

## Health Center Network of New York (HCNNY)

Tales from the Trenches:  
Moving Beyond EHR Implementation  
to Data Aggregation and Quality  
Improvement Transformation



*Defining New Directions*

# Session Outline

- Brief history and overview of HCNNY
- Detailed clinical perspective on collaboration and data sharing
- Demonstration and discussion of clinical data warehouse

## HCNNY History

- Formed in 2007 by six founding health centers and CHCANYS
- Federally funded in 2007 for a 3 year project focused on EHR implementation of a single product for five members (eClinicalworks)
  - All implementations complete; developed data warehouse; delivered services to non-members

## History continued...

- Federally funded in 2010 for a two year project focused on optimizing EHR use and advancing data warehouse & quality improvement (vendor agnostic approach)
- Added three new members (2 confirmed; 1 pending)
- Incorporated in 2010; continue close working relationship with CHCANYS

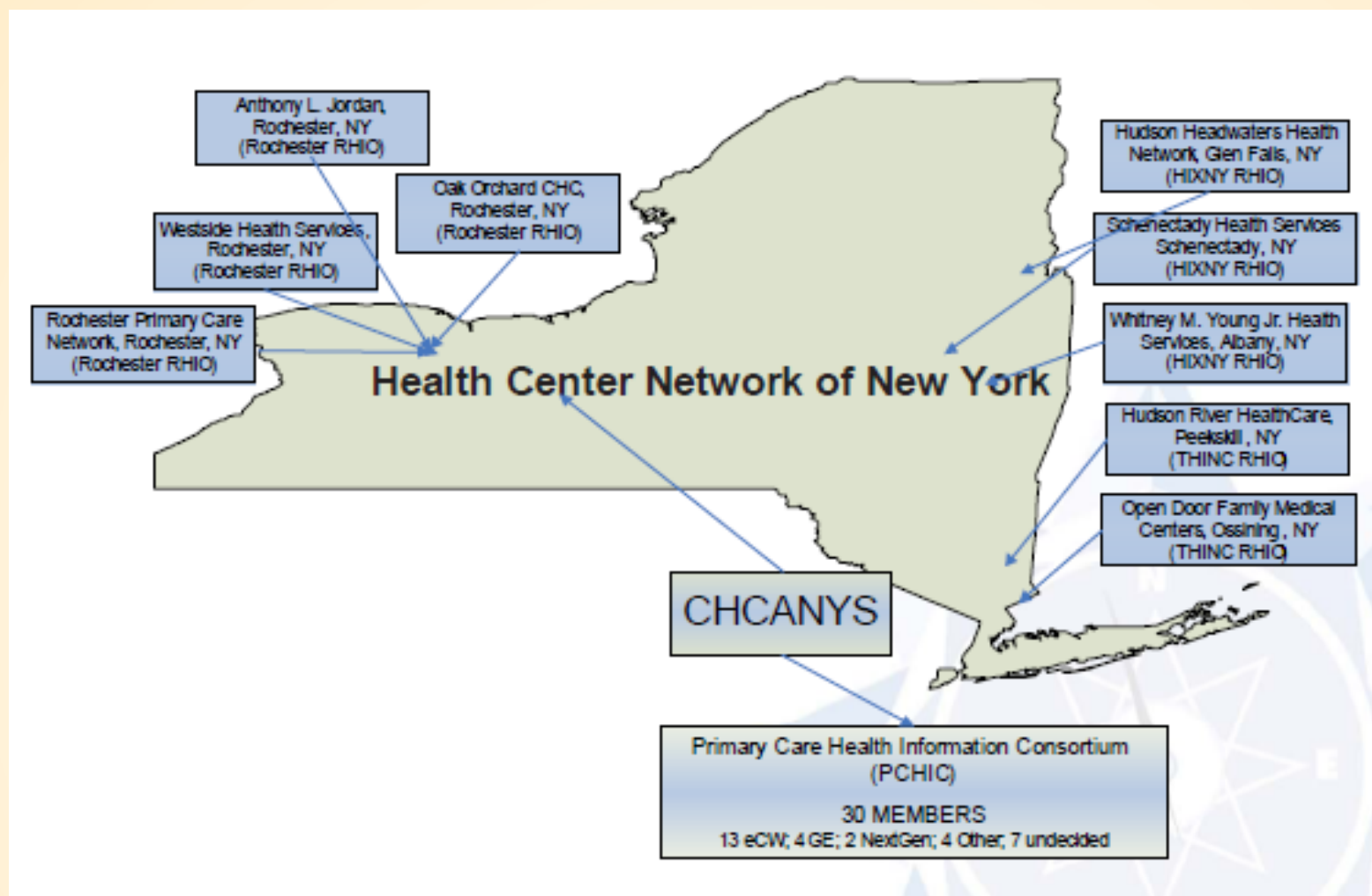
# Network Composition

- Nine member health centers
  - 74 sites
  - 205 provider FTE's
  - 260,582 patients
- CHCANYS
  - Collaboration of technology projects and related advocacy
  - Provides leased personnel and administrative services

## Member Organizations

- Open Door Family Medical Center, Ossining, NY \* / !
- Whitney M. Young, Jr. Health Services, Albany, NY \* / !
- Hudson River Healthcare, Peekskill, NY \* / !
- Westside Health Services, Rochester, NY \*
- Anthony L. Jordan Health Center, Rochester, NY !
- Oak Orchard CHC, Brockport, NY
- Hudson Headwaters Health Network, Glens Falls, NY \*
- Hometown Health Center, Schenectady, NY \*
- Rochester Primary Care Network, Rochester, NY ❖
- Community Health Care Association of NYS \*

