

ACTION BRIEF

A Future Forward for a Healthier Tennessee



Tackling West Tennessee's Workforce Health Challenges

Addressing Underlying Drivers of Chronic Conditions



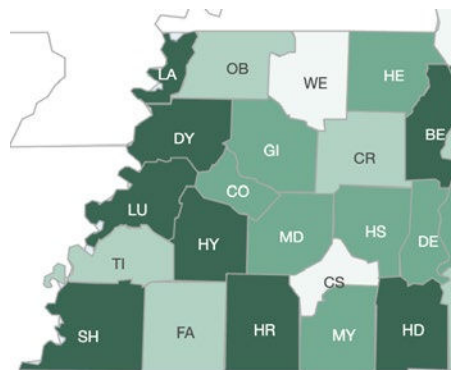
Each of the three Grand Divisions of Tennessee is unique and contributes to the state's diverse history, culture and economy. West Tennessee is no exception. According to TNVacation.com, West Tennessee is southern and soulful and "blends a raw, urban can-do spirit with rural charm, delivering its own rhythm of extraordinary experiences, iconic artists and diverse culture." More than the rest of the state, West Tennessee's history, arts and cuisine reflect the culture of the Deep South, particularly the Mississippi Delta, having been shaped by the Mississippi River, which forms the region's western border.

Recognized as a wellspring of America's blues, gospel, rock and roll, rockabilly, rap, and hip-hop; the civil rights movement; and BBQ and soul food, West Tennessee is also known for the poor health of its people and its struggling economy. Overall, West Tennessee is home to eight of the state's

ACTION STEPS FOR EMPLOYERS

(see details about each action step starting on page 3):

1. Review data to determine risks and opportunities.
2. Manage the risk continuum of obesity.
3. Consider the impact of social determinants of health.
4. Deploy effective benefit designs.
5. Contract with high quality vendors.



Source: County Health Rankings and Roadmaps, Tennessee 2023

Shelby County Has Higher Rates

HEALTH

PREMATURE DEATHS:	23-29% higher than other large TN counties
OBESITY:	8-18% higher than Knox and Davidson counties
DIABETES:	32% higher than US
HYPERTENSION:	24% higher than US

SOCIO-ECONOMIC

POVERTY:	20% higher than TN
INCOME INEQUALITY:	22% greater than TN
SINGLE-PARENT HOUSEHOLDS:	54% more than TN

Source: County Health Rankings and Roadmaps, CDC Places, US Census

least healthy counties and only two of its healthiest.¹

Shelby County is the only large Tennessee county with a majority Black/African American residents (54%) who face disproportionately poor health and health outcomes.² In fact, more Shelby County residents live in poverty, there is a larger income inequality gap, and more children live in single-parent households than in Tennessee as a whole.

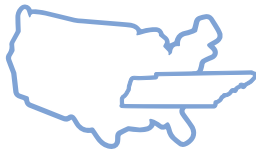
Fast Facts

- ▶ According to a study by the Sycamore Institute, Tennessee's excess cost burden (the burden resulting from its higher than national prevalence) for diabetes and hypertension is \$1.4 billion in direct medical costs, productivity, and premature death.
- ▶ The American Diabetes Association estimates that the total cost for diabetes in Tennessee is \$7.3 billion annually.
- ▶ The Better Tennessee report found that diabetes alone costs the state \$1.7 billion annually in lost productivity.

Demographic Age Bands	Adults in TN with		
	Hypertension	Pre-Diabetes*	Diabetes
Age 18-24	9.3%	4.5%	0.7%
Age 25-34	14.8%	5.8%	2.9%
Age 35-44	26.6%	7.7%	5.6%
Age 45-54	37.5%	12.4%	15.9%
Age 55-64	55.2%	14.8%	24.8%
Age 65+	65.0%	12.9%	27.4%

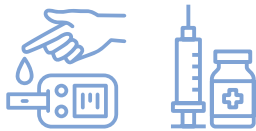
Source: Behavioral Risk Factor Surveillance System Year 2021. *2019

Tennessee has the



4th HIGHEST RATE OF DIABETES

in the nation, and the



6th HIGHEST RATE OF HYPERTENSION

in the nation.



Source: America's Health Rankings, 2021 Annual Report, United Health Foundation

Since Tennessee itself ranks low for health and economic environment compared to the US as a whole, this makes Shelby County one of the most challenging areas in the country for ensuring health and economic wellbeing.

