THE INSTITUTE FOR URBAN FAMILY HEALTH

Electronic Medical Records

"Electronic Medical Records Can Help Eliminate Racial Disparities in Health Outcomes"

Neil Calman, MD
President and CEO
Kwame Kitson, MD
Medical Director
The Institute for Urban Family Health

September 2004

THE INSTITUTE
FOR URBAN
FAMILY HEALTH

What do we mean by health disparities?

THE INSTITUTE FOR URBAN FAMILY HEALTH

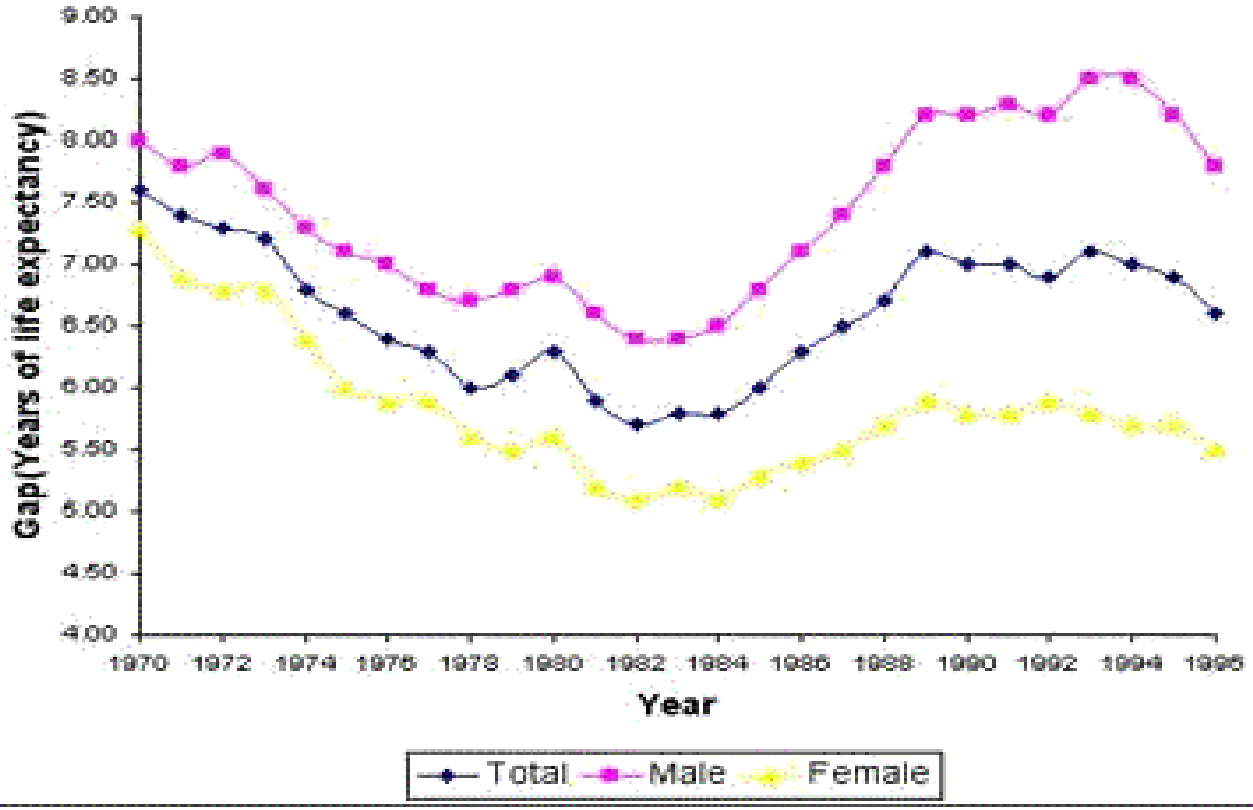
Defining Health Disparities

- A difference in life expectancy between people of color and whites - whites have a life expectancy of approximately 7 years longer than African-Americans
- A difference in health care access and in the treatment given by health care providers
- A difference in the outcomes of diseases – all else being equal
- A difference in the complication and death rates of common diseases

THE INSTITUTE FOR URBAN FAMILY HEALTH

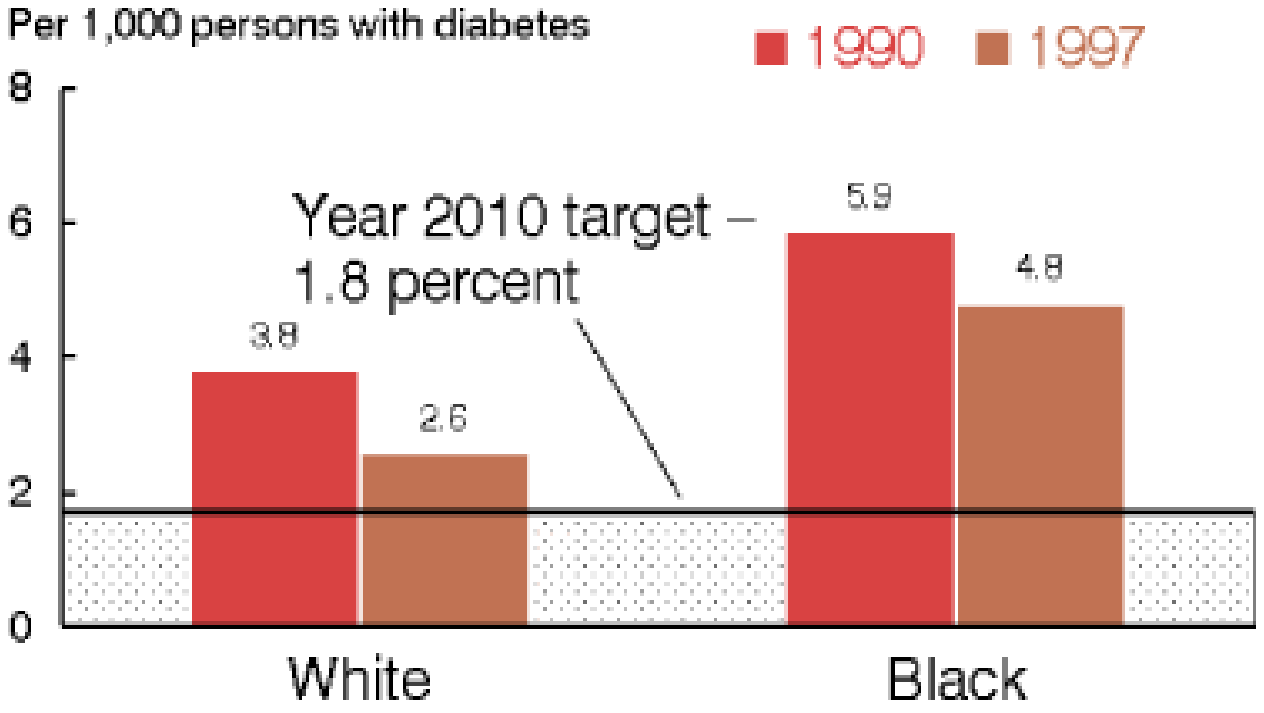
Documenting Racial Disparities ..... LIFE EXPECTANCY

