

Hypertension

Collaborating to Control Blood Pressure: “Knowing Your Numbers” is Just the Beginning

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Agenda

1. National-Level

- Importance and Relevance

2. Community-Level Initiative

- FLHSA/RBA Community High Blood Pressure Collaborative

3. Practice-Level Initiative

- Culver Medical Group

National-Level

Importance and Relevance

Hypertension

Prevalence

- 66.9 million (30.4%) U.S. adults aged ≥ 18 years have hypertension

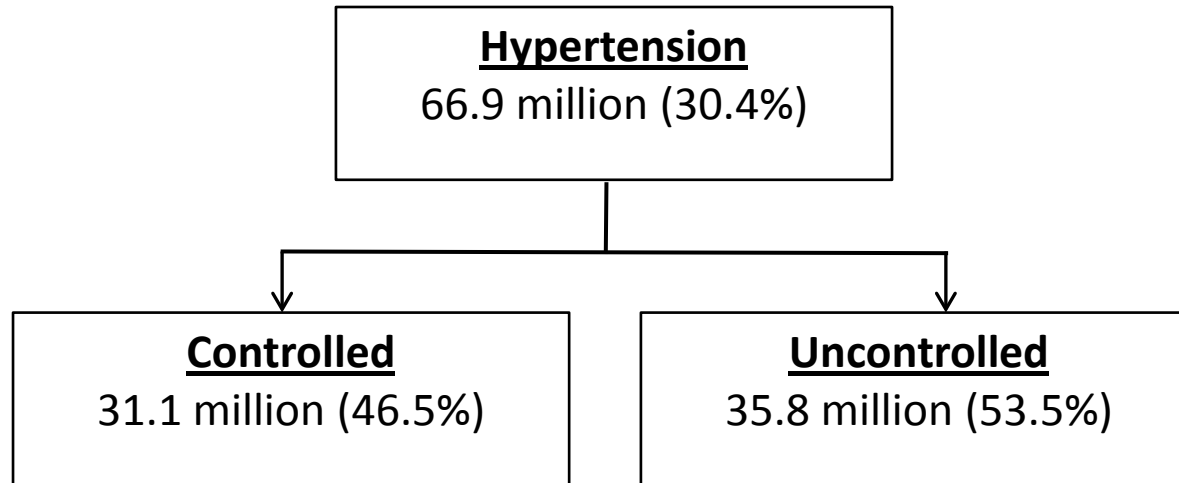
Diagnosis

- Under Recognized Disease
- Estimated 21% of people with HTN remain undiagnosed

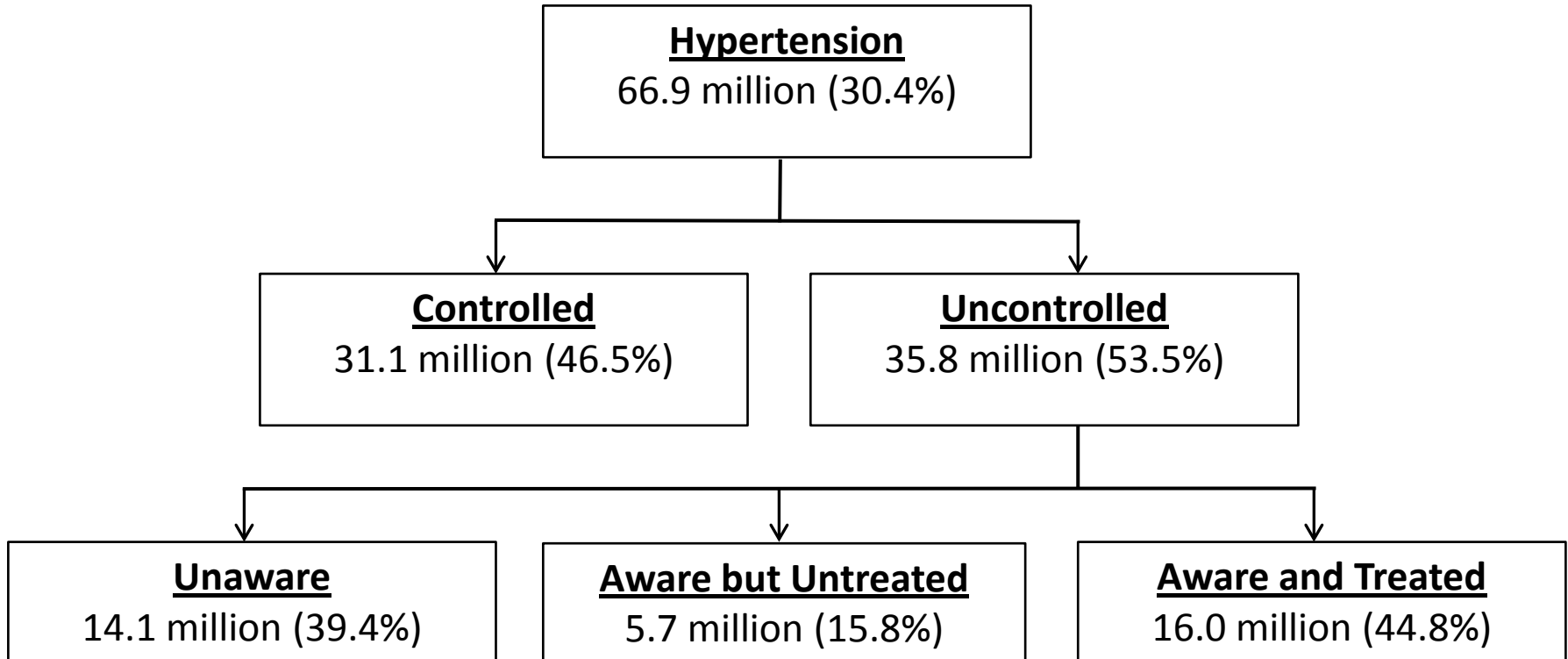
Treatment

- Inadequate treatment
- Estimated 53.5% of those with HTN are uncontrolled

National Control Rate



National Control Rate





Health & Economic Impact



Mortality Impact

- 348,000 deaths per year include hypertension as a primary or contributing cause
- If all hypertensive patients were treated to goal, 46,000 deaths might be averted each year

Financial Impact

- \$93.5 Billion per year in direct and indirect costs (The American Heart Association)

Effective Treatments

Generic Medications \$4/month

- Ace-Inhibitors
- Thiazides
- Beta-Blockers
- Aldosterone Antagonists
- Direct vasodilators
- Alpha-1 Blockers
- Alpha-2 Agonists

Other generics

- Calcium Channel Blockers
- Angiotensin Receptor Blockers

Opportunity

Uncontrolled Hypertensives

35.8 million people

+

Mortality

46,000 Preventable deaths

Costs

\$93.5 billion / year

+

**Effective and Inexpensive
Treatments**

Opportunity

Uncontrolled Hypertensives

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**Effective and Inexpensive
Treatments**



