Strategies to Improve Screening for Chronic Kidney Disease in Rural Health Clinics

Presenters:

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Aspire Rural Health System

Learning objectives:

Objective 1: Describe the benefits of early detection of CKD and identify the two tests to diagnose CKD.

Objective 2: Discuss strategies and tools to incorporate CKD screening into clinical workflows.

Objective 3: Explain the challenges, successes, and outcomes of the learning collaborative related to CKD screening rates and diagnosis.

What is CKD?

Chronic Kidney Disease is the loss of kidney function over time. CKD can lead to heart attack, stroke, anemia, kidney failure and death.

Usually there are no symptoms of CKD until the later stages.

There is no cure for CKD, but **progression can be slowed** with early detection, medication, healthy eating and exercise.

End-stage renal disease (ESRD), or **kidney failure** requires dialysis or a transplant.

CKD: Widespread, Overlooked, and Expensive

37 million Americans have chronic kidney disease.[1]

Kidney Disease was the 9th leading cause of death in the U.S.[2]

CKD accounts for $100B of expenditures for Medicare beneficiaries. [3]

Up to 90% of people with CKD don’t know they have it.[4]

CKD Risk Factors

- Diabetes
- Hypertension
- Age ≥ 60 years
- Cardiovascular Diseases
- Family History of CKD/ESKD
- Chronic NSAID use
- H/O Acute Kidney Injury (AKI)

CKD Diagnosis

CKD is diagnosed using two laboratory tests:

- **Estimated glomerular filtration rate (eGFR)** provides insight regarding overall kidney function
- **Albumin-creatinine ratio, urine (ACR)** provides insight regarding the extent of kidney damage

CKD Practice Guidelines – for Screening and Management Recommendations :

Kidney Disease Improving Global Outcomes (KDIGO)

Kidney Disease Outcomes Quality Initiative (KDOQI)

Chronic Kidney Disease (CKD) Learning Collaborative Initiative

The **National Kidney Foundation of Michigan (NKFM)** and the **Michigan Center for Rural Health (MCRH)** partnered on the Medicaid Impact and Expansion 2024 grant.

The **collaborative increased awareness** of the importance of **early detection and management** of Chronic Kidney Disease (CKD) among Medicaid-eligible populations at four Rural Health Clinics.

- Provider and clinical education
- Promoted referrals to evidence-based lifestyle change programming through NKFM
- Provided support and guidance to implement into Rural Health Clinic's clinical workflows

Learning Collaborative Strategies

Conducted **baseline assessment** of CKD prevalence, underdiagnosis, and CKD screening rates in patient population.

Delivered one-hour **tailored** clinical **education** sessions on:

- Diagnosis & staging of CKD
- Technology and workflows
- Prevention of CKD progression from a pharmaceutical and nephrologist perspective
- Lifestyle and nutrition approaches to prevent and/or manage CKD

Learning Collaborative Strategies

Developed **protocols and policies** to screen and diagnose patients for CKD.

Supported implementation of **clinical decision tools** into EHR and screening into workflow.

Empowered healthcare team and patients with actionable recommendations.

Created culturally adapted and low literacy patient **education materials** to raise awareness of CKD and its risk factors.

Aspire Rural Health System

Aspire for a healthier future.

Chronic Kidney Disease Project

Laura Green, MHA, CRHCP
Population Health Program Development and Health Education Coordinator
Michigan Rural Health Clinic Network Board Member

Aspire Health System Overview

3 Critical Access Hospitals (CAH)

- Hills and Dales Healthcare
- Marlette Regional Hospital
- Deckerville Community Hospital

13 Rural Health Clinics (Family Practice, Internal Medicine, & Pediatrics)

- Brown City, Caro, Cass City, Deckerville, Kingston, Marlette, Mayville, Port Sanilac, Ubly

Traditional Fee-for-Service Clinics

- Bad Axe, North Branch, Deckerville

Specialty Clinics

- General Surgery, Urology, Cardiology, Podiatry, ENT, Neurology, Orthopedics, Oncology, Pain Management, Pulmonology, Wound Care, Ophthalmology, GYN, & Vascular

Chronic Kidney Disease

Aspire Rural Health System Participating Clinics

- Cass City Family Practice
  - Marie Havercamp, FNP-C
- Cass City Medical Practice
  - Rebecca McKee, FNP-C

Lessons Learned Along the Way

What Causes Kidney Disease?

