

Scaling Diabetes Prevention in Kansas: Lessons from the Field

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Agenda

What's the
problem?

Solutions

Resources

Rural Challenges



Lack of healthcare facilities, resources, and access to evidence-based interventions



Difficulties in accessing transportation



Social isolation leading to less community engagement



Lack of trust in external organizations or programs

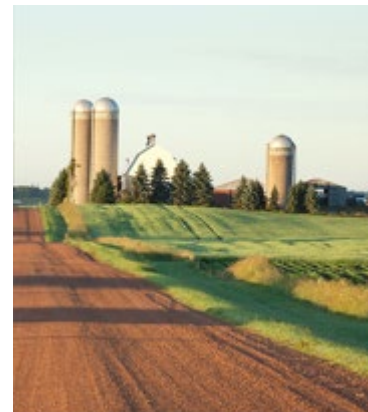


Limited funding and staffing

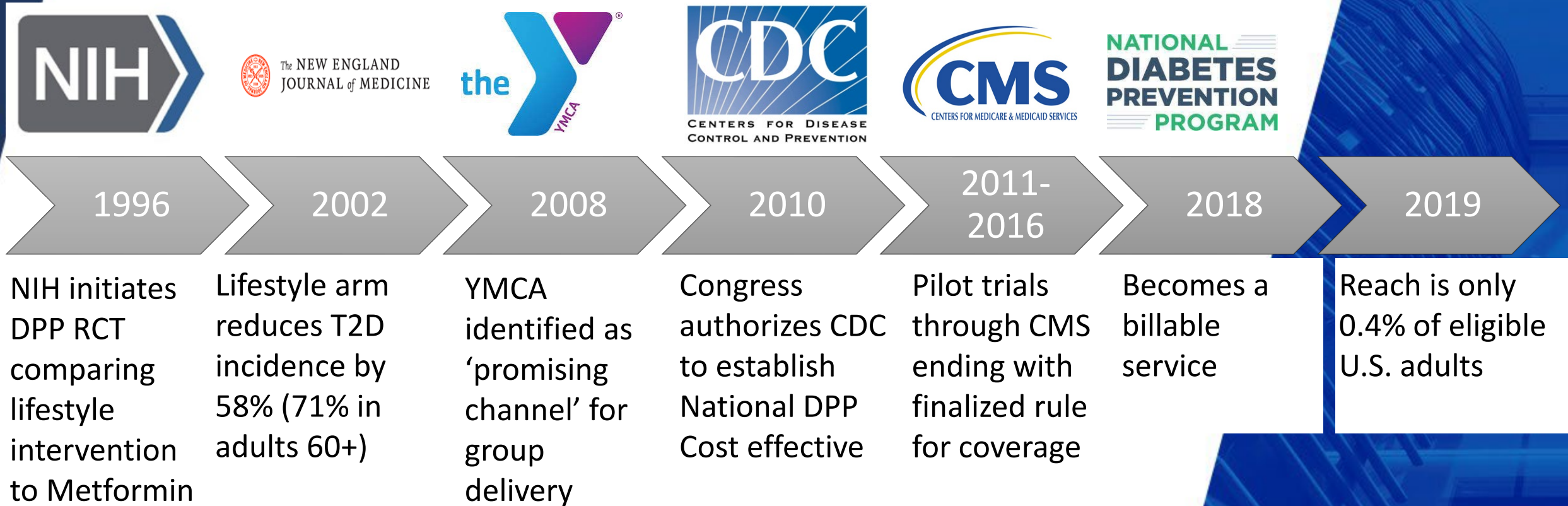
Diabetes Prevention

Diabetes rates are 17% higher in rural compared to urban areas.

However, only 15% of rural counties offer evidence-based diabetes prevention programs, compared with 48% of urban counties.



History



Knowler WC et al., *N Engl J Med.* 2002; Ackermann RT et al., *Am J Prev Med.* 2008; Li R et al., *Diabetes Care.* 2010; Tice, JA., et al, *Institute for Clinical and Economic Review* 2016; Gruss SM et al, *Curr Diab Rep.* 2019

Working Together to Prevent Type 2 Diabetes



The PreventT2 lifestyle change program is part of the National Diabetes Prevention Program, led by the Centers for Disease Control and Prevention (CDC).

It is a program focused on eating healthier and increasing physical activity that has been shown to prevent or delay type 2 diabetes in high-risk patients.