Figure 1. Trends in the racial gap in life expectancy between whites and blacks, United States, 1970-1996



THE INSTITUTE FOR URBAN FAMILY HEALTH

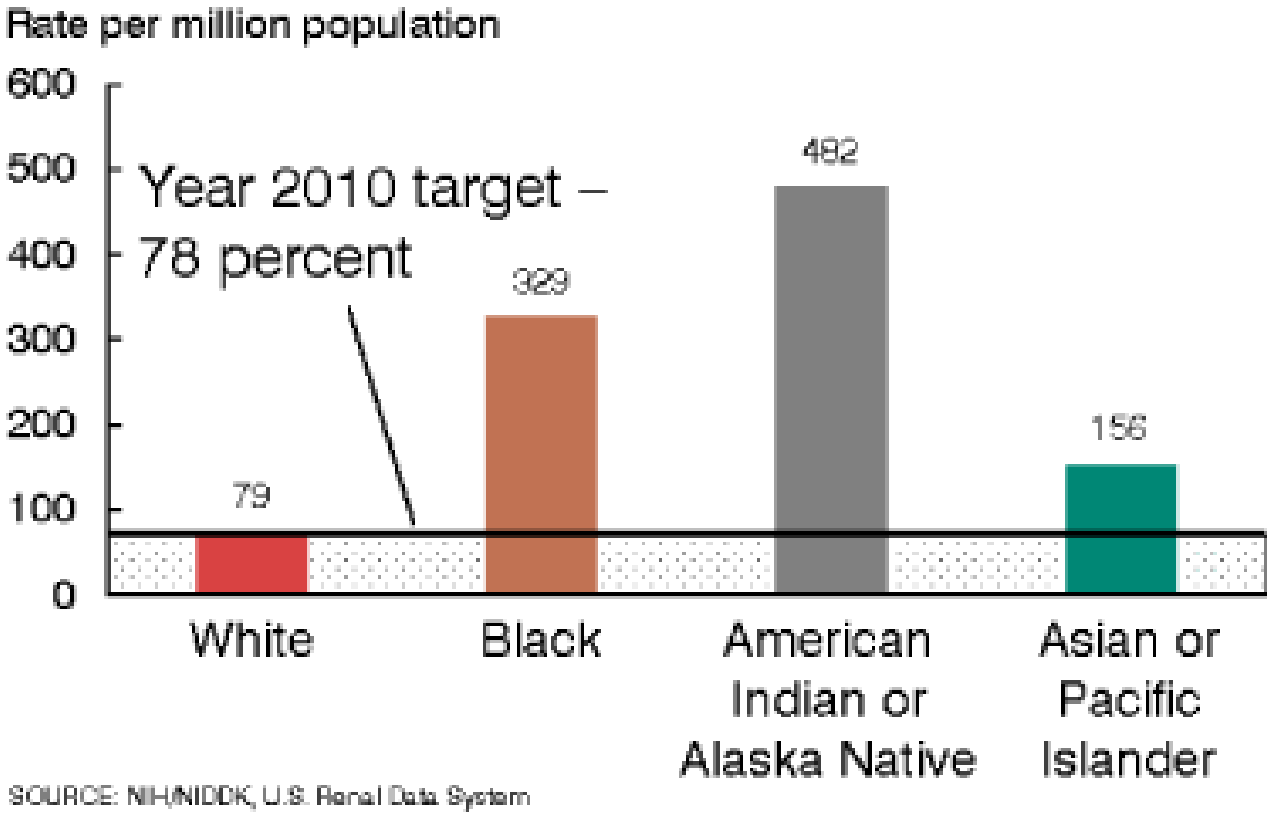
Lower extremity amputations in persons with diabetes (age adjusted to the year 2000 standard population)



SOURCE: CDC/NCHS, National Hospital Discharge Survey and National Health Interview Survey

THE INSTITUTE FOR URBAN FAMILY HEALTH

Persons with diabetes and end-stage renal disease, 1996



SOURCE: NIH/NIDDK, U.S. Renal Data System

THE INSTITUTE FOR URBAN FAMILY HEALTH

Diabetes Complications

- Kidney Disease
  - The rate of diabetic end stage renal disease is 2.7 times higher among African Americans than among whites.
- Eye Disease
  - Rates of blindness due to diabetes are only half as high for whites as they are for rest of the population.
- Mortality
  - Diabetes-related mortality rates for African-Americans, Hispanic Americans, and American Indians are higher than those for white people.

Source: CDC/ AHRQ

THE INSTITUTE FOR URBAN FAMILY HEALTH

Cancer

- Hispanics have a higher incidence and higher mortality rates due to cancer of the stomach, liver, and cervix than non-Hispanic Whites. (Source: American Cancer Society)

THE INSTITUTE
FOR URBAN
FAMILY HEALTH

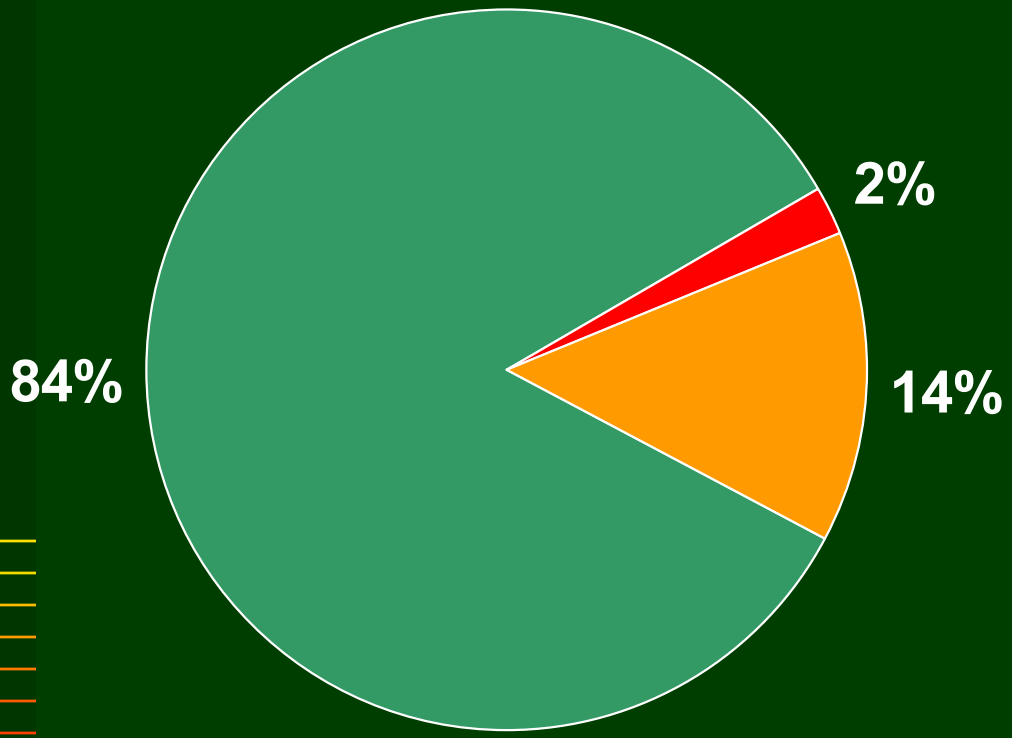
Disparities in Diagnostic Care

- The length of time between an abnormal screening mammogram and the follow-up diagnostic test to determine whether a woman has breast cancer is more than twice as long for Asian American, black, and Hispanic women as for white women.

