Mental health services in Seattle School-Based Health Centers: 
A Qualitative Analysis of Provider Coding and Diagnostic Practices

Summary of Report

From January to April 2017, under the mentorship of School-Based Partnerships, and the Assessment, Policy Development and Evaluation (APDE) staff, a Masters of Public Health (MPH) graduate intern gathered qualitative information about the use of circumstantial diagnosis codes in Seattle SBHC mental health programs. One-on-one interviews and focus groups with mental health providers highlighted both similarities and variations in circumstantial diagnosis code usage between SBHC-sponsoring organizations and school type (elementary, middle, high). This information supplements quantitative analysis undertaken in the summer of 2016. Together these analyses provide a richer, more complete picture of the mental health scope of service, as well as the clinical decision making process for diagnostic coding among SBHCs in Seattle Public Schools (SPS).

Background

SBHCs in Seattle are comprehensive primary care clinics operating within SPS buildings, and their services include physicals, immunizations, family planning, and mental health counseling among others. SBHCs are typically staffed by coordinators, nurse practitioners/physician assistants, and licensed mental health counselors of varying educational backgrounds. Available to serve all students, they specialize in providing uninsured or underinsured adolescents with services and allow for greater consistency of support between teachers, staff, and healthcare providers. Seattle SBHCs’ main source of funding is the Seattle Families and Education Levy, which is managed by the City’s Department of Education and Early Learning, with health care services coordinated by Public Health–Seattle & King County (PH-SKC). During the 2016-2017 school year, SBHCs operated in 25 Seattle Public Schools. Healthcare agencies (“sponsors”) staff and operate these clinics. Table 1 illustrates the distribution of SBHCs across school type (elementary, middle, high) and sponsor.

Mental health care in the school setting typically fits into three tiers. Tier 1 contains preventive programs (positive behavioral and intervention supports for all students) and early detection, such as universal screenings. Tier 1 is generally intended for all children, so specific mental health diagnoses are not typically targeted at this level. Tier 2 includes students identified as “at risk” who ideally receive more targeted intervention and support through systems like SBHCs. SBHCs play an important role in the prevention and treatment of moderate mental health disorders (e.g. anxiety, depression) in children and adolescents. Students requiring Tier 3 services have more severe behavioral/mental health conditions that require more intensive individual treatment that is beyond the scope of SBHCs. Community mental health providers are best equipped to serve these students.

This qualitative analysis grew out of a quantitative analysis of Seattle school-based mental health services that aimed to characterize and group mental health care utilization within SBHCs into key diagnostic categories. That analysis found that 44% of Seattle SBHC mental health visits during the 2015-2016 school year had only circumstantial diagnoses (V-codes under ICD-9 or Z-codes under ICD-10), which are difficult to sort into these diagnostic categories as they do not directly refer to a specific
clinical mental health disorder. Instead, circumstantial diagnoses represent situations or problems that influence health but are not in and of themselves a disease or injury. When used in mental health, they may be symptoms or situations that worsen existing, result from, or lead to the development of more severe mental disorders. If used together with a mental health disorder (as classified by the Diagnostic and Statistical Manual of Mental Disorders (DSM)-5), circumstantial codes deepen a provider’s understanding of the ways in which the mental health disorder affects the student. When used by themselves, circumstantial diagnosis codes are more ambiguous, as it is not always clear how or if they relate to other mental disorders. The 44% of visits with only circumstantial diagnoses leave us unable to classify the needs of the students who receive these codes.

Table 1: Seattle SBHCs by sponsor and school type (elementary, middle, high).