How Do We Detect Kidney Disease Earlier?

How Do We Get Patients Involved?

CKD is classified based on: -Cause (C) -GFR (G) -Albuminuria (A)				A1 Normal to mildly increased <30 mg/g <3 mg/mmol	A2 Moderately increased 30-299 mg/g 3-29 mg/mmol	A3 Severely increased ≥300 mg/g ≥30 mg/mmol
GFR categories (ml/min/1.73m²) Description and range	G1	Normal or high	≥90	1 if CKD	Treat 1	Refer* 2
	G2	Mildly decreased	60-89	1 if CKD	Treat 1	Refer* 2
	G3a	Mildly to moderately decreased	45-59	Treat 1	Treat 2	Refer 3
	G3b	Moderately to severely decreased	30-44	Treat 2	Treat 3	Refer 3
	G4	Severely decreased	15-29	Refer* 3	Refer* 3	Refer 4+
	G5	Kidney failure	<15	Refer 4+	Refer 4+	Refer 4+

CKD Stage 1 and Stage 2 require albuminuria or other markers of kidney damage for diagnosis.

Challenges Faced and Overcoming Barriers

Changes: uACR testing in patients with HTN

Challenges Faced

Resource Limitations:

- Financial constraints limit access to advanced technology and patient programs.
- EMR Challenges
- Reference Lab Ranges

Patient Engagement Challenges:

- Geographical barriers making clinic visits difficult - transportation
- Low health literacy affecting understanding of chronic kidney disease management.

Overcoming Barriers

Customized Patient Education Programs:

- Tailor materials for local literacy and cultural preferences.
- Use chronic care managers for direct patient support.

Optimizing EMR and Data Utilization:

- Use data to identify patients with hypertension, diabetes and chronic kidney disease.

Team-Based Care Models:

- Engage staff in collaborative care

Outcomes

Cass City Family Practice

- Chronic Kidney Disease, Unspecified
- 2023 : 19
- 2024 : 148

Cass City Medical Practice

- Chronic Kidney Disease, Unspecified
- 2023 : 19
- 2024 : 147

McLaren Central Michigan
Clare Clinic

McLaren Central Michigan – RHC Locations

Petoskey
Cheboygan
Rogers City
Gaylord
Mio
Rose City
West Branch
Tawas

Standish
Clare
Mt. Pleasant
Weidman
Lapeer
Gladwin
Bad Axe

en Clare Clinic

on and Education Lead – Kalen Gerulski,

nd Data Champion – Wendy
ctor of Operations

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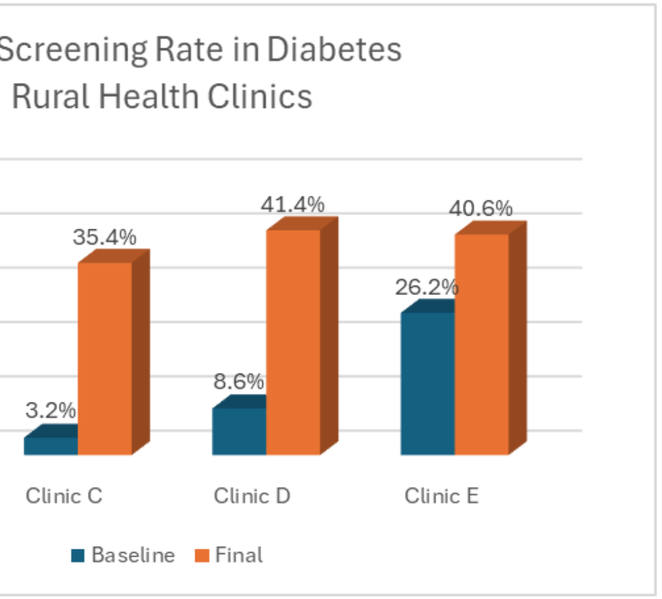
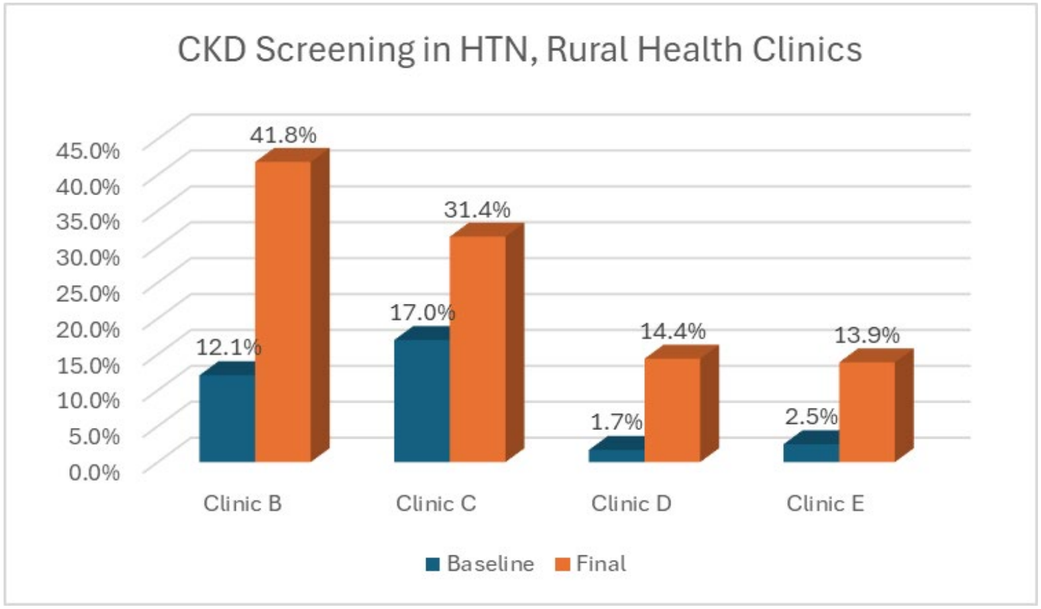
Education

- Educate patients on the importance of early diagnosis and prevention of CKD
- Engagement to slow the progression of disease to maintain wellbeing, lifestyle and livelihood
- PATH program
  - Personal
  - Action
  - Towards
  - Health