\* Founding member / ! PCMH Level 3 / ❖ Membership pending

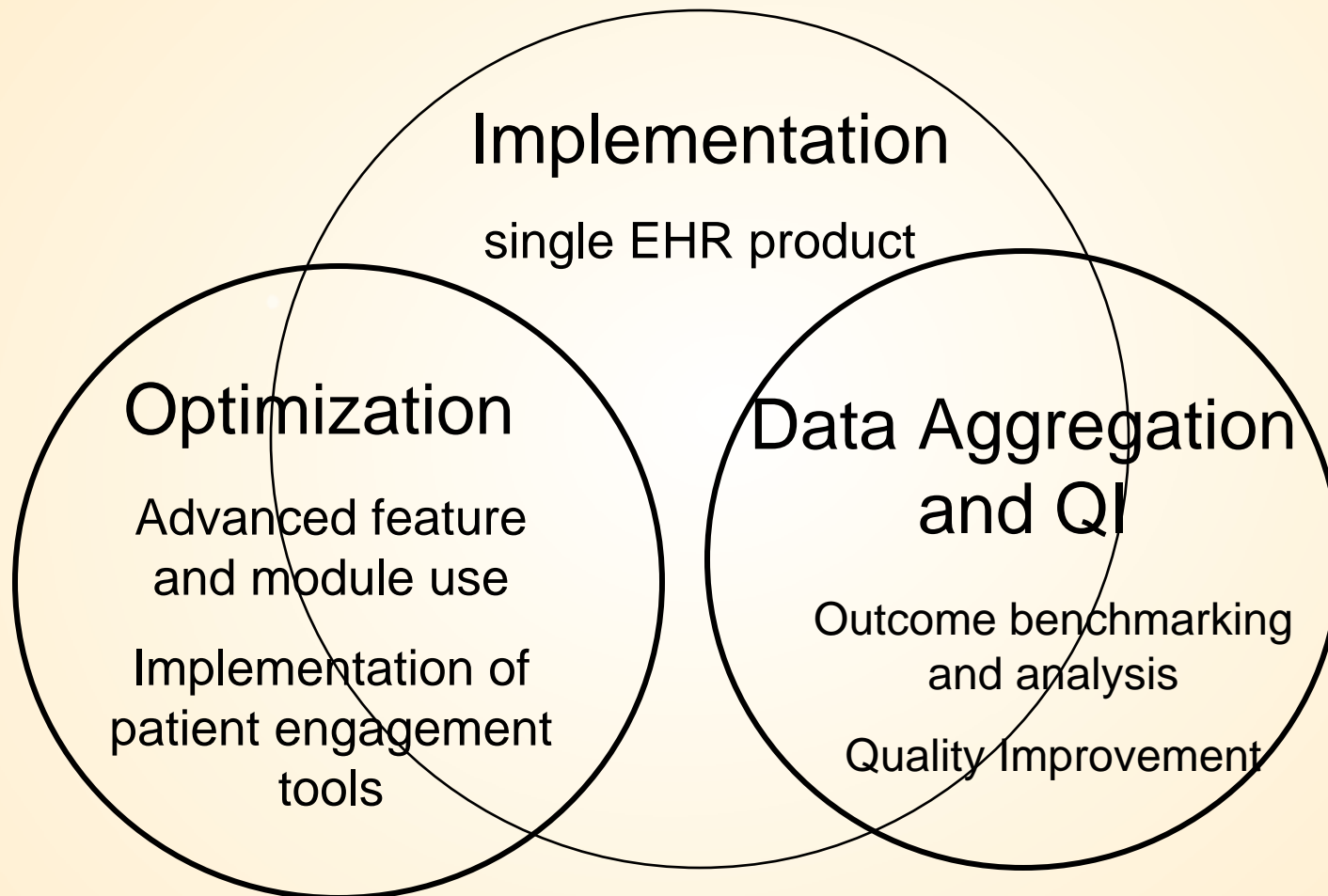


## Our Vision

HCNNY's vision is to position its health center members as coordinators of care across the continuum of the health care system by ensuring that health centers have the ability to effectively leverage information technology to provide high quality, cost-effective, coordinated primary health care to underserved populations.



# The Pixels within the Vision



## Sampling of Network Benefits/Services

- Shared hosting architecture
- Dedicated training staff & collaborative training sessions
- Common 3<sup>rd</sup> party reporting solution - shared report design & collaborative training
- Data aggregation, analysis and QI
- HIE facilitation
- Product Development

## The Key to Success = Member Expertise

➤ **Steering Committee**

*Vision, direction and commitment of resources*

➤ **Clinical Committee**

*Clinical data capture and workflows, decision support, compliance and other regulatory issues, outcome measure analysis, quality improvement, PCMH, Meaningful Use*

➤ **Finance Committee**

*Federal, state and local billing and reporting requirements, enrollment issues, compliance, maximizing incentives, product development*

➤ **IT Committee**

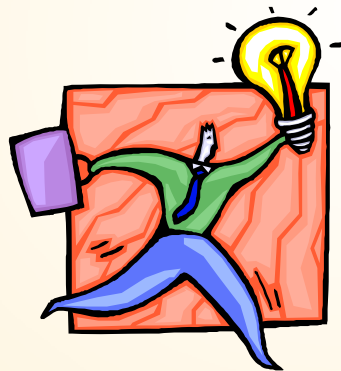
*System and hardware performance, peripherals, new data center solution for multiple application hosting and greater control*

# Clinical Rationale

- Shared intellectual resources
  - Training, planning, reporting requirements (i.e. Meaningful Use, UDS, PCMH)
- Single vendor platform (currently)
  - ↑ Leverage with vendor
- Quality Improvement
  - Opportunity to impact pt outcomes on a bigger scale

# Clinical Measures

- 2007-2010: same as HRSA/UDS measures for simplicity & continuity
- 2010 – 2012 Innovations Grant



# Struggles

- Sharing data
  - Despite similarities, anxiety around looking bad to each other
  - What data to collect?
  - How to collect the data?
  - How to share the data (i.e., how will the data be used?)

