

THE INSTITUTE  
FOR URBAN  
FAMILY HEALTH

**Neil Calman MD**  
President & CEO  
16 East 16<sup>th</sup> St  
New York, NY 10003  
ncalman@ institute2000.org  
212-633-0800 x255  
www. institute2000.org

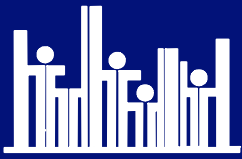
7

STEPS TO  
SUCCESS WITH  
ELECTRONIC  
MEDICAL RECORDS

IN

COMMUNITY

HEALTH  
HRSA BPC All Grantee Meeting Washington June 2005



THE INSTITUTE  
FOR URBAN  
FAMILY HEALTH

1. Organizational Readiness
2. System Selection
3. Site Visits
4. Economic Feasibility
5. Contracting
6. Implementation Models
7. System Outputs

# Organizational Readiness

- Essential
  - Spirit of innovation
  - Financial strength
  - Stability
  - Absence of concurrent threats
- Beneficial
  - Enthusiasm of medical/nursing leadership
  - Existing IT expertise

# System Selection

- Picking the Company
  - Financial strength
  - Size and longevity of company
  - History of the product
  - Local support capability
  - Training methods
  - Implementation planning
  - Stock performance
  - Portfolio of interests

# System Selection

- Picking the Product
  - Product cycle
  - Use of state-of-the-art technology
  - Pick 5-10 evaluation items critical to your Center, e.g.:
    - Link procedures => billing
    - Interfaces: labs/ immunization registry
    - Drug => drug interactions
    - “Best Practice” alerts
    - Compatibility of workflows

# Site Visits

- Visit at least two installations of the exact product you are considering
- Visit facilities
- Ask vendor for a list of potential sites to visit and contact them yourself to arrange visits without the vendor present
- Visit during busy business hours

# Economic Feasibility

- The Easy Part
  - Hardware
  - Software
  - Communication costs
  - Installation fees
  - Data migration fees

# Economic Feasibility

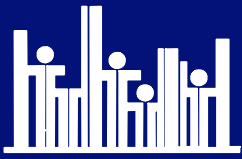
- The Hard Part
  - Loss of productivity during start-up
  - Need to employ specialized IT staff
  - Training costs
  - Retraining costs
  - Need for ongoing consultants
  - Flexibility to use temporary help in all roles
  - Need for staffing new roles
  - Estimating useful life of the system

# Contracting

- Need attorneys familiar with IT contracts
- Special issues
  - Support levels
  - Response times
  - Updates
  - Transportability of data
  - Contingencies
    - Insolvency / company acquisition
    - Product abandonment

# Implementation Models

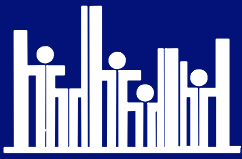
- In house servers with all support personnel on staff
- ASP model (application service provider)
- Network model
  - Joint development vs. spread / sustainability



THE INSTITUTE  
FOR URBAN  
FAMILY HEALTH

# Implementation Hints

- “Adoption is not an Option”
- Democracy reigns supreme during vendor selection
- Autocracy is essential during implementation and training
- Democratic principles emerge again during advanced development: enhancements, reporting priorities, decision supports



THE INSTITUTE  
FOR URBAN  
FAMILY HEALTH

# Implementation Hints

- Implement the full system at once  
– phased implementation increases work and prolongs the pain and anxiety
- Stagger implementation of sites by only a few weeks
- Have plenty of resources in house at go-live
- Set a 100% cut-over date