(Source: CDC/ Agency for Healthcare Research and Quality)

THE INSTITUTE FOR URBAN FAMILY HEALTH

Discrimination in Care



- Whites more likely to receive appropriate care
- Minorities more likely to receive appropriate care
- No difference in care

Source: Kaiser Family Foundation

THE INSTITUTE FOR URBAN FAMILY HEALTH

CDC Grant to End Disparities in Diabetes and Cardiovascular Disease in the Bronx

- Covers 4 Zip codes in the Bronx with a total population of 250,000 people
- Coalition of 40 community-based organizations and faith organizations
- Many patients have enormous health and social problems that need to be addresses
- Primary and secondary prevention often take a back seat to dealing with urgent issues
- The “check-up” is replaced by dealing with health maintenance issues at every visit

THE INSTITUTE FOR URBAN FAMILY HEALTH

The Institute for Urban Family Health

- Owns 6 Federally-qualified community health centers (FQHCs) and operates 6 other centers for Continuum Health Systems – its partner hospital system.
- Operates 9 additional part-time sites which provide care to people who are homeless
- Co-sponsors a family medicine residency program and operates its model family practice
- Receives 18 different Federal, State and private grants to serve people with special health care needs

THE INSTITUTE FOR URBAN FAMILY HEALTH

EPIC

- Installed in 12 full-time centers in Fall 2001 with EpicCare roll-out in Spring 2002
- Installed in Residency Program July 2004
- Installation planned for part-time homeless health care sites for 2005

THE INSTITUTE
FOR URBAN
FAMILY HEALTH

The Community Speaks ….

Focus Group Findings On Trust:

"For a black man and a white man with the same symptoms, they send the Black man home and put the white guy in the hospital for observation."

THE INSTITUTE FOR URBAN FAMILY HEALTH

How We Build Trust

- Roles and responsibilities of health care providers in the information age
  - Provide information to patients to help them make decisions about their own health-related behaviors and their own health care choices
  - Provide advice, diagnosis and treatment of health care problems as well as preventive health guidance and procedures
  - Provide care in a way that safeguards patients from medical and nursing errors
  - Maintain a complete database of readily available health education information
  - Make health education materials readily available to them
  - Let them “own” their own medical records

THE INSTITUTE FOR URBAN FAMILY HEALTH

The Institute's Implementation of EMRs to Reduce Health Disparities: Flat Panel Displays

- Flat Panel displays were chosen so they could be seen by both the provider and the patient.
- This changes the fundamental sense of secrecy that has previously surrounded the medical record
- Tablets were rejected because they were the least able to be shared with patients
- Workflows and dialogs have to be re-learned to be comfortable using the display as part of the patient encounter.

THE INSTITUTE FOR URBAN FAMILY HEALTH

The Institute's Implementation of EMRs to Reduce Health Disparities: Printers in Every Exam Room

- Epic provides excellent resources for making patient education a part of the encounter
- We routinely print a custom designed After Visit Summary which has patient friendly headers like "These are the vital signs that were taken today" and "There are the orders that were made today in your care"
- Patients are encouraged to review and keep copies of all of their AVS notes
- Labs which come back through the interface can be printed and a copy given to patients in the exam room

THE INSTITUTE FOR URBAN FAMILY HEALTH

The Institute's Implementation of EMRs to Reduce Health Disparities: Printers in Every Exam Room

- Health education materials available in both English and Spanish are printed in the exam room and may be annotated as the provider reviews the information for the patient
- Weight and Blood Pressure Monitoring can be graphed and printed for the patients – an excellent motivational tool – especially if they are doing well
- Patients walk out with paper – sufficient to provide them a complete view of their health status and details of all the things that were recorded about them.

THE INSTITUTE FOR URBAN FAMILY HEALTH

The Institute's Implementation of EMRs to Reduce Health Disparities: Reports

- We are now able to follow-up on issues never before possible.
  - Consults ordered but no report has been received
  - Chronic medications that are not being renewed at the right intervals
  - Patients who are missing certain health maintenance procedures appropriate for their gender and age

THE INSTITUTE FOR URBAN FAMILY HEALTH

The Institute's Implementation of EMRs to Reduce Health Disparities: BPAs

- In low income communities of color in New York City, patient have many social and economic concerns and health care is sometimes relegated to a lower priority
- We have eliminated the concept of the "check-up" and used BPAs to remind providers at every visit of what health maintenance and early detection procedures are needed at the time of every visit
- Reports enable us to outreach to patients who are not coming in for a visit but who are missing critical health maintenance procedures

THE INSTITUTE FOR URBAN FAMILY HEALTH

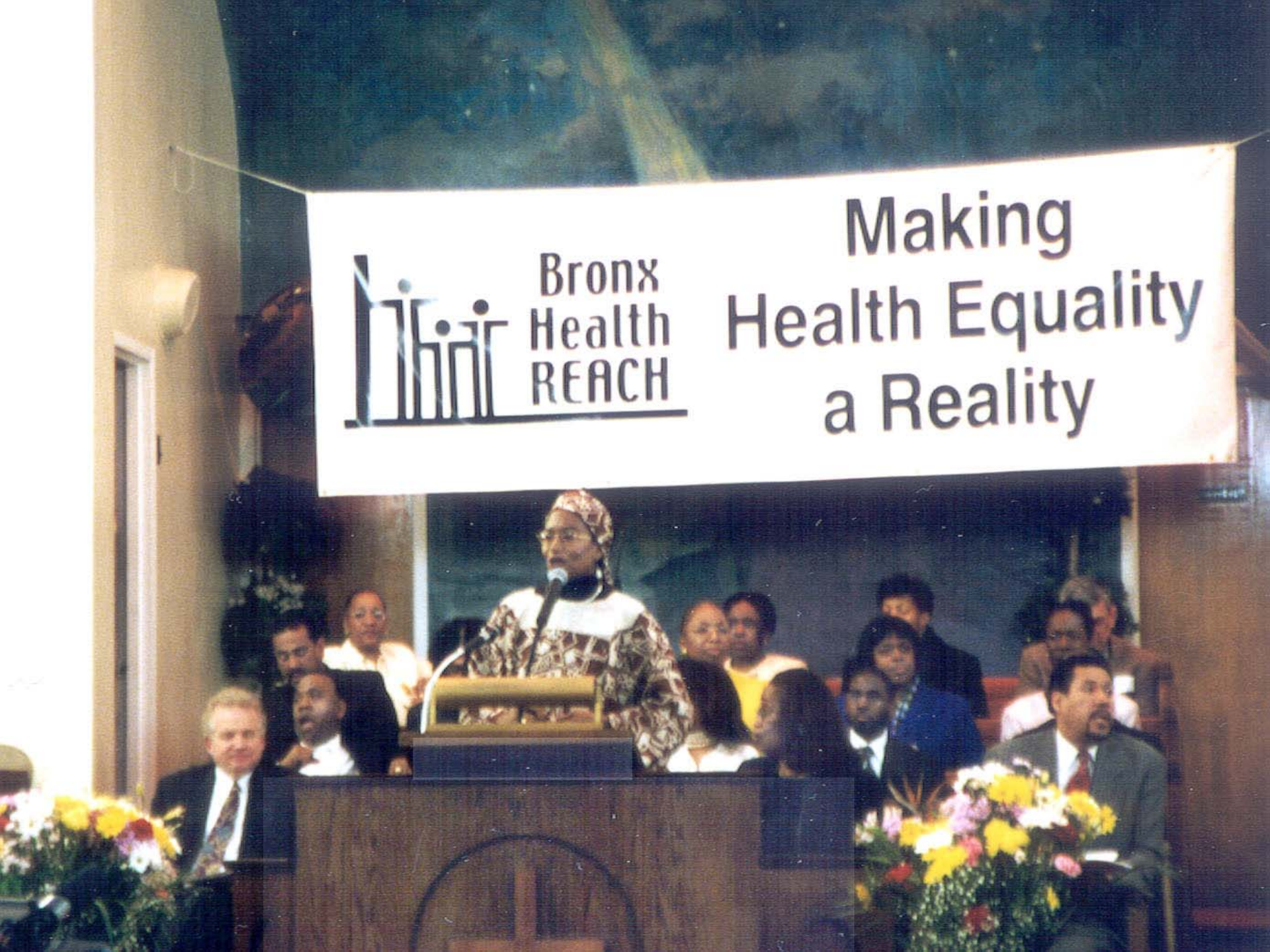
The Institute's Implementation of EMRs to Reduce Health Disparities: Letters