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Elementary Schools</th>
<th>Middle Schools</th>
<th>High Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser Permanente (formerly Group Health Cooperative)</td>
<td>Aki Kurose, Washington</td>
<td>Franklin, Nathan Hale, Interagency Academy</td>
<td></td>
</tr>
<tr>
<td>International Community Health Services (ICHS)</td>
<td></td>
<td></td>
<td>Seattle World School</td>
</tr>
<tr>
<td>Neighborcare Health</td>
<td>Bailey Gatzert, Dearborn Park, Highland Park, Roxhill, Van Asselt, West Seattle</td>
<td>Denny, Madison, Mercer</td>
<td>Chief Sealth, Roosevelt, West Seattle</td>
</tr>
<tr>
<td>Odessa Brown Children’s Clinic (Seattle Children’s Hospital)</td>
<td>Beacon Hill, Madrona</td>
<td></td>
<td>Garfield</td>
</tr>
<tr>
<td>Public Health—Seattle &amp; King County</td>
<td></td>
<td></td>
<td>Cleveland, Ingraham, Rainier Beach</td>
</tr>
<tr>
<td>Swedish Medical Center</td>
<td></td>
<td></td>
<td>Ballard</td>
</tr>
</tbody>
</table>

To contribute to a more accurate description of the services provided in Seattle SBHCs, the current qualitative analysis aims to better understand those internal (to clinic) and external factors that influence provider coding practices and may lead to variation in diagnostic data between schools and/or sponsors. Specifically, it aims to clarify what circumstantial diagnoses are and which situations call for them, in order to provide a better understanding of how coding practices differ across sponsors and school types.

Methods

An initial review of the literature and key informant interviews with PH-SKC staff provided context for the qualitative analysis. An electronic survey of SBHC managers provided additional information about the structure of SBHC mental health visits, professional background of mental health providers, existence of SBHC-specific coding training or guidance, and how Electronic Medical Records (EMRs) offer
coding support (see Appendix A for full question set). Five out of ten managers responded, for a response rate of 50%. From there, SBHC mental health provider focus group/interview questions and a sampling plan were developed through a collaborative process involving the MPH Intern and APDE and SBHC mentors.

The distribution of SBHCs across school type and sponsor in Table 1 helped determine the target number of providers to include in focus groups and/or interviews. The sampling strategy outlined one focus group each for elementary and middle school providers and two for high school providers. Two high school focus groups (with one additional high school interview) were conducted but due to time constraints and provider availability, no elementary or middle school focus groups occurred. Instead, three individual interviews with middle school providers and two with elementary providers took place. Table 2 shows the original and modified sampling plan.

Table 2: Comparison of original and actual sampling plan across school type and sponsors (*NA* indicates there are no schools with that sponsor and school type)

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Desired number of Providers</th>
<th>Actual number of Participating Providers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Elem</td>
<td>Middle</td>
</tr>
<tr>
<td>PH-SKC</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Swedish</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Kaiser</td>
<td>NA</td>
<td>2</td>
</tr>
<tr>
<td>Odessa Brown</td>
<td>2</td>
<td>NA</td>
</tr>
<tr>
<td>Neighborcare</td>
<td>4 to 6</td>
<td>3</td>
</tr>
<tr>
<td>ICHS</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

The graphs below depict the proportion of SBHCs represented in interviews and focus groups compared to the total number of SBHCs, across school type and sponsor.
Focus groups were conducted in a community meeting space and facilitated by the MPH intern with a SBHC staff member taking notes. The focus group moderator guide is shown in Table 3. These questions were also used in the individual interviews that were conducted between the MPH intern and providers via telephone. When all focus groups and interviews were complete, responses were compiled into an Excel spreadsheet and coded based on four core themes identified in the focus group/interview questions. The four themes were:

1. General context/background of the process of assigning a code
2. Situations that may explain the assignment of a Z-code
3. Factors that explain the variability across sponsors/schools in the Z-code practices
4. Changes over time that affect the amount/type of Z-codes used

Additional review of the responses revealed several other unanticipated themes, which were also coded in a second round of thematic coding. These are discussed in Results/Key Findings.