Chronic Conditions Must Be Prioritized

Many people with hypertension, prediabetes and diabetes do not know they have these conditions, which strongly correlate with each other as co-occurring conditions. For example, three of four adults with diabetes also have hypertension.³

Despite investing heavily in managing these diseases, there is an urgent need to:

- ▶ Improve disease prevention strategies.
- ▶ Better manage chronic conditions.
- ▶ Identify and intervene on behalf of at-risk populations.
- ▶ Select partners with proven success rates.

As the prevalence of chronic conditions increases nationwide, if West Tennessee continues to outpace the rest of the country, the region risks losing economic opportunities. Additionally, the high costs associated with these conditions will contribute to the ongoing, unsustainable escalation of healthcare costs for everyone in West Tennessee.

Impact of Chronic Conditions on the Workforce and Employers

Although diabetes and hypertension risks increase with age, a significant percentage of the workforce population already lives with these chronic conditions. Because some of the main risk factors, like obesity,

are increasing among all age groups, informed predictions show a rising number of workforce-age people acquiring these diseases—and the serious complications

Effects on Employers of the Indirect Costs of Chronic Illnesses



Hypertension-related absenteeism costs employers **\$10.3 billion per year.**



Obesity-related absenteeism costs employers **\$11.2 billion per year.**

Stroke leads to an average of **20 lost workdays per year** per patient.



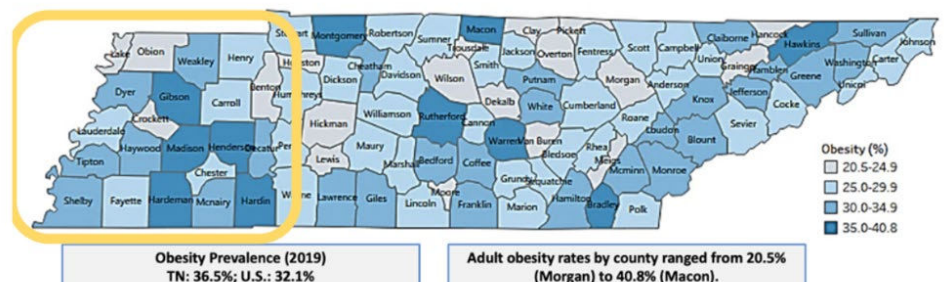
Physical inactivity costs US employers **\$9.1 billion per year.**

Source: National Alliance of Healthcare Purchaser Coalitions Optimal Cardiovascular Prevention and Care

"Poor health shrinks our workforce."

—Sycamore Institute, "The Economic Impact of Chronic Disease in Tennessee"

Adults with Obesity in TN by County



Note: Prevalence of obesity is the percentage of the adult population (age 20 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m² by county which is based on 2019 estimates from the BRFSS.

Data Source: Centers for Disease Control and Prevention Diabetes Surveillance Atlas, 2019

that accompany them, particularly without proper management.⁴

The importance of workforce wellbeing is incalculable. Complications when these diseases go uncontrolled include stroke, heart attack, kidney disease, amputation, and blindness.⁵ These chronic diseases drive up costs both for the people living with them and for their employers.

Many industries in Tennessee are experiencing labor shortages due, in part, to high rates of chronic disease. Hypertension and diabetes, which often emerge during productive work years, contribute to productivity, absenteeism and presenteeism challenges. In safety-sensitive jobs, these conditions increase risks and can contribute to premature retirement.⁶

Drivers of Hypertension and Diabetes: Obesity and Social Determinants of Health (SDoH)

Obesity, now considered by the CDC to be an epidemic, continues to be the most significant health-risk factor in hypertension and diabetes, with excess weight accounting for 65%–78% of the essential primary risk for hypertension.⁷ About 90% of people with type 2 diabetes are either overweight or obese.⁸

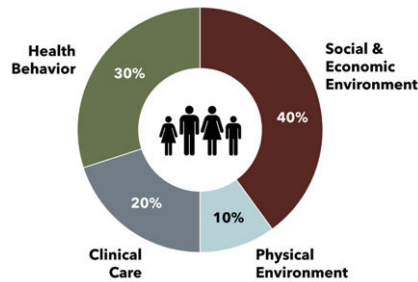
The CDC reports that “[f]rom 1999–2000 through 2017–March 2020, US obesity prevalence increased from 30.5% to 41.9%. During the same time, the prevalence of severe obesity increased from 4.7% to 9.2%.”⁹ As the map on page 2 shows, obesity is even more prevalent in West Tennessee than nationwide, with approximately 57% of West Tennessee counties at or above the national average.

