



Addressing Disparities in Health Outcomes through HIT

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The Institute for Family Health

HEALTH SERVICES

- 15 Community Health Centers
- 8 Homeless healthcare sites
- 2 School based health programs
- 3 Dental centers
- 2 Mental health centers
- 2 Free clinics
- 275,000 visits / 70,000 patients

HEALTH PROFESSIONAL EDUCATION

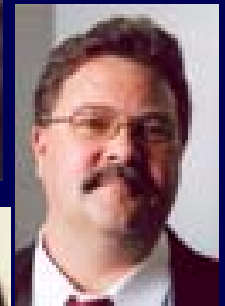
- 2 Family Practice Residency Training programs- one rural underserved , one urban underserved

SPECIAL PROGRAMS

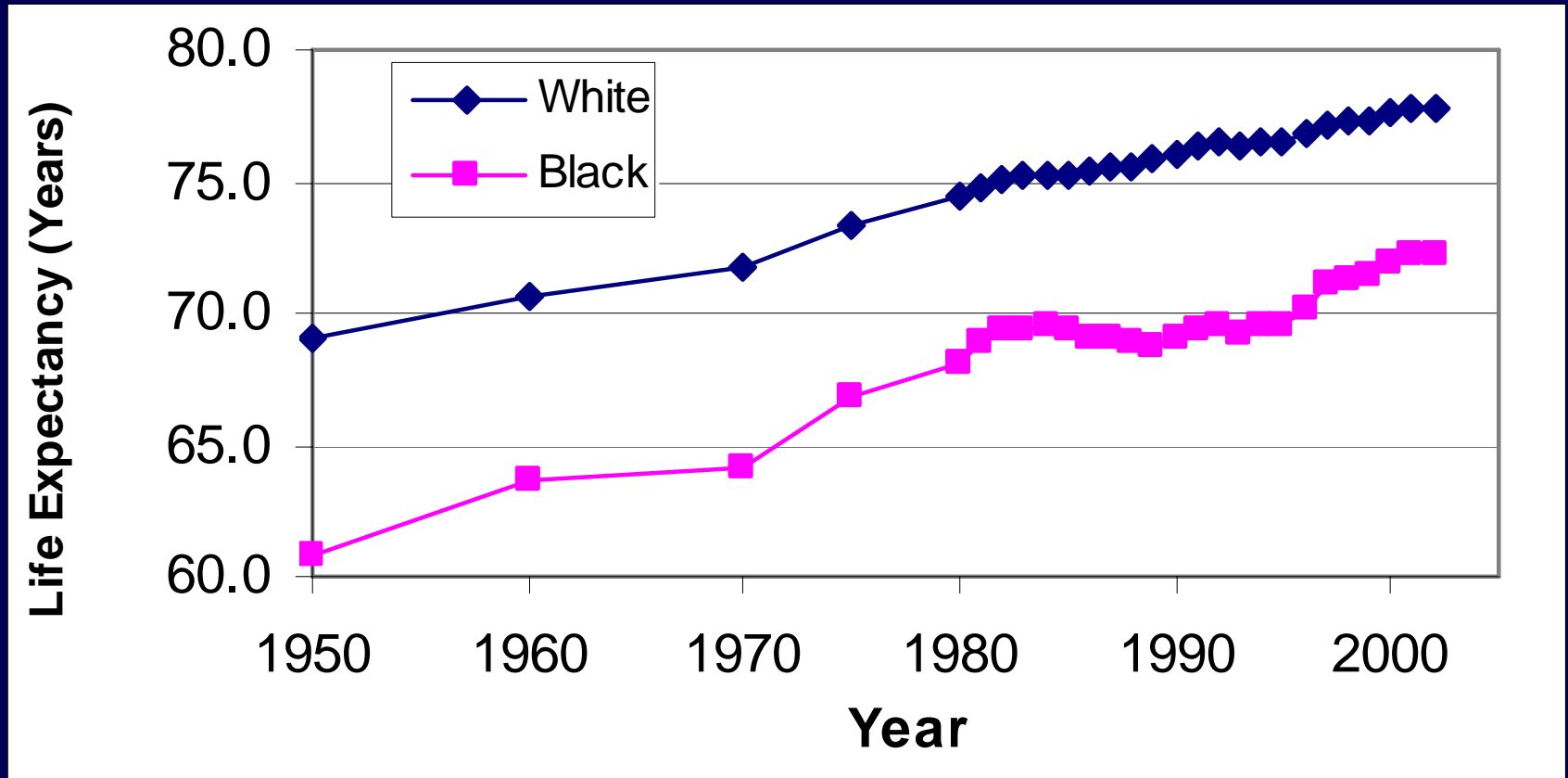
- 40 Grant Programs including
- Registered PBRN, In-house IRB