Significant Opportunity



Community-Level

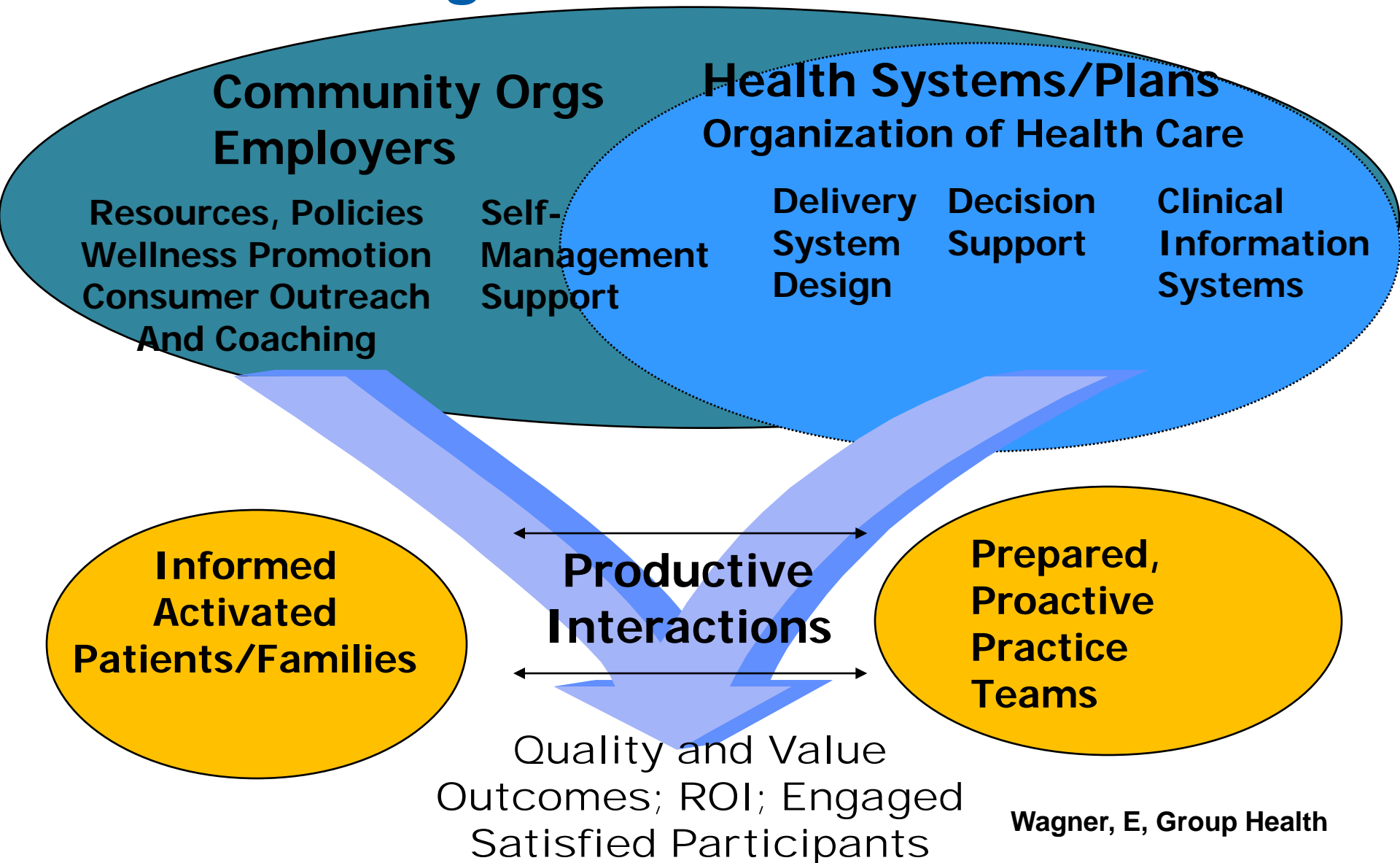
Finger Lakes Health Systems Agency
Rochester Business Alliance

High Blood Pressure Collaborative

Objectives

- Articulate the value of a multifaceted project to improve chronic disease outcomes.
- Demonstrate the inter-relationship of community engagement and primary care practice involvement in the project.
- Outline the community engagement component of the project.
- Describe the creation of a Monroe County community wide HBP registry and the primary care intervention.

Improving Health Outcomes For High Blood Pressure



Community Interventions

- Attitude Survey
- Ambassador Network
- Health Screenings
- Pharmacy
- Faith communities/CBOs
- Kiosks
- Barbershops
/Salons

Worksite Interventions

- Peer led self help curriculum
- Based on self-determination theory, promoting:
 - Competence
 - Autonomy
 - Relatednessto increase internal motivation to sustain choices
- Year 1 participants: AIDS Care of Rochester, Bausch and Lomb, Paychex.
- Year 2 participants: Community Place, LiDestri Foods, Roberts Wesleyan College
- Million Hearts

Blood Pressure Advocates

- Community health worker model
- Advocates placed in primary care practices in all three health systems
- Practices geographically serve the most vulnerable
- Advocates possess deep knowledge of the neighborhoods and available community services