# Accomplishments

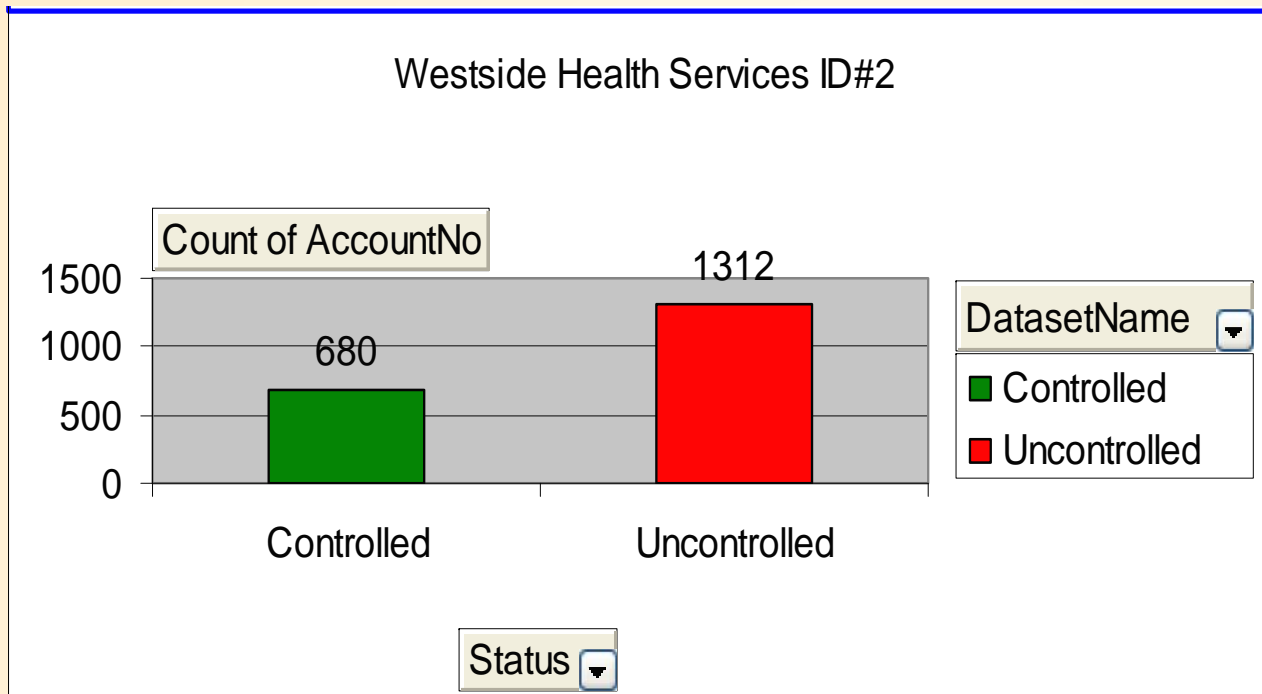
- Sustained commitment to meet every month
  - Every other face-to-face 11 – 3 in Albany
  - Every other phone conference 4 – 6
- Agreement on
  - What data to share
  - How to collect data
  - Who is responsible at each site for data

# A Tale of One Member

- Westside Health and Hypertension
  - We have data...Yeah!
    - *Now what...?*
  - Presentation of Center/Provider Report Cards (*drum roll, please...*)

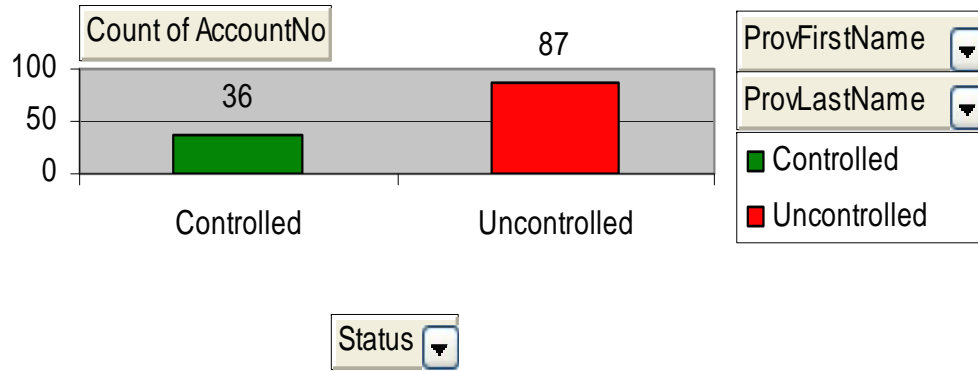


# A Tale of One Member



- Percent Totals
  - Controlled: 34%
  - Uncontrolled: 66%

# A Tale of One Member



Age	LastOfEncDate	Last BP	VisitsThisPeriod
66	6/8/2009	138/90	10
31	4/8/2010	156/100	1
51	4/8/2010	160/103	1
59	6/5/2009	196/112	6
83	3/1/2010	144/85	2
45	3/8/2010	153/93	3
54	1/22/2010	129/95	1
50	4/5/2010	141/92	5
44	12/21/2009	141/94	2

# A Tale of One Member

- Stages of grief:
  1. Denial ~ *“These numbers can’t be right!”*
  2. Anger ~ *“I don’t have time to deal with this!”*
  3. Bargaining ~ *“Can’t we look at this in 3/6/12...months?”*
  4. Depression ~ *“This is too hard to tackle; why bother?”*
  5. Acceptance ~ *“OK, I can see my role clearer. What next?”*

# A Tale of One Member

- Test intervention and results



## Meaningful Use

- How does being a HCCN help centers with regard to MU?
  - Analyzing aggregate vs. individual data
    - Big area of struggle for individual providers
  - Focus on MU criteria
    - Self-mgmt support, nutrition & smoking counseling
  - Leveraged push with EHR vendor

# Individual Member Gains

- **#1 ~ Implementation of EHR**
- Ongoing support as a “newbie” to EHR from seasoned users (as opposed to the vendor)
- Sharing of lessons learned, new ideas, “how-to” shortcuts, and more
  - Quality Improvement initiative resulting from data collected via repository