### Table 3: Provider interview/focus group moderator guide

| 1. Please describe the process that occurs when a student comes in to see you. What clinical decision making do you follow to come to a certain diagnosis? |
| 2. Please explain what circumstantial diagnoses (Z-codes) are, in lay terms. How are they different from or similar to other DSM codes? |
| a. How do these [circumstantial diagnosis codes] interact with DSM diagnosis codes? We see there are some students with only DSM diagnoses, only Z-codes, and both. For those where there are both, how do the codes relate to each other? |
| 3. When and why do you use circumstantial diagnoses (Z-codes)? What considerations do you make? |
| 4. Describe the decision-making process you go through when assigning circumstantial diagnoses (Z-codes) to a student. What are your thoughts when assigning diagnoses? |
| 5. Looking at data from your schools is there anything that surprises you? Why or why not? (See Appendix B for visual handouts.) |
| 6. Has the process of deciding which codes to use changed during your SBHC tenure? Are there practices that were typical when you started that are different now? |

### Results/Key Findings

Qualitative analysis of manager surveys and provider focus group/interview data revealed key themes that illuminate the reasons for using Z-codes and how usage varies across school types and sponsors.

**Circumstantial diagnoses are common at the outset of treatment**

- **Service initiation:** Generally, parent/guardian or teacher referrals initiate mental health visits for elementary and middle school students younger than 13, which was confirmed in the manager survey as well. Students older than 13 years old may also be referred by adults, but they have the freedom to self-initiate mental health care. Clinical diagnosis may not be possible upon referral.

- **Initial diagnosis:** Depending on the nature of the first visit (e.g. student is not presenting in crisis), students may complete formal mental health screeners (e.g. PHQ-9, GAD-7) so providers
can begin to assess them for a DSM disorder (e.g. depression, anxiety). Circumstantial diagnoses may be used as placeholders until a more concrete DSM diagnosis can be made.

“There are times when I use the Z codes as a placeholder as well. My goal when using the Z-code is always to gather as much information as possible before giving an appropriate mental health diagnosis.”

**Therapeutic context and client history influence assignment of circumstantial diagnoses**

- **Group visits versus individual treatment:** Providers who facilitate a lot of group visits (e.g. mediating problems that arise within friend groups) tend to use more circumstantial diagnosis codes, since they may not have the opportunity to build therapeutic relationships with every student to get to a clinical diagnosis.

- **Availability of student mental health history:** In the first visit, some providers assign DSM diagnoses if the student has been previously diagnosed by another provider or if a disorder is obvious from a screener or symptoms. Others use circumstantial diagnoses when they do not have detailed information about the student’s mental health history.

- **Capture the full picture of a student’s mental health:** When students present at the SBHC in crisis, providers may use circumstantial diagnoses to identify concrete stressors such as a fight with friends or stress due to housing instability or other life circumstances. In cases when a provider assigns both circumstantial and clinical DSM diagnoses to a student, the circumstantial diagnoses may illuminate how a mental health disorder such as Major Depressive Disorder (MDD) could lead to a circumstance like underachievement in school, and vice versa. Essentially, circumstantial diagnoses help explain the clinical mental health diagnosis.

“Only having the DSM diagnosis leaves out key information about why the student needs to be seen at the SBHC for mental health.”

**Variation in provider judgment affects assignment of circumstantial diagnoses**

- **Avoiding stigma:** Several providers used the term “heavy” to describe clinical DSM diagnoses (F-codes). They said they prefer to assign circumstantial diagnoses instead of burdening the student with the heavier clinical DSM diagnosis. Others trend towards using circumstantial diagnoses because they do not want a clinical DSM diagnosis to affect the ways in which others treat or view the student in the future. Some providers noted that assigning a clinical DSM
diagnosis can “label” or “pathologize” kids, so they stick with circumstantial diagnoses to address the students’ current situation rather than leaving them with a stigmatized “label”.

“The feeling of pathologizing a child is not good, and Z-codes are less pathological.”