- Providers are encouraged to send letters to patients with all results that come back from diagnostic procedures
- Many templated letters make communication with patients easier and provide patients with further documentation of what tests they had done and what the next step is.
- Receiving communications from doctors helps to build a trusting relationship.
- If patients expect results letters than they stop calling the office for results and this increases efficiency of the practice

THE INSTITUTE FOR URBAN FAMILY HEALTH

Questions for Thought !

- Ethical questions we must still face in the roll-out of electronic medical records
  - How do we redefine the roles and responsibilities of the providers and the patients ?
  - What do we do with all the information we now have ?
  - What responsibility do we have to reach out to patients with information ?
  - Where do the resources come from in the outreach and follow-up which needs to be done ?
  - How do we prioritize our efforts without an adequate scientific basis for what we are doing ?


Bronx
Health
REACH
Making
Health Equality
a Reality

THE INSTITUTE
FOR URBAN
FAMILY HEALTH

THE INSTITUTE
FOR URBAN
FAMILY HEALTH

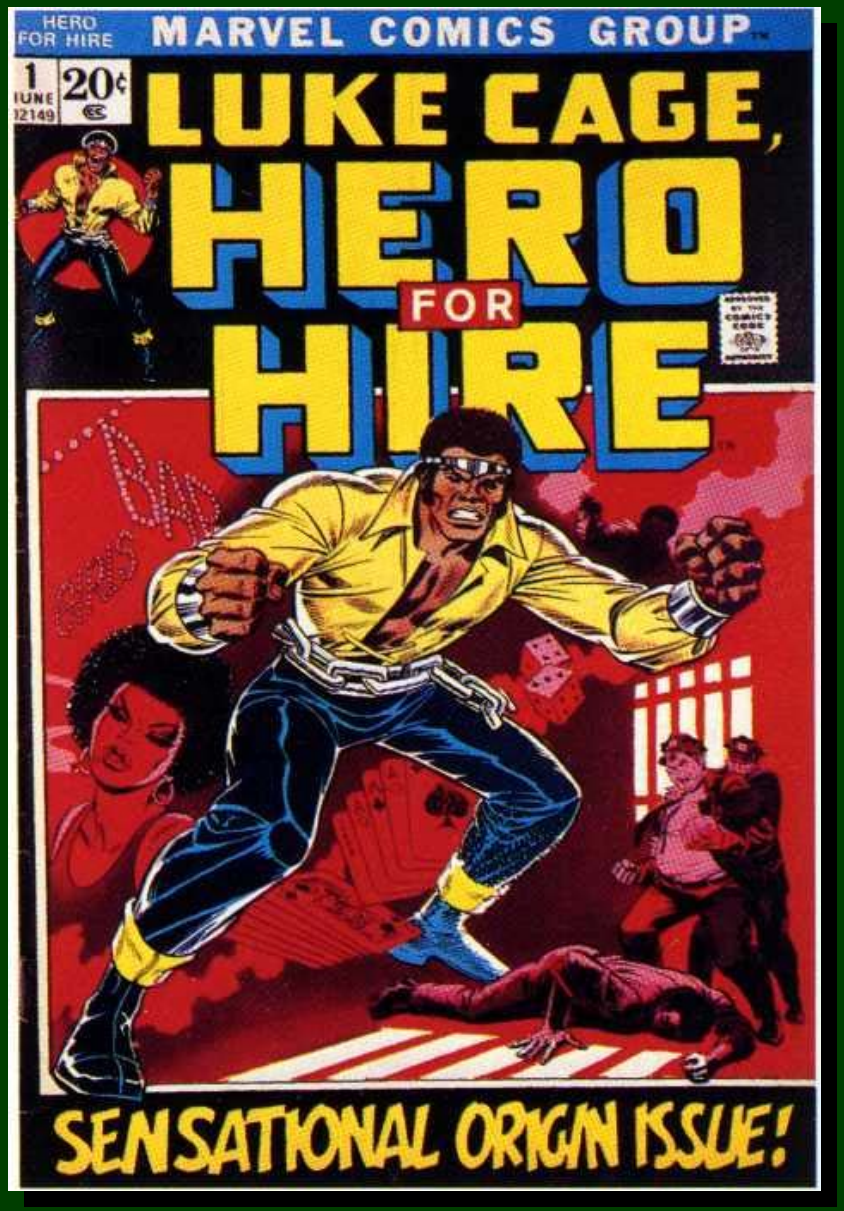
Using Technology to Improve Quality of Care