STAFF AND BUDGET

- Over 630 staff members:
- Budget of 54 million dollars annually

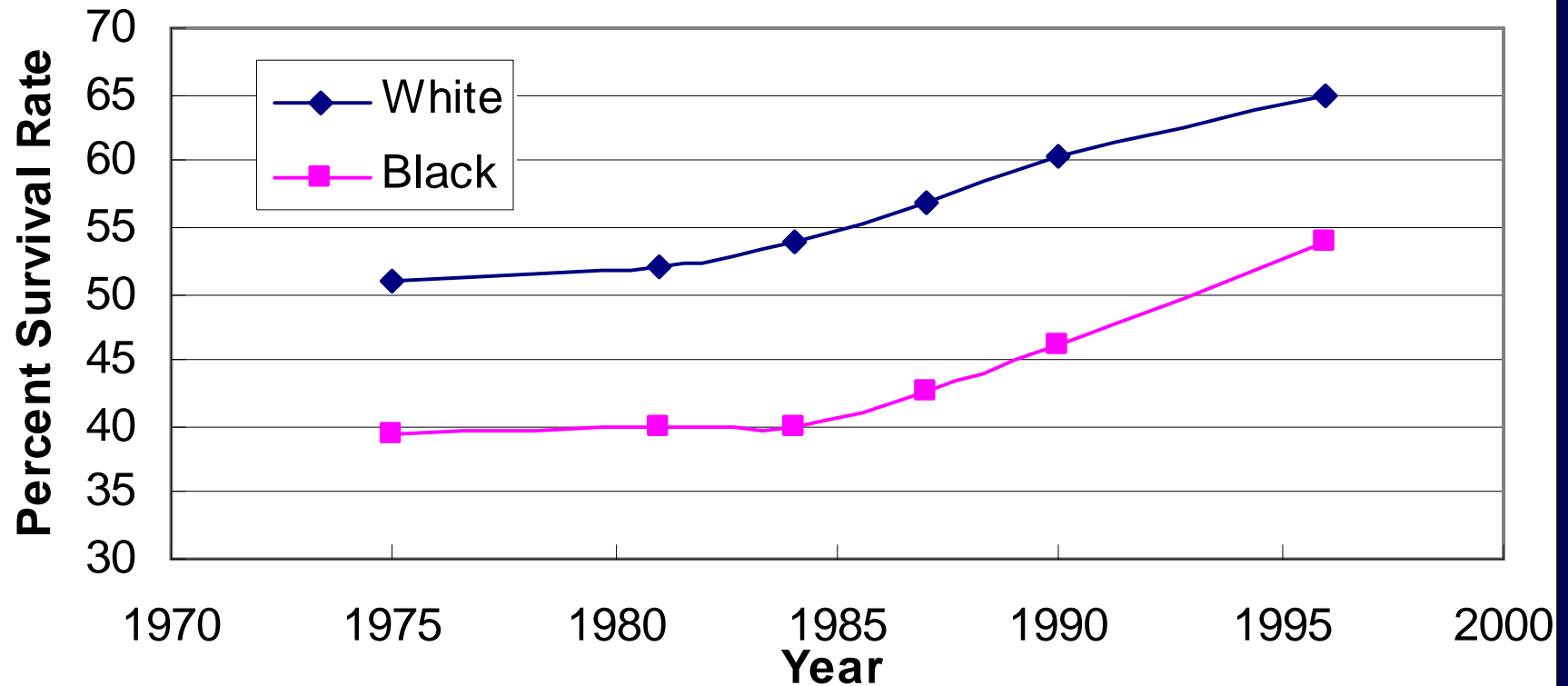


Life Expectancy at Birth

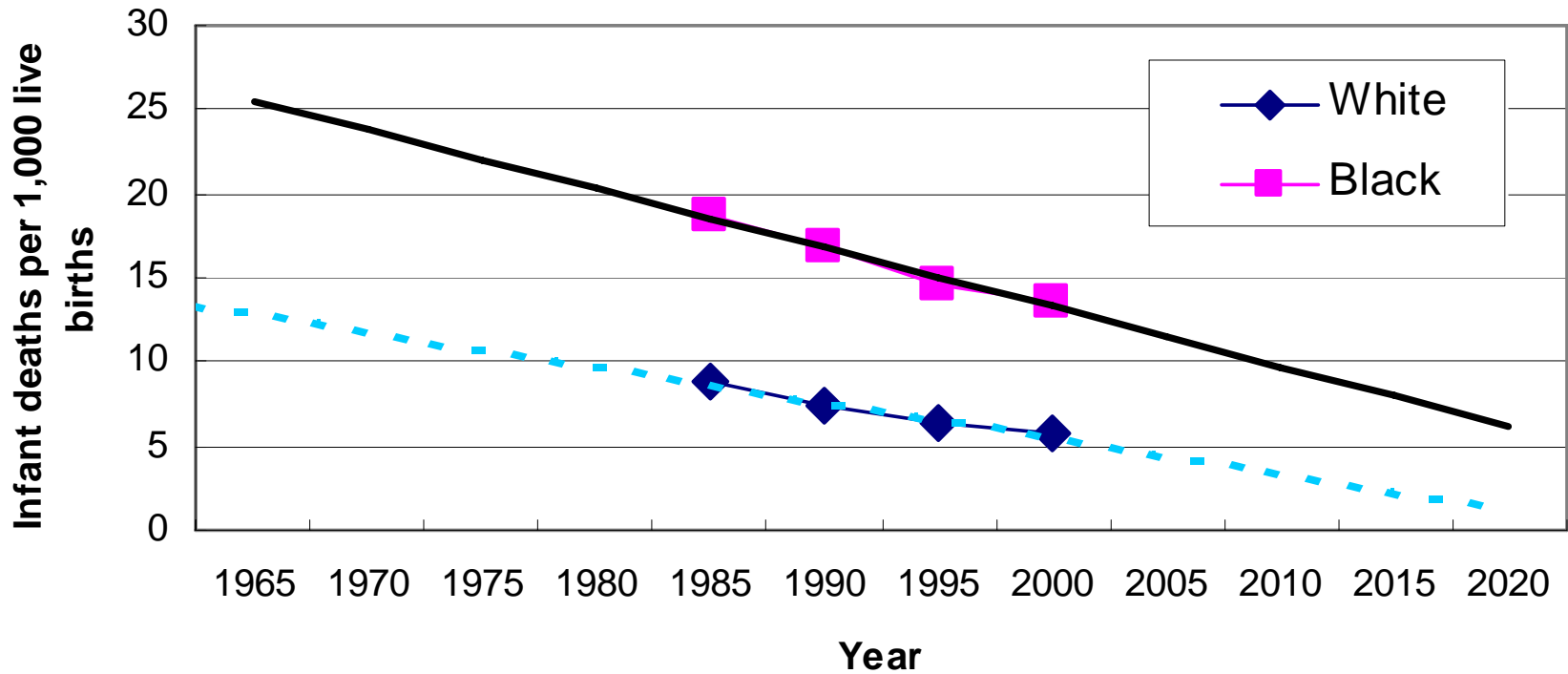


SOURCE: CDC/NCHS, Health, United States, 2004

