



# Maximizing Integration of clinical pharmacist in Chronic Disease Management VA model v1

Right Care Initiative Presentation March 4, 2013

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# PRESENTATION OVERVIEW

- Focus on Cardiovascular outcomes to align with Right Care and San Diego Goals preventing strokes and heart attacks.
- Overview of VA Medical Home initiative known as Patient Aligned Care Teams (PACT), implementations and progress.
- VA initiative to utilize Clinical Pharmacist at the top of their license to Manage Chronic Disease.
- Lesson learned and challenges that can be applied broadly external to the VA.
- Group Challenge on how some of the concepts presented can be applied to the Right Care initiative.

# VA HEDIS Scores

Clinical Indicator	VA Average Percent (1)			HEDIS 2011 (2)		
	2012 (6)	2011 (6)	2010 (6)	Commercial (7)	Medicare (7)	Medicaid (7)
Breast Cancer Screening	87	85	87	71	69	50
Cervical Cancer Screening	93	93	94	77	n/a	67
<b>Cholesterol Management for Patients with Cardiovascular Conditions: LDL-C Control (&lt;100 mg/dL)</b>	70	71	69	59	57	42
<b>Cholesterol Management for Patients with Cardiovascular Conditions: LDL-C Screening</b>	96	96	96	88	89	82
Colorectal Cancer Screening	82	82	82	62	60	n/a
<b>Comprehensive Diabetes Care - Blood Pressure Control (&lt;140/90)</b>	80	81	82	66	63	61
Comprehensive Diabetes Care - Eye Exams	90	90	91	57	66	53
Comprehensive Diabetes Care - HbA1c Testing		98	99	90	91	83
<b>Comprehensive Diabetes Care - LDL-C Controlled (LDL-C&lt;100 mg/dL)</b>	68	69	70	48	53	35
Comprehensive Diabetes Care - LDL-C Screening	97	97	97	85	88	75
Comprehensive Diabetes Care - Medical Attention for Nephropathy	95	95	96	84	90	78
<b>Comprehensive Diabetes Care - Poor HbA1c Control (8)</b>	19	17	15	28	27	43
<b>Controlling High Blood Pressure - Total</b>	77	78	79	65	64	57
<b>Medical Assistance with Smoking Cessation - Advising Smokers To Quit 3</b>	96	97	97	77	n/a	76
Medical Assistance with Smoking Cessation - Discussing Medications 3	94	94	94	53	n/a	44
Medical Assistance with Smoking Cessation - Discussing Strategies 3	96	97	97	48	n/a	40
Flu Shots for Adults (50-64) 3	65	65	71	53	na	n/a
Flu Shots for Adults (65 and older) 3, 4, 5	76	79	82	n/a	69	n/a
Immunizations: Pneumococcal 3,4, 5	93	94	95	n/a	69	n/a



# Describe the VA Version of the Medical Home Model = Patient Aligned Care Teams (PACT)

### Other Team Members

**Clinical Pharmacy Specialist:**

± 3 panels

**Clinical Pharmacy**

**anticoagulation:**

± 5 panels

**Social Work:** ± 2 panels

**Nutrition:** ± 5 panels

**Case Managers**

**Trainees**

**Integrated Behavioral Health**

Psychologist ± 3 panels

Social Worker ± 5 panels

Care Manager ± 5 panels

Psychiatrist ± 10 panels

## Other Team Members

*For each parent facility*  
**Health Promotion Disease Prevention  
Program Manager: 1 FTE**  
**Health Behavior Coordinator: 1 FTE**  
**My HealthVet Coordinator: 1 FTE**

**Teamlet:** assigned to 1  
panel (±1200 patients)

- **Provider: 1 FTE**
- **RN Care Mgr: 1 FTE**
- **Clinical Associate  
(LPN, MA, or  
Health Tech): 1 FTE**
- **Clerk: 1 FTE**

