

## A Z code Informed Clinic:

Aggregating SDOH Data -  
Best Practice - Recommendations

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### INTRODUCTIONS

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### OBJECTIVES

- Participants in the workshop will gain knowledge of SDOH Z codes
- Through the use of case review and discussion, participants in the workshop will create a simulation workflow for the assessment and utilization of Z codes within a medical visit
- Using patient scenarios, participants in the workshop will be able to identify the correct Z codes for specific social determinants of health (SDOH)

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### Background/Significance: Social Determinants of Health

- Socioeconomic Status**
  - Income
  - Food security
  - Housing stability
  - Poverty
- Health and Health Care**
  - Access to Health Care
  - Access to Primary Care
  - Health Literacy
- Care: Participation**
  - Discrimination
  - Stigmatization
  - Social Cohesion
- Travel and Treatment Center**
  - Access to Health Care
  - Access to Primary Care
  - Health Literacy
- Education**
  - Early Childhood Education and Development
  - Treatment in Higher Education
  - High School Graduation
  - Language and Literacy
- Neighborhood and Built Environment**
  - Access to Foods that Support Healthy Eating Patterns
  - Crime and Violence
  - Environmental Conditions
  - Quality of Housing

Source: <https://www.hhs.gov/ashraf/2018/04/24/social-determinants-of-health/>

- What does SDOH mean?
- Why is it important to complete a SDOH assessment within medical visits?

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### Background & Significance

#### SOCIAL DETERMINANTS AND SOCIAL NEEDS: MOVING BEYOND MIDSTREAM

- Standard system to collect aggregate data is beneficial
- Downstream approach
- Upstream approach
- <https://youtu.be/xYeAmafTGCA>

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## A Practice GAP Exists!

- When best evidence is not followed → a Practice Gap!
- In attempt to fix this gap, a change occurred with the ICD-10-CM Official Guidelines for Coding and Reporting (February 2018)
- SDOH Z codes (Z55-Z66) can be documented by all clinicians (not just a physician) involved in the care of the patient
- Workflow still flounders!

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## WHY?

2022 Survey of America's Physicians data revealed:

- Nearly all physicians indicated ... THEIR PATIENTS' HEALTH OUTCOMES ARE AFFECTED BY AT LEAST ONE SDOH!
- 61% FEEL LITTLE TO NO TIME AND LACK THE ABILITY TO EFFECTIVELY ADDRESS THEIR PATIENTS' SDOH
- 83% BELIEVE THAT ADDRESSING PATIENTS' SDOH CONTRIBUTES TO PHYSICIAN BURNOUT RATES

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**Poll:**

- How many of you screen for social determinants of health (SDOH)?
- If yes, how many use a screening tool?

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**Screening Tools**

Psychosocial assessments

- Completed yearly
- May be grant requirement

Flag questions from this assessment and crosswalk it to ICD-10 Z codes

<https://healthcareera.org/communications-center/newsroom/10-icd-10-z-codes-a-standard-for-health-care>

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**Screening Tools**

- **For instance:**
  - HEADSS is a psychosocial interview tool for adolescents (developed in 1991 and was expanded to include additional measures (HEADSSS) in 2004)
  - Although not intended for SDOH screening it does however, address many of the social determinant concerns if you look at it more closely

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**Screening Tool: HEADSSS**

**Potential Z Codes Assigned**

- **Z55.2** Failed school examinations
- **Z55.3** Underachievement in school
- **Z55.4** Educational maladjustment and discord with teachers and classmates
- **Z60.5** Target of (perceived) adverse discrimination and persecution
- **Z64.0** Problems related to unwanted pregnancy

Domains	Screening Questions
Home	Where do you live? How long have you lived there? Who lives with you?
Education and employment	Do you have your own room? Where do you go to school? What is your favorite/have favorite class? Do you feel safe at school? What are your grades like? Do you have a job? What are your future education/employment plans?
Eating	Are you concerned about your weight/body changes? Have you ever worried about having food to eat?
Activities	What do you do for fun? Sports? Reading? Video games? How much TV do you watch in a week?
Drugs and alcohol	Do any of your friends smoke or drink alcohol? Other drugs? Have you ever tried smoking, alcohol, or drugs with your friends?
Sexuality	Have you ever dated anyone? Boys, girls, or both? Have you ever kissed anyone?
Suicide, depression, and self-harm	Have you thought about hurting yourself or someone else? Have you lost interest in things that you used to really enjoy?
Safety from injury and violence	Do you always wear a seat belt in the car? Have you ever ridden with a driver who was drunk or high? Is there a lot of violence at your school? In your neighborhood? Where you live? Have you ever been picked on or bullied? Have you ever felt you needed to protect yourself?

Adapted from the American Academy of Pediatrics (2016).