Participant Goals:

1. $\geq 5\%$ weight loss by 12 mo.
2. ≥ 150 min/week physical activity



**A TRAINED
LIFESTYLE
COACH**

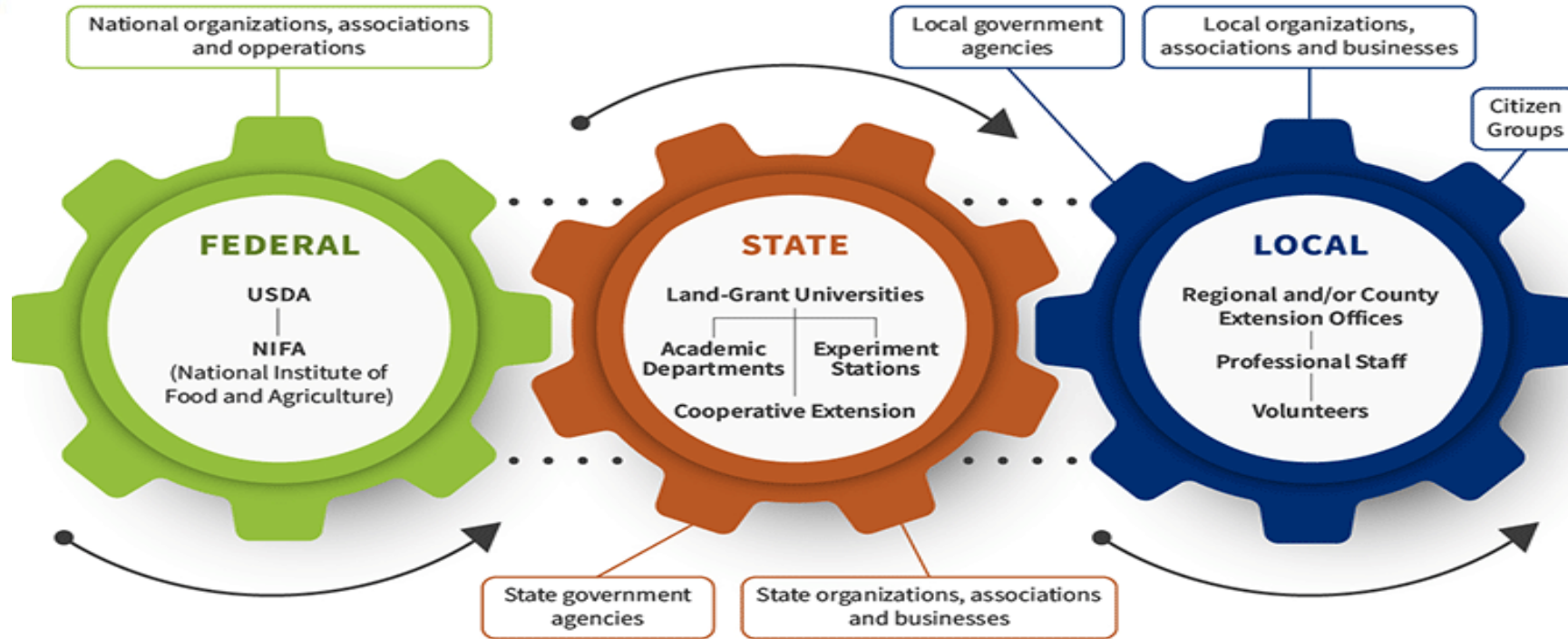


**A CDC-APPROVED
CURRICULUM**

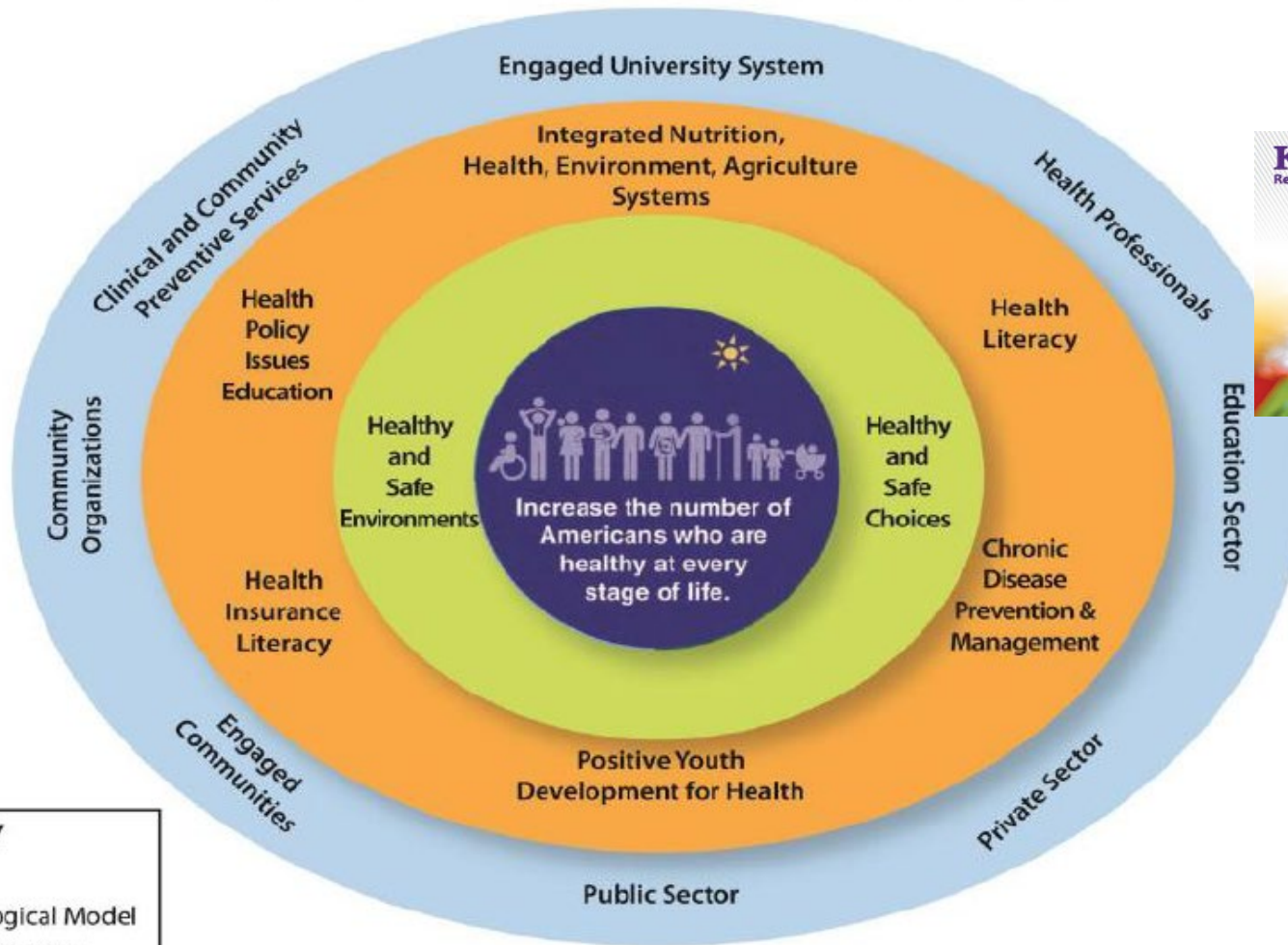


**GROUP SUPPORT
OVER THE COURSE
OF A YEAR**

COOPERATIVE EXTENSION



Cooperative Extension's National Framework for Health & Wellness



KEY	
●	Outcome
●	Social-Ecological Model
●	Extension Priorities
●	Partners

K-STATE
Research and Extension

- DO YOU HAVE DIABETES?
- WANT TO MAKE THE BEST CHOICES FOR YOUR HEALTH?

WE CAN HELP...