mes: CKD Screening Rates

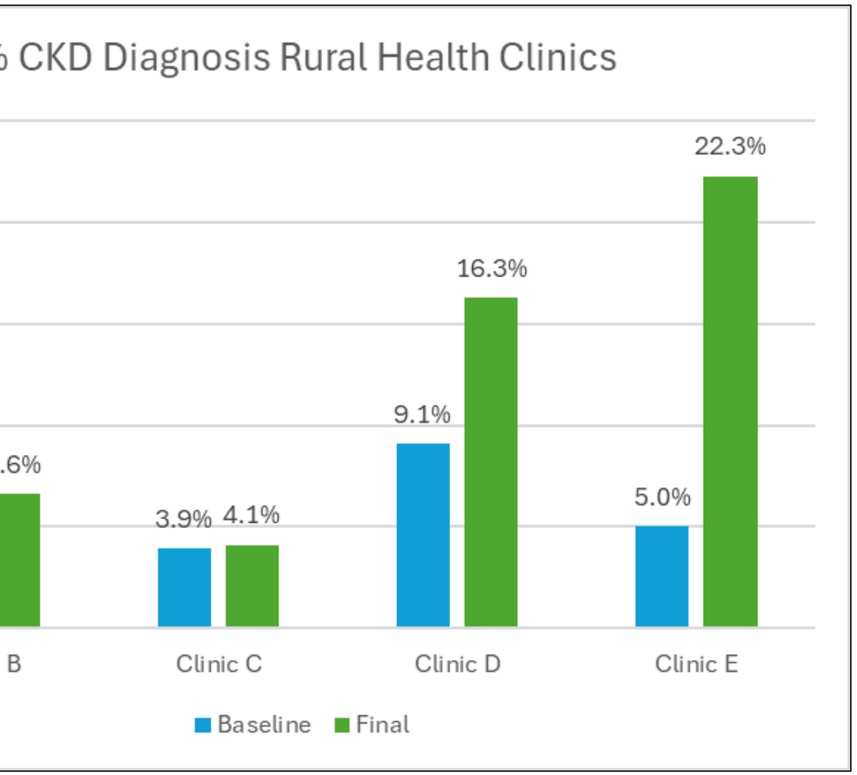


crease from
o Final: 27.0%



Average Increase from Baseline to Final:17.1%

mes: % Diagnosed with CKD



Average Increase from Baseline to Final: **6.5%**

461 more patients were diagnosed with CKD from baseline to final project.

kit for Rural Providers

Specific Solutions & Support

onal Materials and Trainings for Providers

your practice. Dive into our comprehensive CKD
designed for healthcare professionals.

More

Patient Education and Engagement

Equip your patients with knowledge. Discover our CKD education resources to support their journey.

Learn More

nagement Workflow for Rural Primary Care

our practice's approach to CKD care with comprehensive
kflows, and best practices tailored for rural primary care.

More

Screening Tools & Resources

Stay ahead of CKD. Equip your practice with top-notch screening tools and guidance.

Learn More

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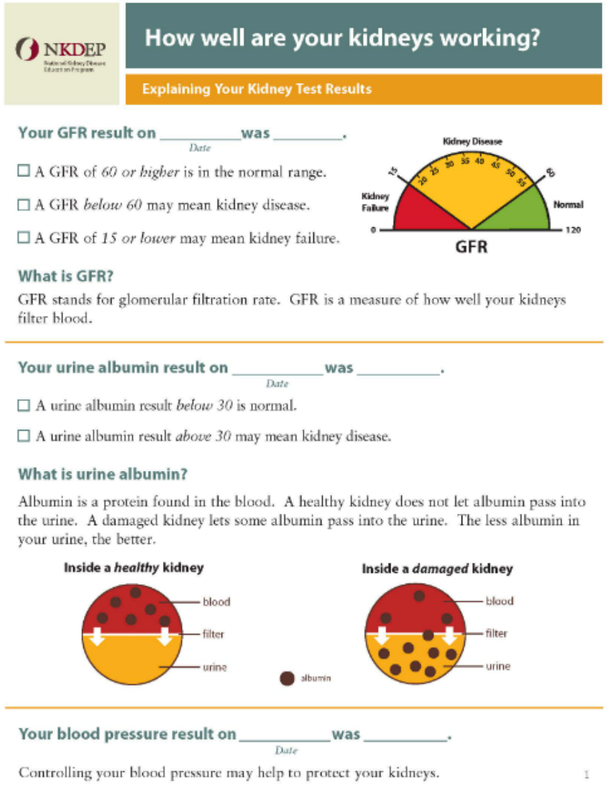

NKDEP

How well are your kidneys working?

Explaining Your Kidney Test Results

Your GFR result on _____ was _____.
Date

- ☐ A GFR of *60 or higher* is in the normal range.
- ☐ A GFR *below 60* may mean kidney disease.
- ☐ A GFR of *15 or lower* may mean kidney failure.

What is GFR?

GFR stands for glomerular filtration rate. GFR is a measure of how well your kidneys filter blood.

Your urine albumin result on _____ was _____.
Date

- ☐ A urine albumin result *below 30* is normal.
- ☐ A urine albumin result *above 30* may mean kidney disease.

