

APPENDIX D

Analysis of School-Based Health Center Clinic and School District Data for High School and Middle School Students 2001-2002 School Year July 29, 2003

INTRODUCTION

School-Based Health Center (SBHC) clinic user data from the 2001-2002 school year were linked with school district data to determine measures related to the SBHC impact on school performance and academic achievement. These indicators were examined in Seattle's 11,950 high school students and 10,142 middle school students. It was hypothesized that **SBHC clinic users** would be:

- Hypothesis 1:** more likely to have better school performance as indicated by GPA, promotion status.
- Hypothesis 2:** more likely to have better school attendance and fewer school disciplinary events.

Students in schools with SBHCs, whether they use the SBHC or not, will be positively influenced by the presence of the SBHC and would:

- Hypothesis 3:** demonstrate better school performance than students from schools that do not have SBHC.
- Hypothesis 4:** would have better attendance records and fewer disciplinary actions in comparisons to students from schools that do not have SBHC.

METHODS

The variables used in this analysis are described below:

SBHC User status = **SBHC User** (student has one or more visits to SBHC)
SBHC Non-User (student has no visits to SBHC)
Non-SBHC School (student attends school that does not have and is not served by SBHC)

Covariates = **Race/ethnicity, Age, Free/reduced lunch, Geocode, ESL status, Special Ed status**

Outcome Variables = School Performance
GPA (01-02 school year)
Positive change in GPA from 00-01 to 01-02 school year
Promotion Status
Attendance, Truancy, Disciplinary Actions
Number of absences past year (01-02)
Number of times truant past year
Suspension history - ever, past year yes/no, #
Expulsion history - ever, past year yes/no
Disciplinary events - ever, past year yes/no, #

RESULTS

I. HIGH SCHOOLS WITH SCHOOL-BASED HEALTH CENTERS - Comparison of Users vs. Non-Users:

A. Characteristics of Users

Examination of selected characteristics indicated a number of statistically significant demographic differences in rates of use of the school-based health centers. The overall percentage of high school students who used the teen health centers was 24.8%. This ranged from 9.7% at Ballard, presumably because the program is newer there, to 37.8% of students at Sealth. (Table 1)

Table 1. Percentage of Students Using the Teen Health Center at 11 High Schools with or Served by School-Based Health Centers

School*	Users		Total
	#	(%)	
Ballard	139	(9.7)	1437
Cleveland	230	(30.6)	752
Franklin	363	(24.5)	1479
Garfield	404	(24.9)	1621
Roosevelt	305	(19.3)	1577
Sealth	331	(37.8)	875
West Seattle	312	(37.1)	842
Rainier Beach	230	(32.5)	707
Hale	240	(26.3)	914
Nova	36	(14.6)	246
Summit K-12	40	(25.2)	159
Total	2630	(24.8)	10,609

Gender: School-based health center users were significantly more likely to be female than male (68.3% vs. 31.7%). (Table 2)

Race/Ethnicity: There was considerable variation by race/ethnicity. The highest percentage of users was among white students (37.6%) followed by African American students (26%), Asians (23.6%), Latinos (10.8%) and American Indian/Alaska Natives (2.1%). Relative to their percentages of the school population, African Americans have the highest rate of use. Approximately 20% of the students in these eleven schools are African American and yet they represent 26% of school-based health center users. Latino and American Indian/Alaska Native student user status is consistent with their distribution in the school population. However, relative to their distribution in the school population, Asian (26%) and white (41.8%) students are under-represented among school-based health center users. (Table 2)

Bilingual: School-based health center users were significantly less likely to be bilingual than non-users (11% vs. 13.5%). (Table 2)

Free/Reduced Lunch: School-based health center users were significantly more likely to be eligible for free or reduced lunch compared to non-users (41% vs. 31.4%). This finding is consistent with the goals of the school-based health centers to reach and serve students who have the least economic resources and

might otherwise have less access to health care. This finding suggests that the school-based health centers may potentially play an important role in reducing health disparities. (Table 2)

Living Situation: School-based health center users were less likely to live with both parents than non-users (50.9% vs. 61.1%). (Table 2)

Special Education Status: More school-based health center users compared to non-users were in a special education program (12.5% vs. 10.8%). (Table 2)

Gifted Program Status: Fewer school-based health center users compared to non-users were in a gifted education program (2.0% vs. 3.5%). (Table 2)