- **Providing preventive care:** Most providers spoke of SBHCs’ role in providing mental health care access to children and teens who otherwise would not have the opportunity to visit a counselor or therapist in the community. Some students may only visit once while others may come in on a more regular basis, even if they do not meet all the criteria for a specific mental health disorder. For these students, providers aim to treat the symptoms and prevent them from developing into a full-fledged mental disorder.

  “Z codes are more descriptive of what’s happening when a student’s level of functioning is high enough or symptoms are low enough so they don’t meet criteria for something like an adjustment disorder.”

- **Prior experience and training:** Provider training, education, and professional background are naturally very diverse. Noted in the managers’ survey, provider experience in Seattle SBHCs ranges from one to ten years. As a result, there is variability in provider discretion. Some providers have been trained to arrive at clinical DSM diagnoses in a short amount of time, while others take more time. Some providers rely more on group therapy in their practice and tend toward circumstantial diagnosis. Additionally, the themes identified above (such as stigma, cultural considerations, and school location) all influence providers' coding practices.

**Differences in administrative policies and structures affect assignment of circumstantial diagnoses**

- **Billing insurance:** Sponsors have differing practices around billing insurance for SBHC services. For those sponsors that bill insurance for SBHC services, providers must assign a clinical DSM diagnosis (e.g. F-code) to a student to continue their care. Providers working with sponsors who do not bill are freer to use circumstantial diagnoses and treat students who otherwise would not get services covered in the community, as discussed in the “Providing preventive care” section on the previous page.

- **Electronic Medical Records (EMRs):** EMR platforms vary across sponsors, which leads to variance in coding. According to the manager survey and corroborated in focus groups/interviews, some sponsors use Epic, while others use NextGen for their EMR. In addition, SBHC mental health providers concurrently use a web-based registry tool called the Mental Health Integrating Tracking System (MHITS) for workflow management, whose coding and diagnostic supports vary from EMRs.
• **Coding guidelines**: Currently there are no standardized mental health coding guidelines for school-based health services. Some providers code based on guidelines for billing insurance, while others receive more informal guidance or suggestions from colleagues and supervisors. Past guidance from PH-SKC also influenced providers coding practices. Until schoolyear 2013-2014, sponsors had contractual performance commitments for the number of SBHC visits with a documented circumstantial diagnosis code of V62.3 (Educational Circumstances). Historically, this guidance had been an attempt to quantify the frequency of academic support provided in clinical encounters. Because the majority of SBHC visits involve academic monitoring or support, tracking on this code became less meaningful over time and this performance commitment was retired. Many providers remembered receiving instructions from PH-SKC and have continued this practice despite the change in guidance.

> “We were really drilled on using the ‘academic problems’ [V62.3 (Educational Circumstances) code] from the higher-ups at the public health department, so that has some residual impacts on me because it was just so common. For a while, I was always looking for that and they told us to use it whenever it’s applicable, so I just did that. Now, that’s still in the back of my mind but I use other codes too.”

**Differences in student characteristics affect assignment of circumstantial diagnoses**

• **Age of students served**: A result from the 2016 quantitative analysis of mental health services showed that elementary schools had the lowest proportions of circumstantial diagnoses attached to their visits. This finding surprised some providers, especially those who tend to use more circumstantial diagnoses to avoid the stigma of the “more severe” clinical DSM diagnoses for very young children. However, most providers were unfazed by that result.

> “That makes sense, [younger kids] haven’t lived long enough to need circumstantial diagnoses.”

Another explanation received for lower proportions of circumstantial diagnoses in elementary schools is that the parents are more involved in their child’s care. Parents tend to be better at remembering specific lengths of time and patterns in occurrence of symptoms (critical in making formal DSM diagnoses) than the students themselves.