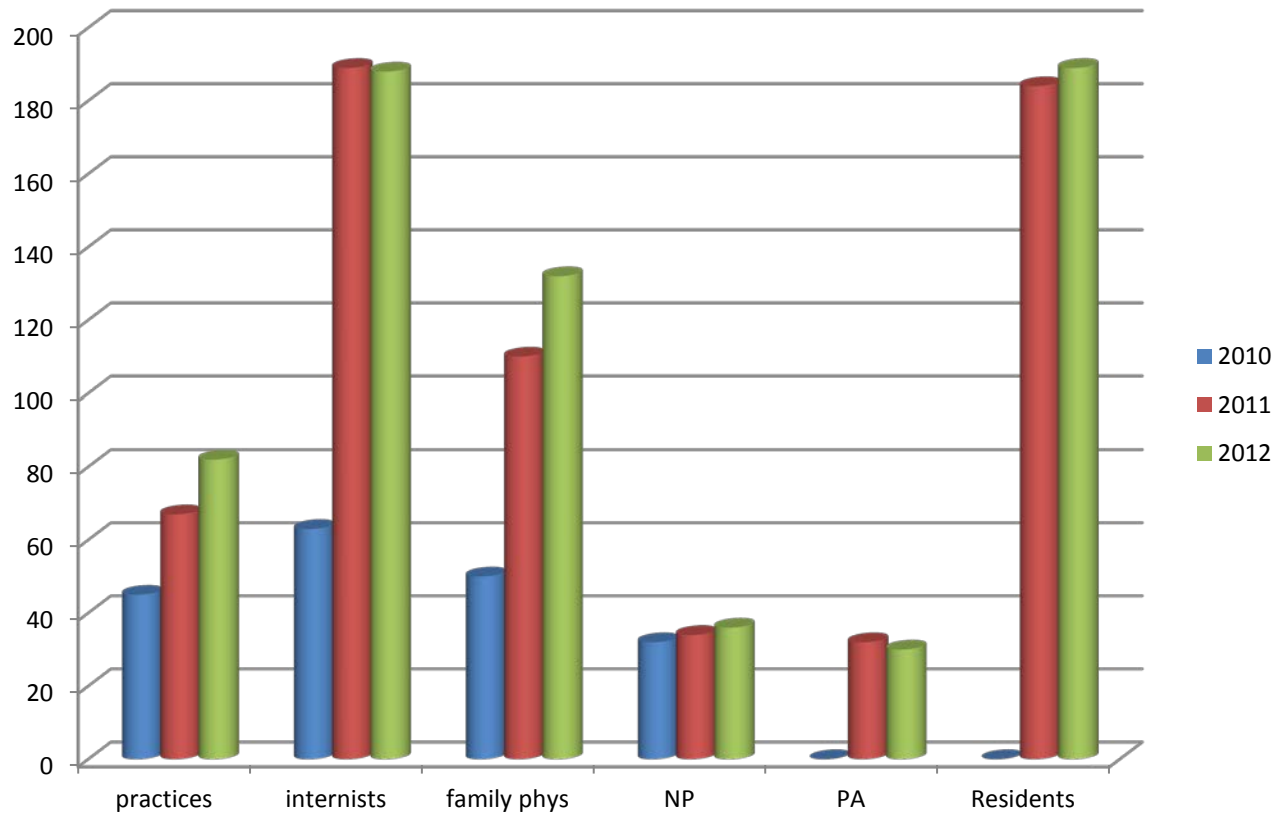


Clinical Interventions

- Patient Registries
- Baseline Data
- Primary Care Quality Improvement

High Blood Pressure Registry Participation by Provider Type

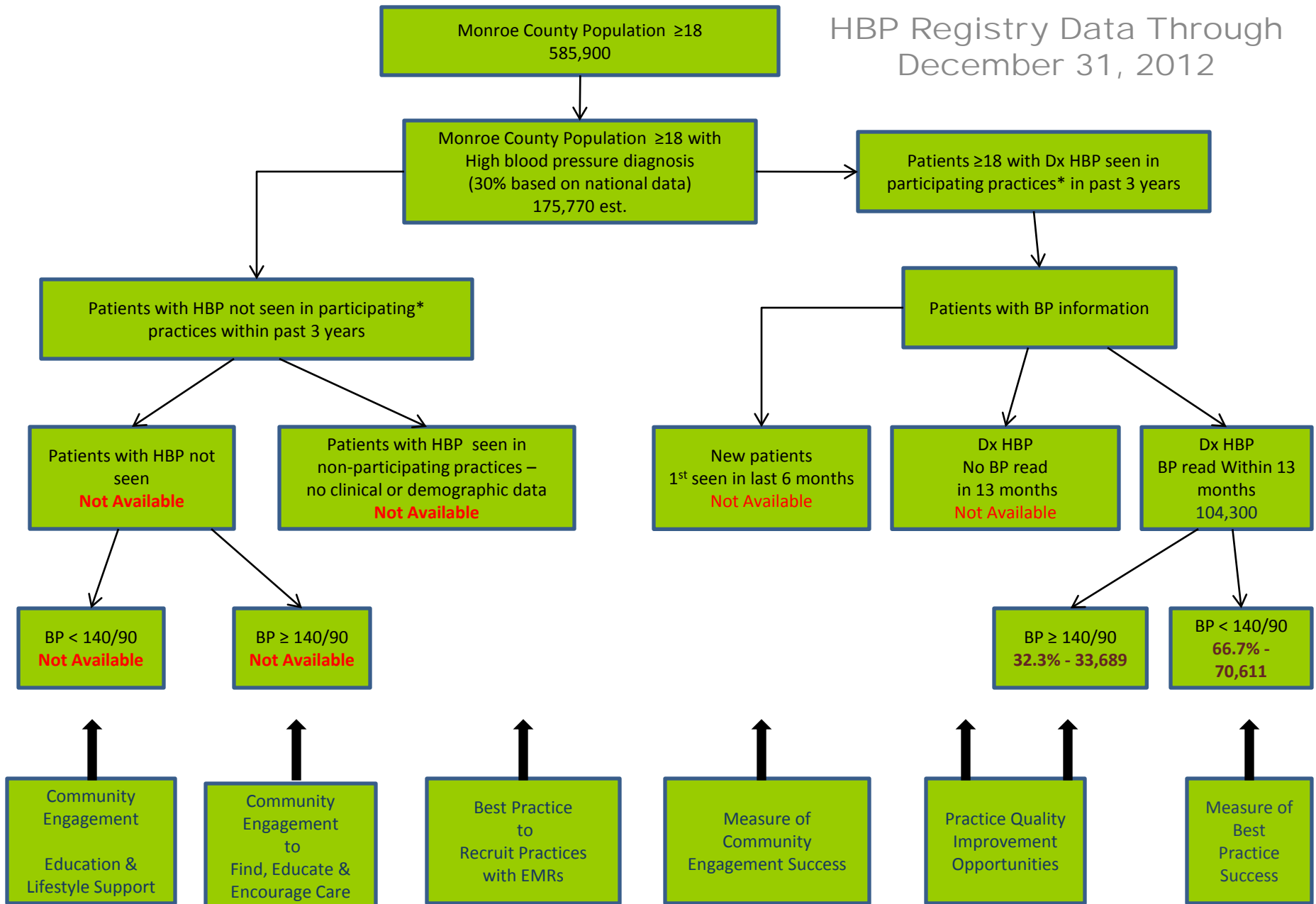
2010 - 2012



Participating Practices

- Unity Health System
- Rochester General Health System
- UPMC Primary Care Network
- Highland Family Medicine
- UR IM Resident Practice
- RGH Twig Practice
- Lifetime Healthcare
- Jordan/Westside
- GRIPA
- Evergreen Family Medicine
- Jefferson Family Medicine
- Honeoye Valley Family Medicine
- Mahoney, Horohoe and Garneau Internal Medicine