## What's *Really* Exciting...

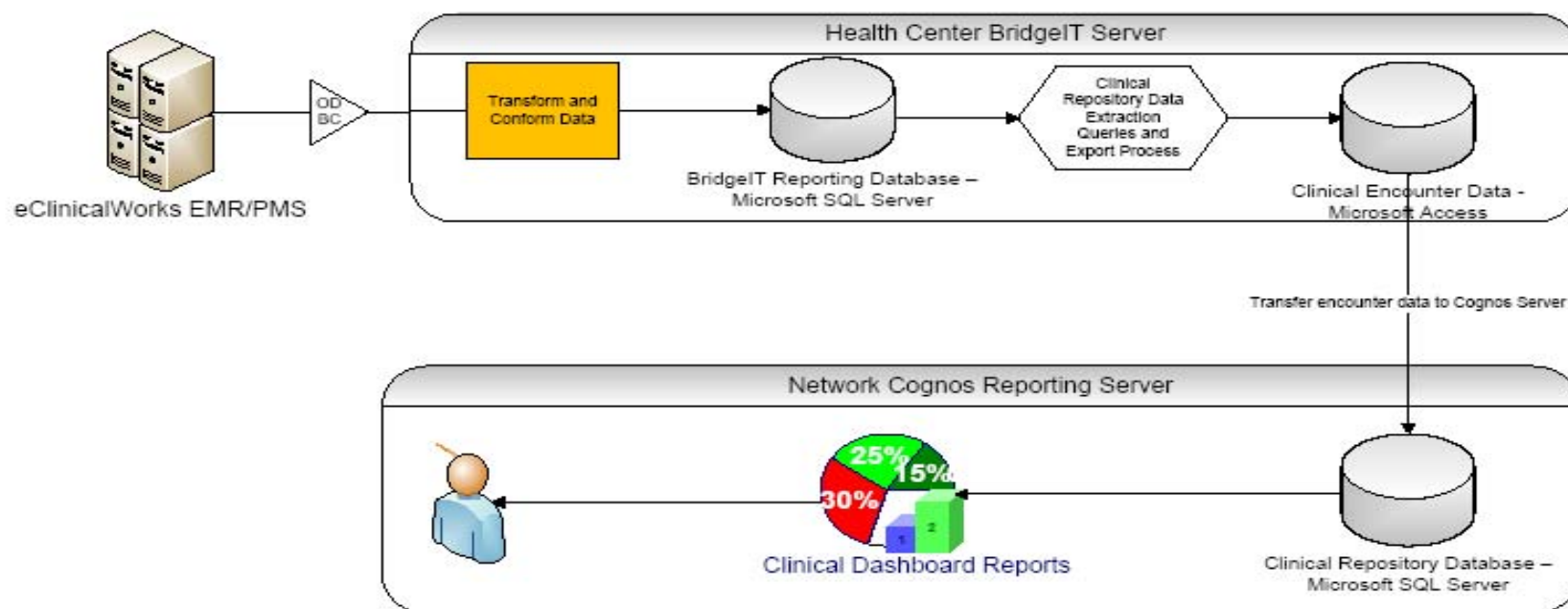
- Our cool Data Repository & Clinical Dashboards!
  - Pam Ferrari, RN
    - Director of PI & Clinical Knowledge Support, Open Door Family Medical Center & Co-Clinical Committee Chair
  - Stephanie Heckman, Heckman Consulting

# Data gathering and comparison

- Getting the data out of eCW
  - Bridgelt
- Looking at the data in excel
- Getting the data into Cognos
- Presenting the data in Cognos



**HCNNY Clinical Repository Upload Process to Data Warehouse**



# Getting the data out of eCW

- Standardized data fields
  - Naked Blood Pressure
  - Where do you document smoking
  - What about self management goals
  - Are labs LOINCed?
- Created a data extract that went into Microsoft access and then excel

# Data Extract

Microsoft Access

RepositoryMaster : Database (Access 2000 file format)