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**Screening Tool: PRAPARE**

**PRAPARE: Protocol for Responding to & Assessing Patients' Assets, Risks & Experiences**

- Completed by parent/guardian

PRAPARE is a nationally standardized and validated Patient Assets, Risks, and Experiences (PRAPARE) assessment for use in primary care or community health centers.

[https://prapare.org/wp-content/uploads/2013/01/PRAPARE\\_English.pdf](https://prapare.org/wp-content/uploads/2013/01/PRAPARE_English.pdf)

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**Screening Tool: Hunger Vital Sign**

- "Within the past 12 months we worried whether our food would run out before we got money to buy more."
- "Within the past 12 months the food we bought just didn't last and we didn't have money to get more."

Completed by Parent/guardian or adolescent

(Hager et al., 2010)

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**Screening Tool: RAAPS**

**Rapid Assessment for Adolescent Preventive Services**

Scientifically Validated

21 Questions | 5 Minutes | 6 Risk Categories

Completed by Adolescent

(Possibilities for Change, 2023)

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## MANY MORE Screening Tools:

- Accountable Health Communities Health-Related Social Needs (AHC-HRSN)
- Adverse Childhood Experiences(ACEs)
- Children's Health Watch
- Health Begins
- Health Leads
- I-Help
- Income, Housing, Education, Legal Status, Literacy, Personal Safety (IHELLP) Questionnaire
- Institute of Medicine (IOM)
- Legal Checkup
- Medical-Legal Partnership(MLP)
- Partners in Health Survey
- Safe Environment for Every Kid (SEEK)
- Seek PO-R
- Social History Template
- Social Needs Checklist
- Structural Vulnerability Assessment Tool
- Survey of Well-being of Young Children (SWYC)
- Urban Life Stressors Scale (ULSS)
- We Care
- Well Rx
- Women's Health Questionnaire
- Your Current Life Situation(YCLS)

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## TIPS to choosing the right Screening Tool....

- Short and Simple
- Target your questions to the need of your population
  - Watch out for too broad or too narrow of questions
- Integrate screening tool into clinical workflow
- Ask your patient to prioritize their needs -
  - Do they want help?
  - What are their goals or concerns?
- Pilot before scaling - no standardized screening tool
  - Evaluate the one you have chosen to see if it is a good fit.

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## USING Z CODES: The Social Determinants of Health (SDOH) Data Journey to Better Outcomes

**What are SDOH-related Z codes ranging from Z55-Z65 are the ICD-10-CM encounter reason codes used to document SDOH data (e.g., housing, food insecurity, transportation, etc.) SDOH are the conditions in the environments where people are born, live, learn, work, play, and age.**

**Step 1: Collect SDOH Data**

Any member of a person's care team can collect SDOH data during an encounter.

- Includes providers, social workers, community health workers, case managers, patient navigators, and nurses.
- Can be collected at intake through health risk assessments, screening tools, person-provider interactions, and individual self-reporting.

**Step 2: Document SDOH Data**

Data are recorded in a person's paper or electronic health record (EHR).

- SDOH data may be documented in the problem or diagnosis list, patient or client history, or provider notes.
- Care teams may collect more detailed SDOH data than current Z codes allow. These data should be retained.
- Efforts are ongoing to clear Z code gaps and standardize SDOH data.

**Step 3: Map SDOH Data to Z Codes**

Assistance is available from the ICD-10-CM Official Guidelines for Coding and Reporting.

- Coding, billing, and EHR systems help codes assign standardized codes (e.g., Z codes).
- Codes can assign SDOH Z codes based on self-reported data and/or information documented by any member of the care team if this documentation is included in the official medical record.<sup>1</sup>

**Step 4: Use SDOH Z Code Data**

Data analysis can help improve quality, care coordination, and experience of care.

- Identify individuals' social risk factors and unmet needs.
- Inform health care and services, follow-up, and discharge planning.
- Trigger referrals to social services that meet individuals' needs.
- Track referrals between providers and social service organizations.

**Step 5: Report SDOH Z Code Data Findings**

SDOH data can be added to key reports for executive leadership and Social of Directors to inform value-based care opportunities.

- Findings can be shared with social service organizations, providers, health plans, and community-based partners to identify unmet needs.
- A Disparities Impact Statement can be used to identify opportunities for advancing health equity.