These sobering statistics can and must ignite action for better management of obesity rates to lower incidence of the disease.

Why SDoH Matters to Organizations and Communities

There is a strong correlation between obesity, hypertension and diabetes, and SDoH—environmental and socioeconomic factors workers bring to their jobs.

The Drivers of Health



Source: County Health Rankings and Roadmaps Model

In addition to the well-established impact of diet, exercise, sleep and weight, these SDoH factors also impact hypertension and diabetes:

- ▶ Income and social protection
- ▶ Education
- ▶ Unemployment and job insecurity
- ▶ Working life conditions
- ▶ Food insecurity
- ▶ Housing, basic amenities, and environment
- ▶ Early childhood development
- ▶ Social inclusion and non-discrimination
- ▶ Structural conflict
- ▶ Access to high-quality, affordable healthcare services

West Tennessee includes some of the most vulnerable neighborhoods in the nation

Given the socio-economic conditions in West Tennessee, it is not surprising that neighborhoods in this region rank in the

highest categories nationally on socio-economic disadvantage based on income, education, employment, and housing quality.

Employees bring the context of their lives to work every day—neighborhood concerns, economic stress, transportation inaccessibility, unstable housing, food insecurity, and more. These factors affect their work directly and indirectly in terms of ability to show up on time, capacity to meet job requirements, attention and focus, and employment longevity.

Employers need to examine such non-medical risk factors as they strive to understand and improve conditions that contribute to overall workforce health.

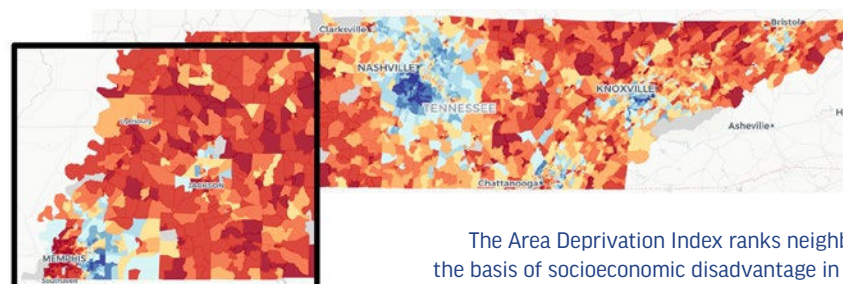
EMPLOYER ACTION

Employers can take these actions to address the drivers of chronic conditions and help prevent, and encourage treatment for, these risks and conditions.

1. Review data to determine risks and opportunities.

- ▶ **Get the data.** The recent Consolidated Appropriations Act (CAA) legislation gives employers enhanced leverage to demand unfettered access to the data service providers collect. Self-funded employers benefit from contracting with independent data warehouses and analytic firms to analyze data, identify opportunities, and conduct benchmarking and program evaluation.
- ▶ **Analyze the data.** Run a basic set of claims-data analyses to identify

Area Deprivation Index



The Area Deprivation Index ranks neighborhoods on the basis of socioeconomic disadvantage in the areas of income, education, employment, and housing quality.

Note: Areas shaded red represent neighborhoods with higher disadvantage than those shaded blue.

opportunities for risk reduction and condition management.

- Screening rates and prevalence rates
- Engagement in chronic condition management programs
- Claims costs

▶ **Benchmark the data.** Benchmark analyses at least regionally and, perhaps, statewide, nationally, and within a specific industry. Benchmarks must be from objective sources and not limited to the vendor's customer base.

▶ **Dive deep into data.** Employers will gain a deeper understanding of barriers and opportunities if measures are broken down by demographics (such as age, gender, race/ethnicity, income, education, subscriber/dependent). Employers can augment their claims data with this type of data from their human resource information systems.

2. Manage the risk continuum of obesity.

Because obesity is often an underlying cause of diabetes and hypertension, a comprehensive, evidence-based obesity benefit design is needed to reach as many employees as possible with tailored approaches.

Depending on their BMI, employees may need an array of benefits and programs to support healthy weight loss. Lifestyle management and behavioral therapy are needed at all stages of increased BMI, and should be coupled with pharmacotherapy and surgery, as medically indicated.