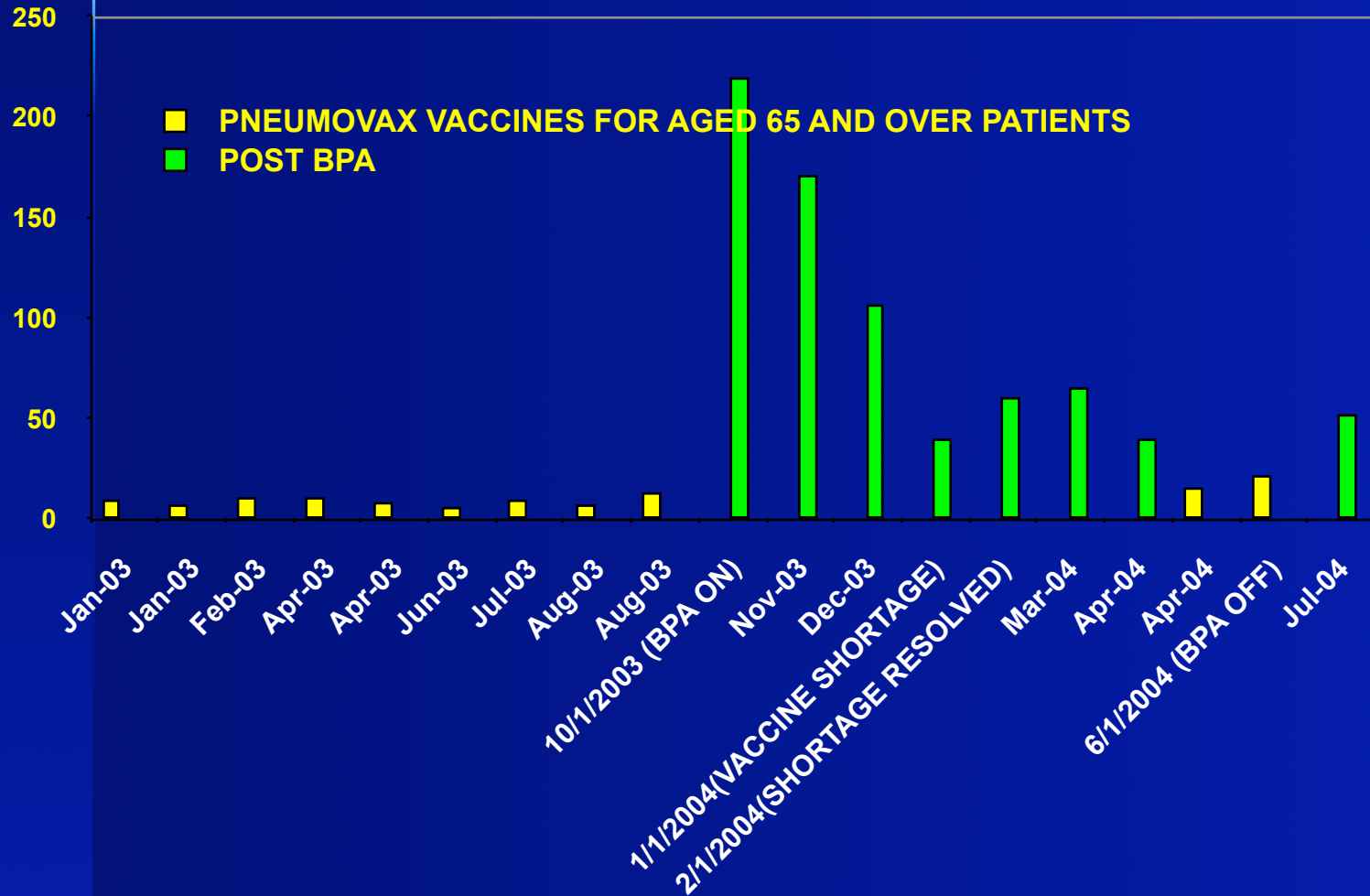
# Implementation Hints

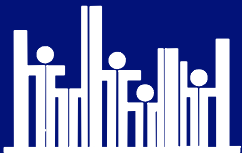
- Let the old charts “age out”
- Abstract only
  - Problem lists
  - Medication lists and immunization hx
  - Critical reports, consults, tests
- Start work on the interfaces on day 1 after contract signing– they take the longest to develop

# Outcomes

- Ease of information retrieval
- Availability of reports relevant to CHCs
- Ease of development of custom reports
- Ease of running ad-hoc reports

