

Malnutrition Adds \$15.5 Billion Annually To Direct U.S. Medical Costs

- New research shows that malnutrition associated with disease increases medical spending by more than \$1 billion yearly in California, New York, Texas and Florida[1]
- Malnutrition in the hospital remains a widespread health issue across the U.S. and globally

ABBOTT PARK, Ill., Sept. 21, 2016 /PRNewswire/ -- Healthcare spending in the U.S. is higher than any other country², and a major contributor of that cost is treating chronic diseases. One barrier to better health for people living with a chronic disease is malnutrition, and new data shows that it is raising costs at the state level too. A study recently published in [PLOS ONE](#), the world's first multidisciplinary open access journal, found that the U.S. spends upwards of [\\$15.5 billion per year](#) in direct medical costs on malnutrition associated with eight diseases – for individual states that could mean an additional \$25 million to \$1.7 billion yearly.

[Previous research](#) has shown the total economic burden of disease-associated malnutrition in the U.S. – including both direct and indirect costs* – poses a \$157 billion burden each year.³ In this study, researchers focused on the direct medical costs in order to understand the amount each state spends on this preventable condition.

Researchers found that of the \$15.5 billion spent each year on medical costs for malnutrition associated with common diseases:

- California has the highest overall estimated costs at \$1.7 billion, while Wyoming spends the least at \$25 million.
- Washington, D.C. spends the most per person (\$65) while Utah spends the least per person (\$36).
- Dementia was the highest driver of cost, accounting for more than half the total cost (\$8.7 billion). Breast cancer was the lowest among the eight diseases at \$76 million.
- While people 65+ represent only 14 percent of the U.S. population, this age group accounts for nearly a third of the costs (\$4.3 billion), or roughly \$93 per person.

"Our healthcare system already spends significant resources treating chronic diseases, and this new study shows how malnutrition – a preventable and treatable condition – is adding to that cost at the state level," said Scott Goates, PhD, health economist at Abbott and lead study author. "When people are well-nourished, we remove a barrier to successfully managing chronic conditions while lowering the financial burden on individuals and the healthcare system at large."

Good Nutrition Pays Dividends

Malnutrition occurs when the body doesn't get the nutrients it needs, but often goes undiagnosed because it can be invisible to the eye. It can occur in both underweight and overweight individuals with more than a third of all patients entering the hospital malnourished^{4,5} and even more becoming malnourished during their hospital stay.⁶ This is because people often have issues that prevent them from staying well-nourished in the hospital, such as loss of appetite or difficulty chewing and swallowing due to illness or age. Because of this, malnutrition can increase patients' risk of complications and delay recovery.⁷

"Malnutrition often is unrecognized, particularly in obese individuals which is a growing segment of our population. This is particularly problematic when it accompanies many chronic diseases," said Dr. Carol Braunschweig, PhD, RD, professor, kinesiology and nutrition at the University of Illinois at Chicago and one of the study authors. "A great deal of research has demonstrated malnutrition negatively impacts health and increases costs to our healthcare system. By emphasizing the importance of nutrition – from identifying and treating people in the hospital to following up with them once they leave – we can improve people's health and save money in the process."

Some hospitals have started to make nutritional changes, including implementing formalized screening and treatment processes, and have seen promising results. In a recent study, published in the [Journal of Nursing Care Quality](#), Cleveland Clinic Akron General saw reduced length of stays, readmissions and costs of care for patients after applying this quality improvement program.⁹

"The value of nutrition has been well-established by the scientific community, but we've just begun to scratch the surface of applying it into the healthcare setting," said Goates.

While some efforts are under way, more can be done to help people stay well-nourished in the hospital and post-discharge. Implementing malnutrition protocols in all hospitals and empowering patients and healthcare professionals to work together on addressing malnutrition could have a big impact in rectifying this issue. Caretakers play an important role too – for anyone at risk, they can work with healthcare professionals to create nutrition plans that include instructions detailing how patients can eat well when they return home.

**The economic burden data looked at direct costs such as hospital stays and readmissions as well as indirect costs such as loss of productivity due to decreased quality of life or death.*

About the Study:

Economic Burden of Disease-Associated Malnutrition at the State Level was an analysis of the direct medical costs associated with disease-related malnutrition for eight diseases in the U.S. Researchers examined the prevalence and cost of treating malnutrition found with dementia, depression, chronic obstructive pulmonary disease (COPD), stroke, musculoskeletal disorders, coronary heart failure (CHF), colon cancer and breast cancer.

Disease prevalence rates were estimated for subgroups defined by age, race and sex using data from the National Health and Nutrition Examination Survey from 2009 to 2014, which was supplemented with National Health Interview Survey data. State prevalence of disease-related malnutrition was estimated by combining national prevalence estimates with states' demographic data from the U.S. Census. Direct medical cost for each state was estimated as the increased expenditures incurred as a result of malnutrition.

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