What is urine albumin?

Albumin is a protein found in the blood. A healthy kidney does not let albumin pass into the urine. A damaged kidney lets some albumin pass into the urine. The less albumin in your urine, the better.

Your blood pressure result on _____ was _____.
Date

Controlling your blood pressure may help to protect your kidneys.

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Quick Reference Guide on Kidney Disease Screening

How to manage CKD patients

How well are your kidneys working?

QI Chronic Kidney Disease Prevention

Video: Example Planned Care Huddle

Healthy Huddles Happen PDF

CKD Evaluation and Management

NKFM Provider Education

Video: Kidney Disease Stages

CKD Medication Brochure 2023

2024 CKD Guidelines

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Engagement

Resources

- Educational Brochures
- Interactive Tools
- **PATH Program**
- Patient Resources
- Video Education

PATH (Personal Action Toward Health)

The PATH program helps people better manage their long-term health conditions while being led by two trained leaders, at least one of whom has a long-term health condition. Participants learn strategies to deal with pain, fatigue, and difficult emotions. Each week participants create personal action plans and set practical, achievable goals. Distance learning options for PATH include: video conference, self-led with phone support, and virtual learning online.

Who should participate:

Adults with chronic or ongoing health conditions including arthritis, heart disease, diabetes, emphysema, asthma, kidney disease,

Types of PATH Workshops:

- **Diabetes PATH**
- **Kidney PATH**
- **High Blood Pressure (H...**
- **Chronic Disease PATH**
- **BCBH**
- **PATH en Espanol**

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ural Primary Care

rimary Care CKD Workflow Integration Aligned with National Standards

rimary Care CKD Workflow Integration Aligned with National Standards" focuses on incorporating evidence-based workflows into rural y care settings to enhance the detection, management, and treatment of Chronic Kidney Disease (CKD). This approach ensures alignment ational clinical guidelines and best practices, streamlining processes for early diagnosis, patient education, care coordination, and ongoing ring, ultimately improving patient outcomes in underserved rural communities.

c Kidney Disease (CKD) Screening and Management Policy

ronic Kidney Disease (CKD) Screening and Management Policy" outlines standardized lures for identifying, monitoring, and managing CKD in patients. This policy emphasizes etection through routine screenings, particularly for high-risk populations, and provides nes for diagnosis.

y Huddles Happen

deo Huddle Example

e Huddle provides a practical example of a daily huddle format used in clinical settings, aimed at improving team communication and care coordination. The huddle includes discussions on high-risk patients, follow-up care, chronic disease management, workflow zation, and resource allocation.

(Plan-Do-Study-Act)

c Kidney Disease (CKD) PDSA (Plan-Do-Study-Act) Cycle is a systematic, data-driven approach to quality improvement aimed at cing CKD care within healthcare settings. It helps clinics and healthcare teams improve processes for early detection, management, and

eening Tools & Resources

ction of professional tools and resources to support patient care, improve clinical outcomes, and stay updated on the latest kidney es.

pport CKD Screening

le apps designed to help manage and monitor kidney health, offering ols for both healthcare professionals and patients.

tration Rate (GFR)

lomerular Filtration Rate (GFR), a key measure of kidney function, and find elp assess and interpret GFR results.

Evaluation for Patients with Diabetes

idelines for the Kidney Health Evaluation for Patients with Diabetes (KED) measure, including essential testing and care strategies ney health in individuals with diabetes.

ng Provider Engagement

g CKD Awareness in Rural Michigan

multi-channel approach has olkit into more hands,

utreach to clinical teams

paigns that elevate rural

ross the state in partnership

clinic networks and nections

Engagement Highlights:

Strong Facebook Reach: Video series reached over 3,200 users.

Toolkit Traffic: ~150 individual users – many returning multiple times.

Importantly, provider voices were centered throughout—including a video series that highlights rural expertise and peer connection.

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team

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missing

Q & A

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