Diabetes mellitus (DM) disproportionately affects underserved older adults from rural communities due to social determinants of health (SDOH) and their limited ability to participate in routine care. Evidence-based clinical and community interventions are not widely integrated into the primary care setting.

**Purpose, Aims, Methods**

**Purpose:** The Diabetes COACH TeAM project integrated telemedicine and community health worker (CHW) interventions to improve access to diabetes care and health outcomes among underserved older adults.

**Specific aims/outcomes:** Measure the impact of the intervention on:
1. Glycosylated hemoglobin A1C levels
2. Diabetes self-management behaviors using the Summary of Diabetes Self-Care Activities (SDSCA) scale
3. Diabetes knowledge using the Diabetes Knowledge Questionnaire (DKQ)
4. Patient and healthcare provider (HCP) satisfaction levels

**Design:** Pre-post design, quality improvement project

**Setting:** Federally Qualified Health Center in southwest Ohio

**Sample:** Adults aged ≥65 years with DM type 1/2, recent A1C of ≥8%, Clark County residents, and seen within the last 12 months in the clinic.

**Interventions:** Diabetes self-management education (DSME) through bimonthly CHW home visits and same-day telemedicine appointments with HCPs (physicians/MN, nurse practitioners/NP, nurses, or clinical pharmacists) for 12 weeks.

**Results**

- **Table 1. Patient Demographics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age in years, mean (SD)</td>
<td>68.3 (3.5)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3 (25)</td>
</tr>
<tr>
<td>Female</td>
<td>9 (75)</td>
</tr>
<tr>
<td>Race</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>4 (33.3)</td>
</tr>
<tr>
<td>White</td>
<td>8 (66.7)</td>
</tr>
<tr>
<td>Insurance</td>
<td></td>
</tr>
<tr>
<td>Medicaid</td>
<td>4 (33.3)</td>
</tr>
<tr>
<td>Medicare</td>
<td>4 (33.3)</td>
</tr>
<tr>
<td>Dual Medicare Plans</td>
<td>2 (16.7)</td>
</tr>
<tr>
<td>Commercial Plans</td>
<td>2 (16.7)</td>
</tr>
</tbody>
</table>

**Changes in Frequency of Diabetes Self-Care Activities**

Wilcoxon signed-rank test: No significant change in SDSCA sub-scores (p > .05)

**Figure 4:** Patient Satisfaction Survey Results

**Figure 5:** Healthcare Provider Satisfaction Survey Results

**Discussion**

- The modest increase in diabetes self-care performance scores are clinically significant.
- The project addressed the SDOH (such as transportation and technology barriers) common to underserved older adults.

**Strengths**

- Focused on adults aged ≥65 years
- Multidisciplinary, collaborative approach
- Bridged the gap in diabetes care experienced by underserved older adults
- Mobilized existing clinical and community resources to improve access to care

**Limitations**

- Limited generalizability- small sample size
- Did not control other confounding factors
- Insufficient reliability & subjective nature of the SDSCA tool
- Did not explore the potential economic benefits

**Conclusion**

- The Diabetes COACH TeAM project provided DSME through successful integration of telemedicine and CHW interventions to improve and expand diabetes care for underserved patients aged ≥65 years.
- The interdisciplinary and innovative approach yielded positive outcomes including lower A1C levels, increased diabetes knowledge and self-care behaviors, and higher levels of patient and healthcare provider satisfaction.
- This project developed a patient-centered, equitable, safe and sustainable chronic disease management model for marginalized populations.

**Future Directions:** Further research is needed to evaluate the cost-effectiveness, long-term health and behavior impact, and sustainability of the project in other primary care settings.

**References** (Available Upon Request)