Uninsured Individuals with Diabetes

Impact of Case Management on Health Outcomes

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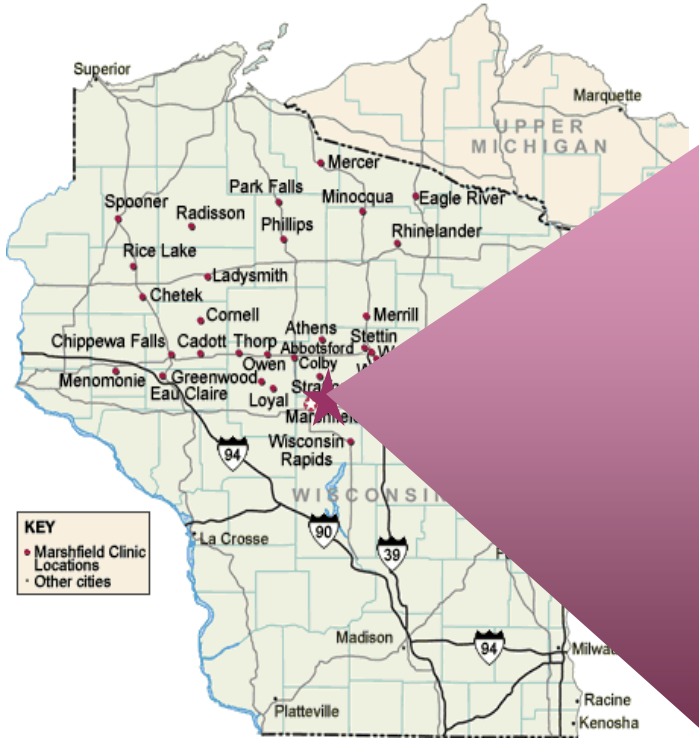
Presentation Overview

- Description of Marshfield Clinic
  - Family Health Center
  - Community Health Access
- Study Design
- Results
- Conclusions

Marshfield Clinic

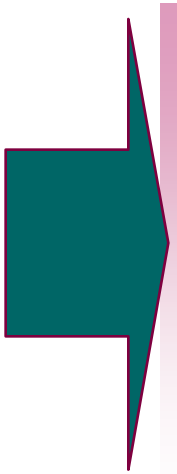


- Over 40 centers throughout northern, central and western Wisconsin
- 750+ physicians in 80 medical specialties and subspecialties
- 361,436 patients served
- Patients seen from every county in WI, every state in the nation, as well as 25 foreign countries

Community Care Program

- Designed to help under- and uninsured patients receive preventive and primary healthcare services on a regular basis
- Care is donated by Marshfield Clinic

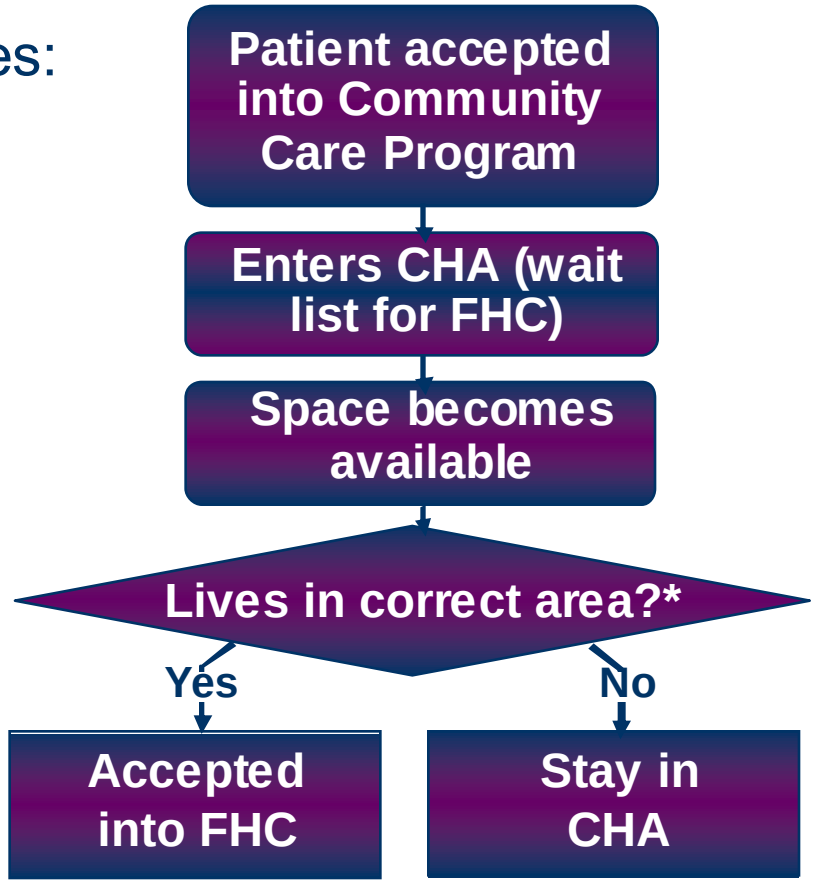
Patients approved for 6 months of community care through CHA are referred for case management, helping patients:



- ✓ Navigate the healthcare system more effectively
- ✓ Understand the importance of preventive health care
- ✓ Self-manage chronic conditions

Family Health Center (FHC) and Community Health Access (CHA)

- Community Care Program includes:
  - primary and preventive care
    FHC—FQHC that offers primary and preventative care provided by Marshfield Clinic and other contracted medical centers
  - **CHA**— provides medically necessary care donated by Marshfield Clinic. CHA patients receive telephonic case management



Note: Coverage for diabetes care is the same for FHC and CHA

* correct location is determined by the federal government

CHA Intervention

CHA Case Management

- Supported by state and federal grant funds
- CM goals:
  - Assist patients in navigating the healthcare system more effectively
  - Understand the importance of preventive health care
  - Manage their chronic conditions
- Patients approved for 6 months of Community Care are referred for case management

Content Addressed

- Complete a health risk appraisal and are mailed a summary of their results
- CHA program orientation
- The HealthWise™ handbook
- Orientation to the 24-Hour Nurseline and FHC Pharmacy services
- Actively case-managed patients have informational mailings and RN intervention
- Passively case-managed patients have informational mailings

Note: The passively case managed group is made up of low- and high-risk patients who either refused CM, could not be reached, or were not appropriate for CM due to medical conditions

Study Design

Hypothesis: Uninsured patients with diabetes who received CHA case management services will achieve clinical and process of care outcomes equivalent to those achieved by patients with diabetes who received usual care through the FHC

Methods

- Data sources: Electronic Medical Record
- Inclusion/exclusion criteria:
  - Covered under FHC/CHA
  - 18 years or older
  - Active during timeframe
- Stats: Student *t-tests*, Chi-sq
- Timeframe: 4/1/06 - 6/30/07