Five-year Cancer (all sites) Survival Rate

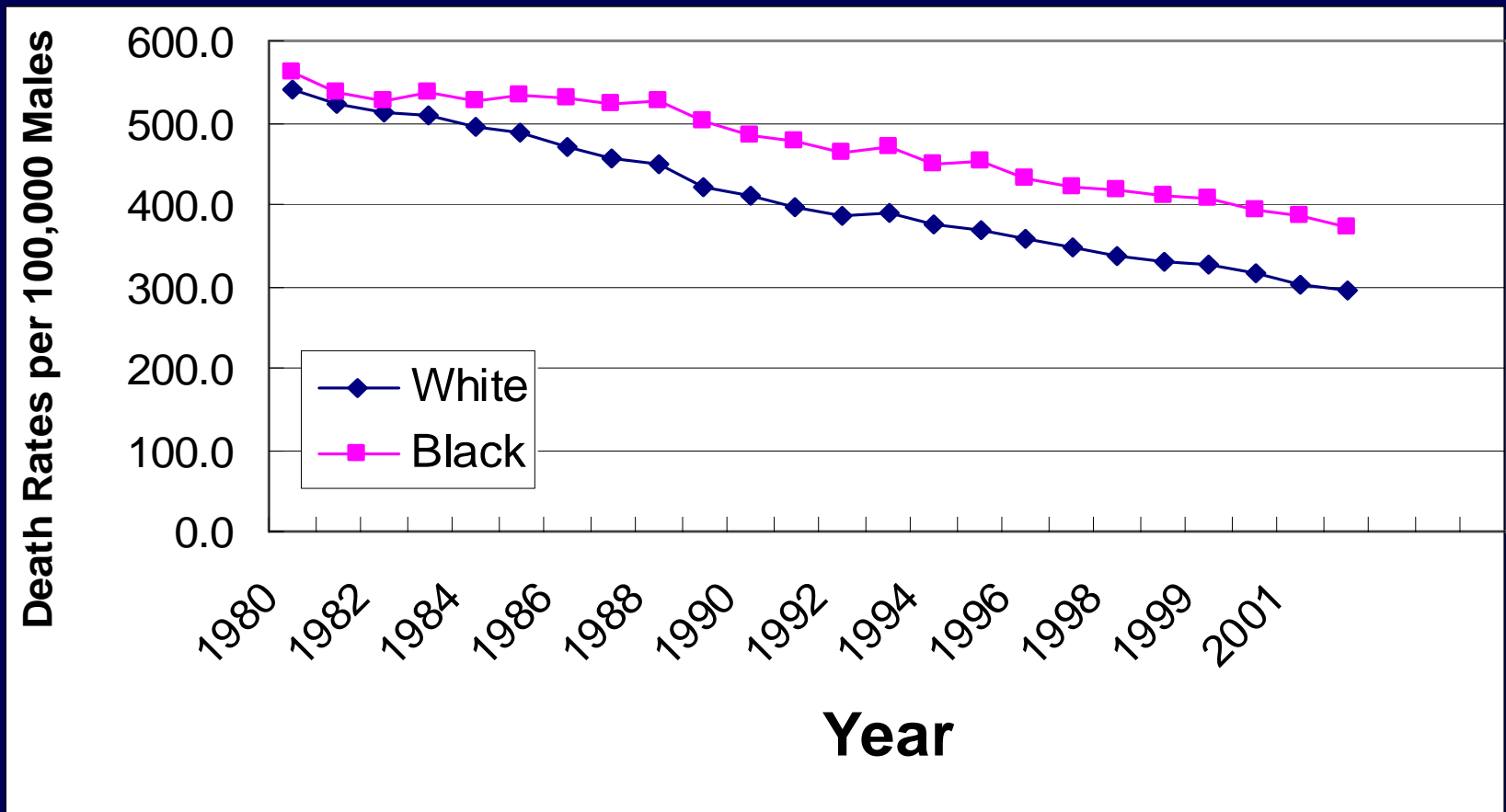


Infant Mortality Rates



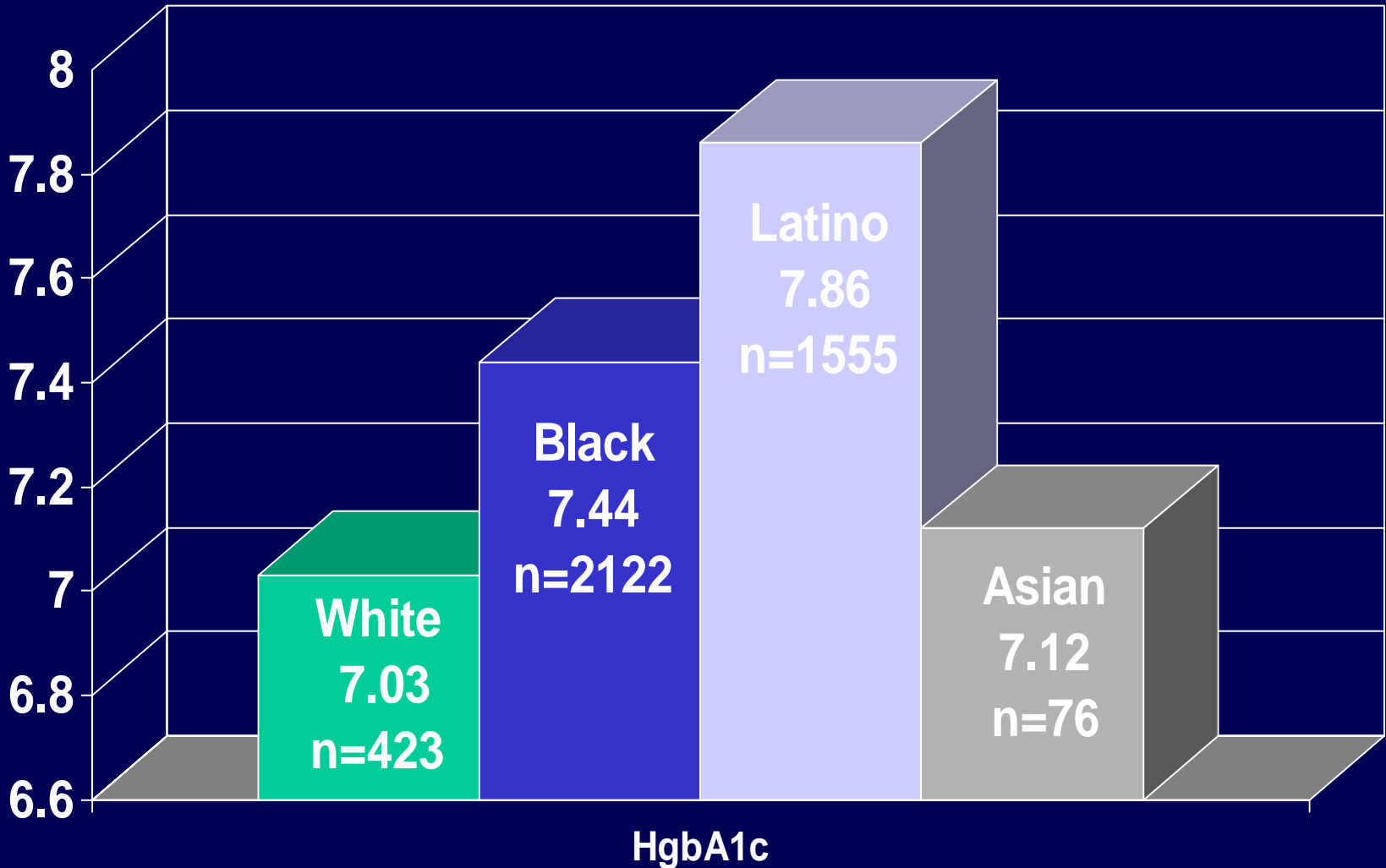
SOURCE: CDC/NCHS, Health, United States, 2004