Grade in School: There was a strong gradient indicating that as users of school-based health centers were more likely to be in the higher grades. (Table 2)

Table 2. Demographic Characteristics of Students in 11 High Schools With or Served by School-Based Health Centers (N=11,950)

Characteristic		Users	Non-Users	*p-value
Gender*	Female	68.3%	45.4%	p<.0001
	Male	31.7%	54.5%	
Race/Ethnicity*	Asian	23.6%	26.8%	p<.0001
	African American	26.0%	18.5%	
	Latino	10.8%	9.2%	
	American Indian/Alaska Native	2.1%	2.2%	
	White	37.6%	43.2%	
Bilingual*		11%	13.5%	p=.001
Free/Reduced Lunch*		41%	31.4%	p<.0001
Lives with both parents*		50.9%	61.1%	p<.0001
Special Education Status*		12.5%	10.8%	p=.014
Gifted Program*		2.0%	3.5%	p<.0001
Grade*	9 th	21.2%	26.3%	p<.0001
	10 th	24.7%	26.4%	
	11 th	26.1%	24.3%	
	12 th	28.0%	23.0%	

*Statistically significant difference across subgroups not due to chance alone

B. Comparisons between Users and Non-Users - Academic Performance and Disciplinary Outcomes

Examination of academic and disciplinary outcomes showed some variation associated with user status of school-based health centers. Associations are shown before and after adjustment for potentially important covariates; race/ethnicity, gender, school, free or reduced lunch status, living with both parents, and enrollment in gifted program. (See Table 3)

Cumulative GPA: A GPA equivalent of a "C" or better was positively associated with being a school-based health center user with 94.4% of users compared to 92.3% of nonusers having a GPA of 2.0 or more. This difference was statistically significant. After adjustment for other potentially confounding factors the difference continued to be statistically significant.

Long Term Suspensions: School-based health center users and non-users showed no differences in their likelihood of long term suspensions in the past year or ever.

Short Term Suspension: Student users of the school-based health centers were more likely than non-users to have been suspended for a short period of time ever (27.2% vs. 19.8%) and in the past year (7.8% vs. 4.8%). This difference was reduced after adjusting for covariates.

Expulsions: School-based health center users and non-users showed no differences in their likelihood of expulsion in the past year or ever.

Truancy: School-based health center users initially showed a higher rate of truancy in the 2000-2001 or 2001-2002 school years but after adjusting for covariates the association disappeared.

Retention in a Grade: There was no difference between school-based health center users and non-users in their likelihood of having been previously retained in a grade.

Attendance: Students who did not use the school-based health center had better rates of attendance compared to school-based health center users. This finding remained strong even after adjusting for covariates.

Table 3. Academic and Disciplinary Outcomes of Students in 11 High Schools With or Served by School-Based Health Centers (N=10,609)

Academic and Disciplinary Outcomes	SBHC Users	SBHC Non-Users	Odds Ratio	95% Confidence Interval	*p-value
Cumulative GPA* (% with 2.0 or higher)	94.4%	92.3%	1.4 1.5adj	(1.2-1.7) (1.2-1.8)	p<.0001 p<.0001
Long Term Suspension (2001/2002)	0.9%	1.0%	0.9 0.9adj	(0.6-1.5) (0.6-1.5)	n.s. n.s.
Short Term Suspension* (2001/2002)	7.8%	4.8%	1.7 1.7adj	(1.4-2.0) (1.4-2.1)	p<.0001 p<.0001
Expulsion (2001/2002)	1.3%	1.1%	1.1 1.3adj	(0.8-1.7) (0.9-2.0)	n.s. n.s.
Long Term Suspension (Ever)	3.5%	3.4%	1.0 1.1adj	(0.8-1.3) (0.8-1.4)	n.s. n.s.
Short Term Suspension (Ever)*	27.2%	19.8%	1.5 1.7adj	(1.4-1.7) (1.5-1.9)	p<.0001 p<.0001
Expulsion (Ever)	4.5%	4.8%	0.9 1.0adj	(0.8-1.2) (0.8-1.2)	n.s. n.s.
Truant (2000/2001)*	7.5%	6.2%	1.2 1.1adj	(1.0-1.4) (0.9-1.3)	p=.02 n.s.
Truant (2001/2002)*	7.9%	6.8%	1.2 1.0adj	(1.0-1.4) (0.9-1.2)	p=.04 n.s.
Retained in a grade	9.7%	8.6%	1.1 1.1adj	(1.0-1.3) (1.0-1.3)	n.s. n.s.
Attendance* ≥ 98.12% of school days present	69.2%	78.3%	0.6 0.7adj	(0.6-0.7) (0.6-0.8)	p<.0001 p<.0001

*Statistically significant difference across subgroups not due to chance alone, adj=Adjusted for the following covariates: race/ethnicity, gender, free or reduced lunch status, living with both parents, and school.