**Patient  
Caregiver**

**The Patient's Primary Care Team**

# Changes in Primary Care

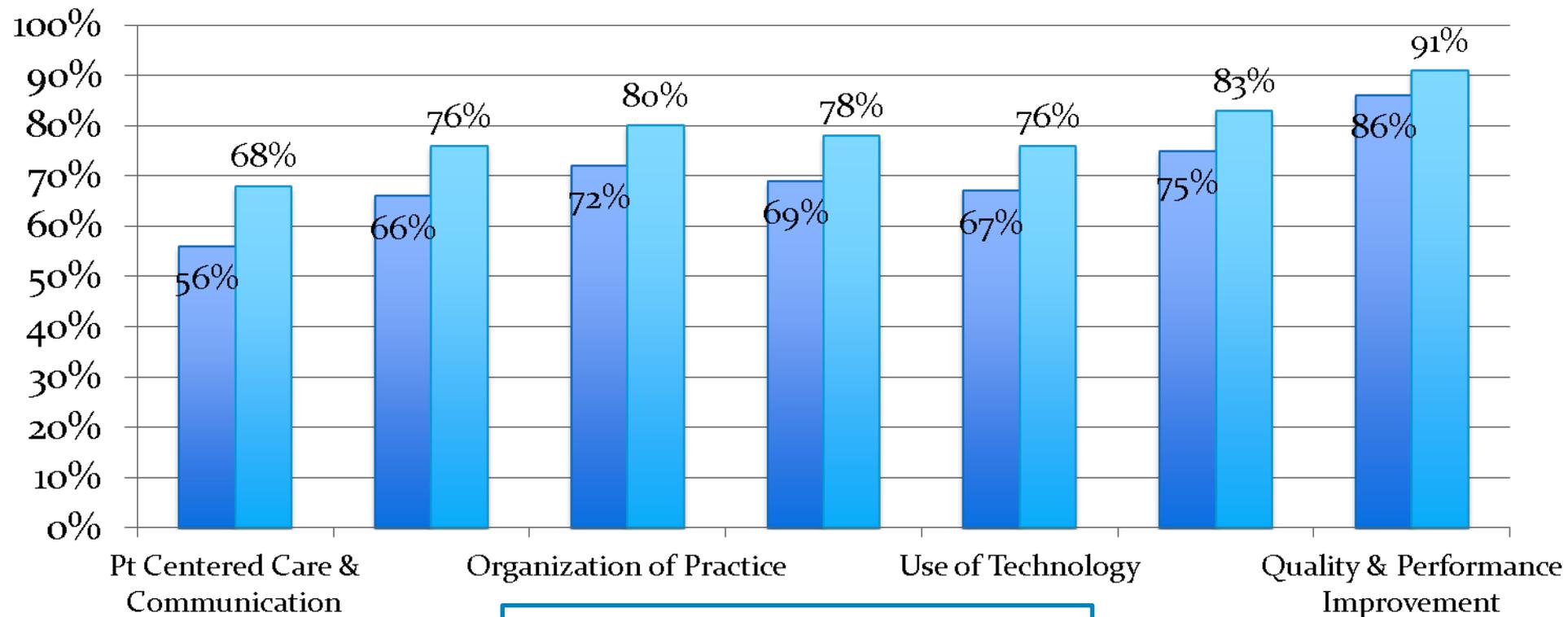
<b>Past Old Model</b>	<b>PACT (Patient Aligned Care Team)</b>
The patient has one provider	<b>The patient has a team</b>
Care delivered only by provider	<b>Care delivered by team members</b>
Focus on visits	<b>Focus on overall health</b>
Most care delivered by visits	<b>New care delivery routes and tools</b>
Virtual visits uncommon	<b>Phone, telehealth visits, secure messaging common</b>
Continuity inconsistent	<b>Continuity consistent</b>
High risk patients get routine care	<b>Identify and manage high risk patients</b>
Hospitalizations common	<b>Hospitalizations less frequent</b>
Care not well coordinated	<b>Care coordinated throughout the system</b>
Prevention not stressed	<b>Prevention and health promotion essential</b>

# Measurement – Can We Measure Improvement

- **PACT Compass**
  - Panel Management
  - Continuity
  - Access
  - Coordination
  - Engagement and Satisfaction
- **Patient Satisfaction**
  - CAHPS Patient Centered Medical Home Survey
- **Primary Care Almanac**
  - Diabetes
  - Hypertension
  - Congestive Heart Failure
- **Clinical Performance Measures**
  - Prevention
  - Chronic Disease Management
- **Employee Satisfaction surveys**
- **PACT Recognition Survey**
- **PACT Personnel Survey**
- **Home Builder Scores**

