Improving Recognition of Chronic Kidney Disease in a Federally Qualified Health Center Through a Quality Improvement Initiative

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BACKGROUND

- Chronic kidney disease (CKD) affects approximately 15% of U.S. adults and is a major contributor to morbidity, mortality, and healthcare costs.
- Early identification in primary care enables interventions such as blood pressure optimization, renin–angiotensin system blockade, and kidney-protective medications, which can delay disease progression and postpone dialysis.
- Despite clear screening guidelines CKD remains underdetected in routine care.
- Screening and diagnosis gaps disproportionately affect high-risk populations including Latino/a patients and agricultural workers.
- Even when laboratory criteria for CKD are met, underdiagnosis is common.
- Undiagnosed CKD is associated with:
  - Higher mortality, kidney failure, and cardiovascular events
  - Lower use of guideline-directed therapies
- Accurate documentation supports monitoring and risk stratification, initiation of guideline-directed therapies, improved care coordination and long-term outcomes.
- Addressing both system-level barriers and provider-level barriers (diagnosis and documentation) represents an opportunity to improve CKD care and reduce disparities in primary care settings.

Primary Objective

Identify system and provider barriers to CKD screening and diagnosis in a FQHC in Oregon and evaluate whether targeted workflow improvements and provider education improve CKD screening, recognition, and documentation in the electronic medical record (EMR).

METHODS

Design - Quality improvement project using iterative Plan-Do-Study-Act (PDSA) cycles
Setting - Federally Qualified Health Center (FQHC) in Oregon
Participants - 21 primary care clinicians (MD/DO, NP/PA, residents); 21 responded to initial survey, 15 to follow-up survey
Population - Adult patients at increased risk for CKD (e.g., diabetes, hypertension, age >60) who had been seen by provider at FQHC within prior 18 months. Initial screening data review looked at patients seen between Jan 2024 and June 2025. Diagnosis data pulled from patients who had been seen between Jan 2024 and date of data review.

Definitions -

- **CKD Screening** - NKF definition: both serum creatinine with eGFR AND urine albumin measurement (spot uACR) completed
- **Criteria for CKD Diagnosis** - Either of the following present for 3 months or more:
  eGFR < 60 mL/min/1.73 m^2
  uACR ≥ 30 mg/g

Disclosure Statement

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation: None

RESULTS

- **CKD diagnosis rates remained below expected levels but showed modest upward trend across high-risk groups, particularly in patients with hypertension and diabetes.**
- **Provider confidence improved in key domains targeted by the intervention, with increases of +22% (explaining CKD), +17% (lifestyle counseling), and +12% (SGLT2 initiation) .**
- **Absolute numbers of patients with CKD diagnoses increased across all high-risk groups.**
- **Findings suggest early impact of combined workflow and educational interventions on CKD recognition.**

