

Reducing the Burden of Diabetes: Accelerating Innovation through Collaboration

Report of a Kansas City Regional Diabetes Summit April 29, 2016



***KANSAS CITY
REGIONAL
DIABETES SUMMIT***

**FRIDAY, APRIL 29, 2016
7:30 a.m. – noon**

KAUFFMAN FOUNDATION
CONFERENCE CENTER
4801 Rockhill Road | Kansas City, MO 64110

**Reducing the Burden of
Diabetes: Accelerating
Innovation through
Collaboration**

UMKC
School of Medicine

Funding for this project was provided by the Health
Care Foundation of Greater Kansas City

American
Diabetes
Association

Kansas City
Health Care
Foundation
OF GREATER KANSAS CITY

Kansas City
METROPOLITAN
HEALTHCARE COUNCIL
an affiliate of the Missouri and Kansas Hospital Association

Kansas City

Funded by the Health Care Foundation of Greater Kansas City through a Special Initiative Grant

Introduction – The Burden of Diabetes

Diabetes mellitus is a major regional health concern due to the high prevalence, complications, increased mortality, and cost.

- In the 14-county Kansas City metropolitan area, there are an estimated 200,000 individuals with diabetes mellitus, which is over 10% of the adult population. Approximately 50,000 of those individuals do not know they have diabetes (1-5).
- Over 500,000 adults have “prediabetes” with blood sugars higher than normal, but not yet high enough to diagnose diabetes. Only about 10% of people with prediabetes know they have this condition. Between 15% and 30% of people with prediabetes will develop diabetes within 5 years (1-3).
- Diabetes complications include heart disease, blindness, kidney disease, amputations, and nerve damage. Diabetes is the 7th leading cause of death in the Kansas City area (4-6).
- The estimated total excess costs (including both direct medical costs and indirect costs) of care for people with elevated glucose levels (including diabetes, prediabetes, and gestational diabetes) in Kansas and Missouri are just over \$2.6 and \$5.9 billion, respectively (7,8).
- The burden of diabetes affects communities across the region unevenly, with higher rates of diabetes in minority populations. The increase in diabetes goes well beyond the individual, and is driven by socioecological conditions in communities, workplaces, and schools (1,2,4,5,9).

The Good News - Reducing the Burden of Diabetes

Despite the dramatic increase in obesity and Type 2 diabetes over the past 25-30 years (1), there is reason for hope that the burden of diabetes can be effectively addressed in our community.

- Good medical treatment of patients with both type 1 and type 2 diabetes reduces complications. These complications dropped dramatically from 1990 to 2010 (10), especially in heart attacks, which decreased over 65%.
- Nearly half of adults with diabetes (11) are not at treatment goals. Thus, there is significant opportunity to improve care and outcomes in both type 1 and type 2 diabetes.
- There are good screening tools available from the Centers for Disease Control and Prevention (<http://www.cdc.gov/diabetes/prevention/pdf/prediabetestest.pdf>) and the American Diabetes Association (<http://www.diabetes.org/are-you-at-risk/diabetes-risk-test/?loc=atrisk-slabnav>) to predict adults at risk of diabetes.

- The National Diabetes Prevention Program demonstrated that lifestyle modification can reduce the risk of progression of prediabetes to diabetes by over 50% through lifestyle modifications in diet and activity (12). The effect is even more pronounced in older adults. Studies demonstrate that lifestyle intervention programs are both clinically effective (13) and cost effective (14).

The Opportunity – Results of a Kansas City Listening Tour

Reducing the burden of diabetes in our community will require continuing public health, community engagement, and clinical approaches. The Health Care Foundation of Greater Kansas City funded a planning study in 2015 to assess regional readiness for a collaborative effort to reduce the burden of diabetes in the Kansas City region. Led by Dr. Betty M. Drees, Professor of Medicine, University of Missouri-Kansas City School of Medicine, the project conducted a “listening tour” that included over 200 individuals in over 50 organizations, institutions, and community groups from across the region representing clinical providers, public health, payers, employers, community programs, ethnic minority communities, and specialty societies.

The key findings from the “listening tour” are:

- **Making a Difference the “Kansas City Way.”** There are many existing, diverse, community and clinical programs in diabetes prevention and care. Programs vary greatly in geographic location, individuals/populations served, funding sources, and goals. There is ongoing innovation throughout the region on development and implementation of programs.
- **The Continuum of Disease.** Prediabetes and diabetes are part of a continuum. They should be considered together in approaches to reduce the burden of diabetes.
- **Interest, Passion, and Innovation.** There is a high level of interest across the region in diabetes prevention and care, including clinical and community programs. The people involved in these efforts are passionate and doing innovative work. And yet, there is fragmentation between programs and approaches resulting in significant opportunity to leverage existing resources. However, collaboration must not stifle innovation, and projects need to be able to address unique features of individual communities within the whole.
- **Information Systems.** Health information systems and databases are advancing rapidly. There is a realistic and necessary opportunity to share real-time population and clinical data. Data and analytics are essential to inform strategies and evaluate outcomes of interventions.