**For Questions:** Contact the CMS Health Equity Technical Assistance Program

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## Clinical Flow

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    graph LR
      A[Assess] --> B[Flag SDOH concerns]
      B --> C[Provider review]
      C --> D[Resources & Referrals]
      D --> E[Report findings]
      F[Use Job Aid: Map to Z code] --- C
    
```

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## Resources & Referrals

Have resources on hand and ready to link to referrals if needed

- Care team referral if available?
- Some EHRs will link to case management based on ICD-10 Z codes

Review your unique community options

- Local churches, food pantries, warming centers/shelters
  - CHAP Program

Review National Networks

- FINDHELP
- Self referral
- "988" for mental health
- "222" for other services of need

Potential for you to link and see the loop back!

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## Case Scenarios.... Practice


- Gather as a group around large post it note (up on the wall)
- Create a mock process for screening
  - Think about how a clinic would logistically screen for SDOH
- Read the case scenario
  - This information is what you have gathered from the screening tool and further discussion with the patient
- Use the Job Aid (provided) and map to Z codes
- Identify a realistic local resource (make this up for the scenario)
- Discuss with your group how this information will benefit your practice and patients

Have Fun and collaborate!

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Case Scenario:


Aaron is a 16-year-old boy visiting your school-based clinic today for ear pain x 1 week. He lives at home in Staten Island (NY) with his mom and 3 sisters. His father is incarcerated, and he hasn't seen him in 3 years. Through the use of an in-office SDOH self-assessment tool, he reports that he started working at a concrete company last summer to help his mom with the bills. They provide him with earplugs, but he admits that he doesn't always wear them. He reported that his mom doesn't always have enough money to pay the electric bill each month.



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Case Scenario:

Aaron is a 16-year-old boy visiting your school-based clinic today for ear pain x 1 week. He lives at home in Staten Island (NY) with his mom and 3 sisters. **His father is incarcerated, and he hasn't seen him in 3 years.** Through the use of an in-office SDOH self-assessment tool, he reports that he started **working at a concrete company last summer to help his mom with the bills. They provide him with earplugs, but he admits that he doesn't always wear them.** He reported that his mom doesn't always have enough money to **pay the electric bill** each month.




Z Codes

- Z17.0 Occupational exposure to noise.
- Z62.3 Absence of family member
- Z65.9 Other problems related to education and literacy
- Z59.86 Financial insecurity


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Case Scenario:  
Carlos is a 15-year-old adolescent male who is visiting your school-based clinic for the first time today. He lives with his father and mother in migrant housing on an area farm, where his parents and other family members are currently working, harvesting the late summer vegetables. He has complaints of persistent abdominal pain starting about three weeks ago. He notes that he has just started 9<sup>th</sup> grade and is one year behind in school because his family moves around a few times a year and he failed a few final exams at the end of the last school year. He is having a hard time adapting to this new school and making friends. When asked about the abdominal pain, he states that he lives with 4 other families besides his parents in a 4-bedroom home. The house has electricity and running water, but no heat or A/C. He also notes that he does not have internet access because it is not available on the farm due to how rural it is. He also discloses that while he is a US citizen, both of his parents are not, and he does not have health insurance.



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Case Scenario:  
Carlos is a 15-year-old adolescent male who is visiting your school-based clinic for the first time today. He lives with his father and mother in **migrant housing on an area farm**, where his parents and other family members are currently working, harvesting the late summer vegetables. He has complaints of persistent abdominal pain starting about three weeks ago. He notes that **he has just started 9<sup>th</sup> grade and is one year behind in school** because his family moves around a few times a year and **he failed a few final exams** at the end of the last school year. He is having a **hard time adapting to this new school and making friends**. When asked about the abdominal pain, he states that he lives with 4 other families besides his parents in a 4-bedroom home. The house has electricity and running water, but **no heat or A/C**. He also notes that he **does not have internet access because it is not available** on the farm due to how rural it is. He also discloses that while he is a US citizen, both of his parents are not, and **he does not have health insurance**.



- 25.3 Failed school examinations
- 25.3 Underachievement in school
- 25.31 Basic services unavailable in physical environment
- 25.42 Inadequate environmental temperature (Lack of air conditioning or lack of heating)
- 25.71 Insufficient health insurance coverage
- 25.811 Housing instability; housed unspecified
- 25.93 Acculturation difficulty
- 25.94 Social exclusion and rejection (exclusion & rejection on basis of personal characteristics such as unusual physical appearance, illness or behavior or social isolation)


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Case Scenario:  
Sarah is a 16-year-old adolescent female visiting your clinic because of persistent headaches x 1 month. While talking with the MA, she states that she has been living with her grandparents for the past three years after her mom died. Now, her grandmother has advanced dementia, and she has been spending most of her free time outside of school caring for her. She notes that she wears glasses but the ones she had got broken, and she has not been back to the eye doctor for a check-up in about 4 years.



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Case Scenario:  
Sarah is a 16-year-old adolescent female visiting your clinic because of persistent headaches x 1 month. While talking with the MA, she states that she has been **living with her grandparents** for the past three years after her **mom died**. Now, her **grandmother has advanced dementia**, and she has been **spending most of her free time outside of school caring for her**. She notes that she wears glasses but the **ones she had got broken**, and she has not been **back to the eye doctor for a check-up in about 4 years**.