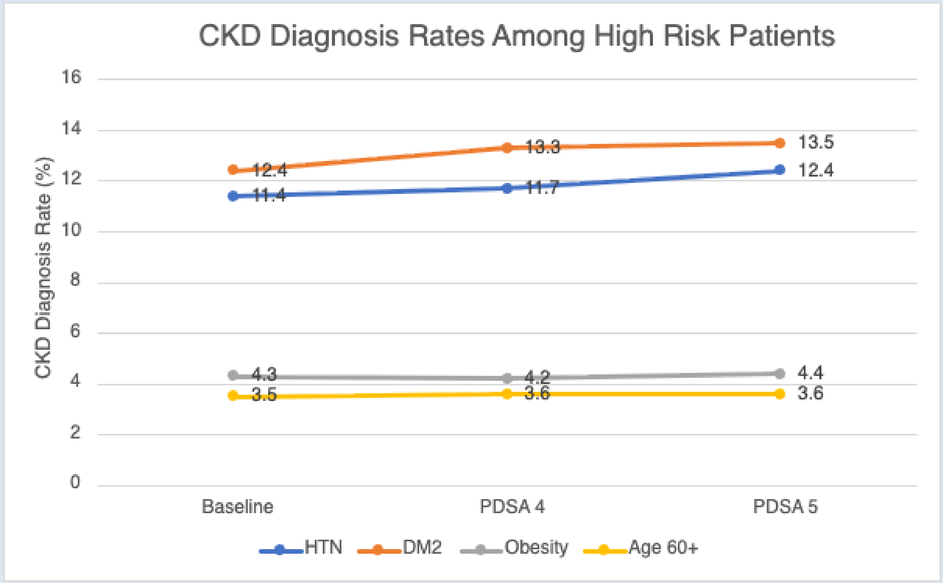

Figure 1 CKD diagnosis rates increased modestly across high-risk groups following QI interventions, with the largest improvement seen in patients with hypertension and diabetes.

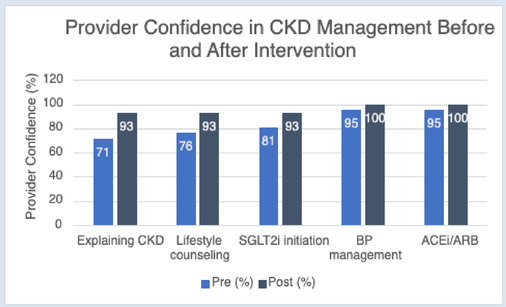

Figure 2 Provider confidence improved in areas targeted in the educational intervention, including explaining CKD, counseling on lifestyle modifications, and initiating SGLT2 inhibitors.

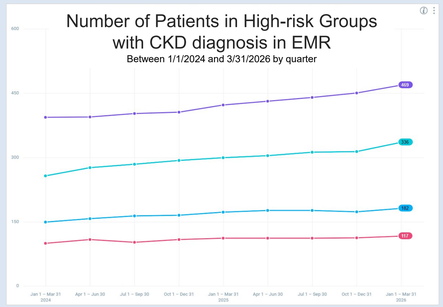

Figure 3 The number of patients with CKD diagnoses in their records increased over time, reflecting both clinic patient population growth and improved diagnosis efforts among providers.

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- Levin-Iaina N, Reiner-Benaim A, Abu-Akel S, Habashi N. Clinical Implications of Missed CKD Diagnosis in Adults with and without Diabetes Mellitus. J Am Soc Nephrol. Published online January 14, 2026. doi:10.1681/ASN.0000001005
- National Kidney Foundation website: https://www.kidney.org/professionals/clinician-tools-resources.

DISCUSSION / KEY POINTS

- CKD screening rates in this FQHC were higher than national averages, but diagnosis rates remained lower than expected based on national rates of CKD among patients with hypertension, diabetes, obesity, or over age 60.
- This project looked at both system-level (urine workflow) and provider-level barriers (knowledge, confidence), and improved provider confidence in key domains, including SGLT2i initiation.
- Early trends suggest modest improvement in CKD recognition, particularly among patients with hypertension and diabetes.
- These findings support that screening alone is insufficient; accurate diagnosis and EMR documentation are critical to enable guideline-directed CKD care.
- A combined approach of workflow optimization and targeted education is feasible and may improve CKD care delivery in FQHC settings.

PDSA CYCLE SUMMARY

1. **CKD Screening Baseline Assessment**
   Screening rates higher than expected; pivoted study focus
2. **Lab Workflow**
   Improved urine collection process
3. **CKD Diagnosis Baseline Assessment**
   CKD Diagnosis rates in EMR lower than expected
4. **Barrier Identification**
   Providers survey revealed knowledge gaps
5. **Education**
   Targeted session to address gaps

LIMITATIONS

- Short duration of follow-up.
- Small sample size for provider surveys.
- Changes in clinic panel size and patient population over course of study may affect interpretation of diagnosis trends.
- Diagnosis improvements were modest, and causality cannot be definitively attributed to the intervention.

NEXT STEPS

- Implement EMR-based tools and ongoing education to standardize CKD documentation and reduce missed diagnoses.
- Evaluate the impact of improved CKD recognition on treatment optimization and long-term outcomes.