Age-adjusted death rates for diseases of the heart per 100,000 males



SOURCE: CDC/NCHS, Health, United States, 2004

Last Hemoglobin A1c by Race





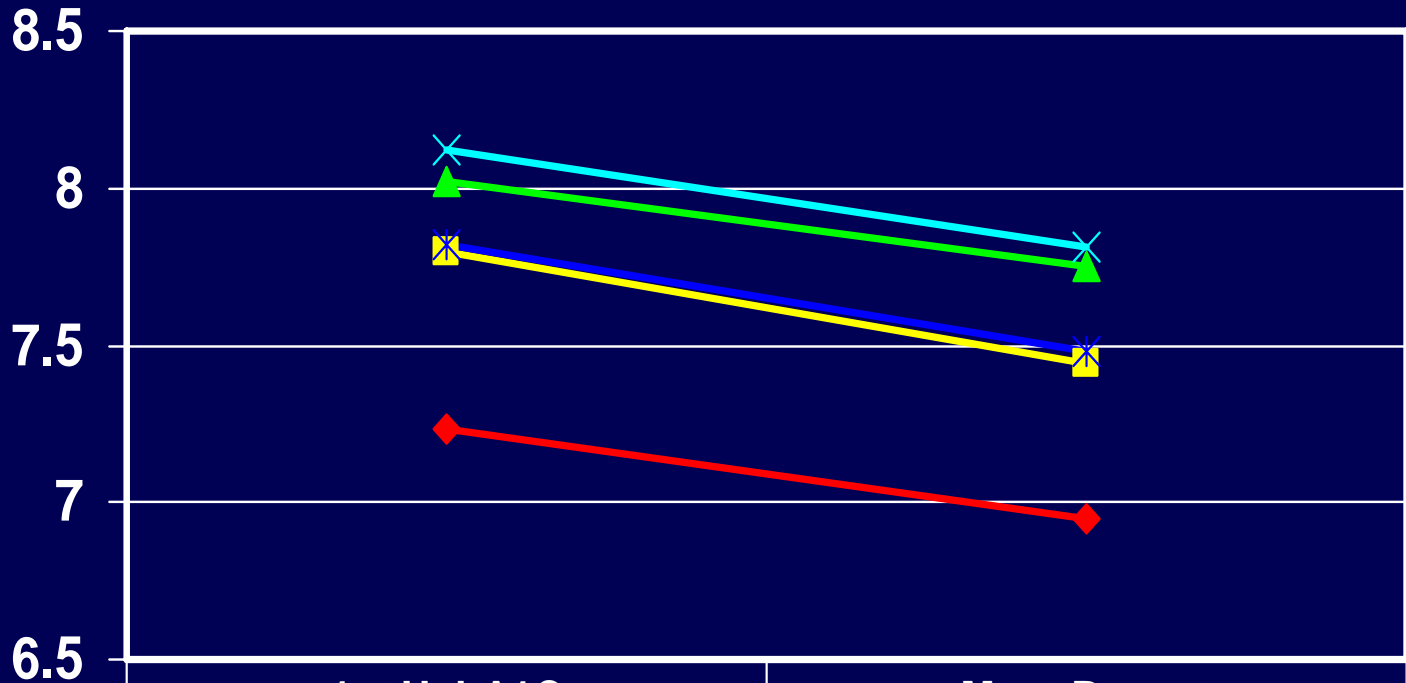
What happens in the year following patients' first high hba1c test ?

| Measure | White | Black | Hisp | P |
|--|-------|-------|------|------|
| Average number of office visits | 5.6 | 6.6 | 6.3 | .009 |
| Received a nutrition referral (%) | 15 | 20 | 17 | .169 |
| Received 1 or more hba1c tests (%) | 81 | 83 | 82 | .813 |
| Received 2 or more hba1c tests (%) | 51 | 53 | 50 | .496 |
| Received prescription for insulin | 25 | 27 | 26 | .828 |
| Received presc. for other diabetes med | 75 | 81 | 86 | .001 |
| N | 150 | 1021 | 777 | |

N represents all patients whose last recorded office visit was at least 365 days after the patient's first recorded hba1c test with a value of 7.5 or greater.



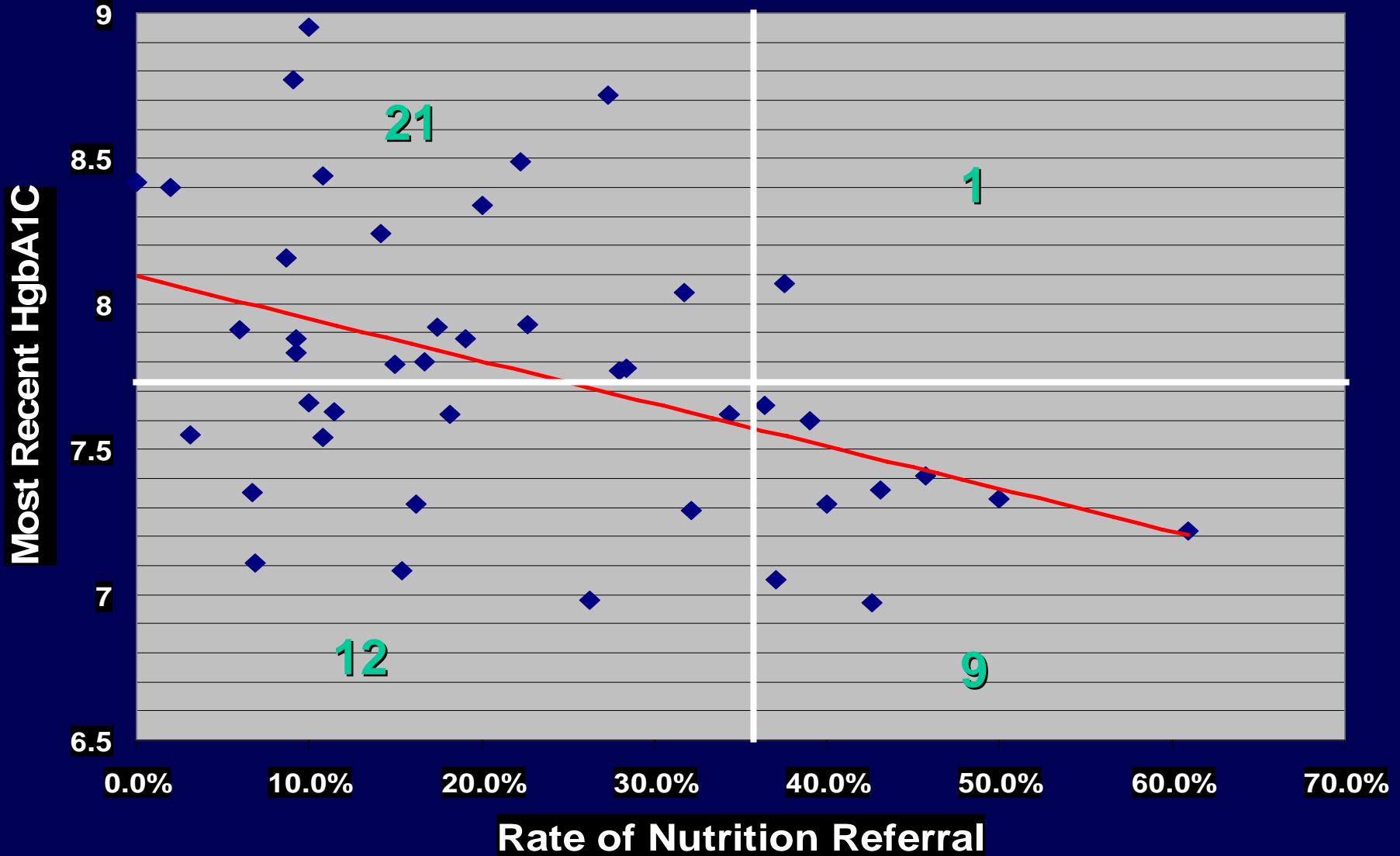
Reductions in HgbA1c with Treatment by Race /Language