- **Economic Impact.** Both economic and health outcomes must be included in outcomes assessments. It will be necessary to advance health policy and environmental change for long-term, sustainable improvement in overall health, including reducing the burden of diabetes.
- **Models of Chronic Disease Intervention.** Excellent models of socioeconomic community engagement around chronic disease, as well as evidence-based diabetes prevention and care programs already exist and are readily available. The focus of efforts should be on the implementation and evaluation plan, and not development of new models.
- **Gaps and opportunities.** The following gaps were identified, which are opportunities for innovation and collaborative efforts:
 1. Increasing **communication** and awareness
Both the public and providers need increased awareness to facilitate empowerment and health literacy around diabetes and prediabetes. Messaging must be clear, consistent, and accurate. Culturally/ethnically appropriate programs and providers are needed.
 2. Improving **coordination** of programs and services
Coordination of programs and better utilization of existing programs will enhance sustainability/scalability of successful approaches and help build neighborhood environments to support health.
 3. Enhancing data and analytics for **evaluation**
Robust data and evaluation systems are needed that include both economic and health outcomes. Enhancing technology tools will support innovative solutions, both traditional and nontraditional approaches.

Reducing the Burden of Diabetes – Kansas City Regional Diabetes Summit

On April 29, 2016, a Kansas City Regional Diabetes Summit convened. It was funded by the Health Care Foundation of Greater Kansas City and endorsed by the Kansas City Metropolitan Healthcare Council, Blue Cross Blue Shield of Kansas City, and the American Diabetes Association. The purpose of the summit was to bring together diverse stakeholders to share information on current activities, facilitate networking, and develop collaborative strategies for continuing innovations that meet the specific needs of the Kansas City metropolitan area. 109 individuals attended, representing public health, clinical providers, community programs, payers, specialty societies, researchers, and community representatives from across the region.

Conference Agenda

Welcome and Introductions

Michael Dunaway, Senior Vice President, Kansas City Metropolitan Healthcare Council

Keynote Address: The Burden of Diabetes in the Kansas City Region: A Call to Action; Betty M. Drees, MD; Professor of Medicine-UMKC School of Medicine

Regional Examples of Innovations:

Regional Collaboration on Diabetes Prevention Efforts
Abby Crow, Health Educator; Johnson County Dept. of Health and Environment

Northland Health Alliance; 2015 Community Health Assessment;
Gary Zaborac, Director of Public Health; Clay County Public Health Center

Project Fit: A Diabetes and Heart Disease Risk Reduction Intervention in African American Churches
Jannette Berkley-Patton, PhD; Director Community Health Research Group; UMKC School of Medicine

Information with a Purpose
Tomas Moran, CEO and Founder; Health Metrics Systems, Inc.

Innovative Policy Approaches to the Social Determinants of Diabetes
Sarah Martin-Anderson, Ph.D., MPH; Manager of Community Engagement, Policy and Accountability; City of Kansas City, Missouri Health Department

Focus Sessions ~ Topics and Facilitators:

Increasing Awareness
Jannette Berkley-Patton, PhD; Director Community Health Research Group; UMKC School of Medicine

Improving Coordination
Elizabeth Ablah, PhD; Associate Professor; Dept. of Preventive Medicine and Public Health; University of Kansas School of Medicine-Wichita

Enhancing Data & Analytics
Leslie Porth, PhD, MPH, RN; Sr. Vice President of Strategic Quality Initiatives, Missouri Hospital Association

Report Out from Focus Sessions

The 109 Summit attendees self-selected one of the three Focus Sessions to attend, which were based on the gaps and opportunities previously identified in the “listening tour.” The focus group participants were approximately equally divided among the three Focus Sessions. Each facilitated discussion included general areas around importance of diabetes as a regional focus, as well as discussion specific to each session. The following are the key themes and recommendations that emerged from the Focus Sessions.

Increasing Awareness:

- Diabetes and prediabetes prevention and care are a high priority across the region and across diverse stakeholders.
- There is need to increase awareness of the public and providers about diabetes. The information must be current, accurate, consistent, and be easily accessed by the general public, community practitioners, and clinical care providers.
- People with diabetes and prediabetes need to be engaged with their own care, and have the knowledge and skills to access care and community programs. Both patients and providers need to be aware of costs associated with care and programs for diabetes. The information from community practitioners and clinical providers to patients needs to be more easily understood and engaging for patients and families.

