

AHCCCS Payment Modernization

Blog # 11

Social Determinants of Health Interventions- Impact on Costs and Outcomes

September 21, 2015

For [many years, health policy literature](#) has shown the relationship between premature mortality and morbidity with social factors such as housing, employment, and nutrition. The [research](#) suggests that social, environmental, and behavioral factors have a greater impact on health than genetics and health care combined. These factors are commonly referred to as [social determinants of health](#).

In a recent peer reviewed [journal article](#), the authors assessed the impact of “socioeconomic position” [SEP] on cardiovascular disease [CVD]. They first attempt to describe SEP.

The socially derived economic factors that influence what positions individuals or groups hold within the stratified structure of a society.

Examples of SEP include education, social connections, environment, race/ethnicity, and physical insecurity (crime, violence). They find that the strongest SEP correlations with CVD are education level, and income. Many other SEPs and their relationship with increased incidence and severity of CVD are discussed. Their overall conclusion from review of many empirical studies is

Although we have traditionally considered CVD the consequence of certain modifiable and nonmodifiable physiological, lifestyle, and genetic risk factors, we must now broaden the focus to incorporate a third arm of risk, the social determinants of health.

With the growing body of research showing that health status is significantly impacted by social determinants, there is greater focus on delivery and payment designs which concentrate on non-medical factors.

A recent [Milbank Fund brief](#) describes how Medicaid ACOs are addressing health outcomes with social determinant interventions in care delivery and payment models, not possible under the traditional FFS model. For example, they provide exercise and nutritional counseling as an intervention for obesity, and provision of mattress covers and vacuums as an asthma intervention. However, as the Milbank brief notes

The social determinants of health affect population health outcomes through multiple pathways and mechanisms, making it difficult to establish clear cause-and-effect relationships.

How effective are social determinant **interventions**? In a recent [review of the literature](#), the authors attempted to identify evidenced based approaches which result in improved health and/or lower health care costs. The study included only results that the original study authors found statistically significant.

Housing: for high needs/high cost persons has been shown to improve both health outcomes and net savings.

Example: Housing First- a harm-reduction approach in which adults who are homeless and who have mental and behavioral health conditions are provided supportive housing without having to abstain from drugs and alcohol.

Net Savings ranges \$29,388 - \$8949 per person/per year. [There are many additional evidence-based positive outcome/net cost savings housing interventions]

Nutritional Assistance: for high risk women, infants, children, and older adults with cognitive/functional impairments.

Example: WIC- Associated with 29 gram increased average birth weight in a nationwide study.

Net Savings: \$176 million per year based on a [1992](#) GAO study.

Education:

*While evidence supports high-quality early childhood interventions as a means of improving health, studies that have examined the impact of educational interventions on health care costs are **lacking**.*

Neighborhood Conditions and Public Safety: Communities experiencing high rates of gun violence

Example: Baltimore Safe Streets- the program design are violence interrupters, street outreach workers to provide role modeling, conflict resolution, and organized community responses to gun violence. Better health outcomes.

Net Savings: no cost analysis

Income Support Interventions: General public

Example: Earned Income Tax Credit - Improved health status; and SSI-Lower disability rates

Net Savings: None identified

So although there is little disagreement that social determinants of health have a very significant impact on health outcomes and costs, the evidence supporting interventions which are effective in addressing the impact of the social determinants is quite limited with the notable exception of housing support.

As more value based models are employed and traditional fee for services constraints on addressing social determinants are reduced, payers and policy makers will increasingly seek multi-source evidence supporting interventions' effectiveness, such as that which currently [exists for various targeted housing supports](#).

There is an increased awareness of the importance of including the impact of social determinants in new model designs as care delivery and payment reform evolves. More research is needed and more data made available to researchers is needed. For example, the Institute of Medicine [\[IOM\] recommends](#) that providers utilize EHRs to capture information about their patients such as educational status, census tract information, financial resource strain, and other social and behavioral domains.

*The inclusion and use of such data in an EHR should foster better clinical care of individual patients and of populations, and enable **more informative research** on the determinants of health and the effectiveness of treatments*

And as more investment is made in social service programs to lessen the impact of social determinants on health, policy makers and payers will increasingly want to better ensure the net effect of their investment is an improvement of health and costs saved.

Drug Prices

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Drug costs are a major factor in recent health inflation. Here are few links with various perspectives on the value proposition for drugs.

[Pushing back on exorbitant drug prices](#)

Because many drugs are developed in part with NIH funding, an argument is being made that a 1980 statute which assured that any federally financed invention “is available to the public on reasonable terms” and if not, the government can license the invention itself.

[Some drug pricing is justifiable. But likely not all](#)

Daraprim, a drug used to treat certain types of infections that has been around for years went from \$13.50 a tablet to \$750 a tablet when purchased by a new company.

[New push ties cost of drugs to how well they work](#)

Some insurers and prescription-benefit managers are pushing back by arguing that they should pay less when drugs don't work well in certain patients. Drug companies are countering with pricing models of their own, such as offering free doses during a trial period.