# Improvements in Home Builder Domains

■ Oct-09 n=850   ■ Jul-11 n=846

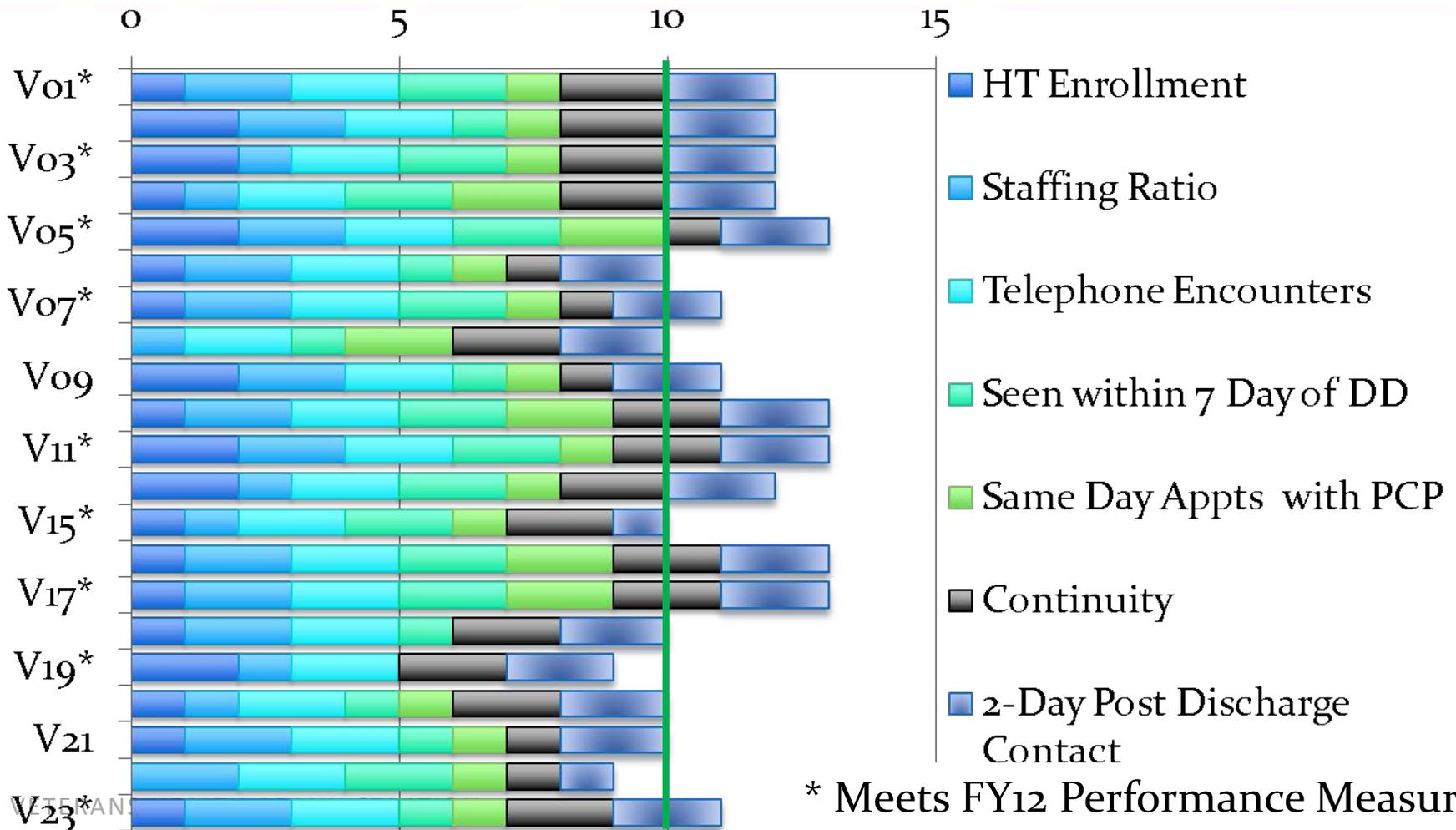


# National Changes since PACT Implementation (July 2010-July 2012)

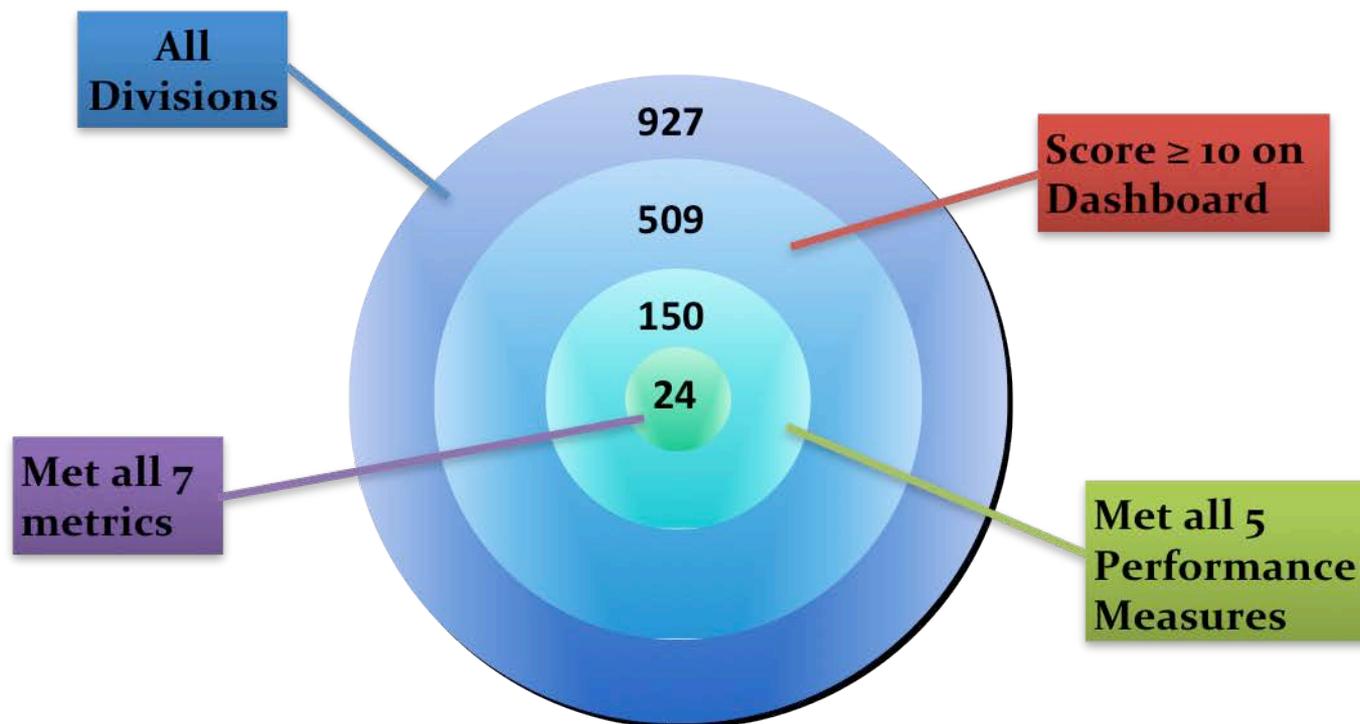
Primary Care Uniques	↑ 7%
PACT Provider Staff	↑ 2%
PACT Support Staff	↑ 29%
Average Panel Size	↑ 4%
Primary Care Capacity	↑ 5%
PACT Encounters per 1000 unique patients	↑ 38%
Continuity	↑ 3%
VHA Acute Admissions per 1000 unique PC patients	↓ 6%
VHA ED Visits per 1000 unique PC patients	↑ 6%
VHA Urgent Care Visits per 1000 unique PC patients	↓ 20%

PACT patients enrolled in Home Telehealth	↑ 65%
PACT Group Visits	↑ 53%
PACT Telephone Visits	↑ 927%
PACT patients seen on desired date	↑ 8%
PACT patients seen within 7 days of desired date	↑ 5%
3rd Next Available Appointment in PACT clinics	↓ 13%
Same day appointments with PCP	↑ 35%
Patients contacted within 2 days after discharge	↑ 847%

