

FROM THE NATIONAL PERINATAL INFORMATION CENTER

Documenting Social Determinants of Health (SDOH)

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The National Perinatal Information Center (NPIC) is driven by data, collaboration and research to strengthen, connect and empower our shared purpose of improving patient care.

For over 30 years, NPIC has worked with hospitals, public and private entities, patient safety organizations, insurers and researchers to collect and interpret the data that drives better outcomes for mothers and newborns.



National Data

In 2008, the World Health Organization (WHO) published the report "Closing the gap in a generation: Health equity through action on social determinants of health"¹. Since this publication, much has been written to advance the understanding and definitions of SODH.

In 2010, the Secretary's Advisory Committee on Health Promotion and Disease Prevention included in the Healthy People 2020 objectives the need to create "social and physical environments that promote good health for all"². The framework for this objective identifies five determinant areas: Economic Stability, Education, Social and Community Context, Health and Health Care and Neighborhood and Built Environment.

Each of these areas can be viewed through multiple interacting lenses: social/political, national/international, micro/macro. As with any set of objectives however, the key is how to measure progress toward the stated goals once defined.

The Healthy People 2020 website (<https://www.healthypeople.gov>) displays state and national rates for many of the five key SDOH areas by subpopulations. In the Maternal, Infant and

Child Health (MICH) area there are 74 indicators being tracked. Most data sources are state survey, registry and surveillance data reported to the CDC/National Center for Health Statistics with the most current rates reported for 2016 but with some as old as 2010.

Data availability and lag time are always issues when trying to measure progress toward a goal. For individual providers, hospitals and systems, data availability is particularly frustrating when they are being asked to be more accountable for improvement of the health quality for not only their patients but also the larger population they serve. Challenges include, quantifying the magnitude of the problems and determining the breadth of ancillary and social services that need to be available to address them.

Coding Social Determinants of Health

The administrative/billing data set is the most universal data set available for all hospital discharges. An administrative data record with demographic, clinical, and financial data in a largely common data format is generated for every patient. Maximizing the use of this data set seems to be the most cost efficient, immediate and comprehensive way to quantify and understand vulnerable patients.

ICD 10 "Z" codes³ include a set of eight code groups that allow for the documentation of complex social problems that can adversely impact outcomes even when the best of clinical care is provided. These eight code groups fall under the category *Persons with potential health hazards related to socioeconomic and psychosocial circumstances (Z55-Z65)* and closely track with the WHO SDOH categories.

Z55 Problems related to education and literacy

Z56 Problems related to employment and unemployment

Z59 Problems related to housing and economic circumstances

Z60 Problems related to social environment

Z62 Problems related to upbringing

Z63 Other problems related to primary support group, including family circumstances

Z64 Problems related to certain psychosocial circumstances

Z65 Problems related to other psychosocial problems

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Each code group has from 3 to 24 sub-codes that target the nature of the problem more specifically: Z59.0 Homelessness; Z59.4 Lack of adequate food or safe drinking water; Z62.810 Personal history of physical and sexual abuse in childhood; Z63.31 absence of a family member due to military deployment etc.

For perinatal discharges, these codes would be used on the mother's record. They can help inform the entire care team as to the added challenges the mother, infant and family is facing and what other interventions and services should be provided, as well as why anticipated outcomes may not be seen as quickly or at all.

Use of Z codes in the NPIC Perinatal Center Data Base

For the four quarter period ending on June 30, 2018, we looked at 336,672 antepartum, delivery and postpartum inpatient discharges and found *very little* use of Z codes. The top five code groups and the percent of total coded cases were:

- .156% Z59 Problems related to housing and economic circumstances
- .078% Z62 Problems related to upbringing
- .042% Z63 Other problems related to primary support group, including family circumstances
- .031% Z64 Problems related to certain psychosocial circumstances
- .027% Z65 Problems related to other psychosocial problems

In a deep dive into the use of Z coding at a large, urban academic regional medical center with more than 3,000 annual deliveries and a greater than 50% Medicaid payer mix for obstetrical patients, we found only 1.9% of their maternal discharges with Z codes, the largest code group being Z59 Problems related to housing and economic circumstances; 28 of these mothers were coded as homeless.

Expansion of the administrative data set to include electronic medical record (EMR) data may or may not solve the problem. EMR experts at NPIC member hospitals report coded or text fields are available to document SDOH, but the degree of completion ranges from inconsistent to not at all.

Documenting maternal social challenges, either by Z codes or through an EMR field, requires providers to discuss potentially sensitive topics with their patients. Once uncovered, it also imposes on them the burden to identify internal and/or external resources to address the problems. This responsibility is a great challenge for those not used to being responsible for the breadth of social problems facing patients. However, not documenting, does not remove the impact. Documenting will at least help identify the scope of the problems and hopefully

move providers to become advocates to lessen their impact.

References:

- 1 World Health Organization, Commission on Social Determinants of Health. *Closing the Gap in a Generation: Health equity through action on the social determinants of health*. Available from : http://www.who.int/social_determinants/en
- 2 Secretary's Advisory Committee on Health Promotion and Disease Prevention Objectives for 2020. *Healthy People 2020: An Opportunity to Address the Societal Determinants of Health I the United States*. July 26, 2010. Available from <http://healthypeople.gov/2010/hp2020.htm>
- 3 <https://www.cms.gov/medicare/coding/icd10/2019-icd-10-cm.html>

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Janet H. Muri has been with the National Perinatal Information Center since 1986 and it's President since 2007. Ms. Muri oversees all collection, processing and analysis of clinical and financial data submitted by NPIC member hospitals and other state, federal and private data sources related to contract work. She is the principal on many of the NPIC contracts including the Defense Health Agency Perinatal Performance Information Project, the Georgia Regional Perinatal Care Network project and the Alliance for Innovation in Maternal Health (AIM).



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Sandra A. Boyle has over 20 years experience in health care data management and analysis. She joined NPIC in 1996 as a Data Coordinator and Hospital Liaison. As Director of Data Services, Ms. Boyle is responsible for managing the recruitment, enrollment and reporting for all member and non-member hospitals, and has played an integral role in the design and development of NPIC performance measurement reporting. Ms. Boyle has a Bachelor of Science in Health Services Administration from Providence College