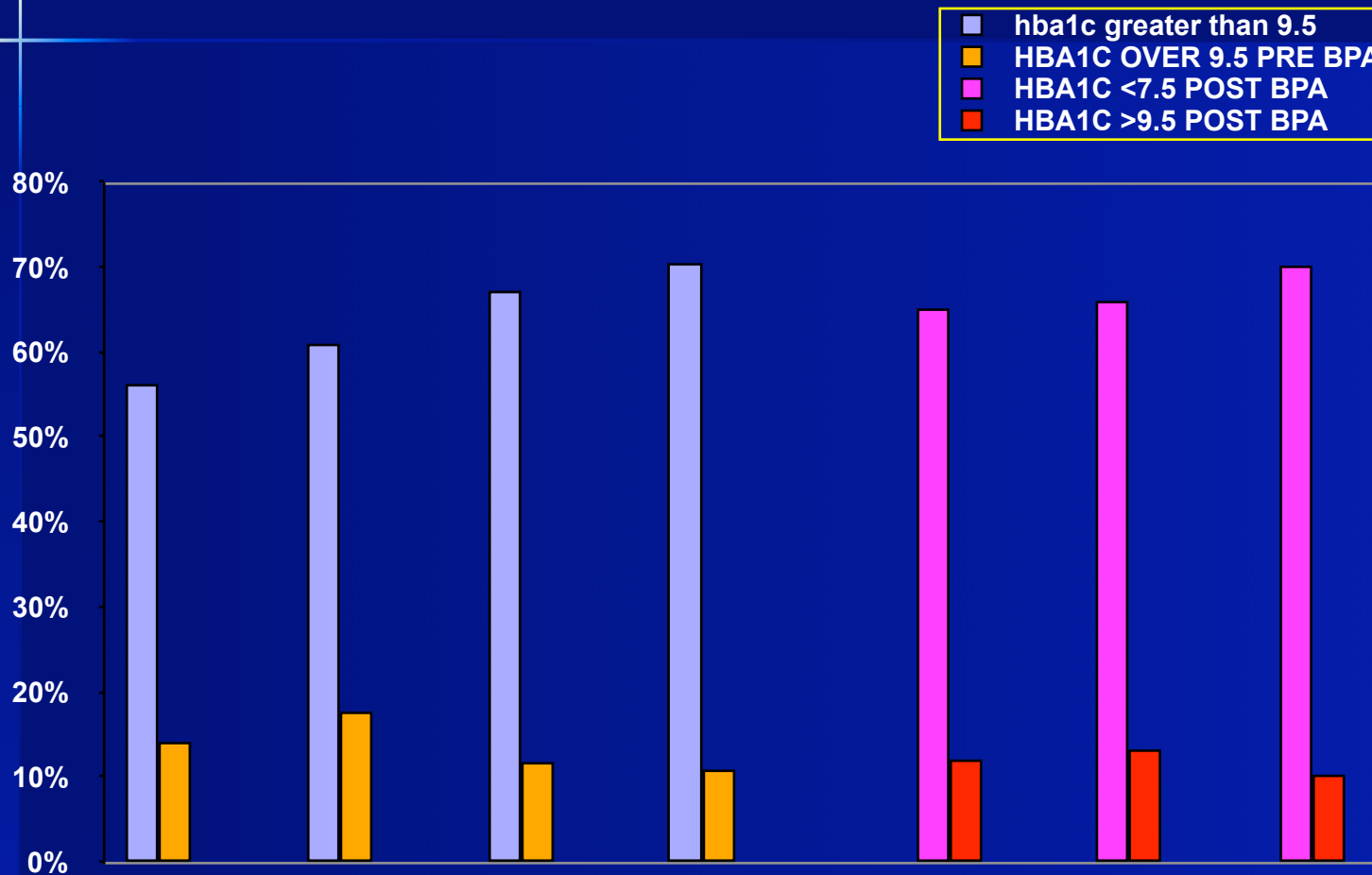
# PNEUMOVAX

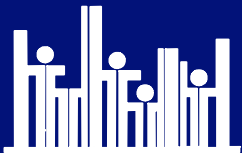