HBP Registry Data Through December 31, 2012



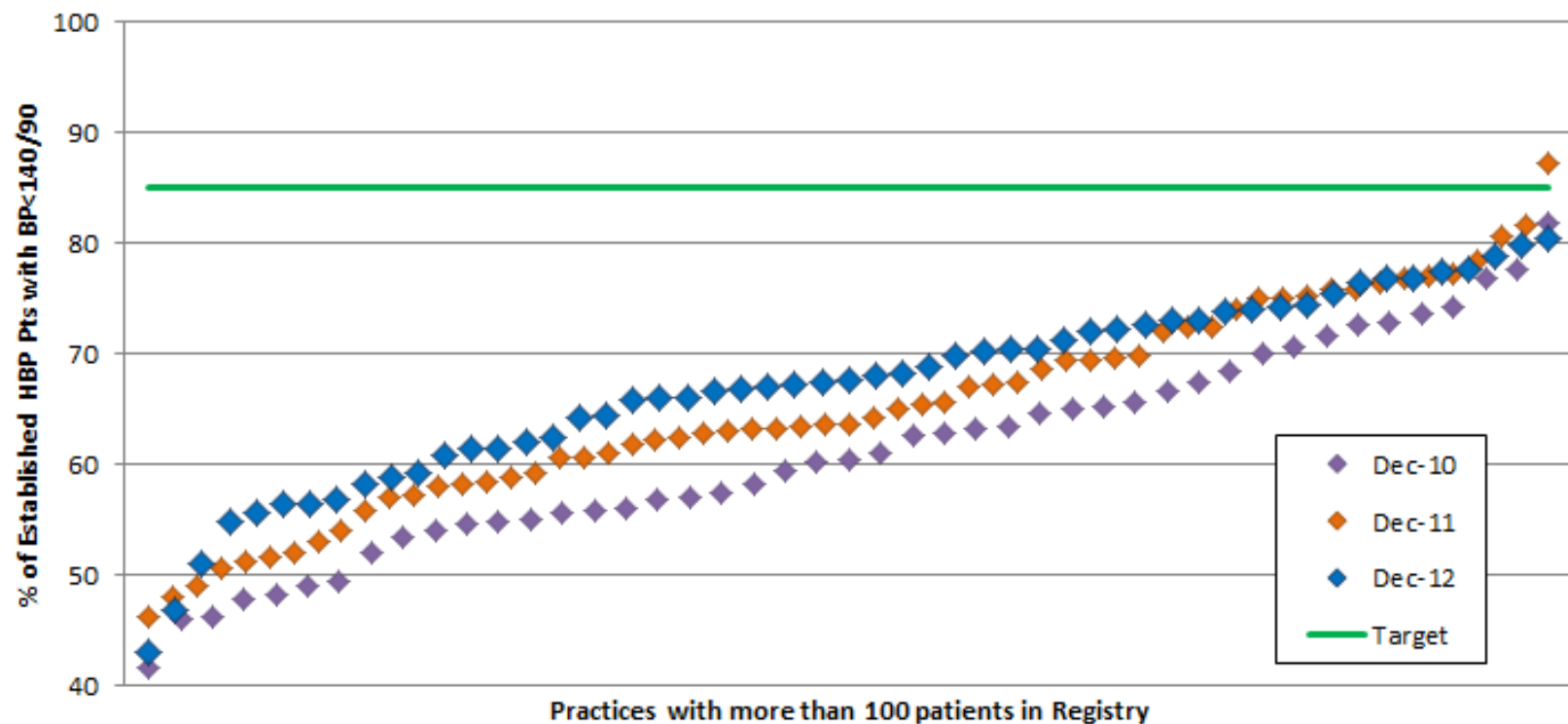
High Blood Pressure Registry Monroe County Residents 18 & Older

Registry Date	Monroe Co Population 18 & Older	Estimate of HBP Population (30%)	Patients in HBP Registry with BP Info	Control Rate
December 2010	578,200	173,460	59,400	62.7%
December 2011	582,000	174,600	88,900	64.4%
December 2012	585,900	175,770	104,300	66.7%

Control Rate is age-sex adjusted % of established patients with BP read in last 13 months with BP <140/90

% of HBP Patients with BP Controlled

December 2010, December 2011, and December 2012 Registries



Note: Practices are in order by control rate for each registry and will not necessarily line up among the three registries
Rates are age-sex adjusted to the June 2011 Registry age-sex distribution
Data Sources: December 2010, 2011, and 2012 High Blood Pressure Registries

Components of BP Quality Improvement

- Standardizing accuracy of office BP measurement
- Understanding the important role clinical inertia plays as a barrier to higher BP control rates
- Improving practice strategies to uncover patient specific barriers to improved BP control
- Facilitating the contribution of practice staff in achieving quality improvement goals
- Accepting that the physician is NOT the solution to every practice improvement plan



Summary

- It takes a community to improve chronic disease management
- Many partners are key contributors to that effort
- Rochester is becoming a leader in community based collaborative implementation of project to improve the quality and value of care to ALL
- Linkages are being built between the practice community, employers, faith community and community based organizations to maximize improvement

Practice-Level

Culver Medical Group
University of Rochester

Practice Setting

- **Culver Medical Group**
 - 7 Attending Physicians
 - 28 Resident Physicians
 - 1 Social Worker
- **Setting**
 - Urban
 - Federally designated underserved area
 - Predominantly Medicaid and Uninsured

Project Overview

Phase 1 – Educational Phase

Phase 2 – Pharmacy Phase

Phase 3 – Nurse Managed Phase

Educational Phase

Phase 1 – Educational Phase

- Teaching
 - Guidelines
- Team Building
- Standardization of office protocols

Pharmacy Phase

Phase 2 – Pharmacy Phase

- Consultations with patients
 - Medication Adherence
 - Side-effects
 - Assistance with obtaining medications
- Outreach to non-adherent patients
- Consultations with physicians

Nurse Managed Phase

Phase 3 – Nurse Managed Phase

A. Patient-Level Management

- Direct patient visits. Titrate medications.
- Phone calls to follow-up with patient