> “Parents are more skilled at being able to communicate time information than teens are. For example, if I asked, ‘How long has this symptom been happening?’ a parent may give a specific time frame (x months) whereas a teenager might say something like, ‘I dunno, a really long time.”’
• **Student exposure to trauma:** Some SBHCs serve communities with high proportions of students living below the poverty line. Providers noted that socioeconomic influences and trauma pose different challenges to student mental health. Some providers who serve kids experiencing poverty or homelessness noted they are hesitant to assign them with a clinical DSM diagnosis.

> “Students are living below the poverty line, of course they’re depressed. Of course a student will have PTSD if they experienced trauma in their past.”

• **Cultural background:** Stress manifests in different ways.⁶ According to some providers, immigrants and English Language Learners tend to present at SBHCs with more physical symptoms of stress (e.g. headache, stomachache), as also evidenced in the literature.⁶ Providers also mentioned that these students may have different views on mental health and mental health services than someone born and raised in the United States. Furthermore, providers have noticed that despite validation in various languages, mental health screeners may not culturally resonate with people whose first language is not English.

**Additional factors that may influence changes in providers’ coding practices**

Various system changes over time have influenced provider practice. Most providers listed the switch to the DSM-5 in 2013 as a change that influenced their practice in an indirect way. The 2014 shift away from the V62.3 (Educational Circumstances) contractual performance commitment for SBHCs (see “Coding guidelines” section above) was another change commonly noted as influential. Lastly, under the American Recovery and Reinvestment Act, medical providers were mandated to switch from paper charting to EMRs, which was a notable change during the 2014-2015 schoolyear for many sponsors.

```
2013
DSM-5 Published

2014
V62.3 (Educational Circumstances) performance commitment retired

2014-2015
Agencies transition to Electronic Medical Records
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Providers also stated that they have seen noteworthy changes in their students over the years. A few providers mentioned that there has been an increase in anxiety, especially in the past year. Some attributed that to increased demands on students, frequent use of technology, sensory overload, or increased rates of unstable housing. These changes among students are reflected in the reported diagnoses from SBHCs.
Recommendations

Upon completion of this qualitative study, a handful of recommendations emerged. The following list suggests next steps for consideration:

- **Create space for informal provider interaction**: During the focus groups, several providers expressed gratitude at the opportunity to come together as a team and discuss trends in practices between the different schools. They mentioned that they would like to have the space and time to check in with each other more often, see how providers vary in their practices, and get ideas from each other for how to effectively work within the school setting.

- **Standardize coding guidance**: Many providers mentioned that standardized coding guidance across SBHCs would be helpful in giving all providers a common starting point. Findings from this report could be used to inform coding training and practices.

- **Further clarify timing and prominence of circumstantial diagnoses in treatment**: Knowing the time point in student’s treatment (e.g. initial visit, subsequent visits) that circumstantial diagnoses are assigned could shed light on context around how and when these codes are used across schools and sponsors. Investigating this question was outside of this project’s scope, but could be helpful information to explore in the future to further identify patterns in student mental health.