THE INSTITUTE  
FOR URBAN  
FAMILY HEALTH

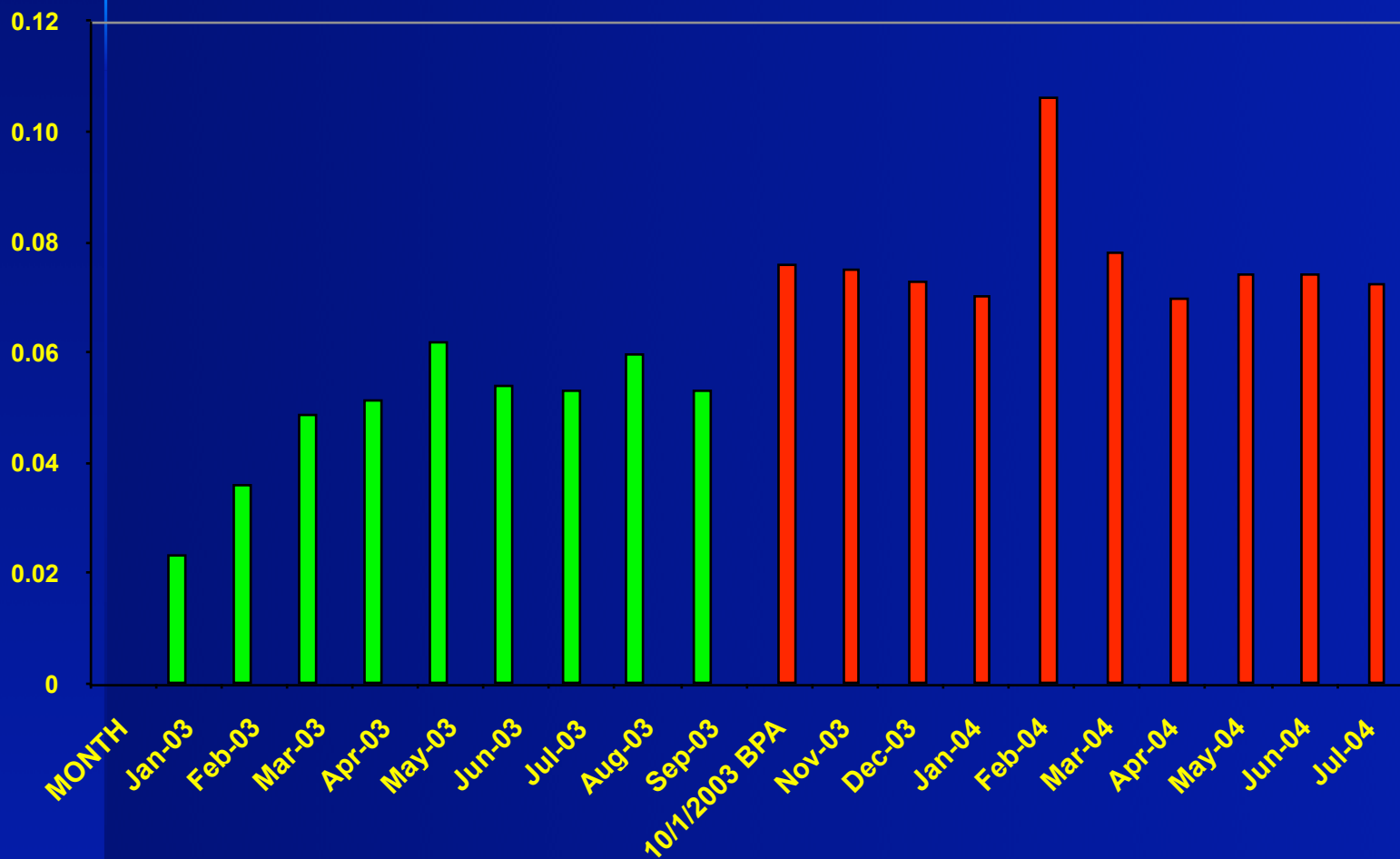