Improving Coordination:

- Partnerships need to include a broad representation of clinical and community groups to facilitate care of individual patients and their families (the clinical-community linkage), as well as the socioecological determinants of health across communities.
- Programs involved in diabetes prevention and care need better ways of knowing each other and their projects. Information about current programs must be kept continuously updated.
- Better methods to effectively share individual patient data are needed to facilitate care across clinical settings, and between clinical care and community programs.
- Cost and reimbursement issues need to be addressed to enhance coordination of care across clinical and community programs.

Enhancing Data and Analytics:

- There are large amounts of data generated, but the data are difficult to access in useful ways: “We are drowning in data, but starved for information.” Although there are barriers to data sharing, there are also emerging collaborations.
- The ideal data framework would include a continuum from community-to-providers-to-individuals, include the entire lifespan, include social determinants of health, focus on prevention and wellness, and be portable with the patient.

Suggested Strategies:

- Develop diabetes working groups around the themes of Awareness, Coordination, and Data/Analytics to increase communication among programs, facilitate networking, and build action plans. One working group should specifically work on defining and developing the architecture for a central registry of diabetes, including clinical, social, and economic factors.
- Use social media for messaging and awareness, including websites for collaboration and sharing of information.
- Consider focusing on specific geographic (e.g. zip code) areas or business sectors to pilot work.

Next Steps:

- The Health Care Foundation of Greater Kansas City is funding a two-year Special Initiative Grant to continue “Accelerating Innovation through Collaboration.”
- Working groups on Awareness, Coordination, and Data/Analytics will be convened to take the discussions and networking started at the 2016 Kansas City Regional Diabetes Summit forward to action plans.
- A 2017 Diabetes Summit will be held to review results and continue networking and planning.
- Individuals interested in participating in one of the working groups may contact Dr. Betty M. Drees at 816-218-2582 or dreesb@umkc.edu.

Reference List:

1. Centers for Disease Control and Prevention. *U.S. National Diabetes Surveillance System*. Available at: <http://www.cdc.gov/diabetes/data/index.html>
2. Centers for Disease Control and Prevention. *National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014*. Atlanta, GA: U.S. Department of Health and Human Services; 2014. Available at: <http://www.cdc.gov/diabetes/data/statistics/2014StatisticsReport.html>
3. US Census Bureau 2013 Data. Available at: www.census.gov
4. Kansas Dept. of Health and Environment. *Burden of Diabetes in Kansas: 2011*. <http://www.kansasdiabetesactioncouncil.org/system/resources/0000/0288/DiabetesBurdenReport.pdf>
5. Missouri Dept. of Health and Senior Services. *Missouri Diabetes Report 2015*. <http://health.mo.gov/living/healthcondiseases/chronic/chronicdisease/MissouriDiabetesReport2015.pdf>
6. Mid-America Regional Council. *Top 10 leading causes of death, Kansas City Metro Area, 2007-2011. Kansas City Data Collective Technical Report, June 2015*. Available at: <http://www.marc.org/Community/Public-Health/Assets/Technical-report.aspx>
7. American Diabetes Assoc. Economic costs of diabetes in the U.S. in 2012. *Diabetes Care*: 2013; 36: 1033-1046
8. Dall TM, Wenya Y, Halder P, Pang B, et al. The economic burden of elevated blood glucose levels in 2012: Diagnosed and undiagnosed diabetes, gestational diabetes mellitus, and prediabetes. *Diabetes Care* 2014; 37: 3172-3179
9. Christine PJ, Auchincloss AH, Bertoni AG, et al. Longitudinal associations between neighborhood physical and social environments and incident type 2 diabetes mellitus: The multi-ethnic study of atherosclerosis (MESA). *JAMA Int Med*: 2015; 175: 311-20
10. Gregg, EW, Li Y, Wang J, Burrows NR, et al. Changes in diabetes-related complications in the United States, 1990–2010. *N Engl J Med*: 2014 ;370: 1514-1523
11. Ali MK, Bullard KM, Saaddine JB, Cowie CC, et al. Achievement of goals in U.S. diabetes care, 1999–2010. *N Engl J Med*: 2013; 68: 113-162
12. Diabetes Prevention Program Research Group. Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. *N Engl J Med*: 2002; 346: 392-403
13. Balk EM, Earley A, Raman G, Avendano EA, et al. Combined diet and physical activity promotion programs to prevent type 2 diabetes among persons at increased risk: A systematic review for the Community Preventive Services Task Force. *Ann Int Med*: 2015; doi:10.7326/M15-0452. Available at: <http://annals.org/article.aspx?articleid=2395729&resultClick=3>
14. Li R, Qu S, Zhang P, Chattopadhyay S, et al. Economic evaluation of combined diet and physical activity promotion programs to prevent type 2 diabetes among persons at increased risk: A systematic review for the Community Preventive Services Task Force. *Ann Int Med*: 2015; doi: 10.7326/M15-0469. Available at: <http://annals.org/article.aspx?articleid=2395730&resultClick=3>