High Schools in this analysis included Ballard, Cleveland, Franklin, Garfield, Nathan Hale, NOVA, Rainier Beach, Roosevelt, Sealth, Summit, and West Seattle. Note: 1,341 Special Education Students removed from analysis

II. ALL HIGH SCHOOLS - Comparisons of Students from Schools With and Without School-Based Health Centers

A. Schools Included

Table 4 indicates the percentages of students from each of the different high schools used in this analysis. The largest percentage of students came from Garfield, Roosevelt, Franklin and Ballard. Ingraham, the only high school without a SBHC represents 8% of the student population.

Table 4. Number of Students from 12 High Schools Included in the Analysis (N=11,527)

School	Total	
	#	(%)
Ballard*	1437	12.5
Cleveland*	752	6.5
Franklin*	1479	12.8
Garfield*	1621	14.1
Roosevelt*	1577	13.7
Sealth*	875	7.6
West Seattle*	842	7.3
Ingraham	918	8.0
Rainier Beach*	707	6.1
Hale*	914	7.9
Nova*	246	2.1
Summit*	159	1.4
Total	11,527	(100.0)

* Schools with or served by school-based health centers

B. Comparison Between Schools With and Without School-Based Health Centers - Academic Performance and Disciplinary Outcomes

Examination of academic and disciplinary outcomes showed some variation associated with schools with and without school-based health centers. Associations are shown before and after adjustment for potentially important covariates; race/ethnicity, gender, school, free or reduced lunch status, living with both parents, and enrollment in gifted program. (See Table 5)

Cumulative GPA: Student GPA did not differ between schools with or without school based health centers. Even after adjustment for potentially confounding factors no differences were found.

Long Term Suspensions: Schools with and without school-based health centers showed no differences in their likelihood of long term suspensions in the past year or ever.

Short Term Suspension: Students from schools with school-based health centers were more likely than schools without school-based health centers to have been suspended for a short period of time in the last year (5.5% vs. 2.9%). This difference continued to remain strong even after adjusting for covariates.

Expulsions: Students from schools with school-based health centers had a higher rate of having ever been expelled from school compared to students from schools without school-based health centers. This difference continued even after adjustment for confounding variables.

Truancy: There was little or no difference between schools with and without school-based health centers in the rates of truancy in the 2000-2001 or 2001-2002 school years.

Retention in a Grade: There was no difference between schools with and without school-based health centers in rates of grade retention.

Attendance: Students from schools with school-based health centers had better rates of attendance compared to students from schools without. After adjustment for covariates, the difference no longer remained statistically significant.

Table 5. Academic and Disciplinary Outcomes of Students in 12 Seattle High Schools (N=11,527)

Academic and Disciplinary Outcomes	Schools with SBHC	Schools without SBHC	Odds Ratio	95% Confidence Interval	*p-value
Cumulative GPA (% with 2.0 or higher)	92.8%	92.7%	1.00	(0.8-1.3)	n.s.
			0.9adj	(0.7-1.2)	n.s.
Long Term Suspension (2001/2002)	1.0%	0.7%	1.5	(0.6-3.4)	n.s.
			1.4adj	(0.6-3.1)	n.s.
Short Term Suspension* (2001/2002)	5.5%	2.9%	1.9	(1.3-2.9)	p=.001
			2.2adj	(1.5-3.2)	p<.0001
Expulsion (2001/2002)	1.2%	0.5%	2.2	(0.9-5.3)	n.s.
			2.3adj	(0.9-5.9)	n.s.
Long Term Suspension (Ever)	3.4%	3.4%	1.0	(0.7-1.5)	n.s.
			1.1adj	(0.7-1.5)	n.s.
Short Term Suspension (Ever)	21.6%	20.2%	1.1	(0.9-1.3)	n.s.
			1.2adj	(1.0-1.5)	p=.02
Expulsion (Ever)*	4.7%	2.6%	1.8	(1.2 - 2.8)	p=.003
			2.1adj	(1.4-3.2)	p<.0001
Truant (2000/2001)	6.5%	7.4%	0.87	(0.7-1.1)	n.s.
			1.1adj	(0.8-1.4)	n.s.
Truant (2001/2002)*	7.1%	9.2%	0.75	(0.6-0.95)	p=.02
			0.9adj	(0.7-1.2)	n.s.
Retained in a grade	8.9%	8.7%	1.0	(0.80-1.3)	n.s.
			1.2adj	(0.9-1.5)	n.s.
Attendance ≥ 98.12% of school days present*	76.6%	70.3%	1.3	(1.2-1.6)	p<.0001
			1.1adj	(1.0-1.3)	n.s.