LastMedVistDashboard : Table

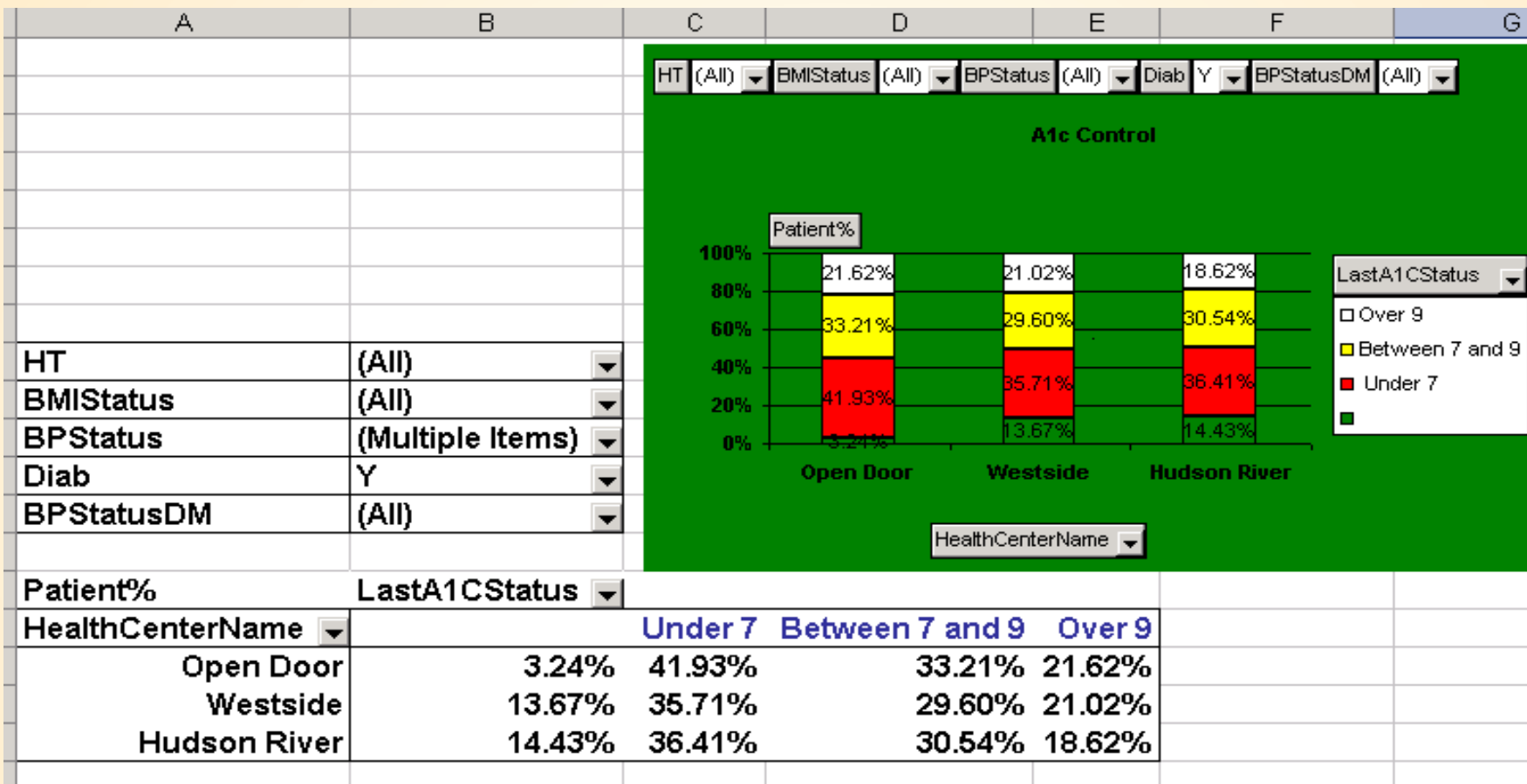
HealthCenterNa	ReordProvSpeci	LastVisitDate	SeensWithinLas	LastVisitStartYe	TotalLastVisitC	PrevBPs	PrevBMIs	EncounterId	PCGProv	
Open Door	20	Family Medicine	5/20/2010	Yes	6/1/2009	3	3	1	1480328	Caamano
Hudson River	48	Family Medicine	5/20/2010	Yes	6/1/2009	1	1	1	1099322	Celestin,
Open Door	12	Family Medicine	5/20/2010	Yes	6/1/2009	6	1	5	1479985	Wu, Dare
Hudson River	48	Family Medicine	5/20/2010	Yes	6/1/2009	1	0	1	1103691	Celestin,
Hudson River	48	Family Medicine	5/20/2010	Yes	6/1/2009	1	1	1	1097784	Napolitan
Open Door	12	Family Medicine	5/20/2010	Yes	6/1/2009	6	0	3	1481250	Carlsen, I
Hudson River	48	Family Medicine	5/20/2010	Yes	6/1/2009	1	1	1	1104880	Napolitan
Hudson River	48	Family Medicine	5/20/2010	Yes	6/1/2009	1	1	1	1089581	Welch-Pf
Open Door	12	Family Medicine	5/20/2010	Yes	6/1/2009	9	7	1	1481085	Gallin, Jil
Open Door	12	Family Medicine	5/20/2010	Yes	6/1/2009	5	5	2	1476936	Gallin, Jil
Open Door	12	Family Medicine	5/20/2010	Yes	6/1/2009	12	0	4	1480532	Islam, Ali
Hudson River	48	Family Medicine	5/20/2010	Yes	6/1/2009	1	1	0	1105405	Walker, C
Open Door	13	Family Medicine	5/20/2010	Yes	6/1/2009	8	6	1	1479091	Gallin, Jil
Hudson River	48	Family Medicine	5/20/2010	Yes	6/1/2009	1	1	1	1084341	Sylvester
Open Door	11	Pediatrics	5/20/2010	Yes	6/1/2009	7	2	2	1468256	Pace, Be
Open Door	14	Family Medicine	5/20/2010	Yes	6/1/2009	5	5	5	1476939	Wu, Dare
Open Door	10	Family Medicine	5/20/2010	Yes	6/1/2009	7	1	2	1480281	Meyer, P
Open Door	11	Family Medicine	5/20/2010	Yes	6/1/2009	5	5	5	1479260	Amenedo
Open Door	14	Family Medicine	5/20/2010	Yes	6/1/2009	8	1	3	1467782	Statile, M
Hudson River	48	Family Medicine	5/20/2010	Yes	6/1/2009	1	1	1	1108343	Napolitan
Open Door	11	Family Medicine	5/20/2010	Yes	6/1/2009	3	2	2	1479561	Amenedo
Open Door	12	Family Medicine	5/20/2010	Yes	6/1/2009	4	1	2	1473699	Rovito, L
Hudson River	48	Family Medicine	5/20/2010	Yes	6/1/2009	1	1	1	1107653	Niebel, D
Hudson River	48	Family Medicine	5/20/2010	Yes	6/1/2009	1	1	1	1101545	Straus, L
Hudson River	48	Family Medicine	5/20/2010	Yes	6/1/2009	2	2	0	1107162	Desa, Ke
Hudson River	48	Family Medicine	5/20/2010	Yes	6/1/2009	1	1	0	1104738	Celestin,
Hudson River	48	Family Medicine	5/20/2010	Yes	6/1/2009	1	1	1	1104133	Napolitan
Hudson River	48	Family Medicine	5/20/2010	Yes	6/1/2009	3	3	2	1108225	,
Open Door	12	Family Medicine	5/20/2010	Yes	6/1/2009	2	1	1	1479641	Yuen, Thu
Open Door	14	Pediatrics	5/20/2010	Yes	6/1/2009	2	1	1	1412599	Steinberg

Record: 1 of 94044

Datasheet View

Start | HCNYS | Book1 | Test Dash Board | Microsoft Access | 5:18 PM

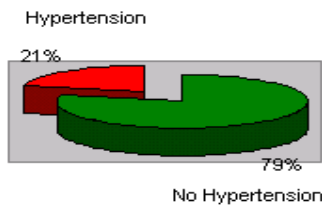
# Looking at the data in excel



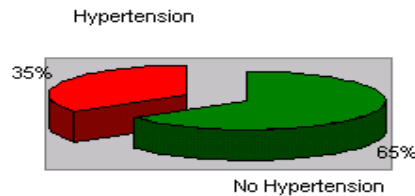
# Hypertension Prevalence

	A	B	C	D	E	F
3	sex	(All)	sex	(All)	sex	(All)
4	race	(All)	race	(All)	race	(All)
5	Ethnicity	(All)	Ethnicity	(All)	Ethnicity	(All)
6	IncomeLevel	(All)	IncomeLevel	(All)	IncomeLevel	(All)
7	Over18	Y	Over18	Y	Over18	Y
8	Over40	(All)	Over40	(All)	Over40	(All)
9	Over50	(All)	Over50	(All)	Over50	(All)
10	Diab	(All)	Diab	(All)	Diab	(All)
11						
12	Patient Count		Patient Count		Patient Count	
13	HT	Total	HT	Total	HT	Total
14	N	34504	N	3834	N	18758
15	Y	9256	Y	2034	Y	6387
16	Grand Total	43760	Grand Total	5868	Grand Total	25145