Dining

with Diabetes

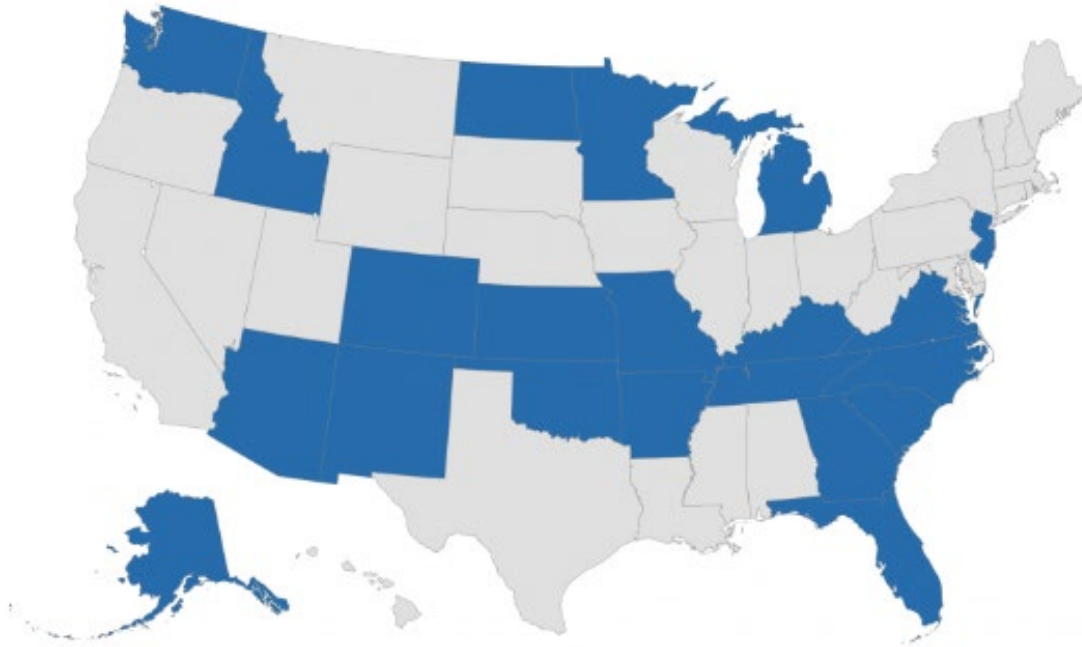
EFNEP

Expanded Food and Nutrition Education Program



Cooperative Extension
**National Diabetes
Prevention Program**

Which State Extension Programs are Part of this Interest Group?



<https://preventdiabetes.extension.org/>

Feasibility Pilot

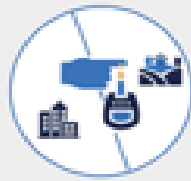
Purpose: Assess the National DPP delivered to rural residents by an Extension agent using Zoom® or a research staff member via a private Facebook® group



	Total	Zoom®	Facebook®
	N = 31	N = 16	N = 15
Age (yrs.) (m ± SD)	55.1 ± 12.8	56.4 ± 11.1	53.8 ± 14.7
Female n, %	25 (81%)	12 (75%)	13 (87%)
Minority* n, %	5 (16%)	2 (12.5%)	3 (20%)
BMI (kg/m ²) (m ± SD)	36.4 ± 7.8	36.9 ± 5.7	35.8 ± 9.9

*Non-white and/or Hispanic/Latino

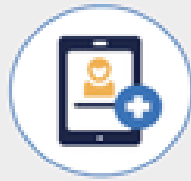
Background



Americans living in **rural areas** are at a higher risk of **type 2 diabetes** compared to their urban counterparts



Lifestyle interventions like the **National Diabetes Prevention Program (National DPP)** have limited reach in rural areas



Understanding how the National DPP is delivered can address implementation barriers across different modalities of **digital delivery**

Cross-sectional qualitative study



14 participants in a six-month, digitally delivered National DPP

9 Zoom users 5 Facebook users



Focus group sessions

- Participant characteristics/perceptions
- Infrastructure support
- External influences on program fit



Reflexive thematic analysis



Practical, Robust Implementation and Sustainability Model

Key findings



Compared to Facebook users, Zoom users reported:

- **Stronger social engagement**
- Greater accountability



Participants wanted their **health care providers** to:

- Have more awareness of the National DPP
- Promote use of the program



Motivations for participation:

- Reduced HbA_{1c} levels
- Reduced need for diabetes medication



Common engagement barriers:

- Poor internet access
- Limited nutrition support
- Heat and pests

Summary:

Digital delivery of the National Diabetes Prevention Program is feasible for rural adults, but enhancing social connections, tailored nutrition support, and provider referrals may improve program acceptability.

Wagner G, Koon LM, Smith P, et al. Assessing the Fit of a Digitally Delivered National Diabetes Prevention Program