*Statistically significant difference across subgroups not due to chance alone, adj =Covariates adjusted for in analysis included gender, race/ethnicity, free or reduced lunch, living with both parents, school.

High Schools in this analysis included Ballard, Cleveland, Franklin, Garfield, Ingraham, Nathan Hale, NOVA, Rainier Beach, Roosevelt, Sealth, Summit K-12, and West Seattle. Note: Special Education Students removed from this analysis

III. MIDDLE SCHOOLS WITH SCHOOL-BASED HEALTH CENTERS - Comparison of Users vs. Non-Users:

A. Characteristics of Users

Examination of selected characteristics indicated a number of statistically significant demographic differences in rates of use of the school-based health centers. The overall percentage of middle school students who used the SBHCs was 20.9%. This ranged from 13% at Madison, presumably because the program is newer there, to 25% of students at Denny. (See Table 6)

Table 6. Percentage of Students Using the SBHC at 3 Middle Schools With SBHCs

School	Users		Total
	#	(%)	
Denny	235	(25)	939
Madison	123	(13)	943
Washington	258	(24.3)	1060
Total	616	(20.9)	2,942

Gender: SBHC users were significantly more likely to be female than male (52.9% vs. 47.1%). (Table 7)

Race/Ethnicity: There was considerable variation by race/ethnicity. The highest percentage of users was among white students (36.4%) followed by African American students (31.2%), Asians (17%), Latinos (12.7%) and American Indian/Alaska Natives (2.8%). Relative to their percentages of the middle school population, African Americans have the highest rate of use. Approximately 22% of the students in these three schools are African American and yet they represent 31.2% of SBHC users. Latino and American Indian/Alaska Native students user status is consistent with their distribution in the school population. However, relative to their distribution in the school population, Asian (24%) and white (38%) are underrepresented among SBHC users. (Table 7)

Bilingual: Middle school SBHC users were no more likely to be bilingual than non-users. (Table 7)

Free/Reduced Lunch: Middle school SBHC users were significantly more likely to be eligible for free or reduced lunch compared to non-users (55% vs. 47%). This finding is consistent with the goals of the school-based health centers to reach and serve students who have the least economic resources and might otherwise have less access to health care. This finding suggests that the school-based health centers may potentially play an important role in reducing health disparities. (Table 7)

Living Situation: Middle school SBHC users were more likely to live with both parents than non-users (52% vs. 59%). (Table 7)

Special Education Status: There was no difference between middle school users and non-users in the percentage of students in a special education program. (Table 7)

Gifted Program Status: There was no difference between users and non-users in the percentage of students in a gifted education program. (Table 7)

Grade in School: There was no association between grade in school and being a user of the SBHC. Users were fairly evenly distributed across the three middle school grades. (Table 7)

Table 7. Demographic Characteristics of Students in 3 Middle Schools With School-Based Health Centers (N=2,942)

Characteristic		Users	Non-Users	*p-value
Gender*	Female	52.9%	48.9%	n.s.
	Male	47.1%	51.1%	
Race/Ethnicity*	Asian	17%	25.8%	p<.0001
	African American	31.2%	19.6%	
	Latino	12.7%	12.6%	
	American Indian/Alaska Native	2.8%	3.2%	
	White	36.4%	38.8%	
Bilingual		13.1%	12%	n.s.
Free/Reduced Lunch*		55%	46.9%	p<.0001
Lives with both parents*		51.9%	58.7%	p=.003
Special Education Status		16.6%	14.1%	n.s.
Gifted Program		16.7%	19.3%	n.s.
Grade	6 th	30.8%	34.6%	n.s.
	7 th	33.0%	33.4%	
	8 th	36.2%	32.0%	