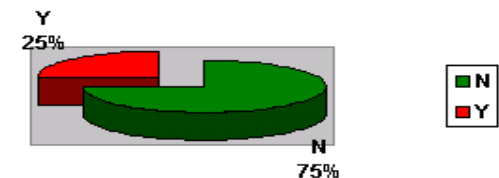
**Hypertension Prevalence in Open Door Population**



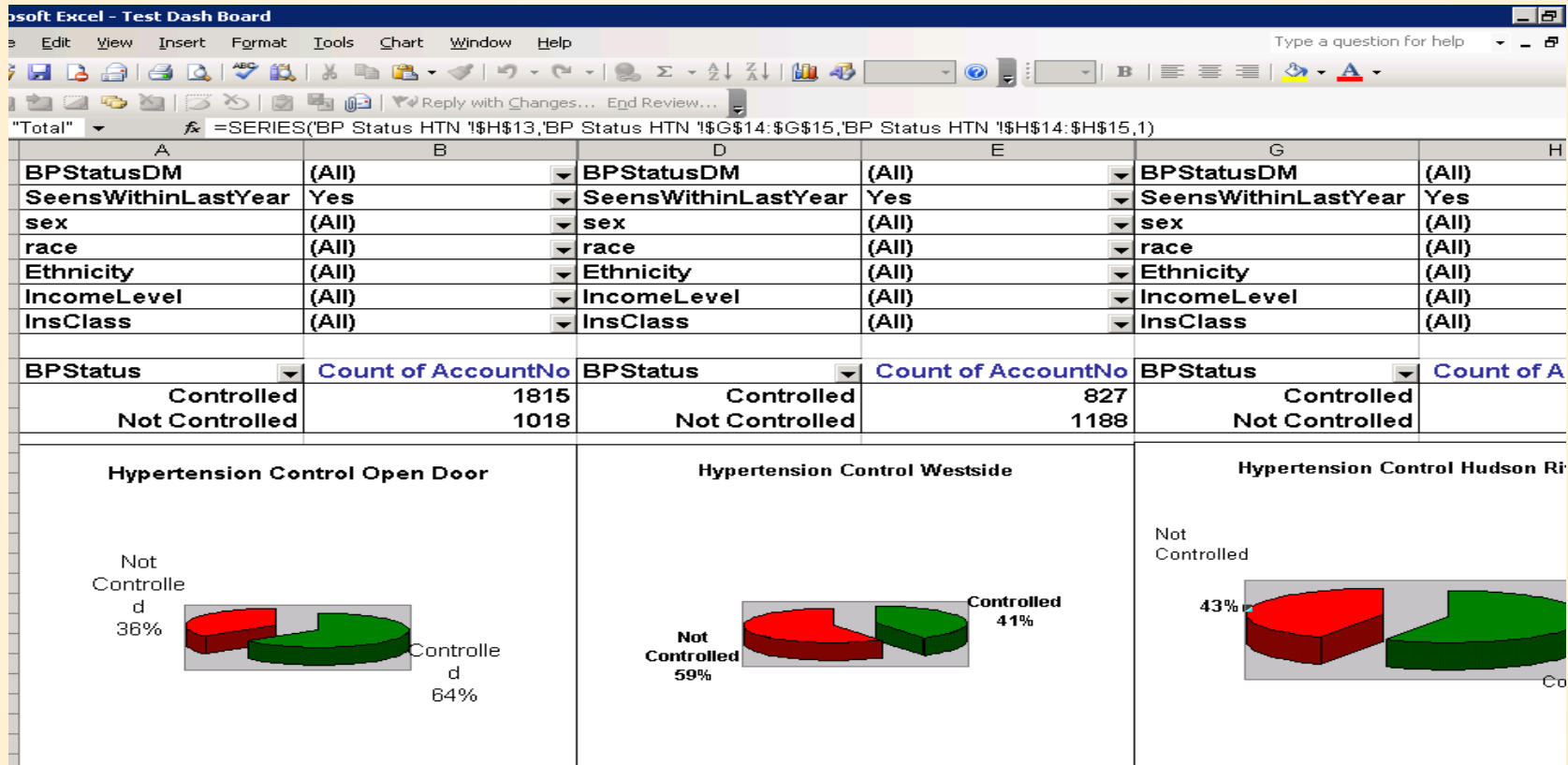
**Hypertension Prevalence in Westside Population**



