

## Editorial

### \*Corresponding author

Cynthia Williams Brown, PhD

Chair & Associate Professor  
Department of Health  
Physical Education and Sport Studies  
Winston-Salem State University  
Anderson Center Suite 146  
Winston-Salem, NC 27110, USA  
Tel. 336-750-2587  
Fax: 336-750-2591  
E-mail: [williamsc@wssu.edu](mailto:williamsc@wssu.edu)

Volume 2 : Issue 4

Article Ref. #: 1000OROJ2e006

### Article History

Received: December 30<sup>th</sup>, 2015

Accepted: December 31<sup>st</sup>, 2015

Published: January 4<sup>th</sup>, 2016

### Citation

Brown CW. Diabetes prevention in African-American communities. *Obes Res Open J.* 2016; 2(4): e15-e16. doi: [10.17140/OROJ-2-e006](https://doi.org/10.17140/OROJ-2-e006)

### Copyright

©2016 Brown CW. This is an open access article distributed under the Creative Commons Attribution 4.0 International License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

# Diabetes Prevention in African-American Communities

Cynthia Williams Brown, PhD\*

*Department of Health, Physical Education and Sport Studies, Winston-Salem State University, Winston-Salem, NC 27110, USA*

Type-2 Diabetes (T2D) has reached epidemic proportions with the number of people being diagnosed almost tripling in recent generations.<sup>1</sup> T2D is the most common form of diabetes and accounts for about 90% to 95% of all cases of diagnosed diabetes.<sup>1</sup> T2D currently affects 10% of Americans, predictions are that by 2050, 1 of every 5 Americans will be affected by T2D.<sup>2</sup> Sadly, the incidence of T2D is also among the rise in children and has been predicted to become the “new epidemic” in with an overall increase of 33% in incidence and prevalence during the past decade.<sup>3</sup> T2D is a major health threat that not only has devastating health and psychosocial effects, but will also significantly impact health care expenses in the future.<sup>4-6</sup>

The prevalence of T2D is higher in African-Americans and other ethnic minorities. African-Americans are 1.7 times more likely to have diabetes than non-Hispanic whites.<sup>2</sup> In addition, African-Americans are more likely to suffer complications from diabetes, such as end-stage renal disease and lower extremity amputations.<sup>7</sup> African-Americans are 3.4 times more likely to have end stage renal disease and 3.5 times likely to be hospitalized for lower limb amputations as compared to non-hispanic whites.<sup>7</sup>

Obesity and physical inactivity are two major risk factor for diabetes. African-Americans in general, and African-American women specifically, have higher obesity and physical inactivity rates. African-American women have the highest obesity rate and are the least active of any other ethnic or gender groups in the United States.<sup>7</sup> More than half of African-American women (58%) are overweight or obese as compared to one-third of the adult population.<sup>1</sup> African-American women’s obesity is almost twice that of Caucasian women and significantly higher than that of Mexican-American women (44.9%).<sup>1</sup> Consequently, this domino effect of obesity and diabetes contributes to the growing gap in health disparities.

Despite the fact that T2D is preventable, T2D continues to be on the rise in African-American communities. African-Americans and other ethnic minorities continue to carry the heavy burden of the devastating effects of diabetes. Studies have shown that lifestyle interventions have been successful in preventing or delaying the onset of diabetes.<sup>2,8</sup> Diabetes prevention interventions have proven to work outside of research settings. In particular, the National Diabetes Prevention Program (NDPP) has been proven to work in community based settings. The program is a lifestyle change program designed for individuals who have prediabetes or are at risk for diabetes and has been proven to reduce their risk of developing diabetes by 58%. Prediabetes is a condition in which blood glucose levels are higher than normal, but not high enough for a diagnosis of diabetes. Ironically, despite the high prevalence of diabetes and prediabetes among African-Americans and other minorities, little is known about successful interventions for this population.<sup>2,9,10</sup> Thus, there is a real need to add to the body of knowledge information about successful diabetes prevention targeting African-Americans and other ethnic minorities.

