

Research t2d  
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healthy

[Business](#), [Management](#)



Research on the prevention and management of type II diabetes (T2D) in America has traditionally centered around biomedical, pathophysiological, and lifestyle factors. Hepatic glucose overproduction and a lack of physical activity, for instance, have been well-studied as both risk factors for the disease and potential treatment targets (Cornell, 2015). More recently, however, research has recognized the need to more closely examine the role of the social determinants of health in T2D prevention and management.

On the most basic level, these determinants can impact the behaviors related to the development and progression of the disease. More significantly, however, research suggests that these determinants can impact the incidence and prevalence of the disease directly via complex physiological, social, and psychological avenues (Clark, 2014). Although researchers are continuing to unearth new correlations between various social factors and T2D, evidence strongly suggests that three broad categories of these determinants are especially central to the development of the disease: one's neighborhood and built environment, economic stability, and ability to access quality healthcare (Clark, 2014). Preliminary findings have suggested that other social determinants such as education level and social and community support may also play a role in T2D development, but further research needs to be conducted in order to make stronger conclusions about these factors (Hyman et al., 2017). The quality of one's neighborhood and built environment appears to be a strong predictor of T2D development. In many rural and urban communities with inadequate socioeconomic and political infrastructures, residents face various significant barriers to healthy living and T2D prevention. A lack of transportation makes it almost unfeasible

for many individuals to access goods and services like quality food, educational resources, and opportunities for physical activity (Hill et al. , 2013). This transportation-mediated material deprivation has been shown to correlate significantly with T2D incidence. Such a lack of transportation can also severely impede access to healthcare, and pre-diabetic symptoms and the lifestyle habits that contribute to them can hence progress largely unchecked (Hill, Nielsen, & Fox, 2013). Food insecurity - a condition wrought by a combination of many social factors including the quality of one's environment - has also garnered special attention as a key contributor to T2D development. Many communities lack healthy food options altogether, and others make it difficult for residents to access healthy food due to inadequate transportation systems.

To this end, food-insecure households have been shown to be at an almost 50% greater risk for developing T2D than food-secure households (Gucciardi et al., 2014). A lack of neighborhood safety has also been shown to contribute significantly to the development of T2D. Evidence has strongly indicated one plausible pathway through which this effect is mediated; communities with high crime rates often have a depleted employment, business, and recreational infrastructure, which can lead to a reduction in the availability of many health-promoting goods and services (Clark, 2014).

As a whole, then, it would appear that one's neighborhood and environment strongly impacts his or her risk for developing T2D through a variety of complex pathways. In addition to neighborhood and environmental factors,

economic stability has been documented as a strong riskfactor for T2D. Studies have repeatedly suggested that T2D incidence issocioeconomically graded, especially with respect to income. For instance, menin the lowest income category in the U. S. have been shown to exhibit an almosttwofold greater risk of developing T2D than those in the highest income bracketwhen controlling for such factors as exercise habits, weight, and literacy(Hill, Nielsen, & Fox, 2013). Similar significant correlations have beenobserved between an increased risk for T2D and other economic factors likeemployment status, immigration status, and housing quality (Hill et al. , 2013). Plausible explanations for these associations have centered on disadvantagedindividuals' limited ability to afford healthy food and insurance and thepossible psychological and biological effects of chronic stress on theseindividuals (Walker, Smalls, & Egede, 2015). A wealth of researchhas also demonstrated that health care and health care access are crucialdeterminants of T2D development. Many residents in low-SES communities facelimitations in the access to and/or availability of quality medical resourcesand services.

These areas often do not have the resources to provide primary orspecialty care for residents, and this has been shown to result in theunmitigated progression of pre-diabetic symptoms and maladaptive lifestylehabits in residents (Hill et al., 2013). Even in areas with access to care, poorquality of care can increase the risk for T2D. For instance, poorphysician-patient interactions, influenced by factors like a lack of culturalcompetence, have been linked to an increased risk of T2D development inpatients (Hyman et

al., 2017). Although there is extensive research focusing on how social determinants affect the development of T2D, there is comparatively less research examining how these determinants directly affect the health outcomes of patients already living with the disease. Hence, this is an area that warrants much future research and inquiry (Hill, Nielsen, & Fox, 2013). Evidence does, however, point to a great degree of overlap in how social factors impact the basic experiences of individuals at risk for and suffering from T2D.

Certain social determinants can greatly increase the risk of individuals developing T2D through specific pathways, and if these individuals fully develop the disease, these factors are thought to contribute to adverse health outcomes through these same pathways (Clark, 2014). For instance, a lack of health care access appears to adversely impact the experience of T2D patients much in the same way it poses a risk to prediabetic individuals. Patients in areas without primary or specialty care access report worse symptom management and glycemic control just as prediabetic individuals in similar areas report worse symptom progression (Walker, Smalls, & Egede, 2015). In addition to the evidence implicating social factors in the development and management of T2D, a growing realization of the inability of current care models to address these factors has spurred recommendations for population-level interventions specifically targeting the social determinants of health. Traditional treatment methods for T2D have typically focused on clinical strategies aimed at reducing symptoms through medication regimens and behavioral changes.

These strategies, however, have been limited in their inability to account for other non-medical influences on patient behaviors (Hyman et al., 2017). By tackling factors like employment insecurity, low-income status, and low health care literacy at the policy level, researchers hope that there can be a more sustainable means for impeding high American T2D incidences (Clark, 2014). A main focus of this reform is aimed at conducting further research and collecting more data on non-medical factors affecting T2D incidence and progression at the population level. This would, in turn, help shape policies and therapeutic interventions to better address the disease. A primary target for this effort is the Affordable Care Act (ACA). Researchers have called for the expansion of the ACA's standardized collection of population data to offer a more comprehensive picture of non-medical social determinants (Hill et al., 2013).

At the population level, this would allow providers to visualize certain social trends concurrently with the development of diabetes in high-risk communities. Thus, they would be able to make quick, evidence-based clinical decisions for patients in real time based on the specific social challenges they face (Hill, Nielsen, & Fox, 2015). Enabling more comprehensive data collection would also allow healthcare systems to implement specific community level interventions for high-risk populations. For instance, health systems and civic structures can use data to proactively discern specific groups at risk for T2D that would especially benefit from new community resources such as affordable food markets, community

health workers, and accessible transportation options (Hill, Nielsen, & Fox, 2013).

The implementation of these resources would undoubtedly be costly, however, and the immediate financial cost would appear to be a significant limiting factor for this policy-level reform (Walker, Smalls, & Egede, 2015). Although preliminary studies have indicated that these reforms are better suited to sustainably treat T2D, further research would need to be conducted to elucidate at least two key understandings before widespread change can be enacted: how specific health interventions might directly impact health outcomes for diabetic and pre-diabetic patients and how these interventions can be enacted in a cost-efficient manner (Hill et al., 2013).