**Hypertension Prevalence Hudson River**



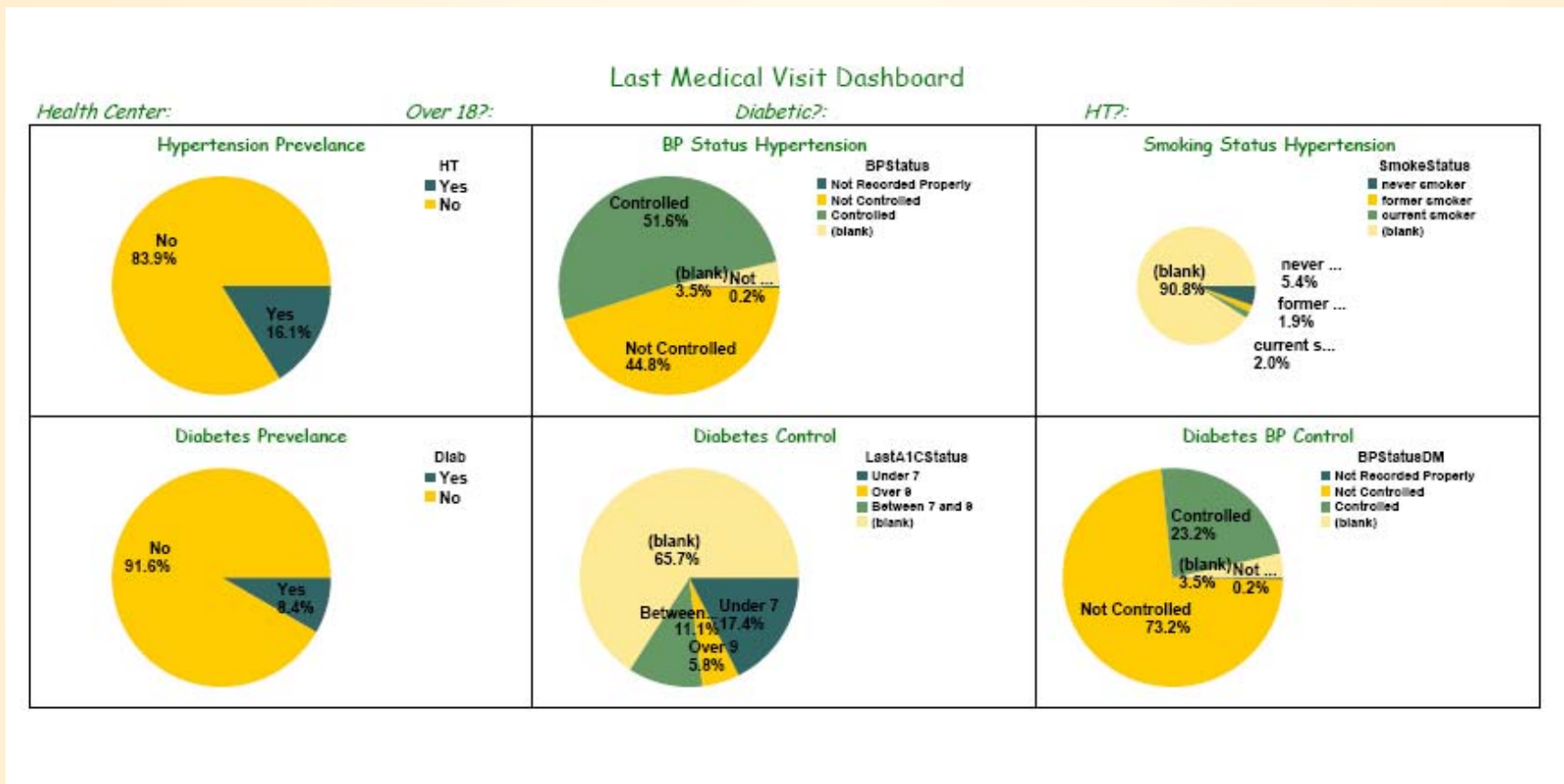
# Hypertension Control



## Getting the data into Cognos

- Full Cognos was owned by Hudson River
- Brought in only data from our extract
- Designed Graphs and Drilldown reports

# Opening Screen in Cognos





# Hypertension Control

## BP Status Hypertension

Health Centers:

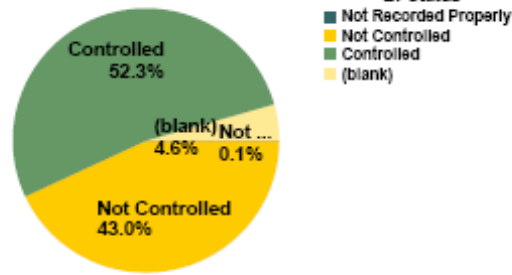
Over 18?:

Diabetic?:

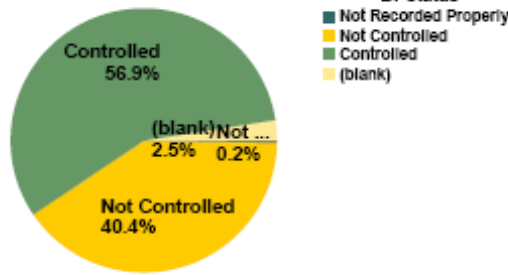
HT?:

Show Data?:

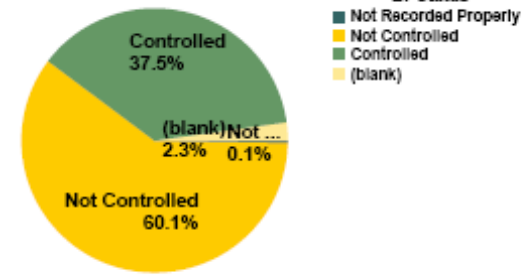
Hudson River



Open Door



Westside



BPStatus	Count	Percentage
<a href="#">Not Recorded Properly</a>	44	0.1%
<a href="#">Not Controlled</a>	16,626	43.0%
<a href="#">Controlled</a>	20,189	52.3%
<a href="#">(blank)</a>	1,764	4.6%
<b>Summary</b>	<b>38,623</b>	<b>100.0%</b>

BPStatus	Count	Percentage
<a href="#">Not Recorded Properly</a>	73	0.2%
<a href="#">Not Controlled</a>	12,412	40.4%
<a href="#">Controlled</a>	17,503	56.9%
<a href="#">(blank)</a>	768	2.5%
<b>Summary</b>	<b>30,756</b>	<b>100.0%</b>

BPStatus	Count	Percentage
<a href="#">Not Recorded Properly</a>	19	0.1%
<a href="#">Not Controlled</a>	8,179	60.1%
<a href="#">Controlled</a>	5,102	37.5%
<a href="#">(blank)</a>	309	2.3%
<b>Summary</b>	<b>13,609</b>	<b>100.0%</b>