### IMPLICATIONS FOR FURTHER RESEARCH

Future diabetes prevention research studies that focus on African-Americans and other ethnic minorities is much needed. African-Americans, Native Americans and Latinos, and Native Americans are disproportionately at risk for diabetes, but underrepresented in studies of

diabetes prevention programs.<sup>9,10</sup> African-American women carry the highest rates for physical inactivity and obesity, which places them at an extremely higher risk for T2D. Accordingly, evidence-based diabetes prevention and obesity interventions are critically needed for African-American women.<sup>9</sup> Community translations of NDPP have shown promise to be effective in African-Americans and other ethnic minority communities. However, there is limited evidence documenting the effectiveness of cultural adaptations. Sanders Thompson et al affirm that the lack of information about participants' responses to cultural elements is a "lost opportunity" to gain deep understandings of program acceptance and behavioral change.<sup>11</sup> Hence, there is still a need to develop and or modify health interventions and prevention programs that responsive to the cultural practices of the subcultural groups targeted.

## CONCLUSION

In conclusion, T2D is one of the most serious health challenges facing the African-American community. The health, psychosocial and economic impact of T2D is well documented. What is needed is a greater understanding of the impact of awareness, early risk assessment and prevention measures, specifically in the African-American community. With almost 89 million Americans having prediabetes, prevention plays a critical role in combating the devastating impact of diabetes on African-Americans and other ethnic minority populations.

## REFERENCES

1. Centers for Disease Control and Prevention, United States Department of Health and Human Services. Web site. <http://www.cdc.gov/diabetes/pubs/statsreport14/national-diabetes-report-web.pdf> Updated 2014. Accessed June 1, 2015.
2. Chou C, Burnet DL, Meltzer DO, Huang ES. *The effectiveness of diabetes prevention programs in community settings*. University of Chicago. New York: New York State Health Foundation, 2015.
3. Kaufman FR. Type 2 Diabetes in children and young adults: a new epidemic. *Clinical Diabetes*. 2002; 20(4): 217-218. doi: [10.2337/diaclin.20.4.217](https://doi.org/10.2337/diaclin.20.4.217)
4. American Diabetes Association (c). Economic costs of diabetes in the 2012. *Diabetes Care*. 2013; 36: 1033-1046.
5. Office of Minority Health. Diabetes and African Americans. Web site. <http://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlID=18> Updated 2014. Accessed July 7, 2015.
6. Ogden CL, Carroll MD, Kit BK, Flegal K. Prevalence of Obesity in the United States, 2009-2010. NCHS Data Briefs. 2012. Available at: <http://www.cdc.gov/nchs/data/databriefs/db82.htm>
7. Schellenberg ES, Dryden DM, Vandermeer B, Ha C, Korownyk C. Lifestyle interventions for patients with and at risk for type 2 diabetes: a systematic review and meta-analysis. *Annals of Internal Medicine*. 2013; 159: 543-551. doi: [10.7326/0003-4819-159-8-201310150-00007](https://doi.org/10.7326/0003-4819-159-8-201310150-00007)
8. Samuel-Hodge CD, Johnson CM, Braxton DF, Lackey M. Effectiveness of diabetes prevention program translations among African Americans. *Obesity Reviews*. 2014; 15(Suppl 4): 107-124. doi: [10.1111/obr.12211](https://doi.org/10.1111/obr.12211)
9. Goodell S. *The effectiveness of community-based diabetes prevention programs*. New York: NYS Health Foundation, 2015.
10. Thompson VLS, Johnson-Jennings M, Baumann AA, Proctor E. Use of culturally focused theoretical frameworks for adapting diabetes prevention programs: a qualitative review. *Centers for Disease Control and Prevention*. 2015; 12(E60). doi: [10.5888/pcd12.140421](https://doi.org/10.5888/pcd12.140421)
11. Barrera M, Castro FG, Strycker LA, Toobert DJ. Cultural adaptations of behavioral health interventions: a progress report. *Journal of Consulting Clinicals*. 2013; 81(2). doi: [10.1037/a0027085](https://doi.org/10.1037/a0027085)