- **Further investigate clinical data collection and export process**: The quantitative data analysis that preceded and inspired this qualitative analysis was based on cumulative monthly SBHC service reports from each Sponsor’s EMR. Due to the structure of these reports, it is unclear whether there is a distinction in the data between primary, secondary, and other diagnoses. Furthermore, little research has been done on the data collection processes itself (e.g. routine EMR exports) of each clinic and Sponsor. This lack of information prevents differentiation between presenting conditions and pre-existing conditions. Knowing this distinction is an important aspect for service design and provision.

Acknowledgements

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References

Appendix A

SBHC Manager Questionnaire

1. Who charts mental health encounters in the EMR? Select all that apply.
   a. Medical Providers (RN, NP, ARNP, etc.)
   b. Mental Health Providers (MSW, LICSW, LMHC, etc.)

2. Do you provide any coding/charting guidance or training to your mental health providers? (Y/N)
   If yes, what does the guidance/training look like? [Open text field]

3. Have your agency’s coding/charting policies, practices, or guidelines changed over time? If yes, how? [Open text field]

4. Which EMR do you use?
   a. Epic
   b. Athena
   c. eClinicalWorks
   d. NextGen
   e. Practice Fusion
   f. Care360
   g. GE Healthcare
   h. Other (please specify)

5. How does your EMR support coding/charting? Select all that apply.
   a. Drop-down menu of pre-set list of CPT or ICD-10 codes from which to choose
   b. Auto-complete function when typing in a procedure or diagnoses
   c. No support—codes are entered manually
   d. Other (please specify)

6. Does your agency bill insurance for school-based health service? (Y/N)

7. On average, how long have your mental health providers worked in your school-based health centers?
   a. < 1 year
   b. 1-4 years
   c. 5-8 years
   d. 8-10 years
   e. > 10 years

8. How do students initiate mental health services at your centers?
   a. Teacher referral
   b. School counselor/nurse referral
   c. Self-initiated
   d. Other (please specify)

9. Please add any additional information about your agency’s policies or practices that may be helpful in our analysis of school-based mental health services. [Open text field]
Visual aids for focus groups

These visuals are just for your reference. They are not meant to evaluate or “grade” you, your school, or your sponsor in any way. They simply help us get a clear understanding of differences between schools.

<table>
<thead>
<tr>
<th>School</th>
<th>% Visits with V/Z Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beacon Hill</td>
<td>17.83%</td>
</tr>
<tr>
<td>Madrona</td>
<td>34.68%</td>
</tr>
<tr>
<td>Madison</td>
<td>35.64%</td>
</tr>
<tr>
<td>West Seattle Elem</td>
<td>49.46%</td>
</tr>
<tr>
<td>Bailey Gatzert</td>
<td>50.36%</td>
</tr>
<tr>
<td>West Seattle High</td>
<td>50.70%</td>
</tr>
<tr>
<td>Mercer</td>
<td>55.68%</td>
</tr>
<tr>
<td>Dearborn Park</td>
<td>56.71%</td>
</tr>
<tr>
<td>Van Asselt</td>
<td>59.72%</td>
</tr>
<tr>
<td>Highland</td>
<td>60.63%</td>
</tr>
<tr>
<td>Ingraham</td>
<td>62.06%</td>
</tr>
<tr>
<td>Ballard</td>
<td>64.01%</td>
</tr>
<tr>
<td>Cleveland</td>
<td>68.08%</td>
</tr>
<tr>
<td>Chief Sealth</td>
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<td>Seattle World</td>
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<tr>
<td>Denny</td>
<td>71.48%</td>
</tr>
<tr>
<td>Interagency Acad.</td>
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<tr>
<td>Nathan Hale</td>
<td>72.44%</td>
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<tr>
<td>Roxhill</td>
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<tr>
<td>Roosevelt</td>
<td>79.44%</td>
</tr>
<tr>
<td>Franklin</td>
<td>80.16%</td>
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<tr>
<td>Aki Kurose</td>
<td>83.07%</td>
</tr>
<tr>
<td>Garfield</td>
<td>83.92%</td>
</tr>
<tr>
<td>Washington</td>
<td>84.06%</td>
</tr>
<tr>
<td>Rainier Beach</td>
<td>84.21%</td>
</tr>
</tbody>
</table>

Top V/Z Codes

Z Codes
- Z65.8: Other problems related to psychosocial circumstances
- Z62.820: Parent-biological child conflict
- Z71.9: Counseling, unspecified
- Z55.3: Underachievement in school
- Z65.9: Problem related to unspecified psychosocial circumstances

V Codes (Sept. 2015)
- V62.3: Educational circumstances
- V62.89: Other psychological or physical stress, not otherwise classified
- V61.20: Parent-child relational problems
- V62.82: Bereavement, uncomplicated
- V40.2: Other mental problems