- 25.2 Uprooting away from parents
- 25.3 Absence of family member
- 25.4 Disappearance and death of family member
- 25.5 Dependent relative needing care at home
- 25.911 Other insufficient social insurance and welfare support


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Case Scenario:  
Eric is a 14-year-old boy visiting the school-based health clinic for his yearly sports physical. He notes that he is planning to play on the 9<sup>th</sup> grade football team, however he has previously gotten into some trouble at school, and he is not sure that he will be allowed to play. He is living with his third set of foster parents since being removed from his parents one year ago. He has two other siblings living with another foster family, and they see each other for an afternoon every two weeks. He remarks that he has had some low grades which might be a barrier to participating in sports. Last year he got into a fight at school, resulting in a suspension and the end of the relationship with his former foster family.



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Case Scenario:  
Eric is a 14-year-old boy visiting the school-based health clinic for his yearly sports physical. He notes that he is planning to play on the 9<sup>th</sup> grade football team, however he has **previously gotten into some trouble at school**, and he is not sure that he will be allowed to play. He is **living with his third set of foster parents since being removed from his parents one year ago**. He has **two other siblings living with another foster family**, and they see each other for an afternoon every two weeks. He remarks that he has had some **low grades** which might be a barrier to participating in sports. Last year he got into a **fight at school**, resulting in a suspension and the end of the relationship with his former foster family.



205.1 Failed school examinations  
205.3 Underachievement in school  
205.4 Educational maladjustment and discord with teachers and classmates  
205.2 Upbringing away from parents  
200.8 Other problems related to social environment  
203.9 Problem related to primary support group, unspecified  
203.1 Absence of family member


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Case Scenario:  
Denise is a 17-year-old visiting your clinic for STI testing. She is 5 months pregnant. When being roomed by the MA, Denise tearfully states that this is her second pregnancy, and she doesn't know how it happened as she was using "protection." Her mother is raising her first child. She said that she is no longer with her baby's father, that the relationship was "chaotic and I'm glad to be away from him because he used to hurt me." States she has low family support, and is currently living with a friend, but "I'm just couch-surfing. I hope to get my own place soon."



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Case Scenario:  
Denise is a 17-year-old visiting your clinic for STI testing. She is **5 months pregnant**. When being roomed by the MA, Denise tearfully states that this is her second pregnancy, and she **doesn't know how it happened as she was using "protection."** Her mother is raising her first child. She said that she is **no longer with her baby's father, that the relationship was "chaotic and I'm glad to be away from him because he used to hurt me."** States she has **low family support**, and is currently living with a friend, but "I'm just couch-surfing. I hope to get my own place soon."



204.0 Problems related to unwanted pregnancy  
203.0 Problems in relationship with spouse or partner  
203.0 Problems related to health literacy, difficulty understanding health related information, problem completing medical forms  
205.9.1 Housing instability (house, with risk of homelessness or imminent risk of homelessness)  
203.810 Personal history of intimate partner abuse in childhood

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Case Scenario:  
Tarek is a 16-year-old male who recently moved with his family from Ukraine. He visits your clinic today seeking information about how to get his asthma medications refilled. He speaks English but has been identified as able to read at a 5<sup>th</sup> grade level. For the past year, he has not been able to attend school in his country. He is living in ministry-supported housing with his family as they become established in this community. At this time, they do not have a personal vehicle and rely on public transportation. He states that his parents are in the process of getting work visas, so money is very tight. He feels like he is adjusting to school ok, but does not have any friends yet, despite having been in school for three weeks. He feels a little isolated but is hopeful about his future.



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Case Scenario:  
Tarek is a 16-year-old male who recently **moved with his family from Ukraine**. He visits your clinic today seeking information about how to get his asthma medications refilled. He speaks English but has been identified as able to **read at a 5<sup>th</sup> grade level**. For the past year, he **has not been able to attend school in his country**. He is **living in ministry-supported housing** with his family as they become established in this community. At this time, they **do not have a personal vehicle and rely on public transportation**. He states that his parents are in the process of getting work visas, so money is very tight. He feels like he is adjusting to school ok, but **does not have any friends yet**, despite having been in school for three weeks. He feels a little isolated but is hopeful about his future.




- ICD-10: Z62.0
- Z62.0: Literacy and low-level literacy
- Z62.1: Schooling unavailable and unattainable
- Z62.819: Housing instability; housed
- unspecified
- Z62.82: Transportation insecurity
- Z62.83: Financial insecurity
- Z62.84: Other problems related to social environment
- Z62.87: Material hardship

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“Life isn’t about waiting for the storm to pass. It’s about learning to dance in the rain.”

Vivian Greene



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## CME and CE Information

In support of improving patient care, this activity has been planned and implemented by the School-Based Health Alliance and Moses/Weitzman Health System, Inc. and its Weitzman Institute and is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.



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