Social Determinants of Health Data
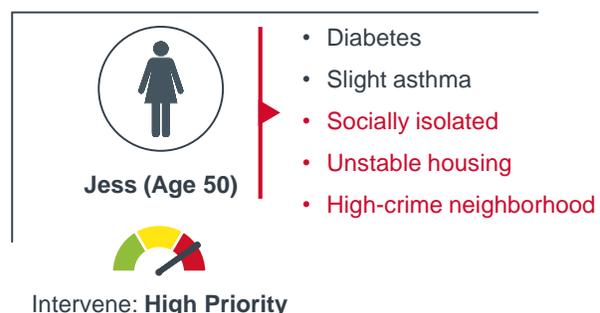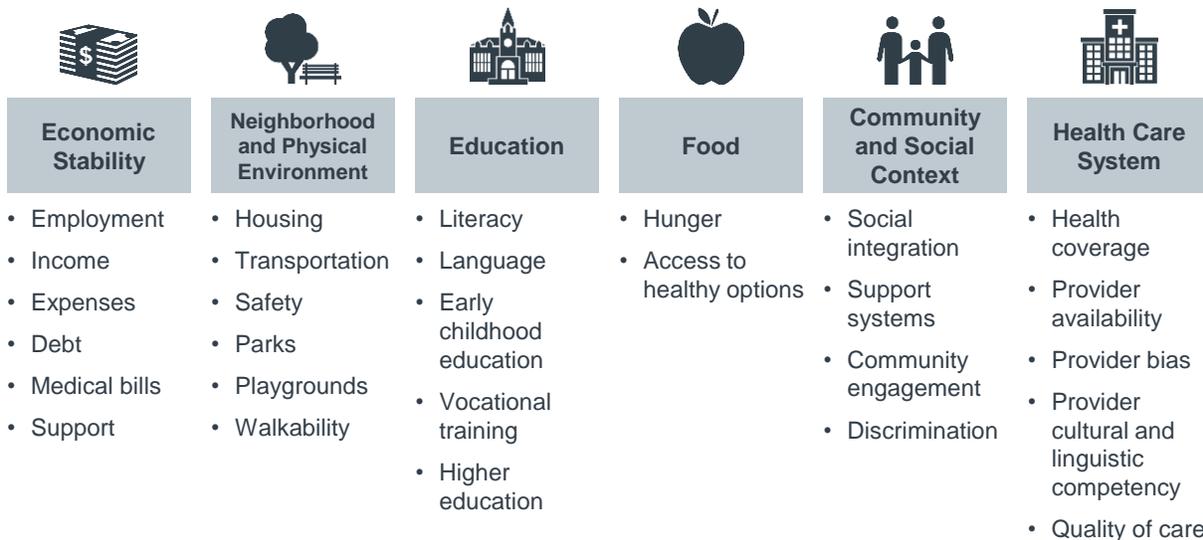*Educational Briefing for Non-IT Executives*

Executive Summary

The US health care system has historically overemphasized the importance of medical care in efforts to improve health outcomes. The result of this disproportionate spend is that Americans fare worse than other peer countries across many measures of health, including maternal mortality, life expectancy, low birth weight, and infant mortality. As our health care system shifts toward value-based care, leading provider organizations are studying non-clinical risk factors (e.g., social circumstances, individual behavior, physical environment) and building new models for social care delivery in partnership with owned and community resources in an effort to improve patient outcomes.

What are SDH data and how are they used?

According to the World Health Organization, the social determinants of health (SDH) are "the conditions in which people are born, grow, live, work and age," which includes security in food, housing, income, environment, and social context. SDH data can be used to give health care providers a more comprehensive view of the health status of individual patients and populations.

A Framework of the Social Determinants of Health

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System
• Employment • Income • Expenses • Debt • Medical bills • Support	• Housing • Transportation • Safety • Parks • Playgrounds • Walkability	• Literacy • Language • Early childhood education • Vocational training • Higher education	• Hunger • Access to healthy options	• Social integration • Support systems • Community engagement • Discrimination	• Health coverage • Provider availability • Provider bias • Provider cultural and linguistic competency • Quality of care

Jess (Age 50)
• Diabetes
• Slight asthma

Intervene: **Medium Priority**

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Jess (Age 50)
• Diabetes
• Slight asthma
• Socially isolated
• Unstable housing
• High-crime neighborhood

Intervene: **High Priority**

Sources: Kaiser Family Foundation; Health Care IT Advisor research and analysis.

Why are they important?

Socioeconomic factors are far stronger determinants of health outcomes than medical care, and addressing SDH has been shown to be effective in improving outcomes. For example, investment in community health workers has been consistently shown to improve costs, quality, utilization, access, and patient satisfaction with care. When combined with traditional clinical and claims data, SDH data permit more effective care planning and interventions for individual patients and more accurate population risk assessment.

How do SDH data affect health care providers and IT leaders?

Collecting and using SDH data have implications across fee-for-service (FFS) and value-based care models.

How SDH data can serve FFS models:

- **Reduce ED[1] utilization, readmissions, and missed appointments:** Programs that address SDH factors like homelessness and food insecurity can reduce unnecessary ED use and prevent unneeded hospital readmissions by providing patients with resources to assist them during periods of instability in their lives. In addition, health systems may reduce the number of costly no-show appointments by providing some patients with transportation assistance.

- **Charitable care contributions:** Nonprofit hospitals are obligated to provide charity care to the community; programs addressing social needs help to fulfill this obligation while improving patient care and outcomes.

How SDH data can serve value-based models:

- **Improve care effectiveness:** Socioeconomic factors play a profound role in determining the effectiveness of medical care. Food insecurity is a root cause of obesity and all of its comorbidities, such as diabetes; economic insecurity makes it hard for patients to afford their medications. Multiple socioeconomic challenges frequently coexist in patients, compounding the health risks of each factor. For example, children living in disadvantaged neighborhoods where the housing stock contains large amounts of lead paint are at high risk of lead poisoning. When these children are also food insecure, they are especially susceptible to the toxic effects of lead, which can be reduced with a healthy diet. Incorporating SDH data into clinical processes and building out an effective partner referral program can improve the health of your population. This is particularly crucial for providers participating in Medicaid ACOs.[2]

- **Improve population risk assessments:** SDH data provide a window on health risk factors not easily available from standard claims and clinical data. Data collected from patients are a starting point for care intervention; data from third-party sources, including vendors, can open up whole new realms for consideration (e.g., financial, criminal, and substance abuse history). These data can also be incorporated into population risk segmentation algorithms, enhancing their predictive value.

Questions That Hospital Executives Should Ask Themselves

1. How does our organization currently screen for, record, and handle SDH data?

2. Can our organization integrate and analyze SDH data with clinical data from our electronic medical records?

3. What community-based resources can we leverage to help address our patients' social needs and effectively "close the loop" on care?

Additional Advisory Board research and support available

Report: Using IT to Help Address the Social Determinants of Health

Webconference: The Era of the Connected Patient

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1) ED = Emergency department.
2) ACOs = Accountable care organizations.

Source: Health Care IT Advisor research and analysis.