# Diabetes Control

## Diabetes Control

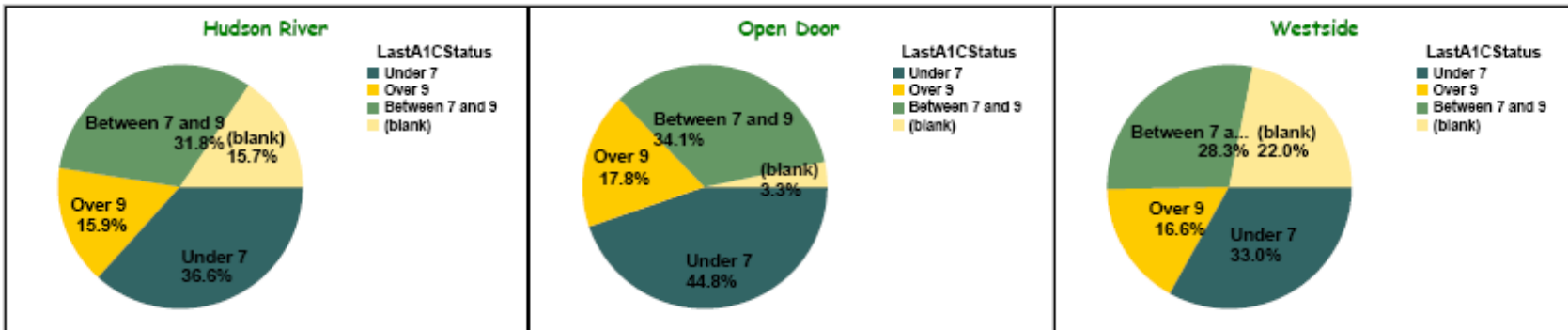
Health Centers:

Over 18?:

Diabetic?:

HT?:

Show Data?:



LastA1CStatus	Count	Percentage
<a href="#">Under 7</a>	4,931	36.6%
<a href="#">Over 9</a>	2,140	15.9%
<a href="#">Between 7 and 9</a>	4,282	31.8%
<a href="#">(blank)</a>	2,112	15.7%
<b>Summary</b>	<b>13,465</b>	<b>100.0%</b>

LastA1CStatus	Count	Percentage
<a href="#">Under 7</a>	4,633	44.8%
<a href="#">Over 9</a>	1,844	17.8%
<a href="#">Between 7 and 9</a>	3,524	34.1%
<a href="#">(blank)</a>	336	3.3%
<b>Summary</b>	<b>10,337</b>	<b>100.0%</b>

LastA1CStatus	Count	Percentage
<a href="#">Under 7</a>	1,615	33.0%
<a href="#">Over 9</a>	814	16.6%
<a href="#">Between 7 and 9</a>	1,386	28.3%
<a href="#">(blank)</a>	1,077	22.0%
<b>Summary</b>	<b>4,892</b>	<b>100.0%</b>

# Diabetes Prevalence by Center

## Diabetes Prevalence

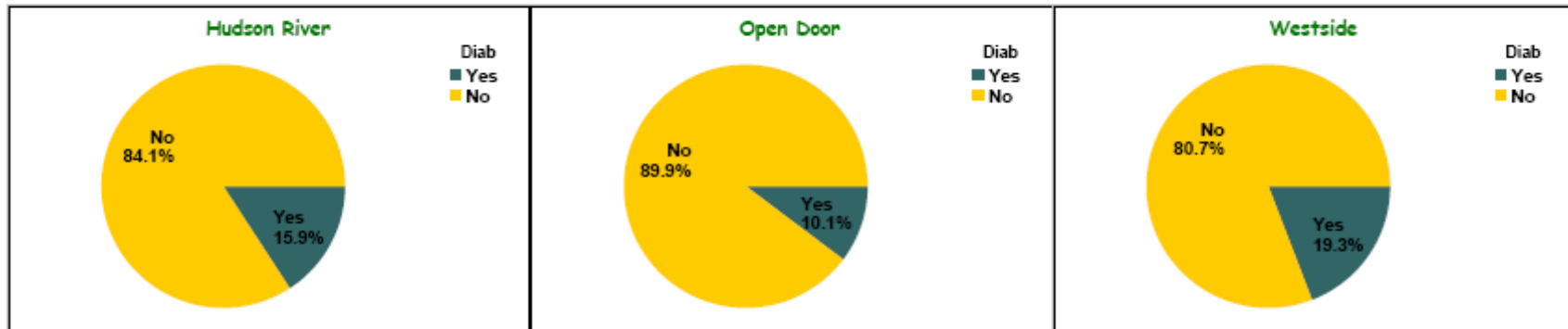
Health Centers:

Over 18?:

Diabetic?:

HT?:

Show Data?:



Diab	Count	Percentage
<a href="#">Yes</a>	21,110	15.9%
<a href="#">No</a>	111,556	84.1%
<b>Summary</b>	<b>132,666</b>	<b>100.0%</b>

Diab	Count	Percentage
<a href="#">Yes</a>	15,734	10.1%
<a href="#">No</a>	139,285	89.9%
<b>Summary</b>	<b>155,019</b>	<b>100.0%</b>

Diab	Count	Percentage
<a href="#">Yes</a>	6,445	19.3%
<a href="#">No</a>	26,978	80.7%
<b>Summary</b>	<b>33,423</b>	<b>100.0%</b>

## Some Cool Information

- Race really does make a difference in prevalence of disease!
- We all have lots of patients with two blood pressures greater than 140/90 who have not been diagnosed with Hypertension.
- Having your data allows you to identify where your challenges are.
- We don't get heights and weights and BP's as often as we would like.

## On-going Struggles

- Data validation
- Identifying data person at each center
- Anyone can use excel but many are afraid
- Cognos is pretty but writing and formatting reports is slow requires expertise
- Using the data internally to drive change takes time and committment

# Thank You

- Michele Hannagan, MS, FNP
  - Director of Clinical Operations, Westside Health Services, Rochester, NY
  - Co-Chair of Clinical Committee of HCNNY
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  - 585-672-1765
- Pam Ferrari
  - Director of Performance Improvement and Clinical Knowledge, Open Door Family Medical Centers Inc, Ossining, NY
  - Co-Chair of Clinical Committee of HCNNY
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