited data set included youth who received DSHS or Health Care Authority Services (including Medicaid) from 2000 to 2012. This study focused on young people ages 5 to 18 who received prevention services.

The report includes the following measures and data sources:

- **Prevention participation:** Participation in prevention services, number of hours, number of programs, and program type were identified using prevention service data contained in the Performance Based Prevention Services database records.
- **Demographics:** Youth age, race, and gender comes from service records in the ICDB.
- **Economic services:** Economic service information (TANF and Basic Food receipt) comes from Economic Services Administration service records in the ICDB.
- **Health services:** Medicaid coverage is obtained from eligibility codes available in the ICDB.
- **Behavioral health:** Data from ProviderOne (medical) and the Consumer Information System (mental health service records) were used to identify the presence of mental illness based on diagnosis, prescriptions, and treatment records. Data from three information systems—Provider One (medical), TARGET (substance use disorders), and Washington State Patrol (arrests)—were used to identify probable substance use disorders based on diagnoses, prescriptions, treatment records, and substance-related arrests.
- **Criminal justice involvement:** Criminal justice involvement was identified through conviction data from the Administrative Office of the Courts, Washington State Patrol arrest data, and Juvenile Rehabilitation services. A youth was identified as criminally involved if he/she had any arrests, convictions, or Juvenile Rehabilitation involvement.
- **Education experiences:** Education experiences data came from the Comprehensive Education Data and Research System (CEDARS) maintained by the Office of the Superintendent of Public Instruction. Grade level, GPA, number of unexcused absences, special education, and English Language Learner are taken directly from CEDARS records. Grade progression was defined as enrolling in school in the following year and ascending one grade level.
- **Young adult outcomes:**
 - High school graduation was identified through a graduation code in the CEDARS enrollment data by the end of SFY 2013.
 - Higher education enrollment was defined as at least one enrollment record in either the four-year public higher education or State Board for Community and Technical College data by the end of SFY 2013.
 - Employment was identified using Employment Security Department (ESD) unemployment insurance data. Individuals were identified as employed if they had any covered employment in SFY 2013.



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VISIT US AT: <https://www.dshs.wa.gov/SESA/research-and-data-analysis>

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