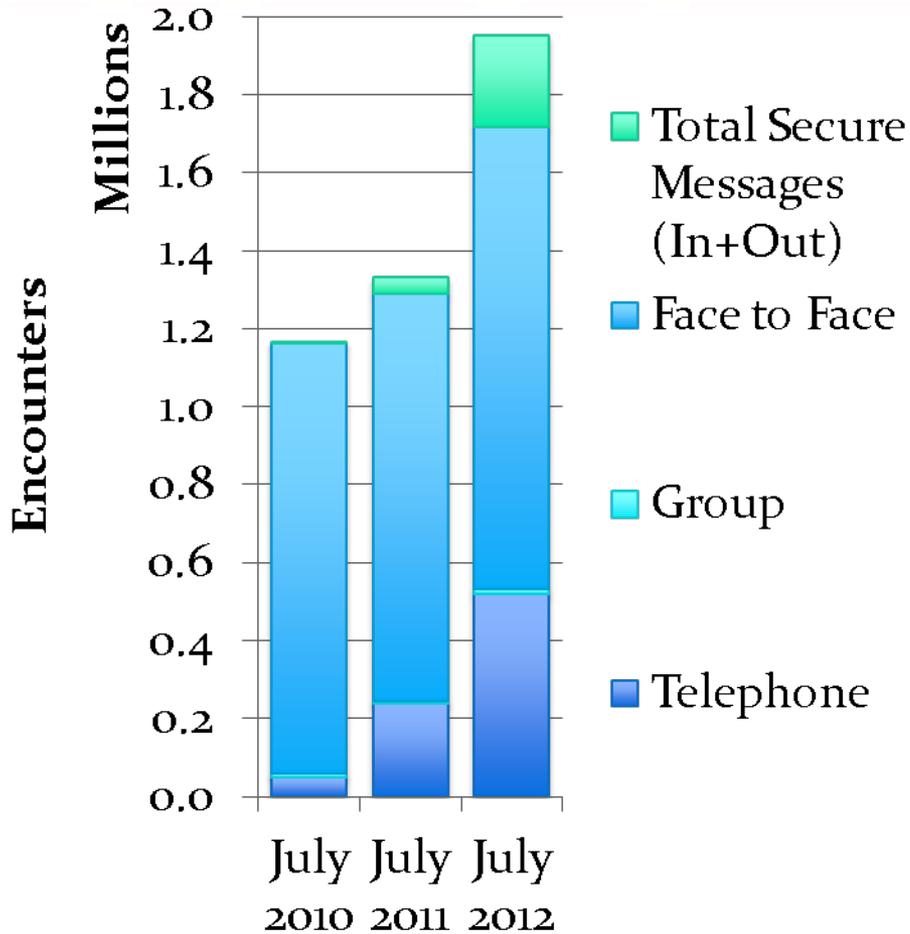
# PACT Implementation Dashboard – 7 metrics