Patient Characteristics

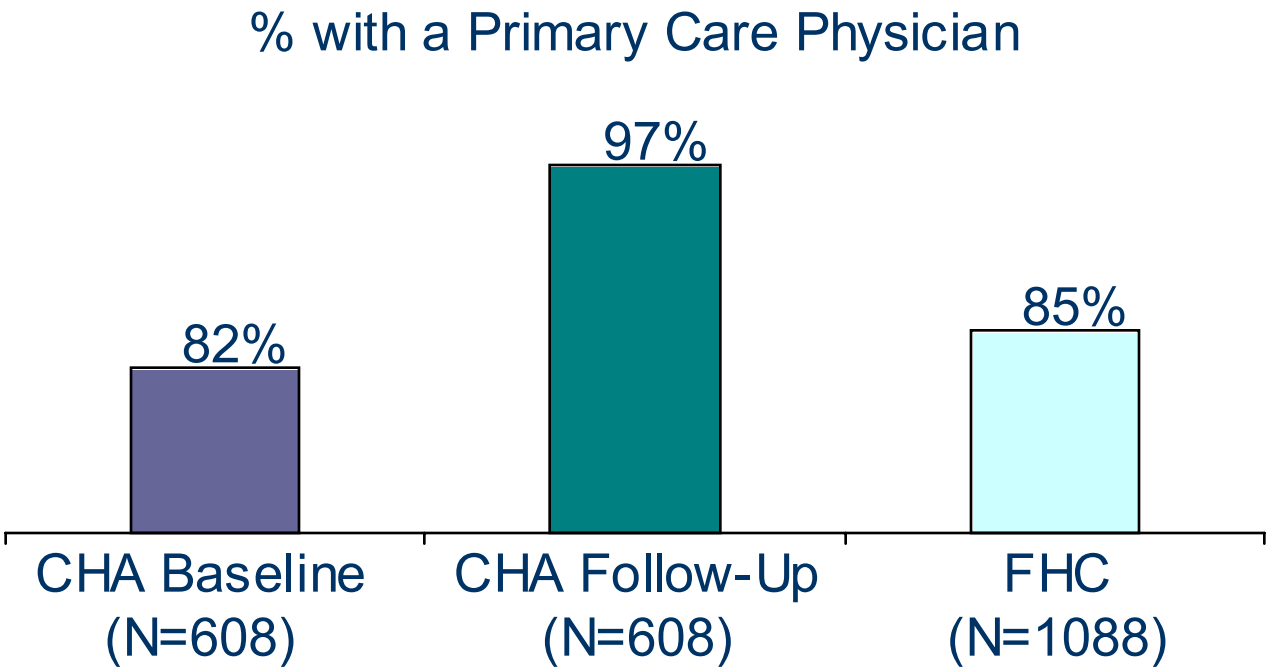
	CHA (N=608)	FHC (N=1088)	*P* Value
Mean Age (yrs)	50	67	*P*<0.0001
Age Range (yrs)	19-98	20-95	....
% Female	58%	60%	*P*=NS

- CHA and FHC populations had equivalent gender distributions
- The two groups had similar age ranges, but the mean patient age among the FHC was significantly higher (67 vs. 50)

Results

- Source of care
  - % with identified primary care provider
- Process measures – diabetes
  - A1c testing
  - Cholesterol testing
  - Microalbuminuria testing
  - Flu vaccination
  - Pneumococcal vaccination
- Clinical outcomes – diabetes
  - Mean A1c, % at goal
  - BP
  - BMI
- Receipt of preventive care services
  - Annual physical exam
  - Pap
  - Mammogram
  - Colonoscopy
  - PSA testing

