Z Codes: Capturing Social Determinants of Health Data in Electronic Health Records

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Objectives

• Describe the difference between ICD-10-CM/PCS procedure codes and diagnosis codes
• Locate and list 3 of the various categories of Z codes.
• Describe possible reasons for underutilization of Z codes for capturing social determinants of health (SDH) data.
Background

- World Health Organization authorized publication of the International Classification of Diseases (ICD-10)\(^1\)
  - implemented for mortality coding /classification of death certificates since 1999
  - Allows for comparison of US morbidity diagnosis data at the international level
  - In 2015, the Dept. of Health & Human Services mandated that all entities covered by HIPAA must transition to ICD-10-CM/PCS for electronic health record transactions \(^1\)
Benefits of ICD-10-CM

This classification system provides data for:

- Monitoring resource use
- Tracking public health and risks
- Measuring quality, safety, & efficacy of care
- Conducting research, epidemiological studies, clinical trials
- Strategic planning
- Setting health policy
What’s the Difference?

ICD-10-CM
(Clinical Modification)
• Developed for medical diagnosis coding for all US healthcare settings\(^1\)
• >69,000 diagnosis codes
• provides categories of codes reflecting patients’ social characteristics and reason for encounter in the form of “Z-codes”

ICD-10-PCS
(Procedure Coding System)
• Developed for hospital inpatient procedures\(^1\)
• >71,000 procedure codes
• is a completely separate medical coding system from ICD-10-CM.
What is a Z-Code?

• A special group of codes provided in ICD-10-CM
  – Factors influencing health status and contact with health services: Z00 – Z99.
• Z-Codes represent reasons for encounters
• Underutilized resource for tracking social needs
• The mandate for ICD-10-CM adoption creates an attractive standardized approach for data aggregation, via coding and billing for SDH
What are Social Determinants of Health?5

- SDH represent the interrelationships among personal, social, economic, and environmental factors that influence patient health status 4
- SDH data can inform clinical decision making, creating strategies for improving population health, potentially reducing utilization of overcrowded emergency departments 4
Codes Z55-Z65:

*Persons with potential health hazards related to socioeconomic and psychosocial circumstances*

**Z55** Problems related to education and literacy
**Z56** Problems related to employment and unemployment
**Z57** Occupational exposure to risk factors

**Z59** Problems related to housing & socioeconomic circumstances
**Z60** Problems related to social environment
**Z62** Problems related to upbringing; parental issues

**Z63** Other problems related to primary support group, including family circumstances
**Z64** Problems related to certain psychosocial circumstances
**Z65** Problems related to other psychosocial circumstances

*See all the Z codes on your mobile device:*
http://www.icd10data.com/ICD10CM/Codes/Z00-Z99
Methods

Experiences of a Nursing Case Manager from a Baltimore Emergency Dept., where high rates of homeless individuals turn for services, prompted the question:

What factors influence the inclusion and capture of social determinants of health data in electronic health records?
Methods

Using a basic process for gap analysis, we examined current and desired states, and took steps toward accomplishing the desired state: capturing SDH data in the medical coding process.
Current State

• Healthy People 2020 selected SDH as an indicator to assess the nation’s health and to motivate action on local, state, and national levels to improve population health\(^5\).

• Though designated as a high priority indicator, over 30% of SDH objectives have gotten worse or haven’t changed since 2010, indicating more progress is needed\(^5\).
2017 Homeless Data: Maryland

- 2,165 homeless Veterans
- 1,370 children <18
- 422 youth ages 18-24
- 11% flee domestic violence
- 5,511 are sheltered
- 1,736 not sheltered
- Deaths of homeless have more than doubled since 2007
Costs of Homelessness

- Nearly one-third of all visits to the emergency room are made by people struggling with chronic homelessness\textsuperscript{11-12}

- On average, they visit the emergency room 5 times/yr
  - The highest users visit weekly \textsuperscript{11}

- Some studies have found that leaving a person to remain chronically homeless costs taxpayers as much as $30,000 to $50,000 per year \textsuperscript{12}

- 80% of emergency room visits made by people struggling with homelessness are for an illness that could have been treated with preventative care \textsuperscript{11}
Current State

✓ When documenting in the EHR, physicians and nurses share patient information; however, they describe that information differently⁸⁻⁹
   – Physician entries emphasize diagnosis, treatment, and management
   – Nursing entries emphasize functional issues

✓ Even when SDH are documented in ancillary notes, this information may not necessarily be captured by medical coders or software programs, for various reasons, including software limitations⁸⁻⁹.
Current State

✓ Medical coders may be incentivized to meet quotas
  ▪ A focus on medical diagnoses and other criteria may result in lack of coding SDH data\textsuperscript{8-9}
  ▪ Coding of functional issues may have little perceived value \textsuperscript{8-9}
  ▪ MD / mid-level provider entries are captured in the coding process, however, software programs may need to be updated to capture and assign Z-codes to SDH information located in ancillary notes \textsuperscript{8-9}
Desired State

✓ use non-physician, ancillary entries for assigning Z codes to SDH information
✓ ensure that electronic health record software updates capture this information
✓ Capture SDH data to inform policy, develop programs to improve population health
Steps for Reaching the Desired State

• The **AHA Coding Clinic** is the official resource and authority for ICD-10-CM/PCS coding rules and conventions\(^{10}\)

• All questions submitted are processed free of charge, but registration is required\(^{10}\)
  – The AHA Central Office is a Clearinghouse Service established with the Dept. of HHS to provide free assistance
  – Does not replace learning how to code; not a hotline service

• [https://www.codingclinicadvisor.com/](https://www.codingclinicadvisor.com/)
Steps for Reaching the Desired State

• Categories Z55-Z65 contain codes pertaining to: *Persons with potential health hazards related to socioeconomic and psychosocial circumstances*
• This important information is typically only found in nurses or social worker documentation.

The Nurse Case Manager posed this question to the AHA Coding Clinic Advisory Board:

*Is it appropriate to use non-physician documentation to assign codes that provide information on social determinants of health?*
Gap Analysis Results

The AHA Advisory Board responded...

• The ruling now states that for ICD-10-CM categories Z55-Z65, persons with potential health hazards related to socioeconomic and psychosocial circumstances, represent social information, rather than medical diagnoses.

• As such, it is acceptable to report Z codes based on information documented by other clinicians involved in the care of the patient.
Implications for Practice & Conclusion

• SDH correlate with health outcomes & risks
  – Data can inform decision making
  – potential for treating with preventive care
• Z-coded data captured from nurse and social worker notes, will contribute data for epidemiological research
  – More precise identification, tracking of SDH
• Policy implications
  – Potential for more low-barrier shelter options; reduced ER visits?
MAP-IT: Guide to Using Healthy People 2020 in Your Community

Healthy People is based on a simple but powerful model:
- Establish national health objectives.
- Provide data & tools to enable states, cities, communities, and individuals across the Nation to combine their efforts to achieve them.

Use the MAP-IT framework to help

Mobilize Assess Plan Implement Track
Questions?

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References