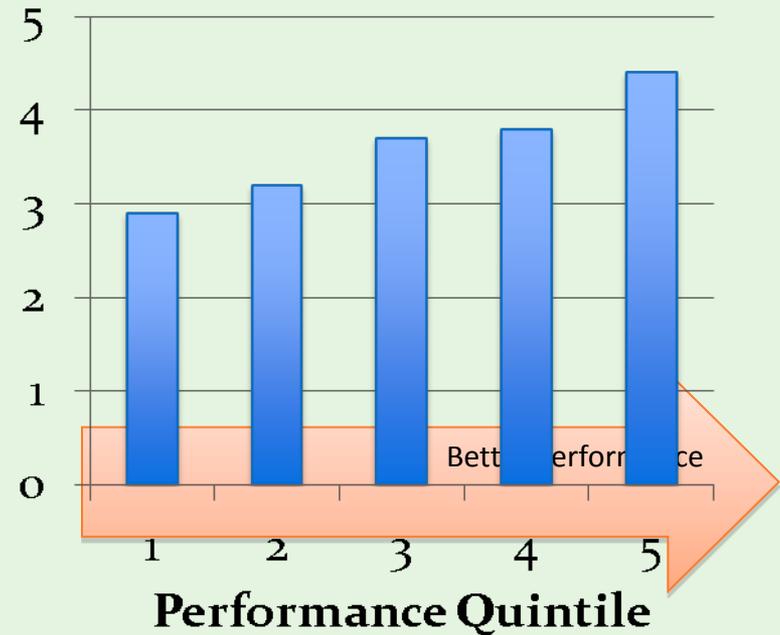
# Dashboard Metric Penetration



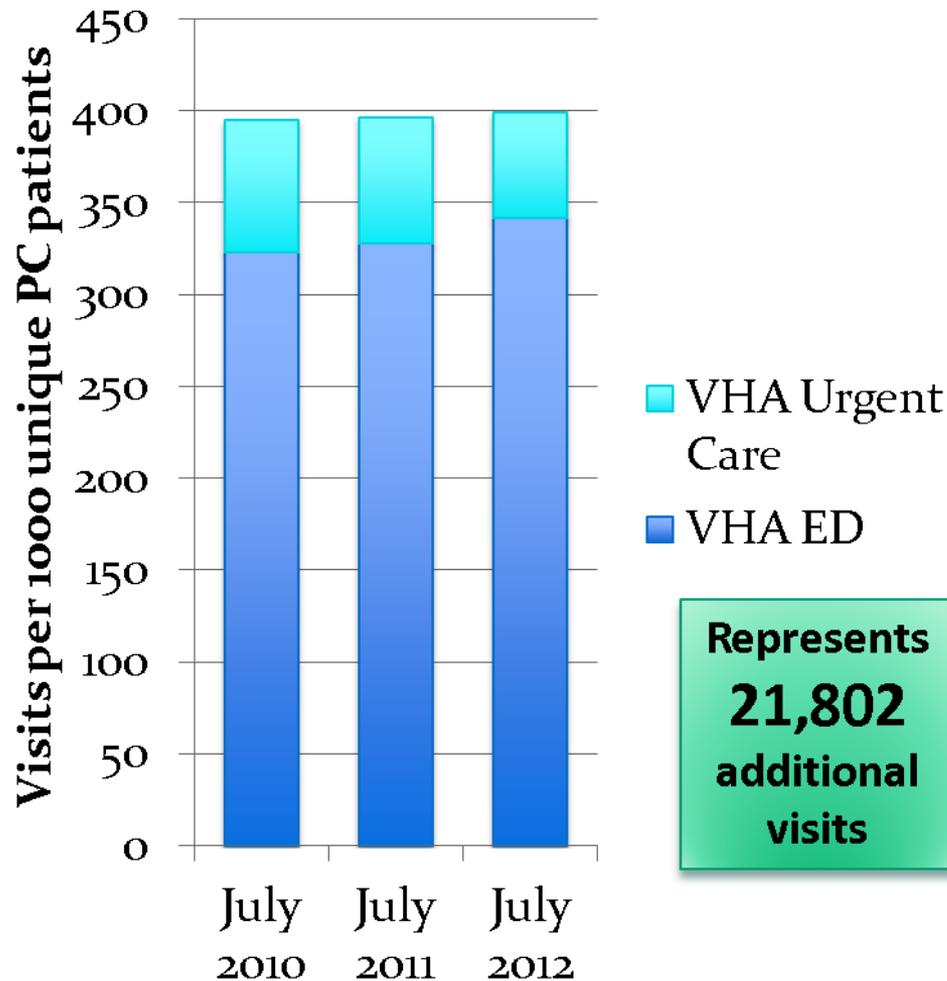
# PACT Workload Trends



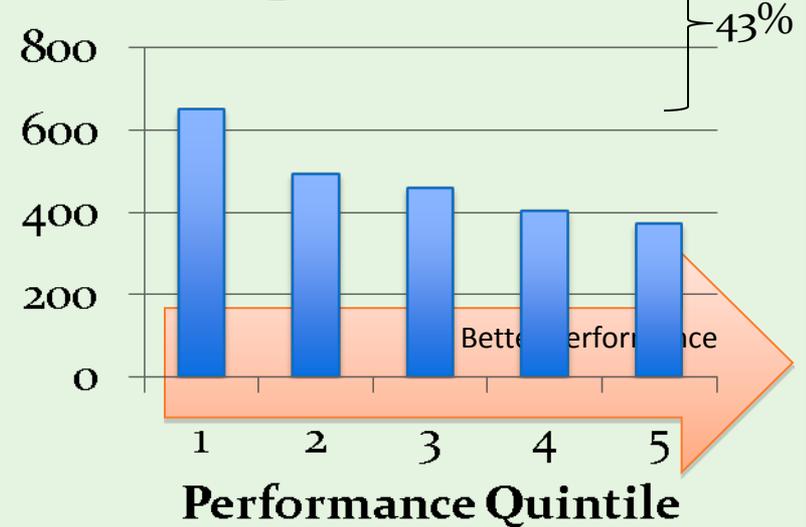
## PACT Recognition, Summer 2011: PC encounters per year



# Urgent/Emergent Care

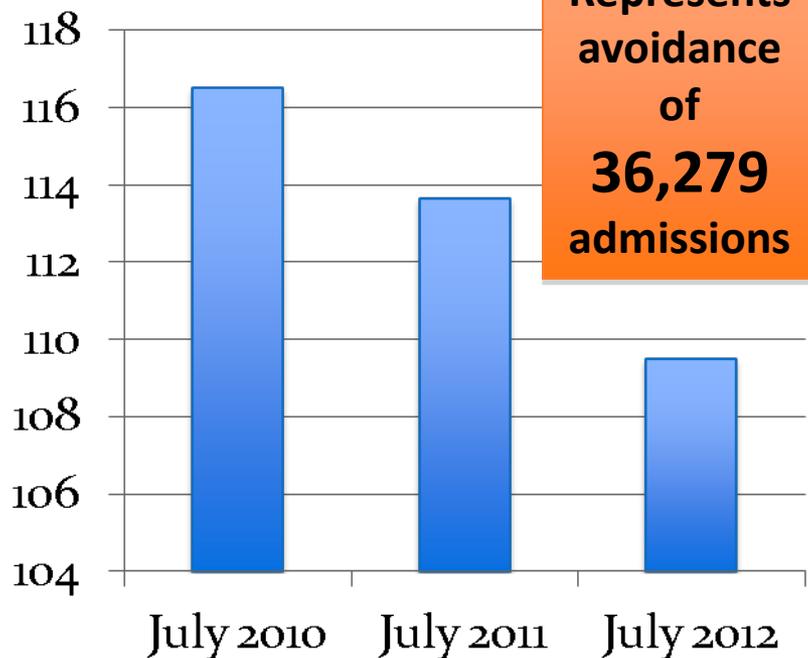