*Statistically significant difference across subgroups not due to chance alone

B. Comparisons between Middle School Users and Non-Users - Academic Performance and Disciplinary Outcomes

Examination of academic and disciplinary outcomes showed some variation associated with user status of school-based health centers. Associations are shown before and after adjustment for potentially important covariates; race/ethnicity, gender, school, free or reduced lunch status, **living with both parents, and enrollment in gifted program.**

Cumulative GPA: A GPA equivalent of a "C" or better was associated with being a non-user of the SBHC with 89.8% of nonusers compared to 83.8% of users having a GPA of 2.0 or more. This difference was statistically significant. However, after adjustment for other potentially confounding factors the difference was no longer statistically significant.

Long Term Suspensions: Middle school SBHC users and non-users showed no differences in their likelihood of long term suspensions in the past year or ever.

Short Term Suspension: Middle school users of the SBHCs were more likely than non-users to have been suspended for a short period of time in the last year (14.6% vs. 9.6%). This difference was reduced after adjusting for covariates.

Expulsions: Middle school SBHC users and non-users showed no differences in their likelihood of expulsion in the past year or ever.

Truancy: There was no difference between middle school SBHC users and non-users in the rates of truancy in the 2000-2001 or 2001-2002 school years.

Retention in a Grade: Middle school SBHC users were more likely to have been previously retained in a grade (8.9% vs. 4.9%).

Attendance: Middle school students who did not use the SBHC had better rates of attendance compared to SBHC users. This finding was only of slight statistical significance and after adjustment for covariates, the difference no longer remained statistically significant.

Table 8. Academic and Disciplinary Outcomes of Students in 3 Middle Schools With School-Based Health Centers (N=2,513)

Academic and Disciplinary Outcomes	SBHC Users	SBHC Non-Users	Odds Ratio	95% Confidence Interval	*p-value
Cumulative GPA* (% with 2.0 or higher)	83.8%	89.3%	0.6	(0.5-0.8)	p=.001
			0.8adj	(0.6-1.0)	n.s.
Long Term Suspension (2001/2002)	1.0%	0.4%	2.8	(0.9-8.8)	n.s.
			2.6adj	(0.8-8.4)	n.s.
Short Term Suspension* (2001/2002)	14.6%	9.6%	1.6	(1.2-2.2)	p=.001
			1.4adj	(1.1-2.0)	p=.02
Expulsion (2001/2002)	0.8%	0.2%	3.9	(1.0-15.7)	n.s.
			3.7adj	(0.8-16.6)	n.s.
Long Term Suspension (Ever)	1.4%	0.5%	2.7	(1.0-7.2)	n.s.
			2.8adj	(1.0-7.5)	n.s.
Short Term Suspension (Ever)*	23.3%	14.7%	1.8	(1.4-2.2)	p<.0001
			1.7adj	(1.3-2.2)	p<.0001
Expulsion (Ever)	1.4%	0.6%	2.5	(1.0-6.5)	n.s.
			2.2adj	(0.8-6.1)	n.s.
Truant (2000/2001)*	5.1%	3.1%	1.6	(1.0-2.7)	n.s.
			1.4adj	(0.9-2.4)	n.s.
Truant (2001/2002)	4.1%	4.2%	1.0	(0.6-1.6)	n.s.
			0.8adj	(0.5-1.4)	n.s.
Retained in a grade*	8.9%	4.9%	1.9	(1.3-2.8)	p<.0001
			1.6adj	(1.1-2.4)	p=.009
Attendance* ≥ 98.12% of school days present	17.7%	21.9%	0.8	(0.6-1.0)	p=.04
			0.9adj	(0.7-1.1)	n.s.

*Statistically significant difference across subgroups not due to chance alone

adj = Adjusted for the following covariates: gender, free or reduced lunch status, living with both parents, school, race/ethnicity, and gifted program.

This analysis included Denny, Madison and Washington Middle Schools.

Note: 429 Special Education Students removed from this analysis

IV. ALL MIDDLE SCHOOLS - Comparisons of Schools With and Without SBHCs

A. Schools Included

Table 9 indicates the percentages of students from each of the 15 different middle schools used in this analysis. The largest percentage of students were from Eckstein, Whitman and Washington (more than 10 %), while the smallest percentage of students were from Interagency, TOPS, African American Academy and Summit. The subsequent analyses compare students from the 3 schools with SBHCs to the 12 without.