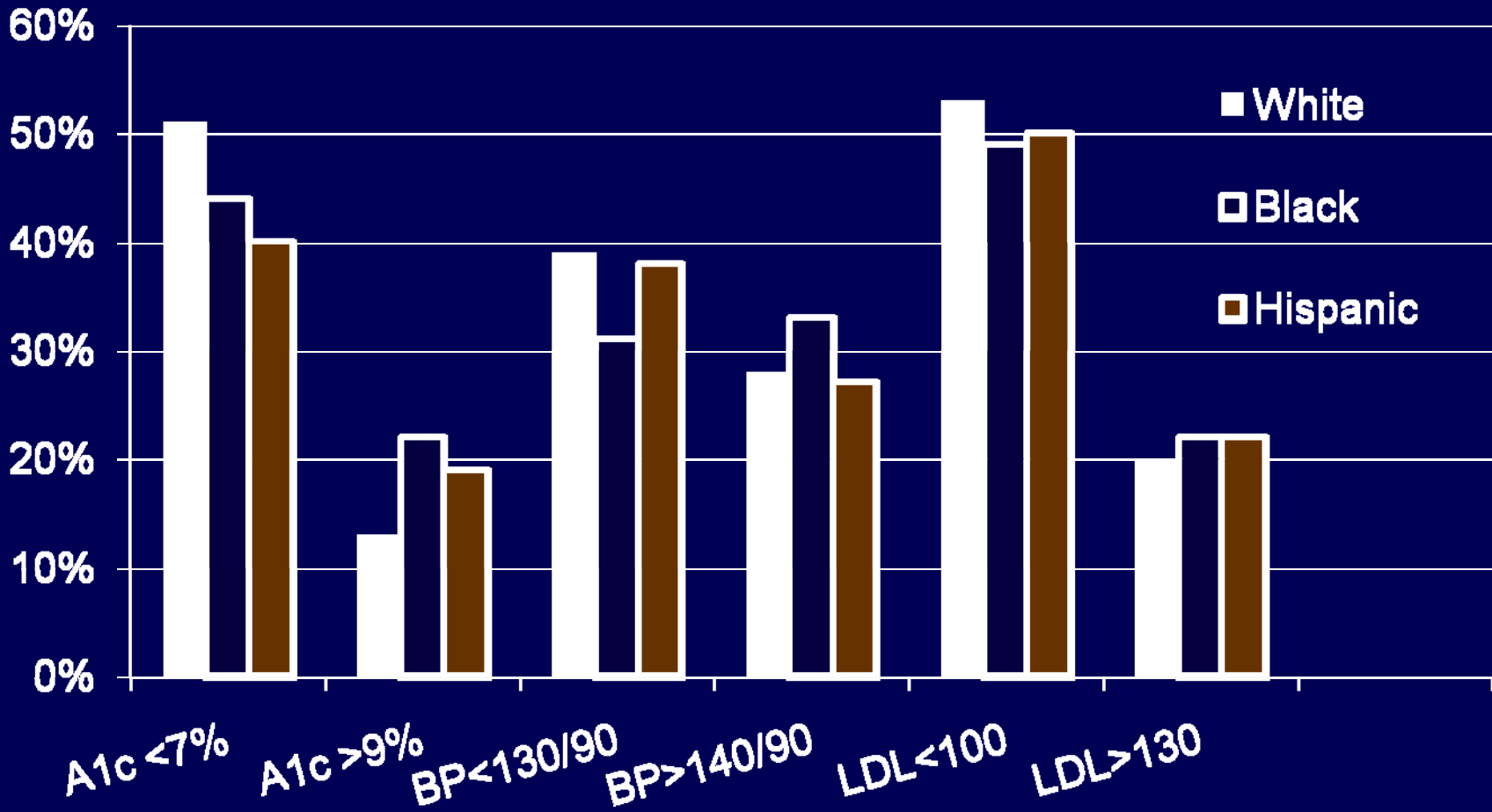
| | 1st HgbA1C | Most Recent |
|----------------|------------|-------------|
| ◆ White | 7.23 | 6.95 |
| ■ Black | 7.80 | 7.44 |
| ▲ Latino-Eng | 8.02 | 7.75 |
| ✕ Latino- Span | 8.12 | 7.81 |
| ✱ Other | 7.82 | 7.48 |



Average Last HgbA1c each provider's diabetic patients vs. their rate of nutrition referral