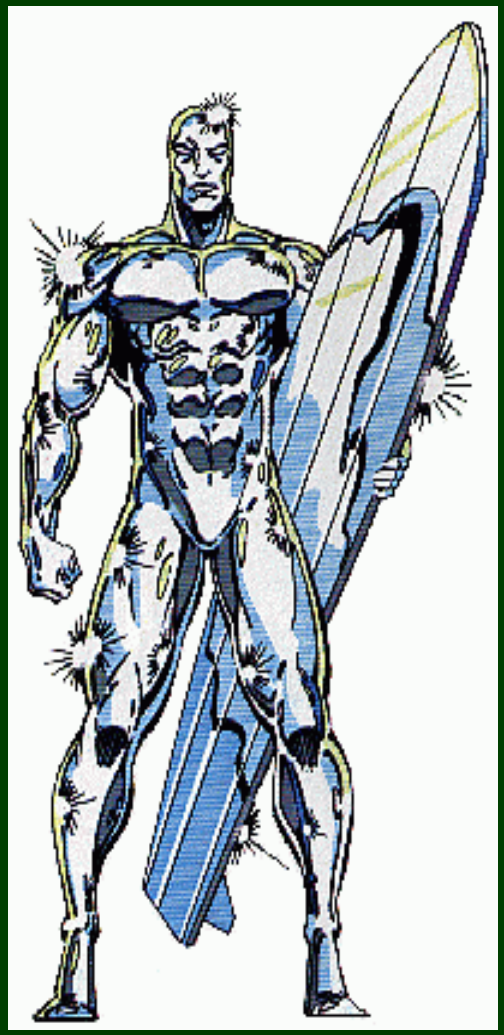
Kwame A. Kitson, MD

Medical Director

The Institute for Urban Family Health

THE INSTITUTE
FOR URBAN
FAMILY HEALTH





THE INSTITUTE FOR URBAN FAMILY HEALTH

IUFH Pre-EpicCare CQI Review

- Resource allocation limited organization- wide QI topic review to three topics per year.
- Areas covered included HIV, diabetes, adolescent screening for tobacco and substance abuse, postpartum care
- Interventions that worked best were those that facilitated better documentation by providers (example: stamps)

THE INSTITUTE FOR URBAN FAMILY HEALTH

IUFH Pre-EpicCare CQI Review

Average time spent on chart review-

30 minutes to one hour per chart depending on the study

Average time it took to complete studies-

3 months.

Chart reviewers were doctors and nurses at our centers. Time spent on chart review made it more difficult for them to complete other administrative tasks and patient follow-ups

THE INSTITUTE FOR URBAN FAMILY HEALTH

The Transition OF CQI into EpicCare

- IUFH transitioned all 13 centers into EpicCare between October 2002 and January 2003
- Within the first six months provider productivity matched pre-EpicCare levels.
- In 2004, unprecedented productivity levels have been seen.

THE INSTITUTE
FOR URBAN
FAMILY HEALTH

October 2003-

Release of Superhero Best Practice Alerts

THE INSTITUTE FOR URBAN FAMILY HEALTH

BEST PRACTICE ALERTS

PNEUMOVAX

SEASONAL FLUVAX

BREAST CANCER SCREENING

CERVICAL CANCER SCREENING

LEAD SCREENING

MAMMOGRAPHY SCREENING

THE INSTITUTE FOR URBAN FAMILY HEALTH

BEST PRACTICE ALERTS

- OPHTHALMOLOGY CONSULTS FOR DIABETICS
- HGBA1C TESTING AND CONTROL
- PEAK FLOW MEASUREMENTS FOR ALL ASTHMATICS
- NEPHROLOGY CONSULTS FOR PATIENTS WITH GREATER THAN 1.8 SERUM CREATININE
- LDL SCREENING
- LIVER FUNCTION TESTING FOR PATIENTS ON STATINS

…… and many others…….

THE INSTITUTE FOR URBAN FAMILY HEALTH

DID IT WORK ?

Initial concern about the introduction of best practice alerts (BPA's) replaced by enthusiasm for the improvement seen in multiple clinical areas.

Keys to Success:

Making sure the BPAs used generally accepted standards for testing and treatment indications

Making sure that the BPA's were accurate in capturing services rendered

(e.g. there are many CPT codes PAP testing)

THE INSTITUTE FOR URBAN FAMILY HEALTH

An Exponential Increase in CQI Activity

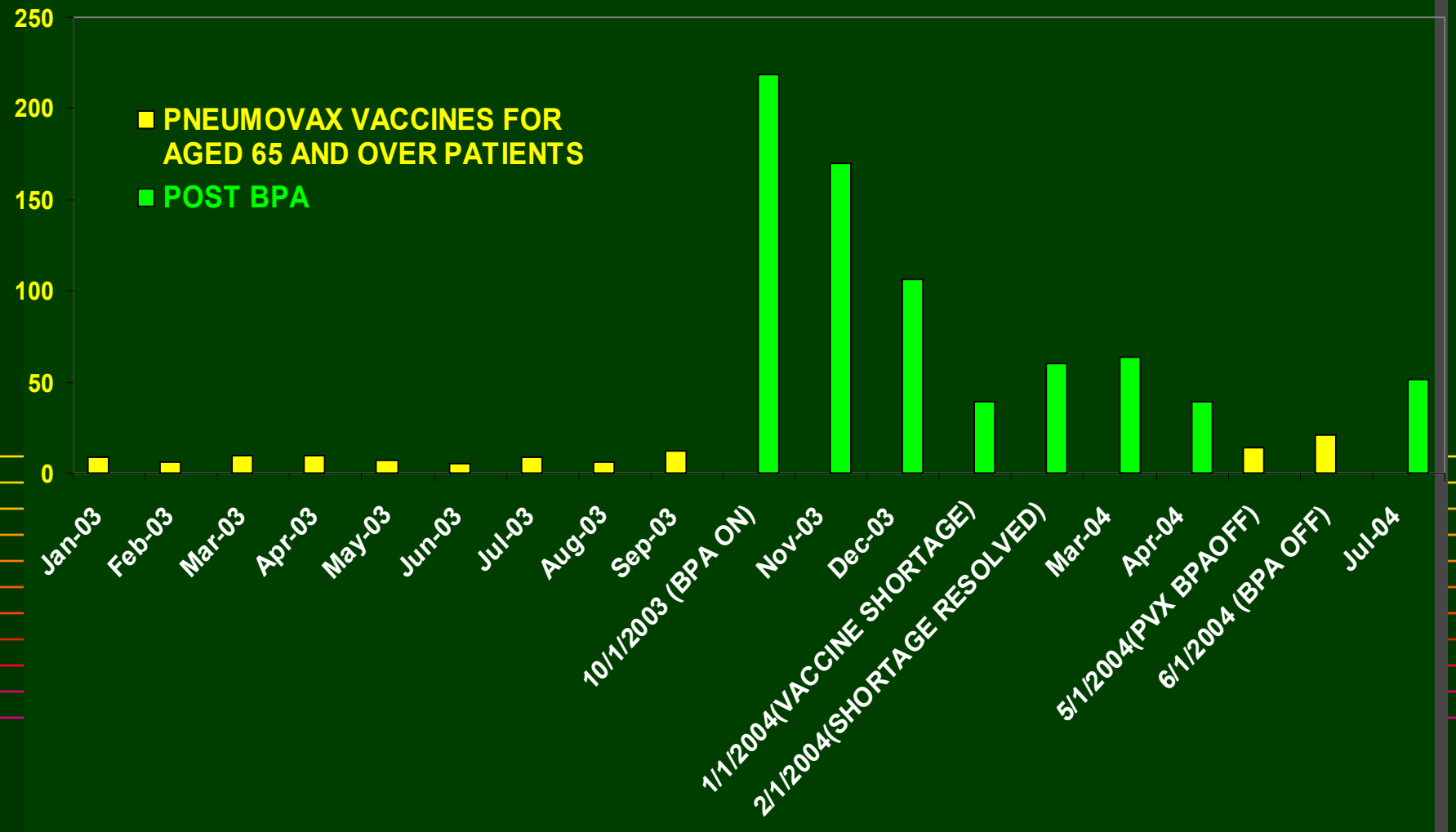
EPICCARE/CLARITY DATABASE WITH CRYSTAL REPORTING HAVE ALLOWED FOR AN EXPNENTIAL INCREASE IN REPORTING.