# HGBA1C CONTROL





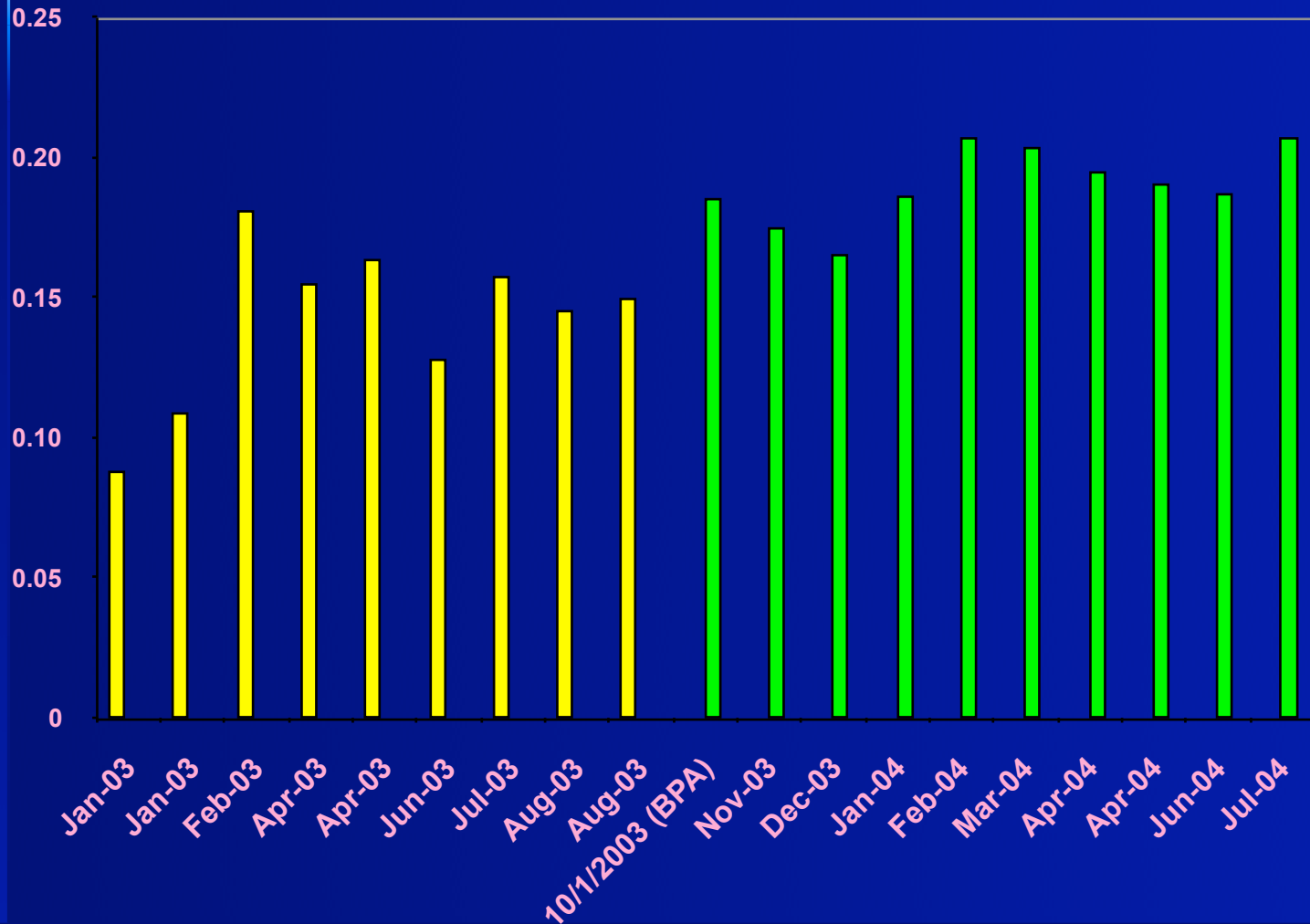
THE INSTITUTE  
FOR URBAN  
FAMILY HEALTH