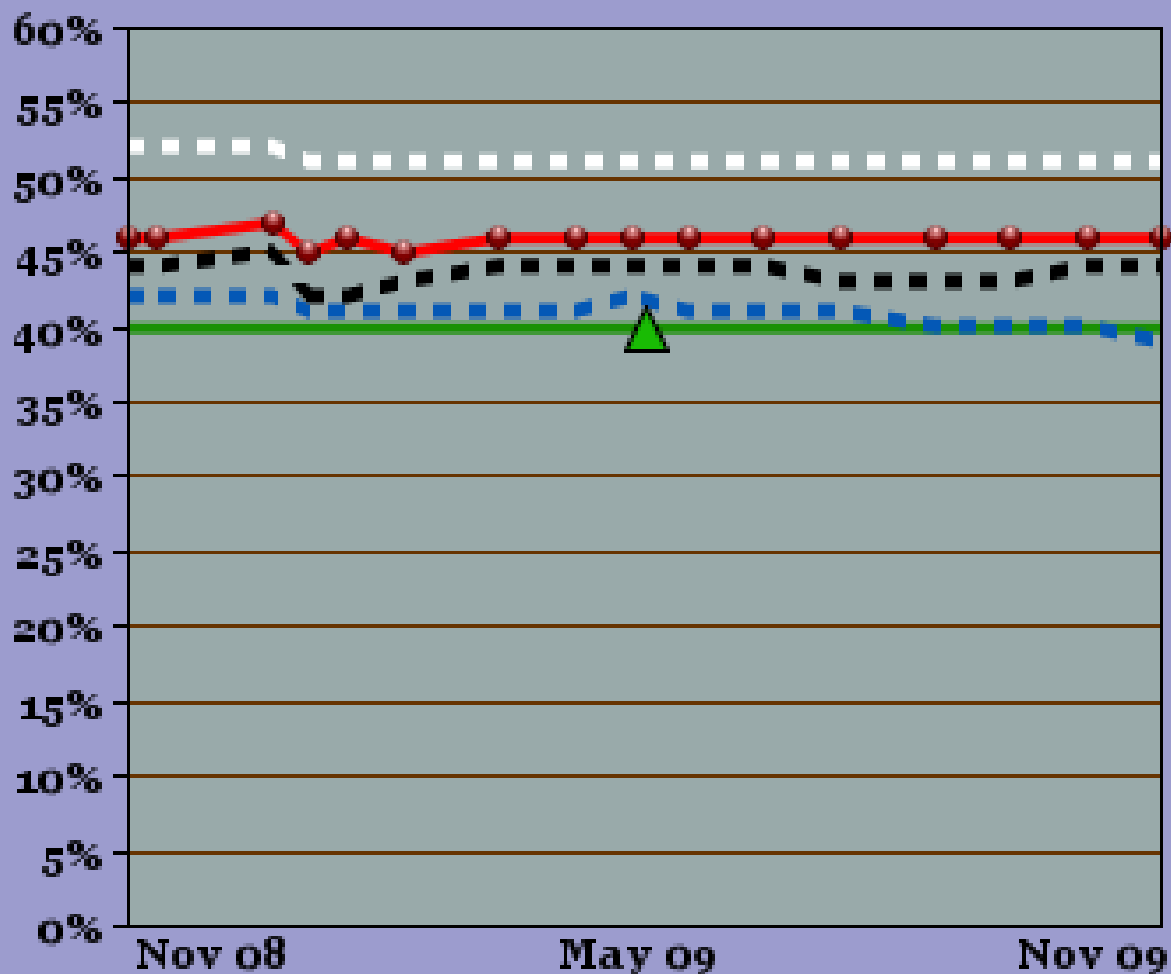


Racial Disparities in A1c, BP and LDL Control at the Institute



A1C < 7% (Goal is >40% of panel)

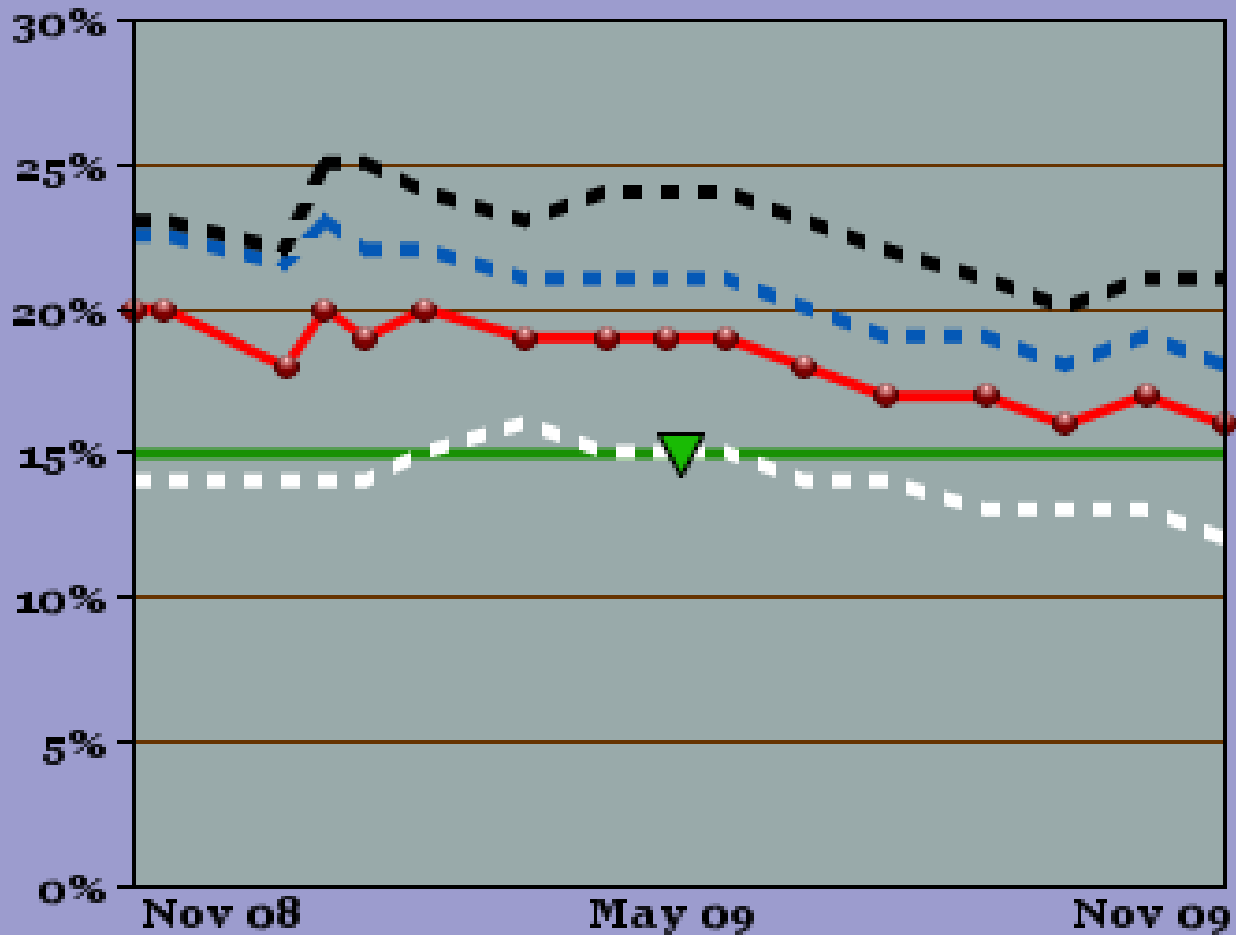
● INSTITUTE ■ Black ■ White ■ Hispanic



INSTITUTE AVERAGE

A1C > 9% (Goal is ≤15% of panel)

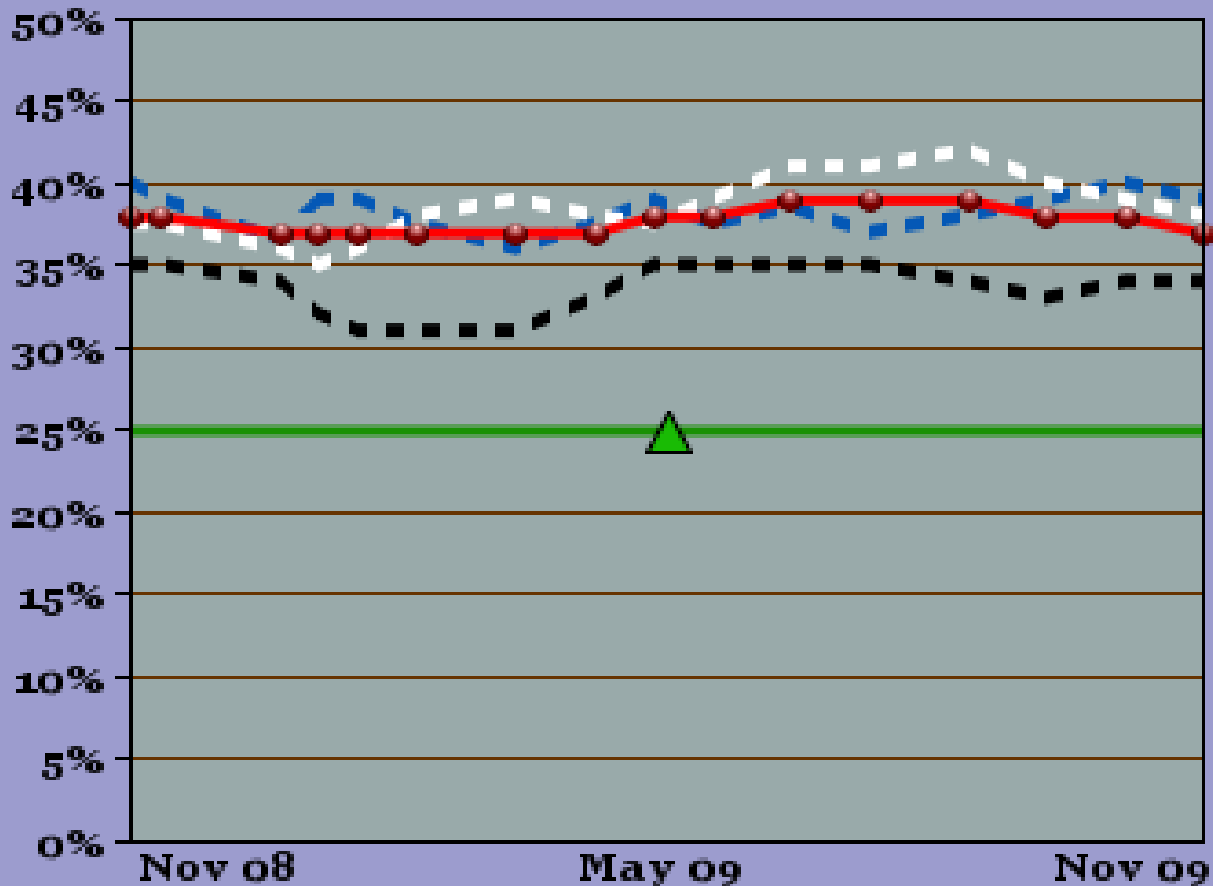
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INSTITUTE AVERAGE