OVER A DOZEN CLINICAL AREAS ARE BEING REVIEWED SIMULTANEOUSLY

POTENTIAL FOR REVIEW IS LIMITLESS

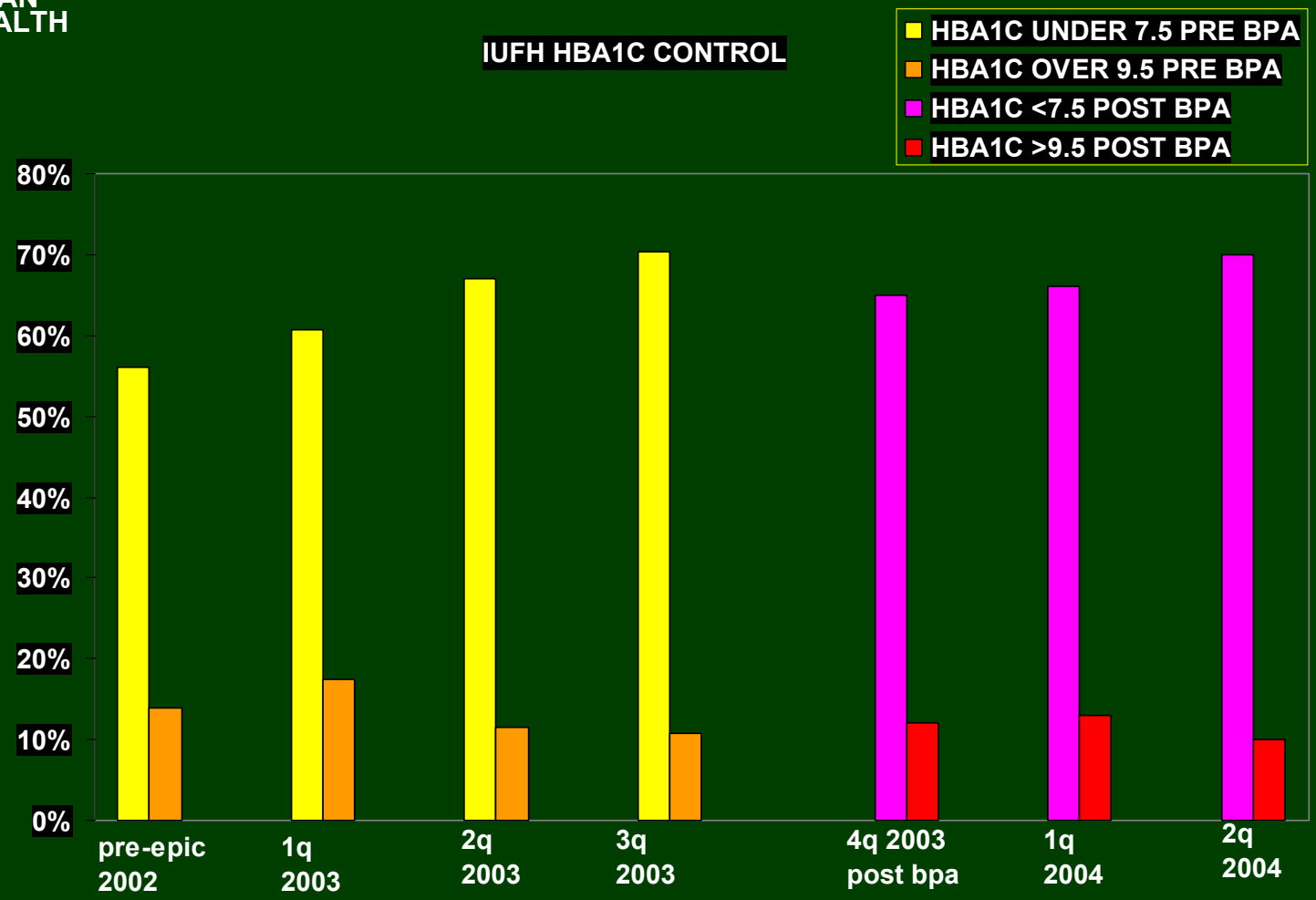
THE INSTITUTE FOR URBAN FAMILY HEALTH

PNEUMOVAX PRE AND POST BPA



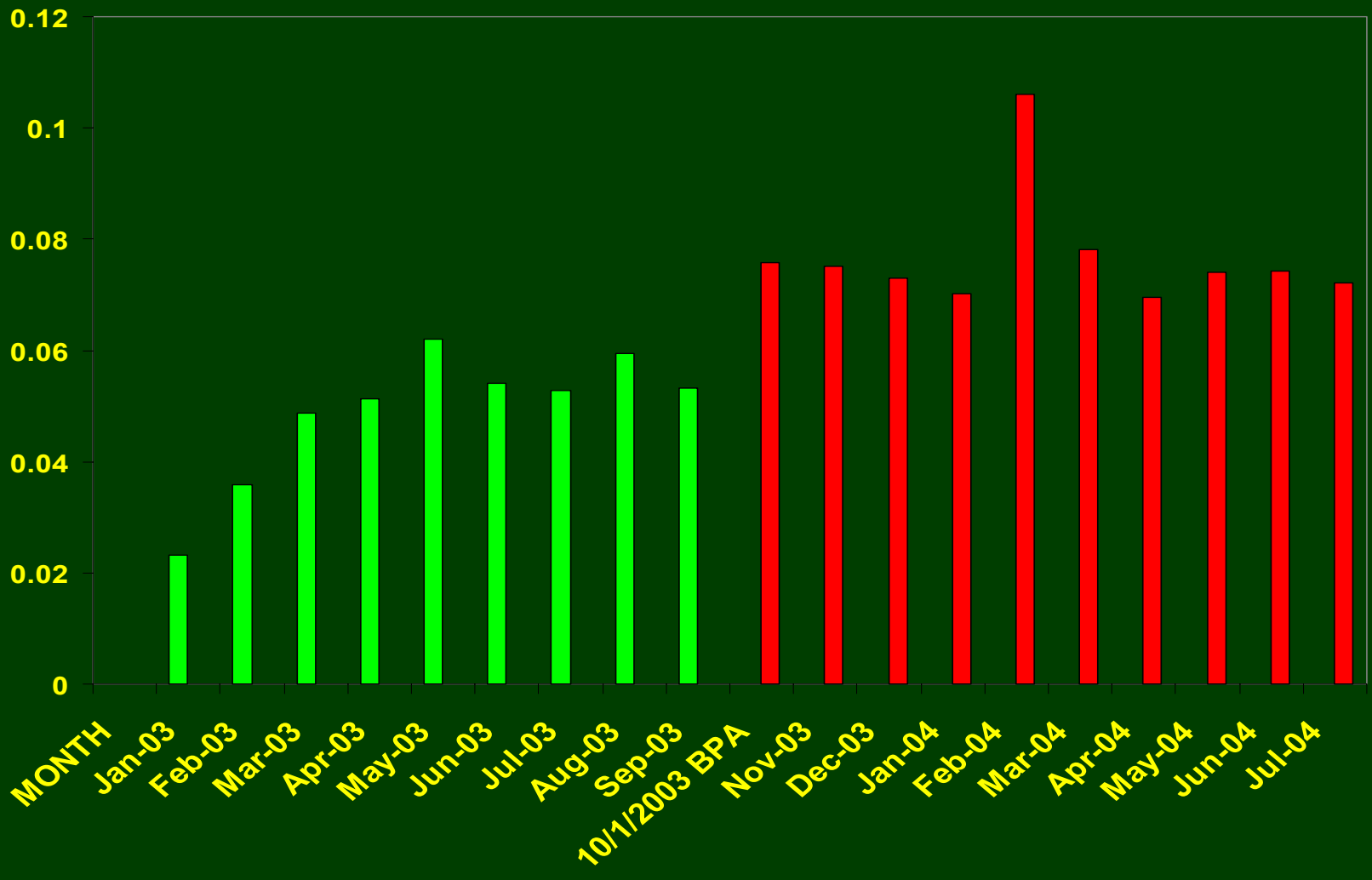
THE INSTITUTE FOR URBAN FAMILY HEALTH

HGBA1C CONTROL PRE AND POST BPA



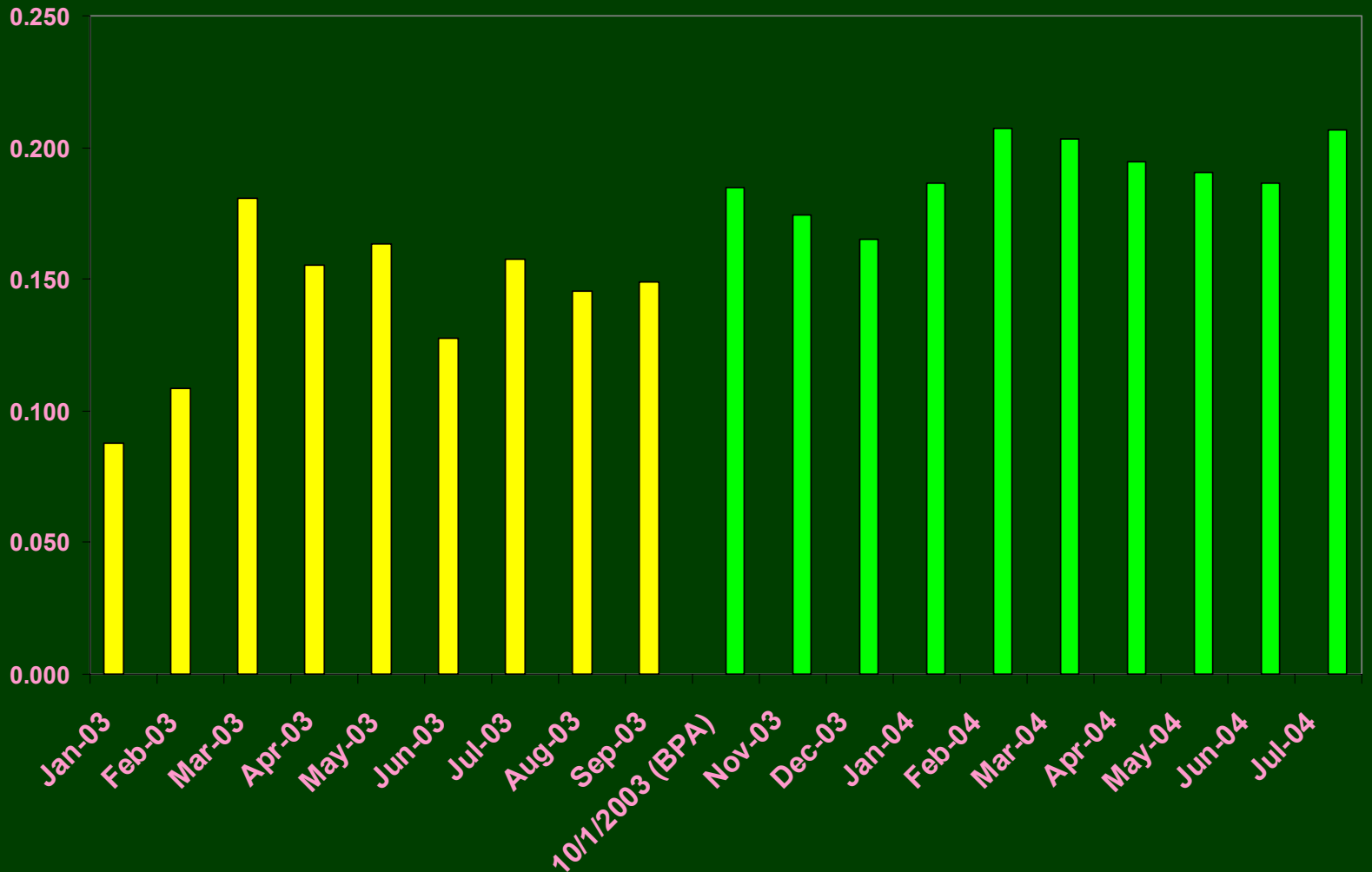