Among Rural Living Adults: Qualitative Study

JMIR Form Res 2025;9:e70406

URL: <https://formative.jmir.org/2025/1/e70406/>

DOI: 10.2196/70406

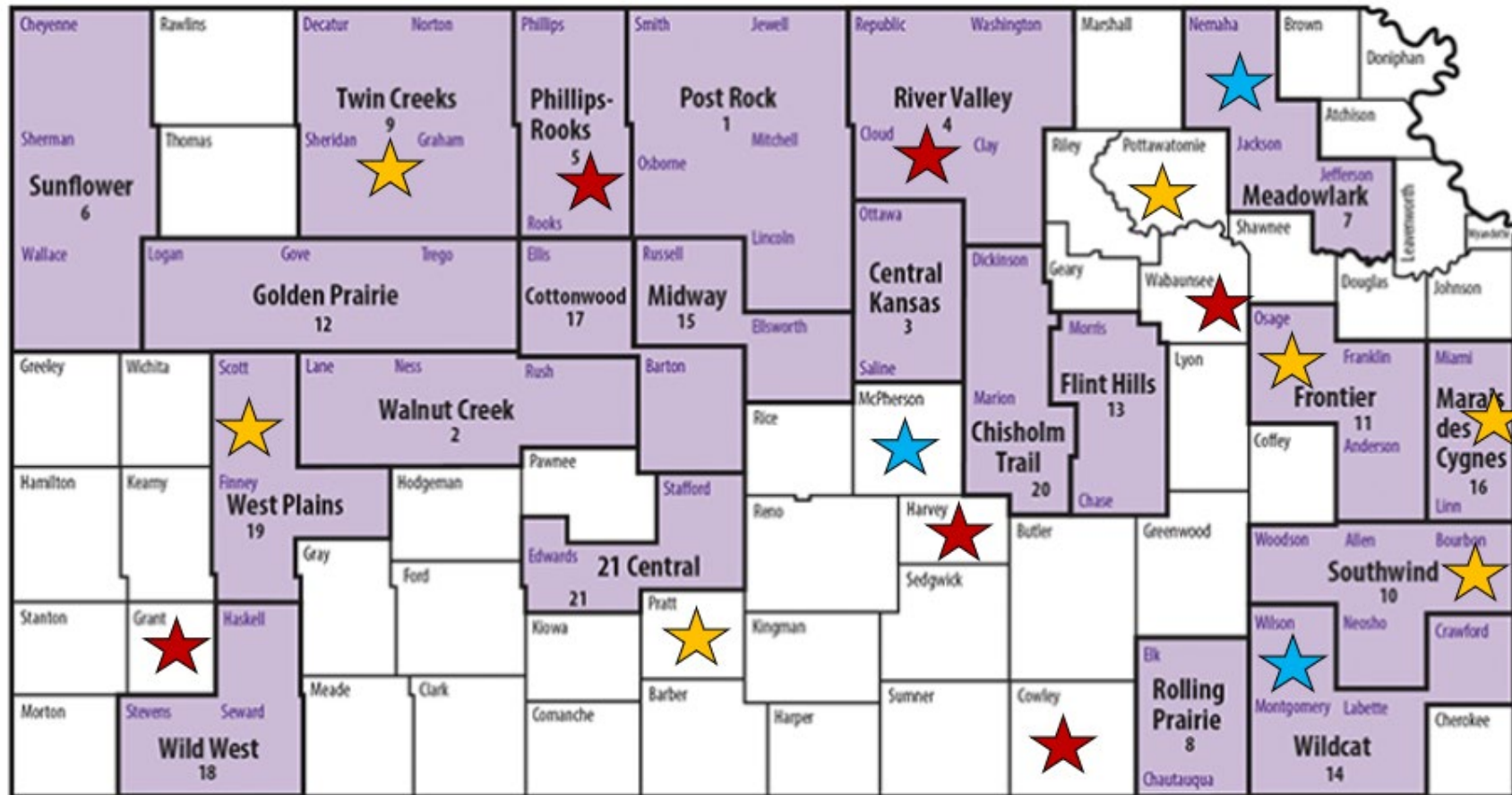


JMIR Publications

Advancing Digital Health & Open Science

Extension Interviews

Purpose: To determine barriers and facilitators of nutrition and physical activity program implementation from interviews with Agents from K-State Extension



Agent Findings

Primary themes:

- (1) Participant reach and engagement
- (2) External partnerships and community networking
- (3) Program delivery and adaptation

Barriers:

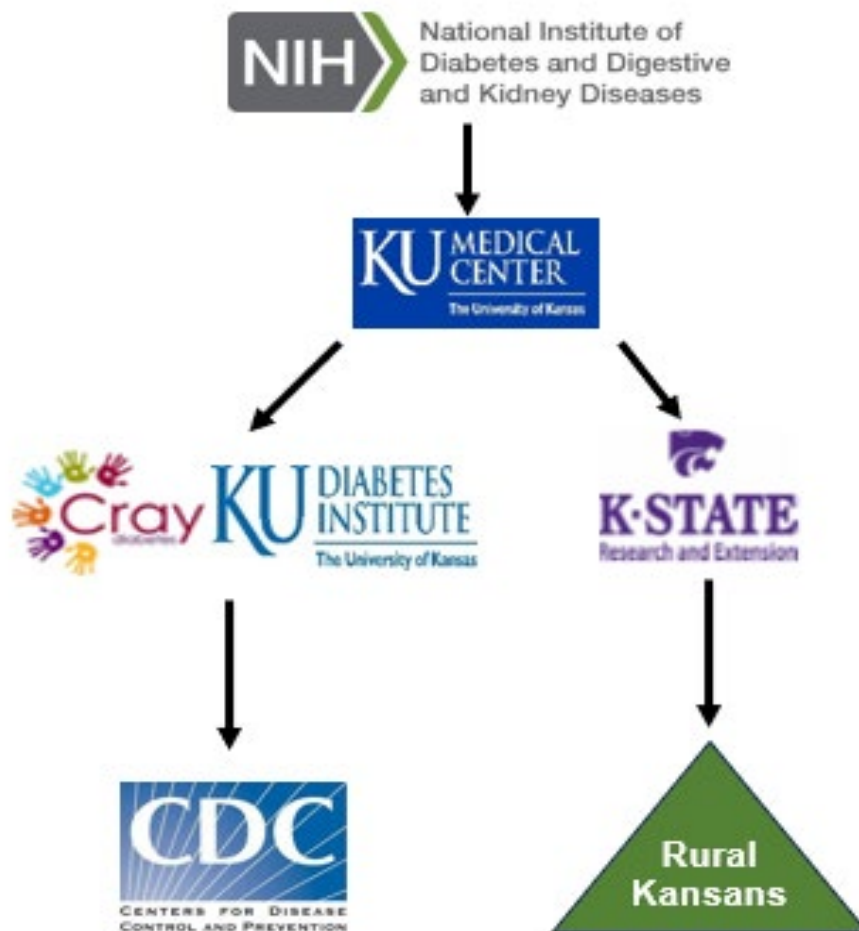
Limited participant availability, family demands, and low perceived program relevance