BP < 130/80 (Goal is >25% of panel)

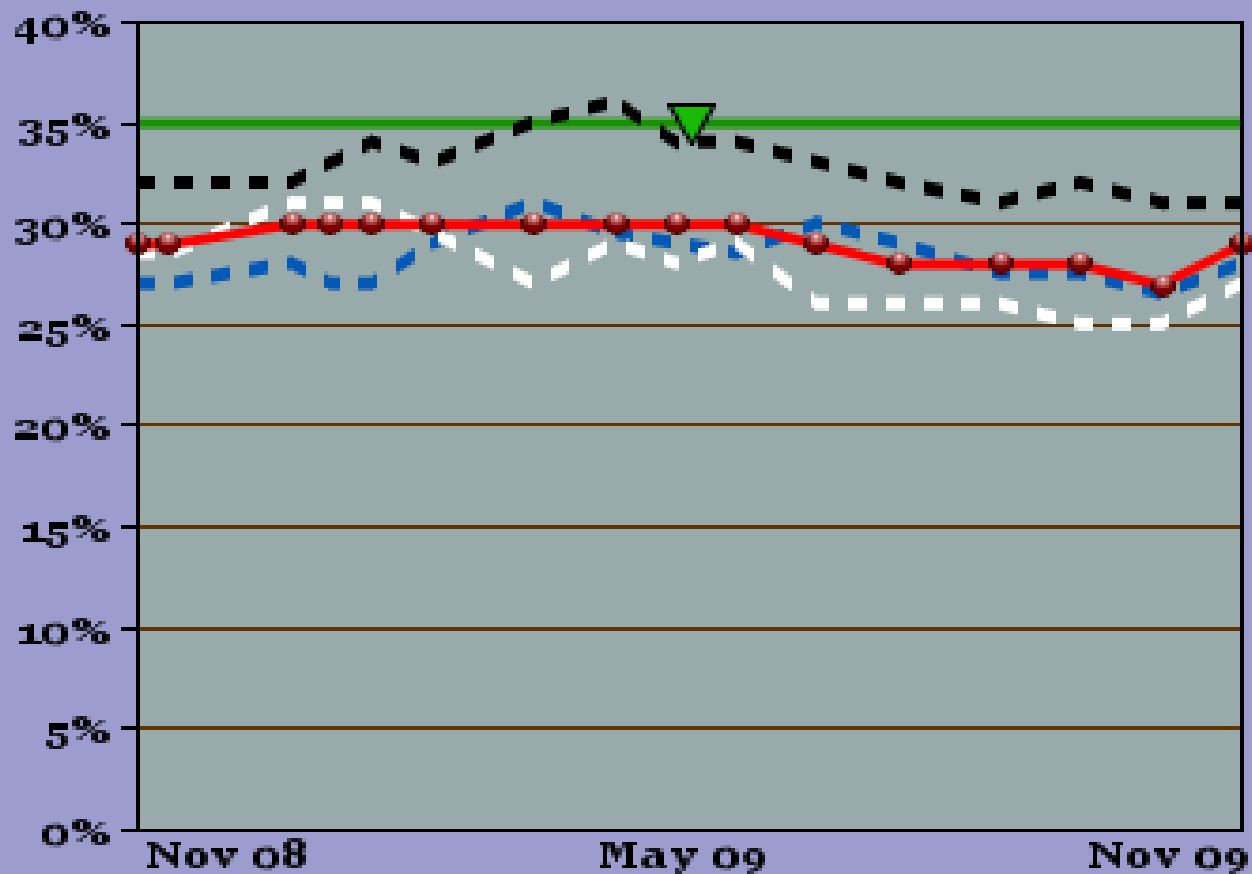
● INSTITUTE
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INSTITUTE AVERAGE

BP \geq 140/90 (Goal is \leq 35% of panel)