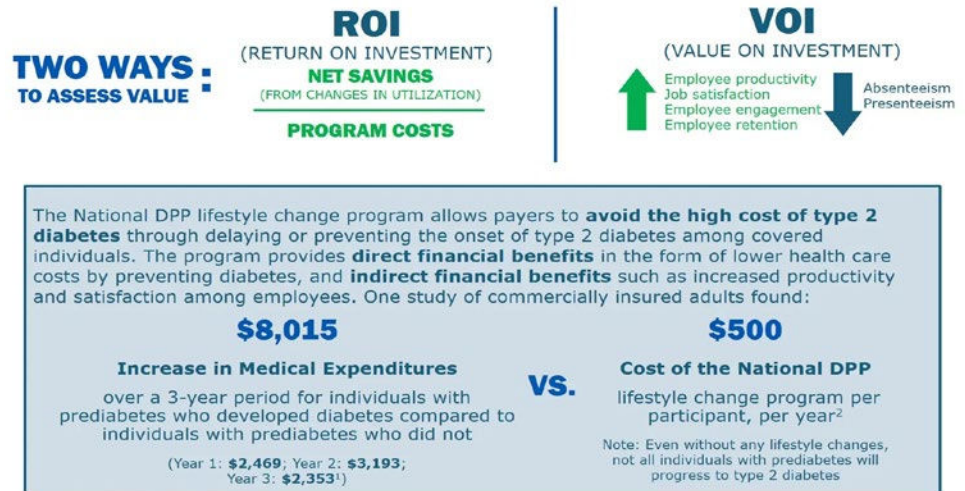
Obesity Risk Continuum

Treatment	BMI Category				
	25 - 26.9	27 - 29.9	30 - 34.9	35 - 39.9	40+
Lifestyle Management, Behavioral therapy	Yes w/ comorbidities	Yes	Yes	Yes	Yes
Pharmacotherapy		Yes w/ comorbidities	Yes	Yes	Yes
Surgery				Yes w/ comorbidities	Yes

Source: NIH/NDEP: Guiding Principles for the Care for People With and At Risk for Diabetes

Return on Investment for National DPP

The CDC National Diabetes Prevention Program proves Type II Diabetes is not inevitable for Patients with Prediabetes.



Using this comprehensive benefit design as a road map, employers can inventory their benefits and programs, identify gaps, and establish a plan to evaluate how programs and service providers are performing.

Lifestyle Intervention

Without lifestyle changes, most people with prediabetes will develop type 2 diabetes in 5–6 years. It is essential for employers to offer interventional programs such as the CDC's National Diabetes Prevention Program (National DPP).

The National DPP:

- ▶ Can prevent or delay type 2 diabetes by 58%.
- ▶ Offers a full year of support to achieve and maintain lifestyle changes.
- ▶ Is built on a CDC-required curriculum grounded in proven lifestyle change approaches.

- ▶ Requires recognized providers to adhere to CDC's scientific standards and outcomes monitoring.
- ▶ Can be offered through different modalities (e.g., in-person, online, etc.).
- ▶ Has a three-year ROI of approximately \$8,015 compared to a program cost of approximately \$600 per participant.

Pharmacotherapy

- ▶ Where possible, remove financial barriers, such as deductibles and co-pays/co-insurance, for FDA-approved weight-loss treatment.
- ▶ Include reasonable prior authorization for medications to ensure only appropriate treatment is approved.
- ▶ Consider ways to link pharmacotherapy to participation in lifestyle and other benefit programs to reinforce long-term benefits of lifestyle change.

Surgical Intervention

- ▶ Offer a high-quality center of excellence that has proven, long-term, successful outcomes.
- ▶ Bundle pricing to manage risk of complications.
- ▶ Pre-qualify patients to identify good candidates for success.

3. Consider the impact of social determinants of health.

Employers serious about addressing SDoH can support the health of employees who contend with social and environmental hardship by providing advantages at the worksite and benefits that ease access to care for them and their families. This simple continuum will help employers identify a starting point.