Facilitators:

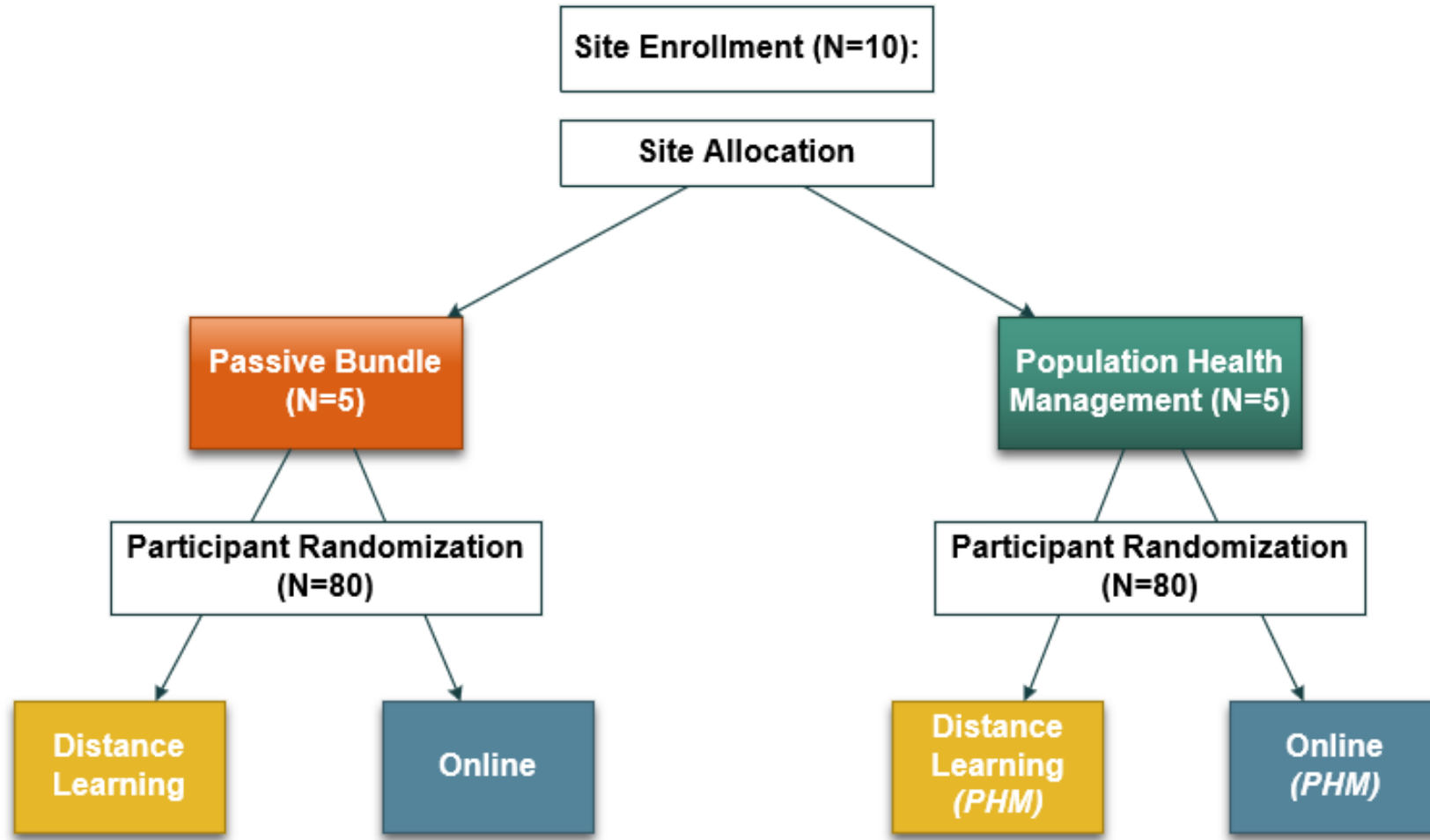
Incentives, leveraging social media, and engaging community partners