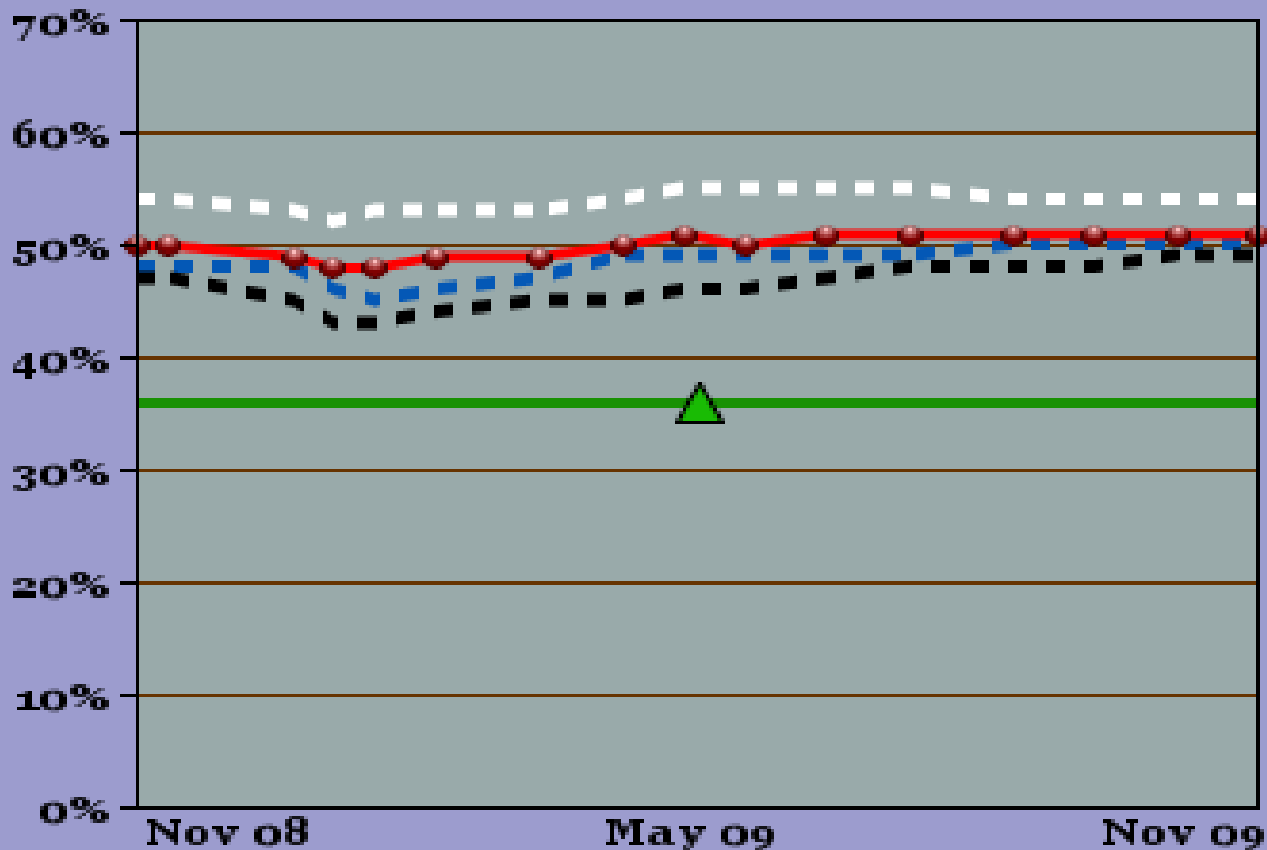
● INSTITUTE ■ Black □ White ■ Hispanic



INSTITUTE AVERAGE

LDL < 100 (Goal is >36% of panel)

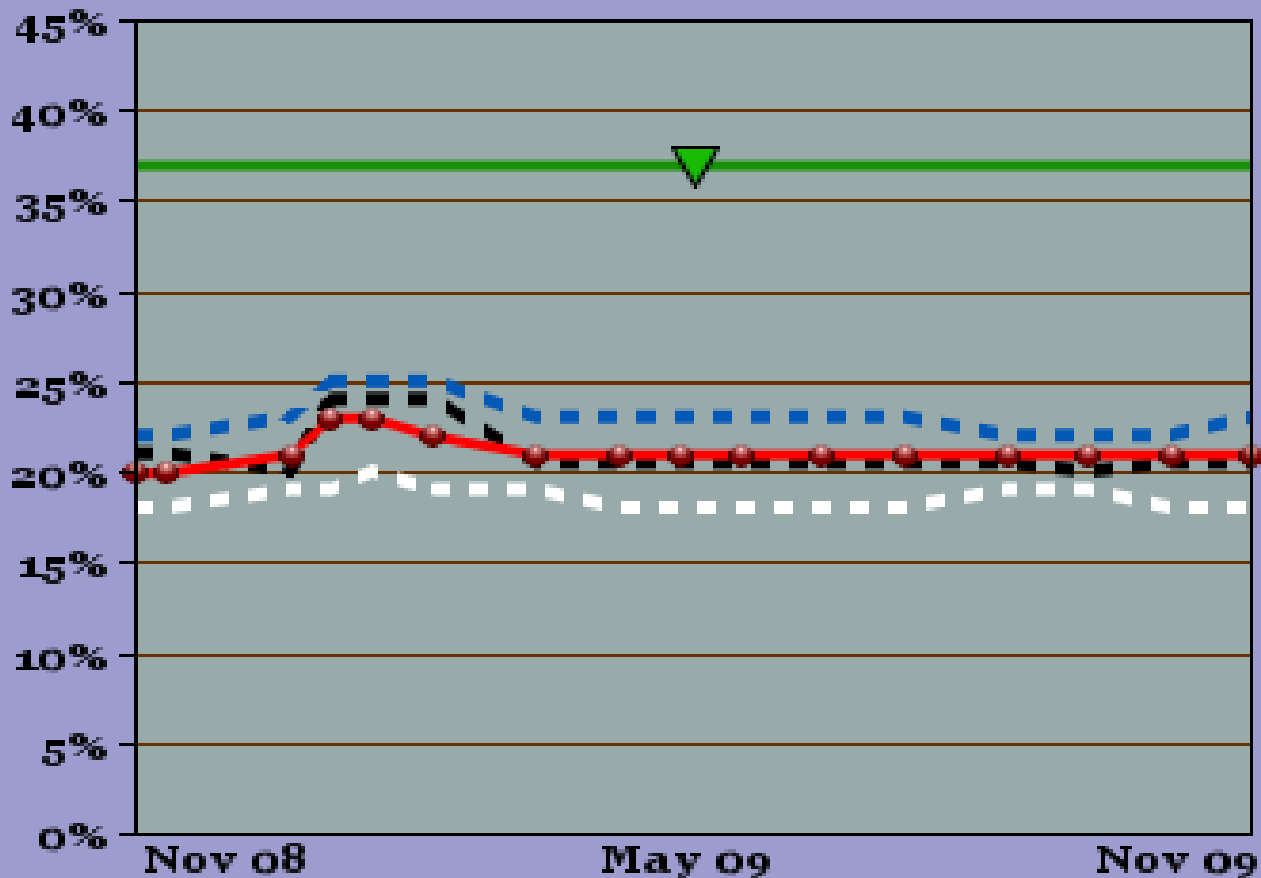
● INSTITUTE ■ Black ■ White ■ Hispanic



INSTITUTE AVERAGE

LDL \geq 130 (Goal is \leq 37% of panel)

● INSTITUTE
 ■ Black
 ■ White
 ■ Hispanic



INSTITUTE AVERAGE



Interventions that are being targeted to those patients whose A1c is >8.0

| Type | Intervention |
|-----------|--|
| EHR | Diabetes Registry |
| | Diabetes Disparity Reports |
| | Clinical Alerts for Uncontrolled A1C, BP, Lipids |
| Personnel | Hired Diabetes Educators |
| | Established Diabetes Medical Director |
| | Staff Education |
| Workflow | More frequent visits for DM patients wit A1c >9 |
| | Outreach to those who do not have follow-up appointments |
| | Onsite A1C testing |
| | CDE led diabetes group visits |
| | Assigned monofilament testing to nurses |
| | Screened all diabetics for depression with PHQ-2 |



The challenge is how we use what we learn about health disparities to support the changes that we can make in our practices to reduce or eliminate disparities in health outcomes