Because West Tennessee residents experience disproportionate hardship due to SDoH, it is even more important that West Tennessee employers consider benefits strategies such as:

- ▶ Deep-dive data analyses, integrating human resource information systems (HRIS) data, claims data, community, and employee-specific SDoH data, to identify opportunities and gaps that benefits and benefit programs can address.
- ▶ Salary-banded employee premium contributions (“made more, paid more”)
- ▶ Funded HSAs for low-wage employees
- ▶ Public transportation options and incentives
- ▶ Childcare and/or elder care support programs
- ▶ Tuition support and career training
- ▶ Worksite farmers’ markets or vouchers to farmers’ markets
- ▶ Affordable healthy meals for purchase at worksite cafeterias, including take-home meals

Employers are encouraged to ask vendors:

- ▶ What are they doing to identify and address SDoH?
- ▶ Which specific issues are they focused on and what are the results?
- ▶ What are best industry practices?
- ▶ How are they addressing SDoH for this unique employee population?

4. Deploy effective benefit designs.

Employers are encouraged to use benefit designs and programs to eliminate barriers to high-value care for those with chronic conditions and especially low-wage earners. For example:

- ▶ Reduce or eliminate out-of-pocket costs for primary care physician visits and essential medications.

- ▶ For high-deductible health plans:
 - Expand pre-deductible coverage for medications and services that help control chronic illnesses.
 - Enhance affordability for lower-wage earners through employer contributions to HSAs or HRAs.
- ▶ Other considerations:
 - Implement flextime or breaks that allow for exercise.
 - Review food and pricing incentives in cafeterias.
 - Sponsor healthy eating and cooking demonstration lunch-and-learns.



BRONZE

“Getting Started”

Employers can use age and gender breakdowns to look for sub-populations that have disparities in benefits participation, engagement, and compliance. Employers can also use a ZIP code analysis and standard tools to create ZIP code heat maps of where employees live to compare with publicly available databases that present SDoH statistics and heat maps.



SILVER

“Making a Commitment”

Employers with access to HRIS data can augment their claims data with relevant HR fields, such as race, salary, standard occupational codes, job position, and job location. As with Bronze, Silver employers can use publicly available databases for benchmarking and comparison.



GOLD

“All-In”

Employers may choose to push data vendors to integrate sophisticated SDoH analytics into reporting tools. The best data comes directly from employees. However, there are a variety of vendors aggregating publicly available data sets and third-party claims and survey data that allow employers to supplement known data with imputed data to profile their workforce based on SDoH.



5. Contract with high-quality vendors.

- ▶ Employers should contract for evidence-based disease management. For example, hypertension management programs should:
 - Report the successful prevention of hypertension or reduction in systolic blood pressure.
 - Include programs/coaching that encourage behavioral changes,

such as healthy diet, physical activity, and tobacco cessation.

- Increase medication adherence.
 - Promote regular clinician visits to measure blood pressure.
 - Promote accurate blood pressure self-monitoring between clinician visits.
- ▶ Employers can also incorporate performance guarantees and

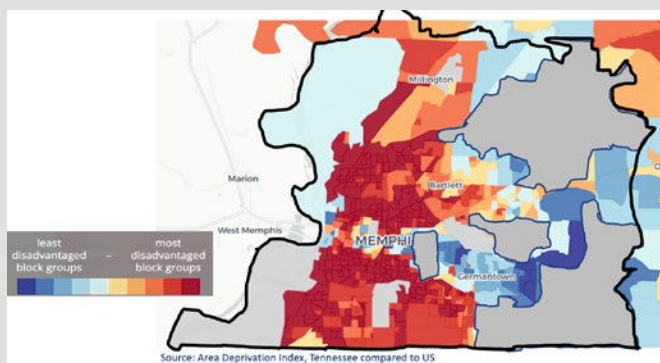
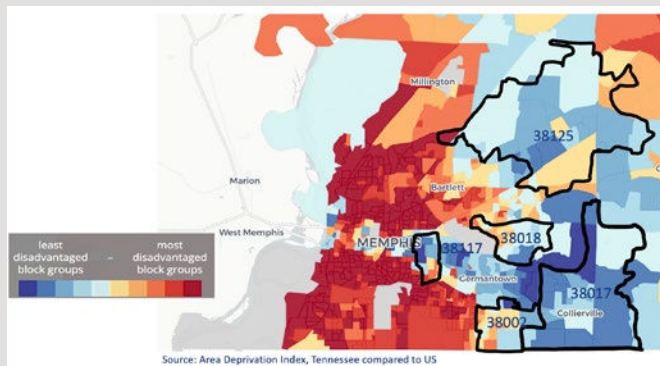
termination clauses in contracts to hold vendors accountable.