Clinical-community partnership

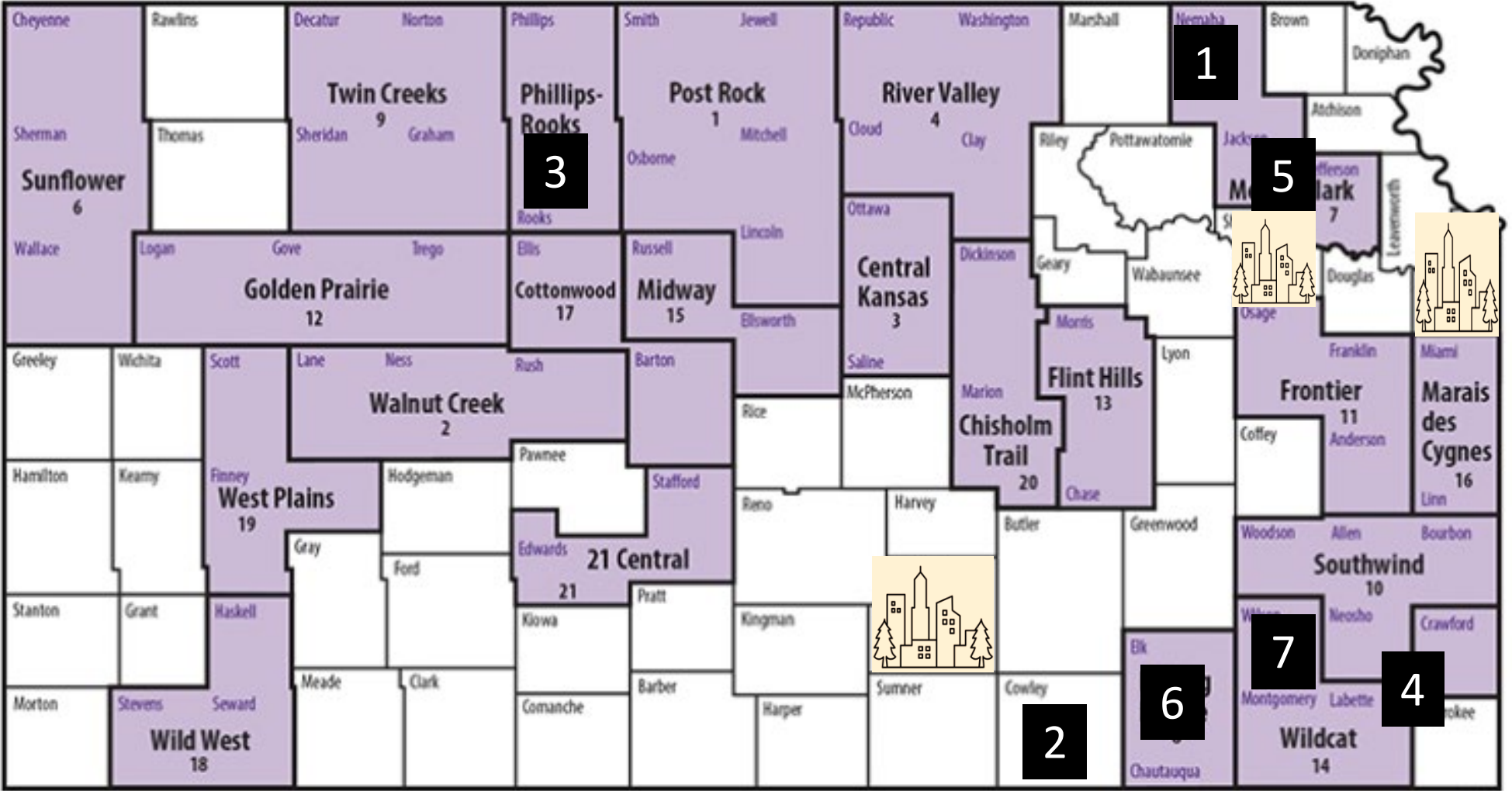
Rural
Alliance for
Diabetes Prevention



Design



Sites



Recruitment Strategies

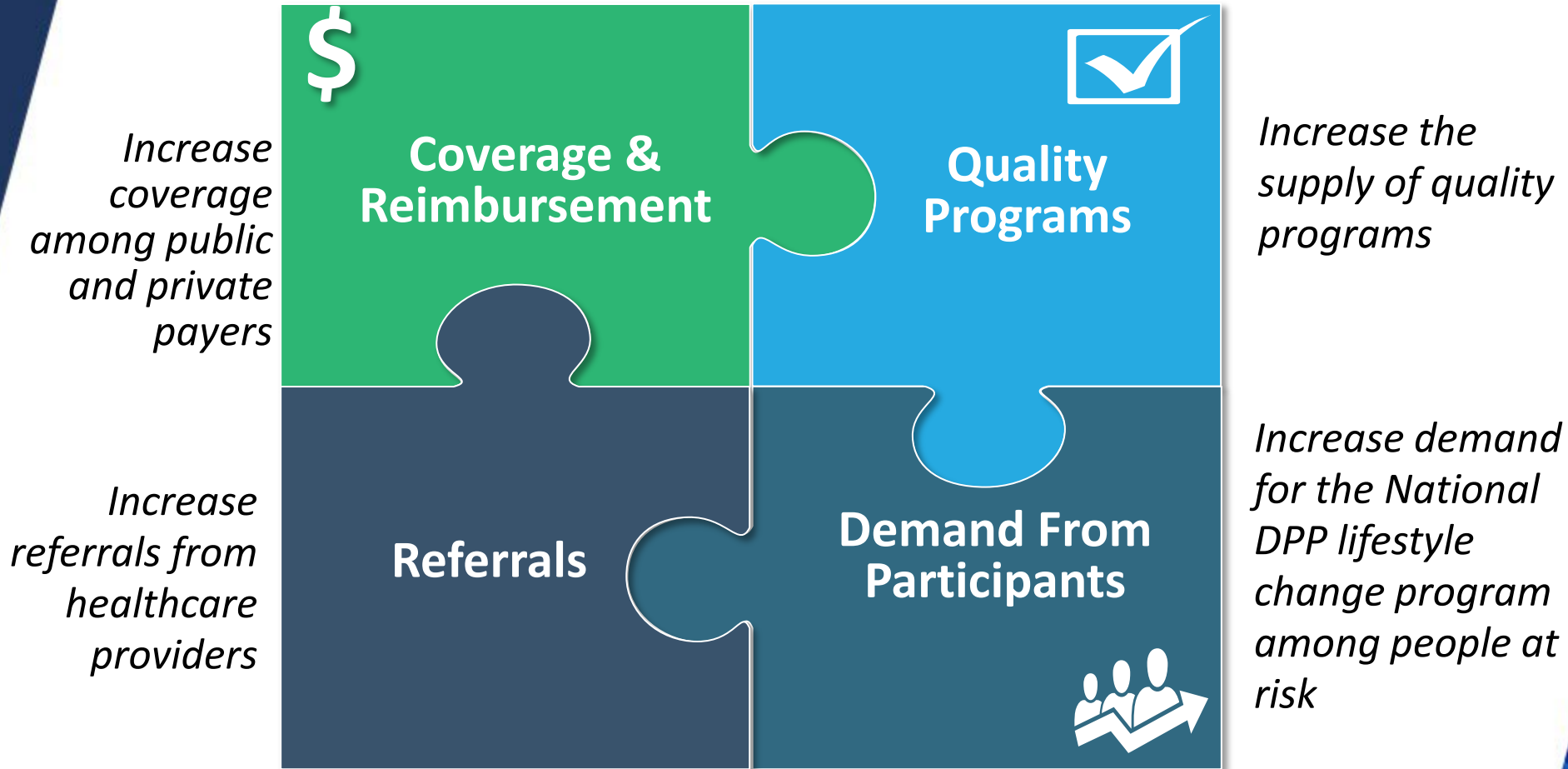
Passive Bundle

- Flyers, posters, brochures
- Mass media
- Social media
- Print advertising
- Place-based strategies

Population Health Management

- EHR review with direct outreach to potentially eligible participants using mail (x2) then follow-up phone calls as needed (x5)

National DPP Strategic Goals



Resources

- Find a Lifestyle Change Program: <https://www.cdc.gov/diabetes-prevention/lifestyle-change-program/find-a-program.html>
- KDHE Find a Program: <https://www.kdhe.ks.gov/1921/Find-a-Self-Management-Program>

Key Takeaway

- There is a need for context-specific approaches and multisector collaboration within rural communities to decrease the burden of prediabetes in Kansas.

It takes a village

Funding sources:

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- NIGMS (P20GM139733)
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Research Team:

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- Joe Donnelly, EdD (KUMC)
- Lyndsie Koon, PhD (KU)
- Paul Estabrooks, PhD (Utah)
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THANK YOU

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