Table 9. Number of Students from 15 Middle Schools Included in the Analysis (N=10,142)

School	Total	
	#	(%)
Denny*	939	(9)
Madison*	943	(9)
Washington*	1060	(10.5)
Eckstein	1297	(13)
Hamilton	843	(8)
Meany	619	(6)
Mercer	871	(9)
Whitman	1157	(11)
McClure	695	(7)
Aki Kurose	660	(6.5)
Interagency	102	(1)
TOPS	181	(2)
African American Academy	189	(2)
Summit	233	(2)
COHO/NOMS	358	(3.5)
Total	10,142	(100.0)

* Schools with SBHCs

B. Comparison Of Schools With and Without SBHCs - Academic Performance and Disciplinary Outcomes

Examination of academic and disciplinary outcomes showed some variation associated with schools with and without SBHCs. Associations are shown before and after adjustment for potentially important covariates; race/ethnicity, gender, school, free or reduced lunch status, living with both parents, and enrollment in gifted program. (See Table 10)

Cumulative GPA: A higher percentage of students from the middle schools with SBHCs compared to those without had a GPA of 2.0 or more (88.1% vs. 86.2%). This finding remained after controlling for potential confounders.

Long Term Suspensions: Students in middle schools with SBHCs were less likely to have had a long term suspensions in the past year or ever.

Short Term Suspension: There was no difference in rates of short term suspension ever or in the past year between students in middle schools with and without SBHCs.

Expulsions: Students from middle schools with SBHCs had significantly lower rates of expulsion ever and in the past year in comparison to middle schools without SBHCs.

Truancy: There was no difference between middle schools with and without SBHCs in the rates of truancy in the 2000-2001 or 2001-2002 school years.

Retention in a Grade: Middle school students in schools with SBHCs were less likely to have been previously retained in a grade (5.7% vs. 6.9%).

Attendance: There was no difference between schools with and without SBHCs in the rates of attendance.

Table 10. Academic and Disciplinary Outcomes of Students in 15 Seattle Middle Schools (N=8,701)

Academic and Disciplinary Outcomes	Schools with SBHCs	Schools without SBHCs	Odds Ratio	95% Confidence Interval	*p-value
Cumulative GPA (% with 2.0 or higher)	88.1%	86.2%	1.2	(1.1-1.4)	p=.02
			1.3adj	(1.1-1.5)	p=.001
Long Term Suspension (2001/2002)	0.5%	0.9%	0.5	(0.3-0.9)	p=.03
			0.5adj	(0.2-0.9)	p=.02
Short Term Suspension* (2001/2002)	10.6%	9.3%	1.2	(1.0-1.4)	n.s.
			1.1adj	(0.9-1.3)	n.s.
Expulsion (2001/2002)	0.3%	1%	0.3	(0.2-0.7)	p=.001
			0.3adj	(0.1-0.6)	p=.002
Long Term Suspension (Ever)	0.7%	1.5%	0.4	(0.3-0.7)	p=.001
			0.4adj	(0.2-0.7)	p=.002
Short Term Suspension (Ever)	16.5%	15.2%	1.1	(1.0-1.2)	n.s.
			1.1adj	(0.9-1.2)	n.s.
Expulsion (Ever)*	0.7%	1.8%	0.4	(0.2 - 0.6)	p<.0001
			0.4adj	(0.2-0.7)	p<.0001
Truant (2000/2001)	3.5%	2.7%	1.3	(1.0-1.7)	n.s.
			1.2adj	(0.9-1.5)	n.s.
Truant (2001/2002)*	4.2%	4.4%	1.0	(0.8-1.2)	n.s.
			0.8adj	(0.6-1.0)	n.s.
Retained in a grade	5.7%	6.9%	0.8	(0.7-0.9)	p=.04
			0.7adj	(0.6-0.9)	p=.001
Attendance ≥ 98.12% of school days present*	21%	23%	0.9	(0.8-1.0)	n.s.
			0.9adj	(0.8-1.1)	n.s.

*Statistically significant difference across subgroups not due to chance alone, adj =Covariates adjusted for in analysis included gender, race/ethnicity, free or reduced lunch, living with both parents, school. Middle Schools in this analysis included Denny, Madison, Washington, Eckstein, Hamilton, Meany, Mercer, Whitman, McClure, Aki Kurose, Interagency, TOPS, African American Academy, Summit, COHO/NOMS. Note: 1,441 Special Education Students removed from this analysis