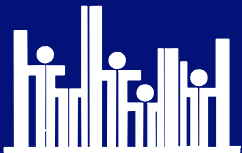
# CERVICAL CANCER SCREENING PER VISIT



# MAMMOGRAMS PER VISIT

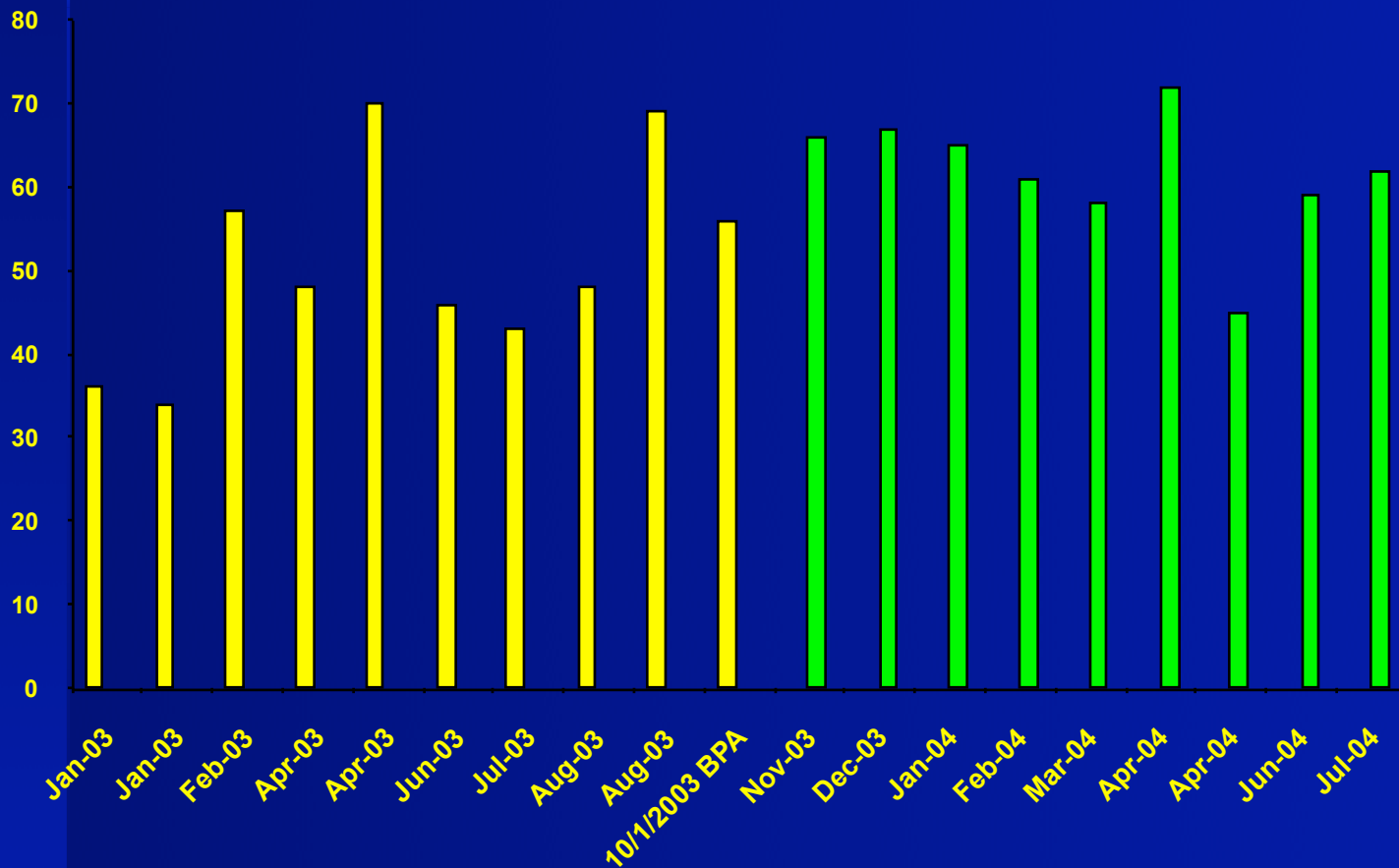
## Females Ages 40-70

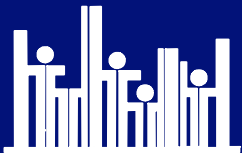




THE INSTITUTE  
FOR URBAN  
FAMILY HEALTH

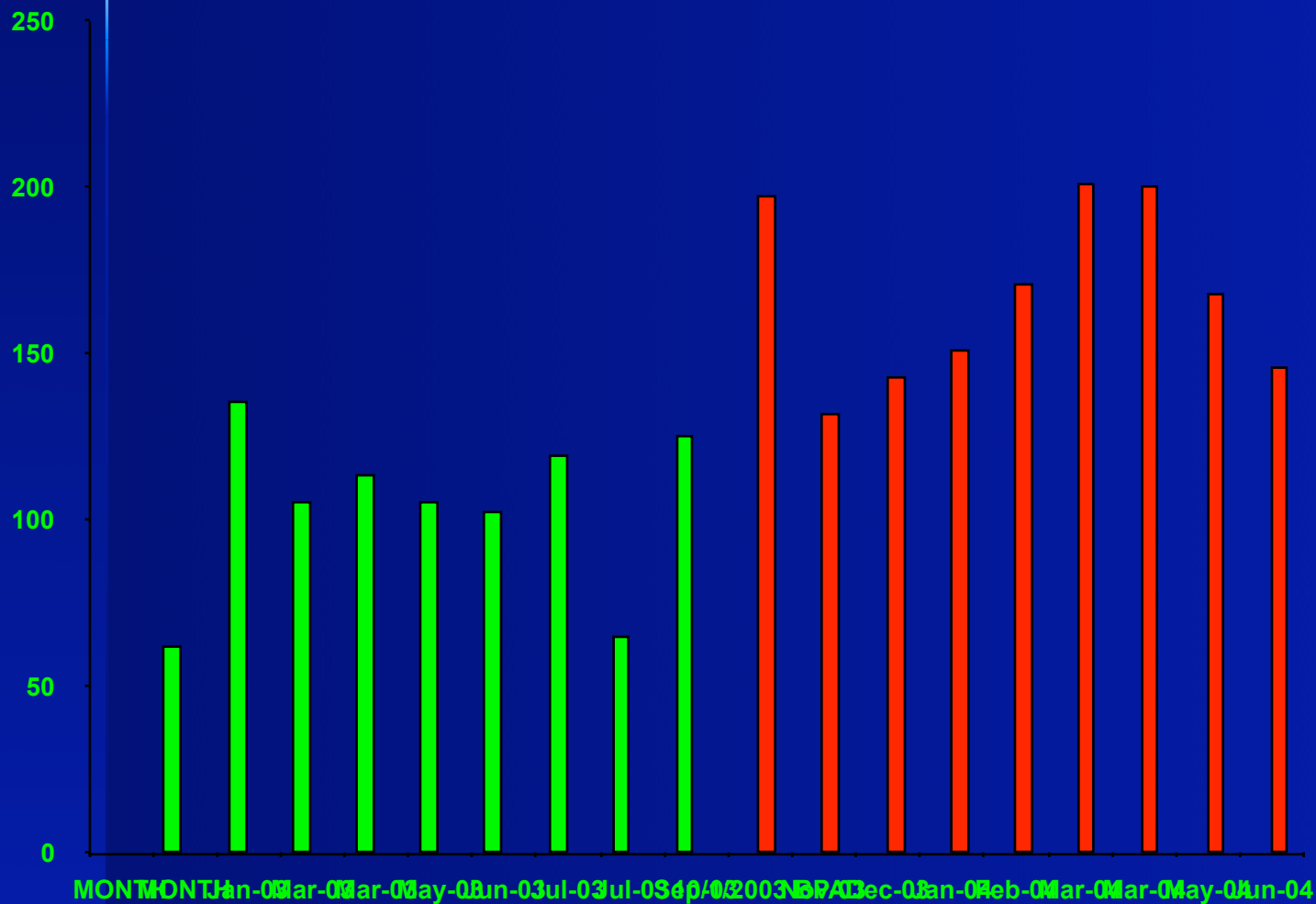
# LEAD SCREENING FOR TWO YEAR OLDS



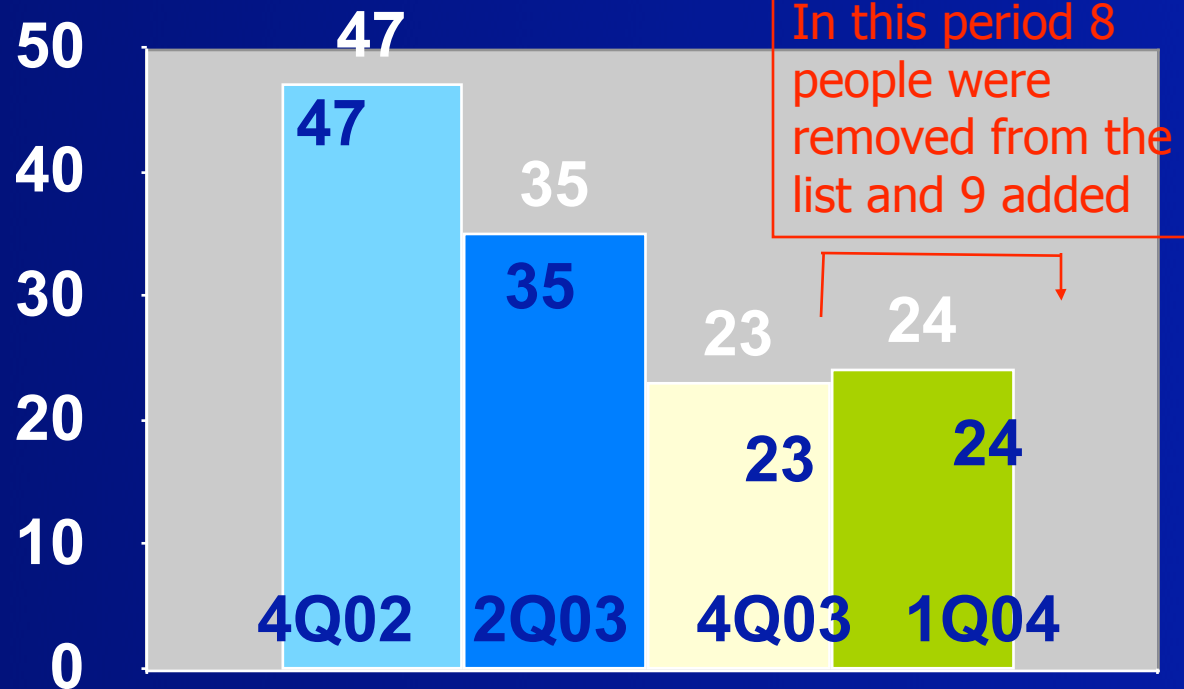


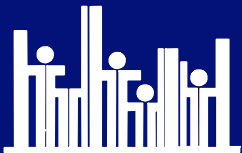
THE INSTITUTE  
FOR URBAN  
FAMILY HEALTH

# OPHTHALMOLOGY CONSULTS FOR DIABETICS



# Patients with last Sys BP > 180 or Diast BP > 110 not seen in the past 3 months





THE INSTITUTE  
FOR URBAN  
FAMILY HEALTH

# RETURN ON INVESTMENT ???

- Return ?
  - Improved Provider Productivity? **Probably**
  - Improved Efficiency of Support Staff ? **NO**
  - Reduction in Support Staff ? **NO - Increase**
  - Improved Outcomes for Patients in Pay-for-performance Plans ? **Yes – Need to Develop this**
  - Improved staff retention? **Unknown**