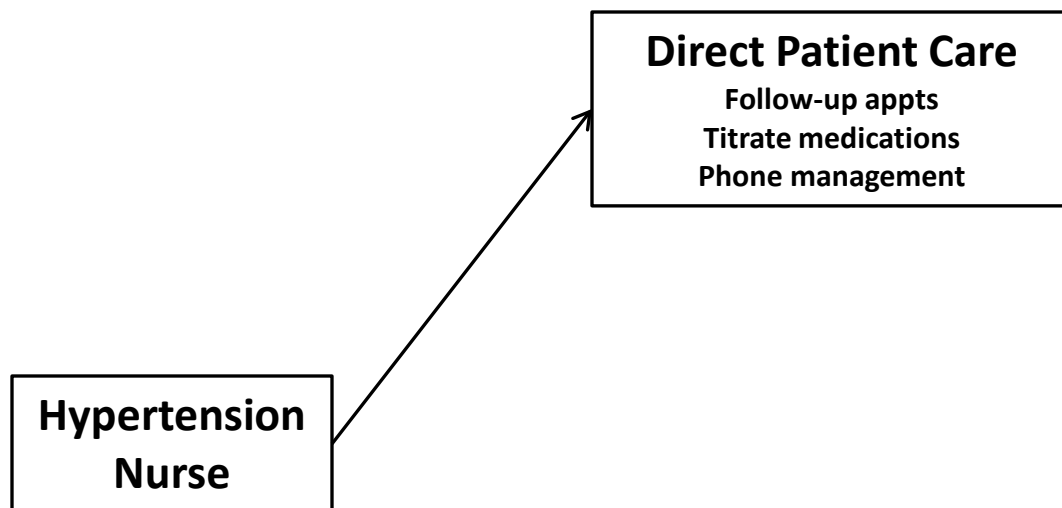
B. Population-Level Management

- Outreach to uncontrolled patients without appts

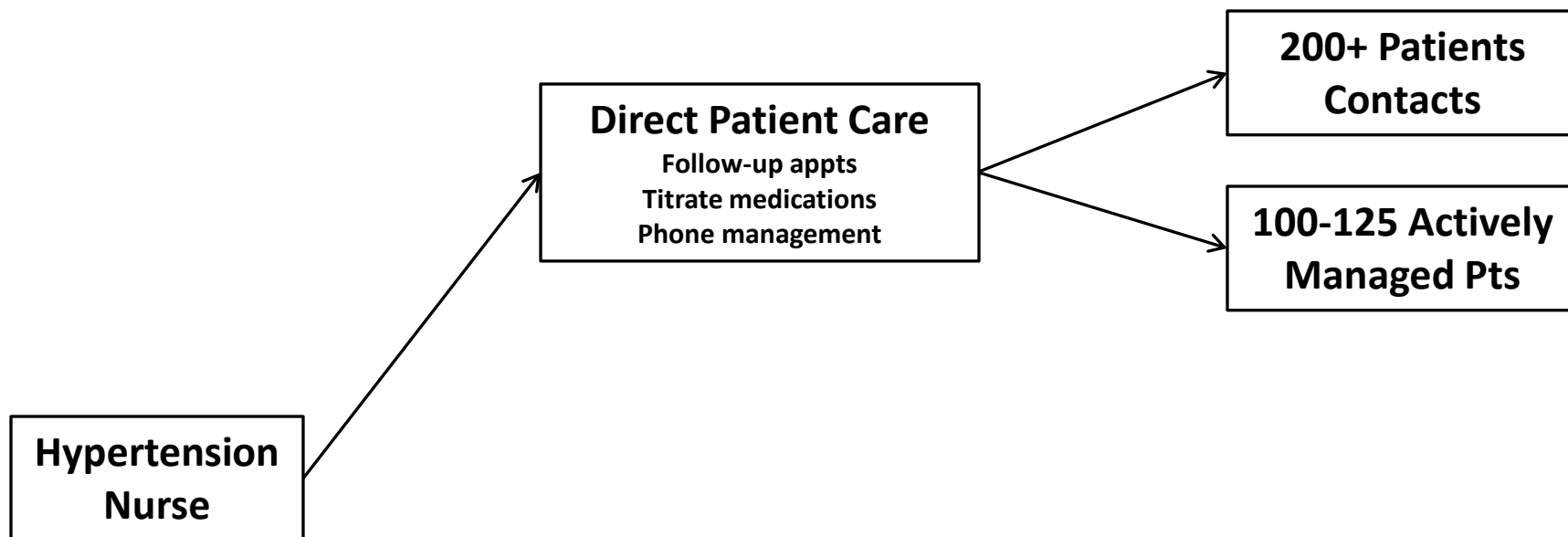
C. Provider-Level Management

- Provider reports
- Transparent results
- Working with individual providers and teams