THE INSTITUTE FOR URBAN FAMILY HEALTH

CERVICAL CANCER SCREENING PER VISIT



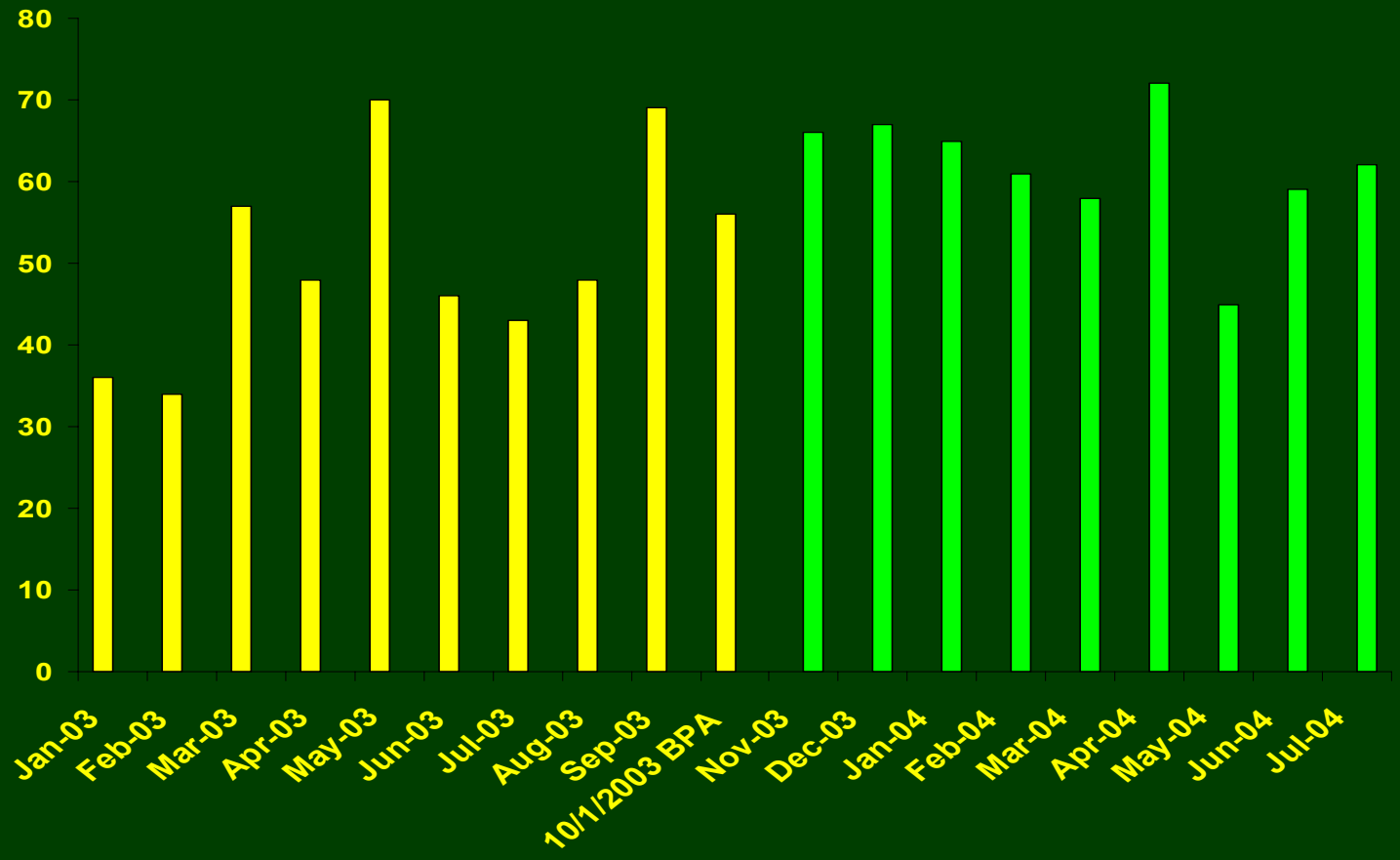
THE INSTITUTE FOR URBAN FAMILY HEALTH

MAMMOGRAMS PER VISIT
Females Ages 40-70



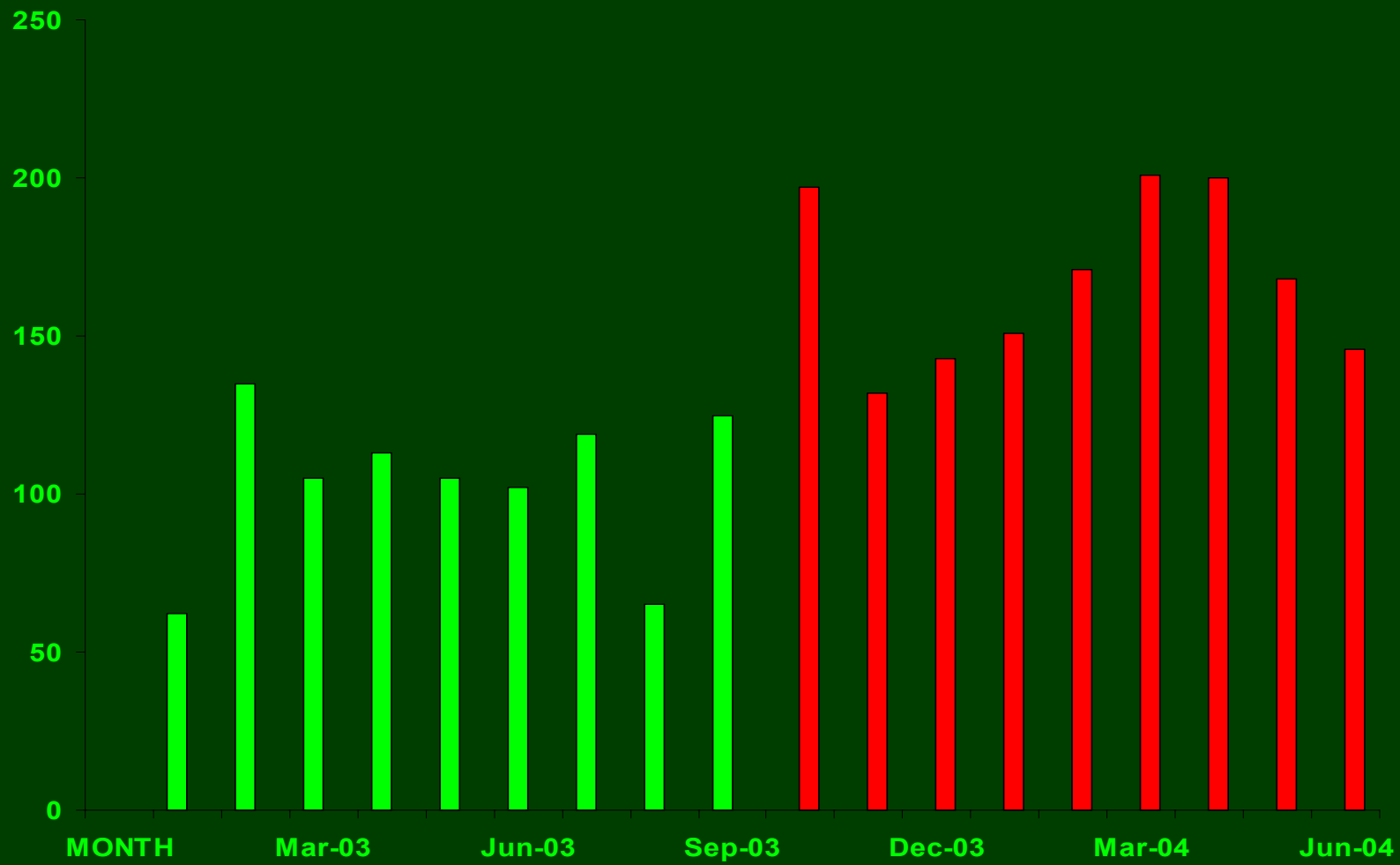
THE INSTITUTE FOR URBAN FAMILY HEALTH

LEAD SCREENING TESTS FOR TWO YEAR OLDS PRE AND POST BPA



THE INSTITUTE FOR URBAN FAMILY HEALTH

OPHTHALMOLOGY CONSULTS FOR DIABETICS PRE AND POST BPA



THE INSTITUTE FOR URBAN FAMILY HEALTH

Next Steps

- CONTINUE MULTIPLE MEASURE MONITORING
- MONITOR THE USE OF BEST PRACTICE ALERTS BY PROVIDERS AND GUARD AGAINST COMPLACENCY
- NETWORK WITH OTHER COMMUNITY HEALTH CENTERS IN UNDERSERVED AREAS TO HELP CLOSE THE QUALITY CHASM