Source of Care

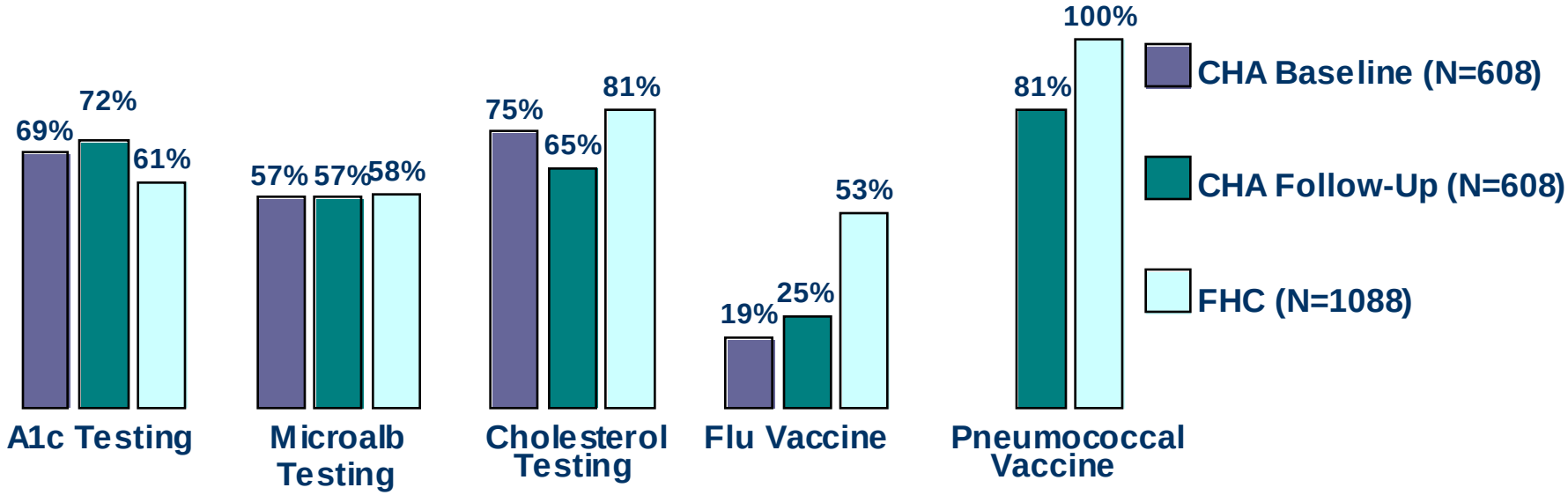


Key Findings

At baseline 82% of CHA had an identified primary care physician (PCP), compared to 85% of FHC patients (P=NS)

Upon follow-up, 97% of CHA patients had a PCP (82% to 97%, *P*<0.0001)

Diabetes Process of Care



Key Findings

A significantly greater proportion of CHA patients had received an A1c test at both baseline (69%) and follow-up (72%) compared to FHC patients (61%)

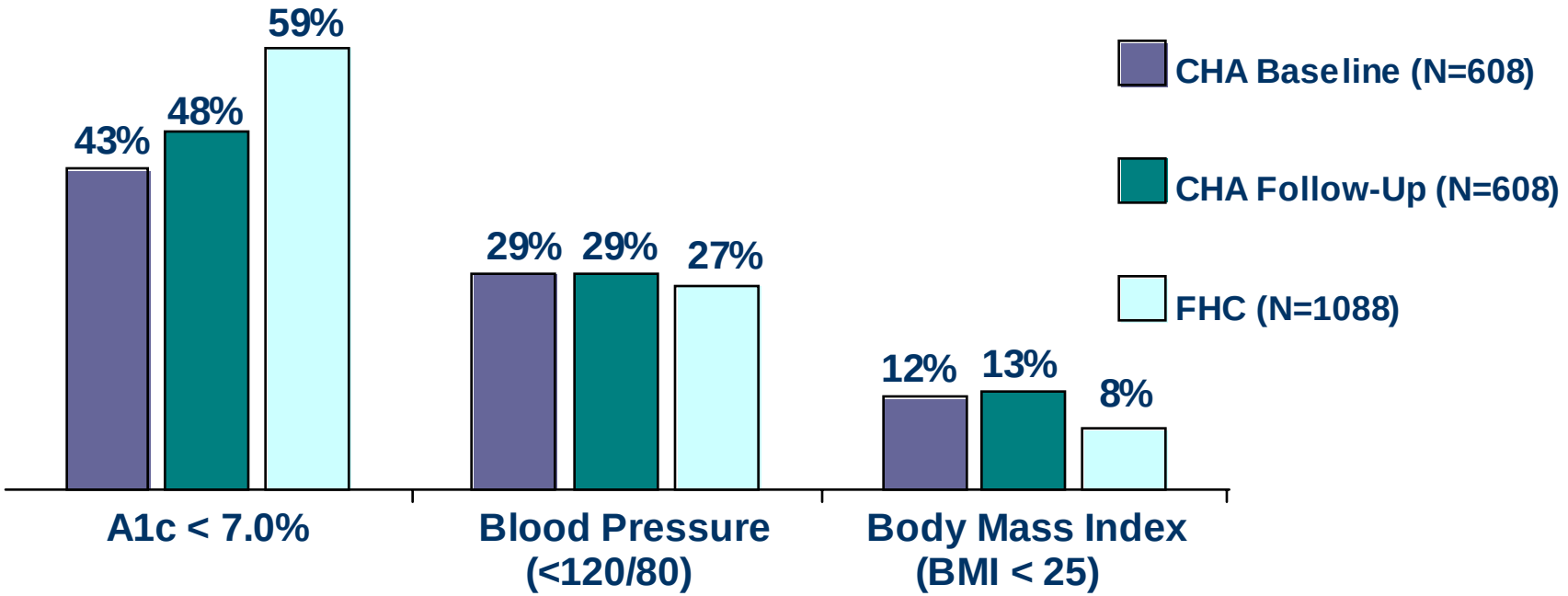
There was no difference between groups with respect to microalbuminuria testing (P=NS)