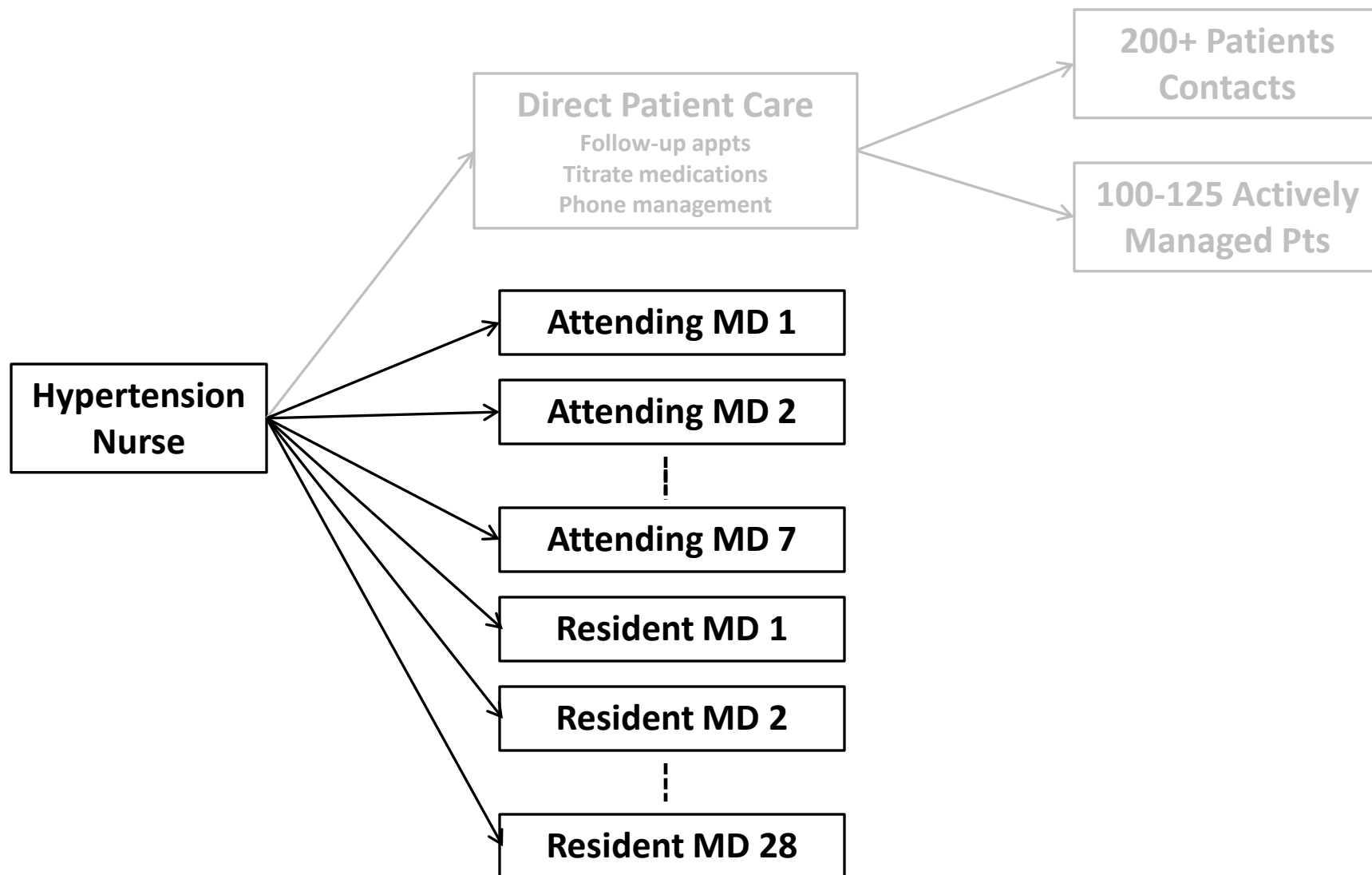
Nurse Managed Phase



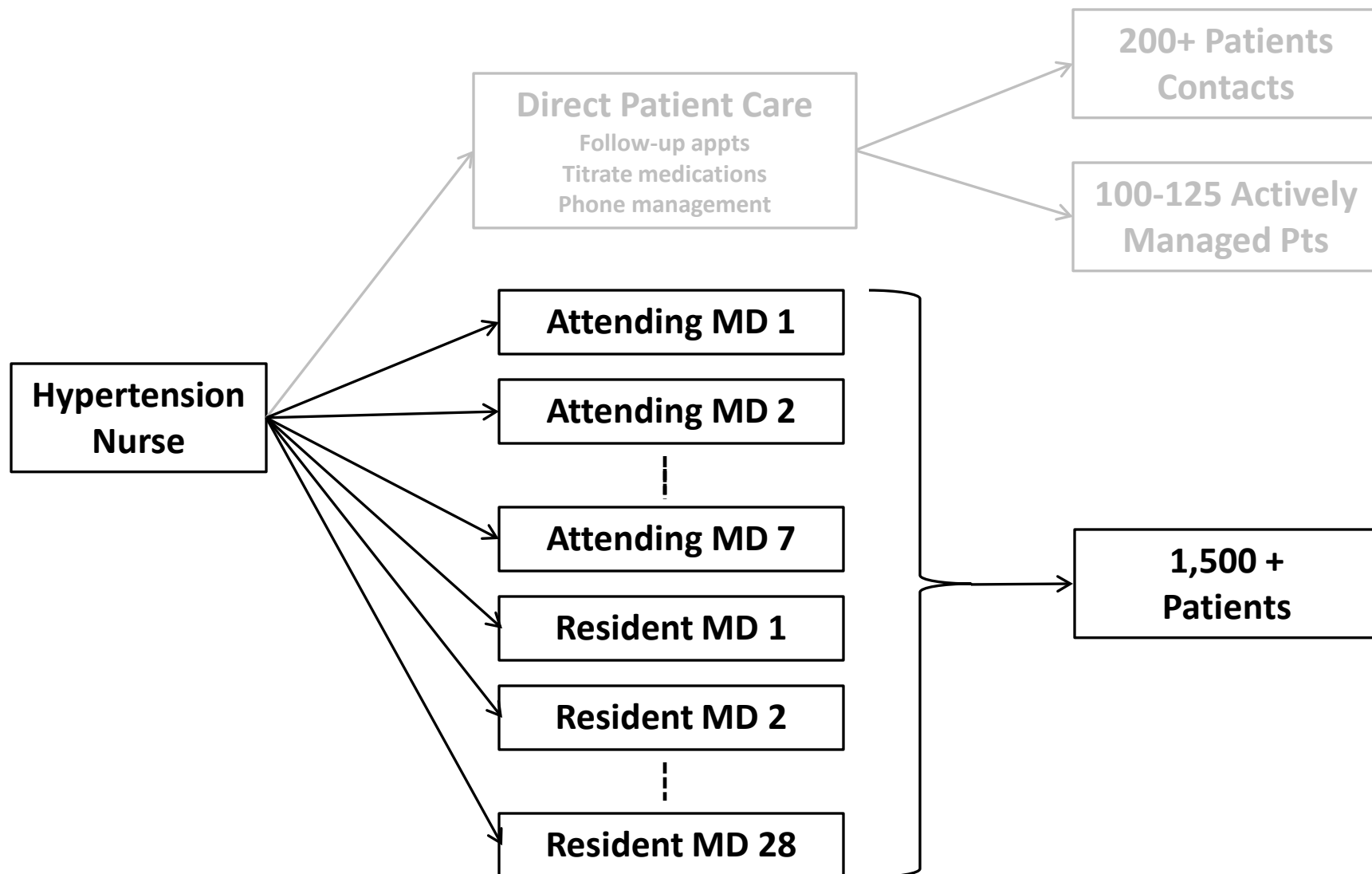
Nurse Managed Phase



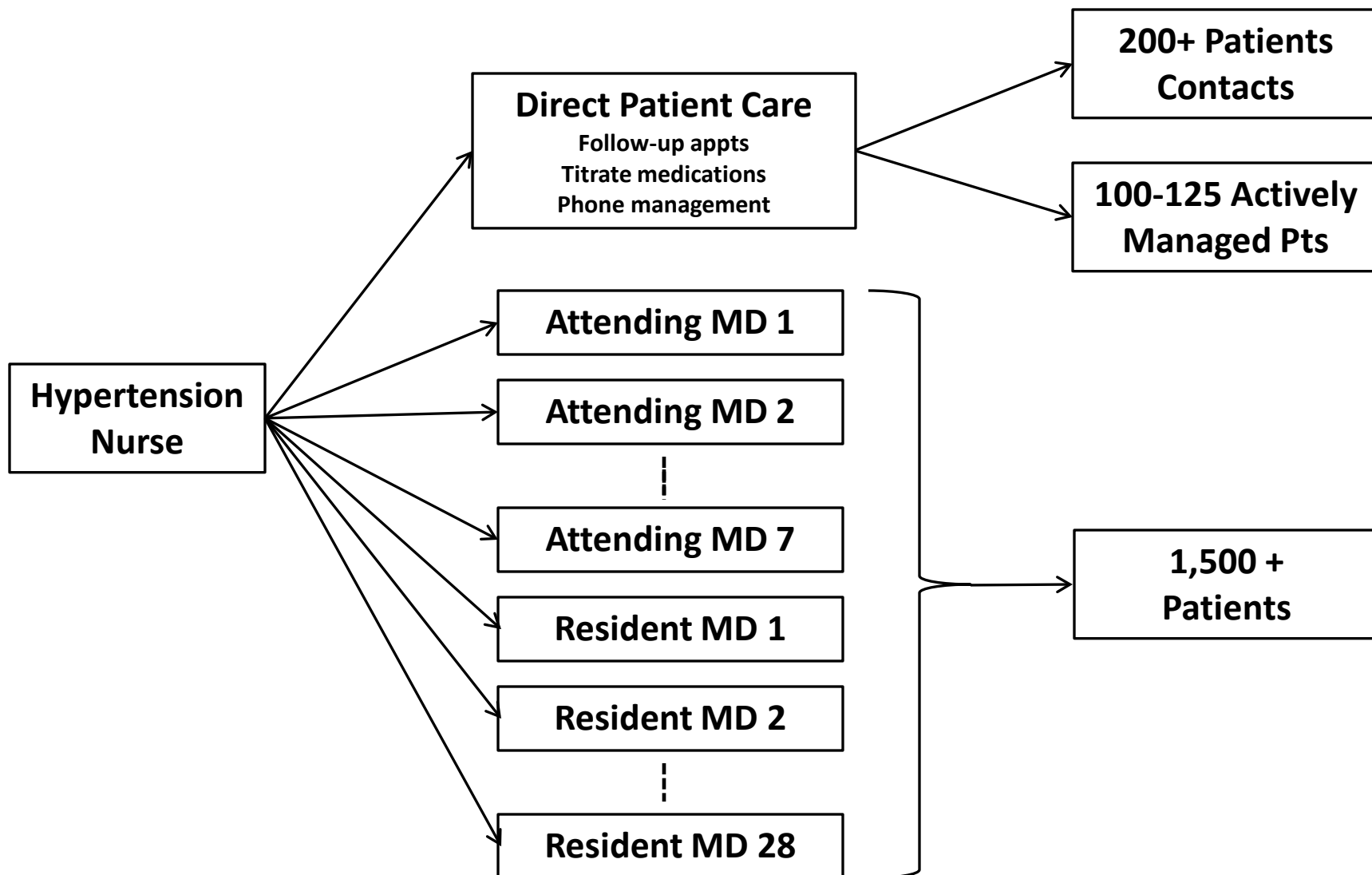
Nurse Managed Phase



Nurse Managed Phase



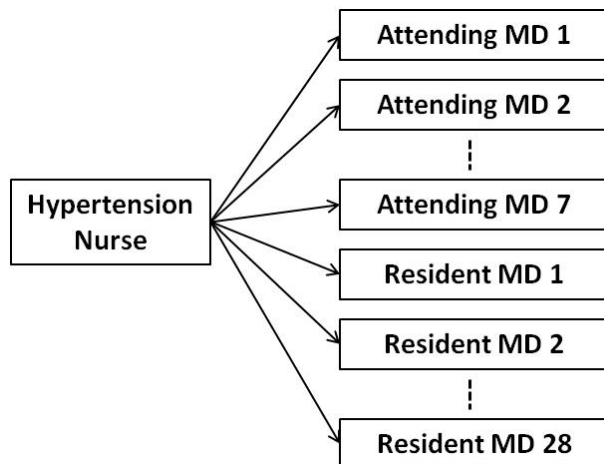
Nurse Managed Phase



Nurse Managed Phase

- Managing Physicians Teams -

Key Elements



- Working with individual providers
 1. Credibility
 2. Sense of team
 3. Efficiency
 4. Proximity
- Transparency, Accountability
 1. Provider Reports

Hypertension Report

Physician: **Provider**

Culver HTN Control Rate: 67.5%

Physician Control Rate: 61.9%

--Patients Not at Goal--									
Patient Name	MRN	SBP	DB P	Last Appt	Next Appt	Patient Called?	Follow-up App	Nurse f/u	Comments (Urgency of appt, Further instructions)
Last, First	*****	140	92	Apr 25 2011 8:00AM	5/11/2012	<input type="checkbox"/> Yes <input type="checkbox"/> Not required <input type="checkbox"/> Message left <input type="checkbox"/> Unable Contact	<input type="checkbox"/> Needs appt <input type="checkbox"/> Appt pending	<input type="checkbox"/> RN call <input type="checkbox"/> RN Appt <input type="checkbox"/> None	
Last, First	*****	140	98	Jul 20 2011 4:10PM	NULL	<input type="checkbox"/> Yes <input type="checkbox"/> Not required <input type="checkbox"/> Message left <input type="checkbox"/> Unable Contact	<input type="checkbox"/> Needs appt <input type="checkbox"/> Appt pending	<input type="checkbox"/> RN call <input type="checkbox"/> RN Appt <input type="checkbox"/> None	
