The problems associated with poor diet, physical inactivity, and obesity affect most population segments, however there are marked disparities in the impact that these problems have on various groups of people, including public housing residents.

Physical activity is a key element in the prevention and management of type 2 diabetes, yet many with this chronic disease do not become or remain regularly active. Regular physical activity improves blood glucose control and can prevent or delay type 2 diabetes, along with positively affecting lipids, blood pressure, cardiovascular events, mortality, and quality of life. Another challenging part of treating type 2 diabetes is identifying and maintaining a nutritious diet, particularly since there is not a one-size-fits-all model for eating healthy.

In overweight and obese patients with type 2 diabetes, modest weight loss, defined as sustained reduction of 5% of initial body weight, has been shown to improve glycemic control and to reduce the need for glucose-lowering medications. Community linkages that connect patients to diet and exercise programs can be an effective method for addressing chronic conditions and supporting a healthy lifestyle.

This learning collaborative explores strategies and programs for community-based exercise and weight control models.
Community Linkages

The El Rio Health Center in Tucson, AZ collaborates with a community food bank and a university to provide a Food Prescription Program to patients. Residents that receive a prescription for healthy food can purchase items at a discount price in local grocery stores and farmers markets. The Health Center also works with the National Park Service to prescribe parks and guided activities to public housing residents. The Health Center has secured funding for transportation and admission fees for their patients.

The Community Healthcare Center in Wichita Falls works closely with the local health department. The health department offers a comprehensive diabetic education and cooking class. Patients that attend the class learn how to cook healthy foods, then eat those prepared meals together and then exercise as a group. The health department sends a link with the time and place for the classes to health center providers, who then refer their patients to the classes. Patients are very happy with the classes offered at the health department.

Community Healthcare Center also works with Interfaith Outreach Services to provide financial assistance to patients to help pay for their medications and part of the health care visits.

Benefits of Community Linkages

✓ Patients get more help in changing unhealthy behaviors

✓ Clinicians get help in offering services to patients that they cannot provide themselves

✓ Community programs get help in connecting with patients for whom their services were designed
Exercise and Weight Control Programs

When patients are diagnosed with uncontrolled diabetes at the Community Healthcare Center in Wichita Falls, they are contacted over the phone by a behavioral health specialist that provides education and counseling over the phone and in person. Patients with A1c>9 are required to follow up after 3 months. If those patients miss their appointments, a nurse calls them. As a result, the health center was able to report a decrease in patients with A1c>9.

The El Rio Health Center in Arizona found that attendance in their nutrition classes was low, however their exercise programs were very popular. They decided to combine the two programs into one to improve their reach to diabetic patients. The first 30 minutes of the program is dedicated to patient education. Dieticians, clinical pharmacists, and behavioral health specialists come to the class on a rotating basis to provide education, motivational interviews, and engage with the patients. Afterwards, the class performs 45 minutes of exercise together as a group. According to Dr. Mockbee, the key to driving people to the class is the content and having a dynamic leader that connects with the patients. Their exercise instructor is bilingual and bicultural and has a strong connection to the community.

How to Improve Attendance at Diabetes Education Meetings

- **Give patients a call**- A direct conversation with a patient provides an opportunity to answer questions, give gentle reminders, and troubleshoot barriers to attendance.

- **Provide transportation**- Lack of transportation is one of the keys barriers to accessing care for public housing residents.

- **Flexible scheduling**- Offer educational courses on weeknights or weekends to accommodate work and school schedules.

- **Provide childcare**- For busy parents, child care is often an obstacle.

32% of diabetics receiving care from health centers located in or immediately accessible to public housing developments have A1c>9.
**Staffing**

El Rio uses a comprehensive team of staff to address diabetes which improves their ability to address the multiple comorbidities that affect those patients. For example, the Health Center has a retinal camera on site, so patients can get all their needed care in one place.

According to the medical director, the most important thing they do as an organization is using a Weight First approach. About 10% of overweight is caused by prescribed medications, so she advises providers to seek alternatives to care when appropriate. The Health Center also offers medical weight management for diabetic and prediabetic patients that is carried out with primary care providers through intensive weight management groups. Patients alternate between one-on-one visits with a doctor and a comprehensive team of practitioners. She believes this system is will lead to better results in the long term.

All of the Health Centers noted that they work with students and resident physicians with specialties in family medicine, behavioral health, pediatrics, and pharmacy to provide care to their diabetic patients.

**Research**

Community Healthcare Center in Wichita Falls has applied for a grant from American Family Medicine to perform research on diabetic patients. The health center is interested in identifying the barriers to lowering A1c levels. They have developed a 5-question survey to field to their patients asking whether issues such as food insecurity, opportunities to exercise, or cost of medication are the problem. The plan is to survey 300 patients and refer them to appropriate services within the community, such as the YMCA or the health department if necessary. The Health Center will use health education materials from the CDC Diabetes Control Program.

Zufall had received a grant from their health department that allowed them to do some additional research and reporting within their EMRs on diabetes. They currently have a dashboard that identifies patients with varying A1c levels and provides that data to providers, which has prompted providers to check on and follow up with their diabetic patients.

Wichita Falls is working with a Telemedine Retinal Screening group to understand whether there is a relationship between retinal damage, high blood pressure, and diabetes. There are 300 patients registered for this program. It has been going on for the past 2 years. Preliminary results are coming in the coming months.
Resources:

- CDC National Diabetes Prevention Program
- Text2Bfit
- American Association for Diabetes Educators