Significantly fewer CHA patients had their cholesterol level tested compared to FHC patients (65% vs. 81%, P<0.0001)

The proportion of CHA patients who received a flu vaccine increased from 19% at baseline to 25% at follow-up (P=NS), but the vaccination rate among CHA patients was significantly lower than the rate among FHC patients (P<0.0001)

81% of CHA patients and 100% of FHC patients received pneumococcal vaccines (P<0.0001)

Clinical Outcomes



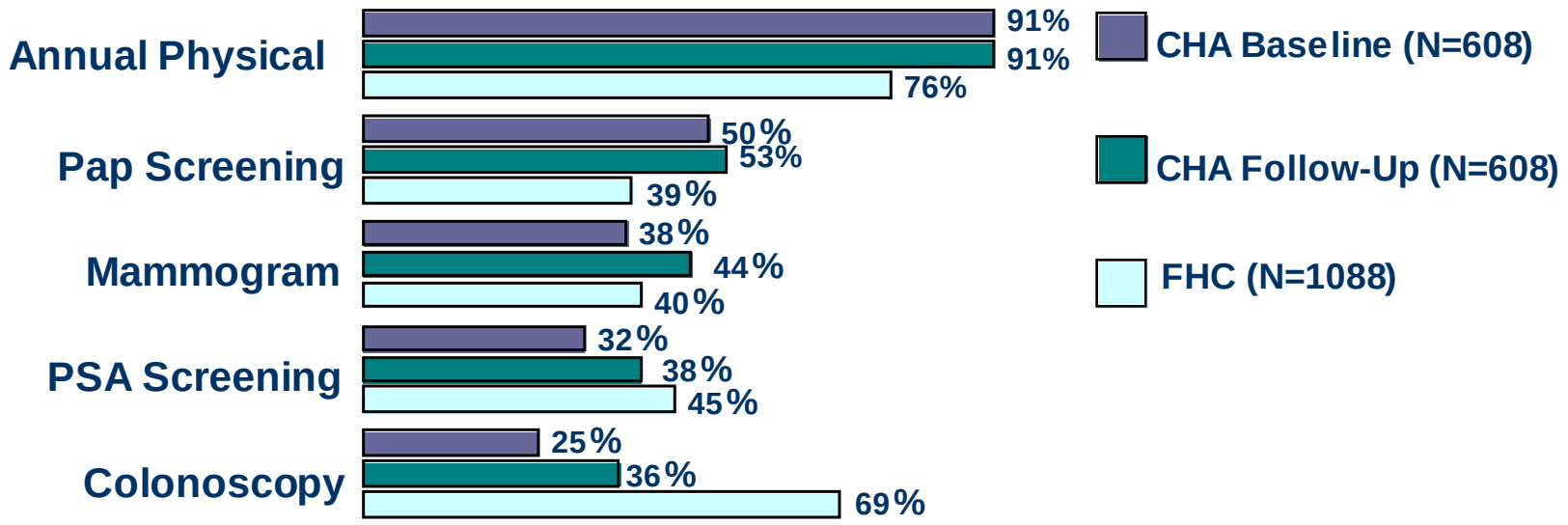
Key Findings

The proportion of CHA patients with A1c <7.0 increased from 43% at baseline to 48% at follow-up (P=NS).

The proportion of patients in CHA and FHC with desirable blood pressure was similar across groups (P=NS).

The proportion of CHA patients with a BMI in the healthy weight range increased from 12% to 13% which was significantly greater than the proportion of FHC with healthy BMI (8%).

Receipt of Preventive Care Services



Key Findings

91% of CHA patients received an annual physical exam, compared to 76% of FHC patients ($P<0.0001$).

Female CHA patients who received a Pap smear was significantly higher than FHC patients. ($P<0.0001$)

Female patients who received a mammogram did not differ significantly across groups (P=NS).

A greater proportion of male FHC patients received PSA screening compared to male CHA patients at baseline ($P<0.01$)

Colonoscopy rates were significantly greater among FHC patients compared to CHA patients ($P<0.0001$)

Conclusions

- This is year two of the project and there are already significant improvements seen specifically in these areas:
  - PCP
  - A1c test and value
  - BMI
  - Annual physicals