Last, First	*****	152	92	Sep 7 2010 1:50PM	NULL	<input type="checkbox"/> Yes <input type="checkbox"/> Not required <input type="checkbox"/> Message left <input type="checkbox"/> Unable Contact	<input type="checkbox"/> Needs appt <input type="checkbox"/> Appt pending	<input type="checkbox"/> RN call <input type="checkbox"/> RN Appt <input type="checkbox"/> None	
Last, First	*****	144	92	Oct 1 2009 1:00PM	NULL	<input type="checkbox"/> Yes <input type="checkbox"/> Not required <input type="checkbox"/> Message left <input type="checkbox"/> Unable Contact	<input type="checkbox"/> Needs appt <input type="checkbox"/> Appt pending	<input type="checkbox"/> RN call <input type="checkbox"/> RN Appt <input type="checkbox"/> None	
Last, First	*****	161	88	Nov 3 2010 8:50AM	NULL	<input type="checkbox"/> Yes <input type="checkbox"/> Not required <input type="checkbox"/> Message left <input type="checkbox"/> Unable Contact	<input type="checkbox"/> Needs appt <input type="checkbox"/> Appt pending	<input type="checkbox"/> RN call <input type="checkbox"/> RN Appt <input type="checkbox"/> None	
Last, First	*****	151	76	Apr 1 2010 2:10PM	6/1/2012	<input type="checkbox"/> Yes <input type="checkbox"/> Not required <input type="checkbox"/> Message left <input type="checkbox"/> Unable Contact	<input type="checkbox"/> Needs appt <input type="checkbox"/> Appt pending	<input type="checkbox"/> RN call <input type="checkbox"/> RN Appt <input type="checkbox"/> None	
Last, First	*****	140	92	Apr 25 2011 8:00AM	5/19/2012	<input type="checkbox"/> Yes <input type="checkbox"/> Not required <input type="checkbox"/> Message left <input type="checkbox"/> Unable Contact	<input type="checkbox"/> Needs appt <input type="checkbox"/> Appt pending	<input type="checkbox"/> RN call <input type="checkbox"/> RN Appt <input type="checkbox"/> None	