  - Improved patient satisfaction? **Definitely**
  - **Increased physician work in patient follow-up and outreach**
  - **Need for new staff for software, hardware, network support**
  - **Need to develop outreach staff for report follow-ups**

# RETURN ON INVESTMENT ANALYSIS

- Capital Investment
  - Equipment
    - Server / Communication / Desktop
  - Installation of Communication Lines
  - Software Cost
  - Training Costs
  - Construction of Training Center
  - Set-up of Offices for IT Team
  - Lost Productivity of Providers
  - Recruitment, Hiring and Training of IT team

# RETURN ON INVESTMENT ANALYSIS

- Ongoing Costs
  - Equipment Maintenance
    - Servers Communication Desktop
  - Communication Lines
  - Software Maintenance / Enhancements
  - Ongoing Training Costs
  - Maintenance of Training Center
  - Rent and Maintenance of Offices for IT Team
  - Lost (or Gained) Productivity of Providers
  - Continued Recruitment, Hiring and Training of IT team



# EPIC IMPLEMENTATION COSTS

## 13 CENTERS

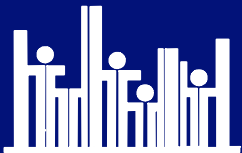
- **13 Health Center**
- **65,000 Users 175,000**

### Visits

- **~ 50 Primary Care Providers**

- **Total costs ~ \$ 3 million**

Total Capital Cost ~ \$50,000 per provider



THE INSTITUTE  
FOR URBAN  
FAMILY HEALTH

## WHAT NEXT ?

- Programming decision supports to implement the entire NYC Take Care New York Program
- Grant from NY Community Trust to increase colon cancer screening rates
- Grant from United Hospital Fund to develop an interface with the Visiting Nurse Service of New York
- Interface with NYC Immunization Registry
- Build NYCDOHMH community-wide data into decision supports re: antibiotic sensitivity patterns, viral outbreaks
- Expanding our outreach team to bring in those in need of care
- Improve our “After-visit summary” to translate it into plain language
- Electronic membership loads from Managed Care companies