Health plans continue to form part of the chronic-condition management strategy. Employers need to be persistent in pushing health plans for HEDIS data specific to network providers serving members. Employers can also encourage brokers and consultants to introduce them to an array of point solutions, understanding direct and indirect compensation arrangements.

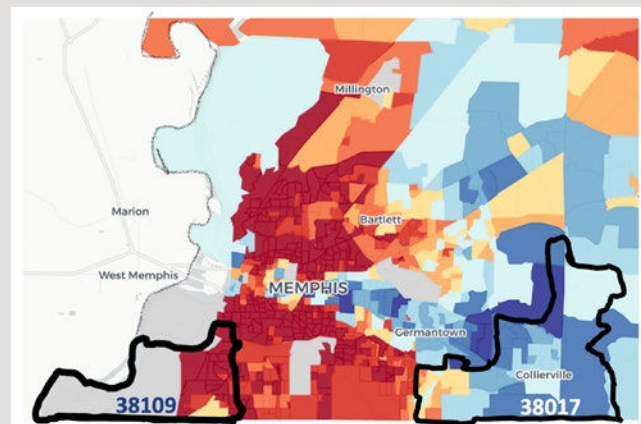
Employer Conducts Bronze Level SDOH Study

To better understand the social needs of their employees, a West Tennessee employer created socio-economic and health profiles of the neighborhoods in Shelby County where its employees live. By creating a series of maps and overlays with the Area Deprivation Index, and comparing zip codes for specific socio-economic and health trends, the employer was able to see the significant variation in social needs in its workforce. Following this study, the employer plans to integrate this type of data with its HRIS data and medical claims to identify opportunities and to establish goals for solution partners to fill specific gaps and reduce disparities. They also plan to provide targeted communications and resources tailored to the needs of the population pockets that may vary

throughout the county. This exercise will be expanded to include similar data across the entire organization's footprint within the southeastern region of the US.



	38109	38017
DEMOGRAPHICS		
% White	2.4%	71.9%
% Black	96.5%	14.6%
INCOME		
Med Household Inc	\$31,114	\$110,873
EMPLOYMENT		
% in Labor Force	52.0%	67.2%
HOUSING		
% Renters	41.7%	22.5%
Avg Rent/month	\$863	\$1,331
Med Home Price	\$69,700	\$319,500
EDUCATION		
% with Bachelor's	8.4%	33.1%
HEALTH		
Adults with Hypertension	52.3%	30.8%



Notes

- 1 <https://www.countyhealthrankings.org/explore-health-rankings/tennessee?year=2023>
- 2 <https://www.census.gov/quickfacts/fact/table/shelbycountytennessee/PST045222>
- 3 <https://pubmed.ncbi.nlm.nih.gov/21466619/>
- 4 <https://www.webmd.com/hypertension-high-blood-pressure/guide/high-blood-pressure#:~:text=Typically%2C%20blood%20pressure%20increases%20with,blood%20pressure%20also%20increases%20risk.>
- 5 https://diabetes.org/sites/default/files/2022-04/ADV_2022_State_Fact_sheets_all_rev_TN-4-4-22.pdf
- 6 <https://www.sycamoreinstitutetn.org/health-workforce-development/>
- 7 [https://www.ahajournals.org/doi/10.1161/circresaha.116.305697#:~:text=Excess%20weight%20gain%2C%20especially%20when,human%20primary%20\(essential\)%20hypertension.](https://www.ahajournals.org/doi/10.1161/circresaha.116.305697#:~:text=Excess%20weight%20gain%2C%20especially%20when,human%20primary%20(essential)%20hypertension.)
- 8 <https://bettertennessee.com/diabetes-report-card/>
- 9 <https://www.cdc.gov/obesity/data/adult.html>

Resources

- ▶ [Tackling Tennessee's Workforce Health Challenges: Addressing Underlying Drivers of Chronic Conditions](#)
- ▶ [Novo Nordisk WORKS™](#)
- ▶ [St. Louis Business Health Coalition Benefits Check-Up for Heart Disease and Diabetes](#)
- ▶ [Leading By Example and Moving Upstream Together \(Action Brief\)](#)
- ▶ [Understanding Health Equity in the Workplace \(Action Brief\)](#)
- ▶ [The New Science of Obesity \(Action Brief\)](#)
- ▶ [The New Science of Obesity \(Video\)](#)



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