Results

Hypertension Performance Improvement Project

Culver Medical Group

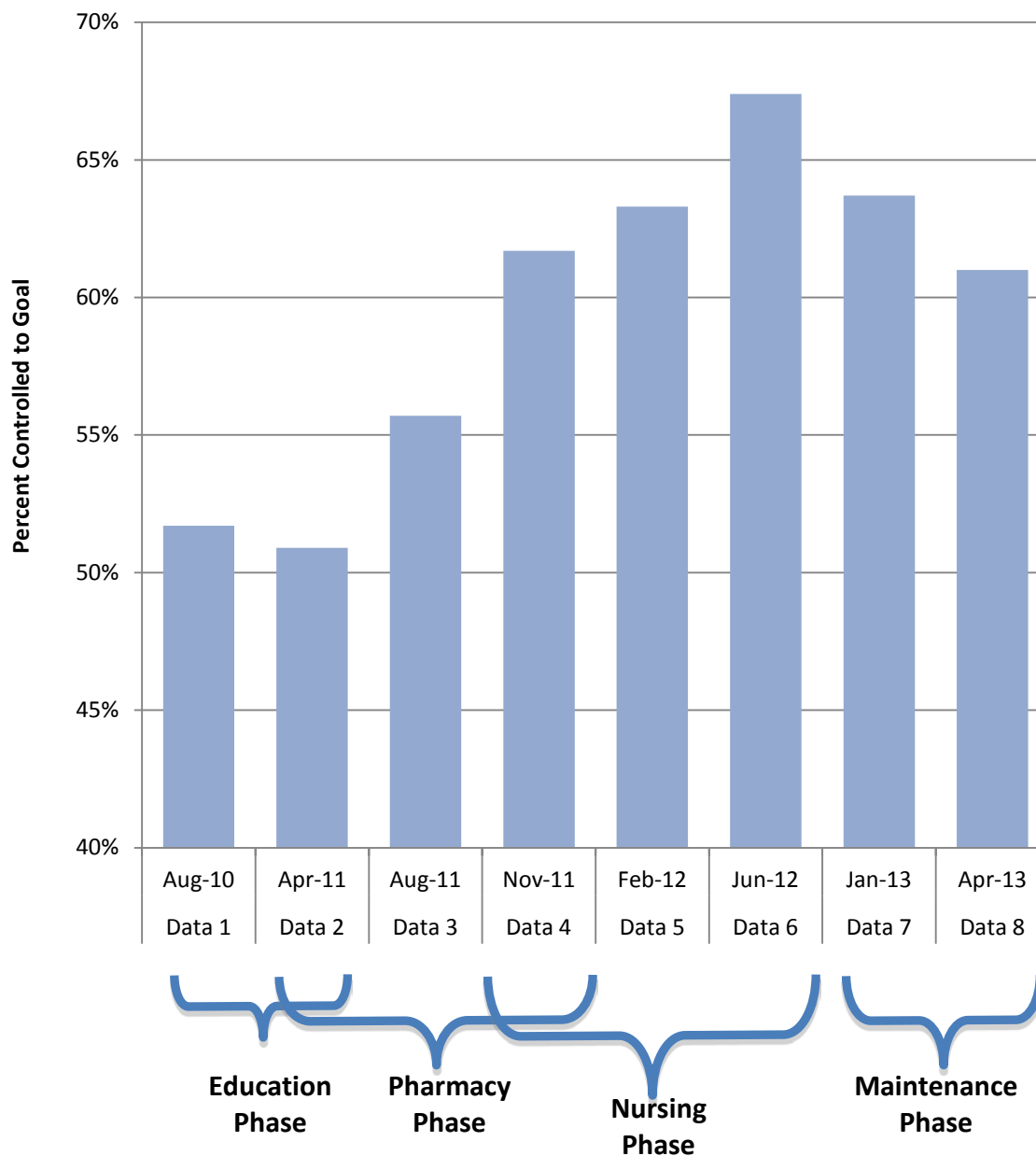
Prevalence

HTN	Baseline (N=4991)	4/4/2011 (N=4538)	8/22/2011 (N=4506)	11/15/2011 (N=4420)	2/21/2012 (N=4496)
Percent Hypertensive	26.7%	28.1%	27.7%	27.2%	27.3%

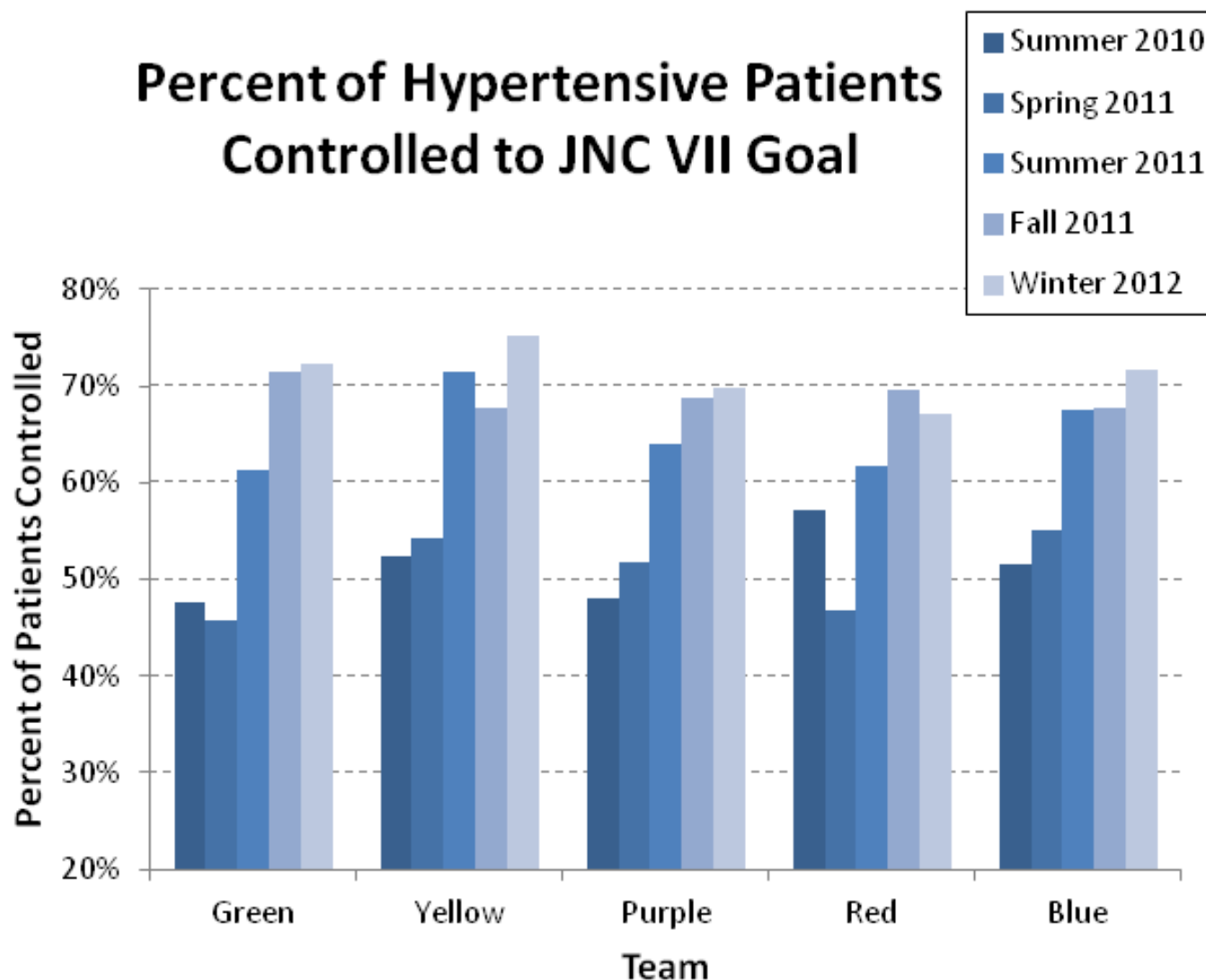
Accurate Diagnosis

All Hypertensive Patients	Baseline (N= 1388)	8/22/2011 (N=1249)	11/15/2011 (N=1204)	2//21/2012 (N=1229)
Diagnosed HTN*	93.44%	97.0%	97.2%	97.6%
Undiagnosed HTN	6.56%	3.0%	2.8%	2.4%

Control Rates



Percent of Hypertensive Patients Controlled to JNC VII Goal



Key Lessons Learned

Key Elements

- 1. Adequate Support**
- 2. Physician “buy-in”**
- 3. Transparency / Feedback (HTN Reports)**
- 4. Population, Physician, and Patient Management**

Key Elements

Adequate Support is Required

- Care management
- Nursing
- Pharmacy
- Clerical

Key Elements

Physician “buy-in” is Essential

- Patient focused
- Peer implemented
- Physician input used in program development/adaptation

Key Elements

Transparency / Feedback (HTN Reports)

- Timely, clinically useful information
- Aimed at improving patient care
- Structured to be helpful, not punitive
- Peer developed, peer delivered
- Provided in context of team

Key Elements

Population, Physician, and Patient Management

— Population-Management

- Managing lists of patients
- Outreach to patients

Key Elements

Population, Physician, and Patient Management

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— Physician/Provider-Management

- Leveraging multiple providers
- Promoting “Best-Practice”

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Population, Physician, and Patient Management

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— Physician/Provider-Management

- Leveraging multiple providers
- Promoting “Best-Practice”

— Patient-Management

- Individual appts, counseling

Thank you