## PACT Recognition, Summer 2011: ER/Urgent Care visits per 1000 unique PC patients



# Admission Rates

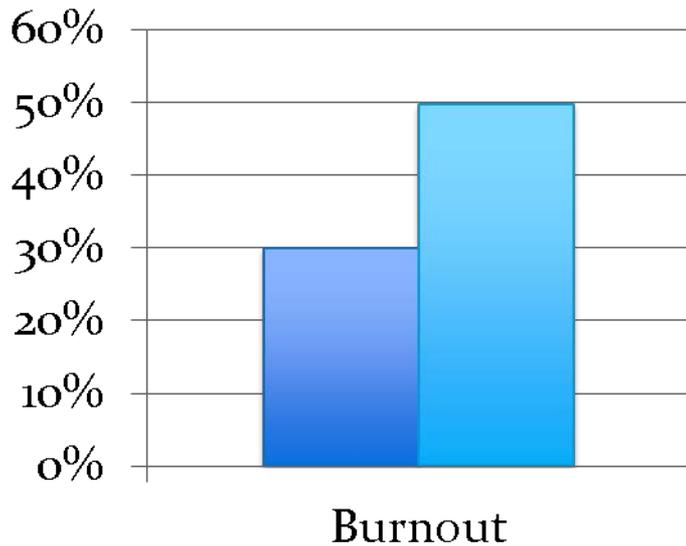
## VHA Acute Admissions per 1000 unique PC patients



## PACT Recognition, Summer 2011: Acute Admissions per 1000 unique PC patients



# PACT Recognition, Summer 2011



■ Fully staffed  
■ Not fully staffed

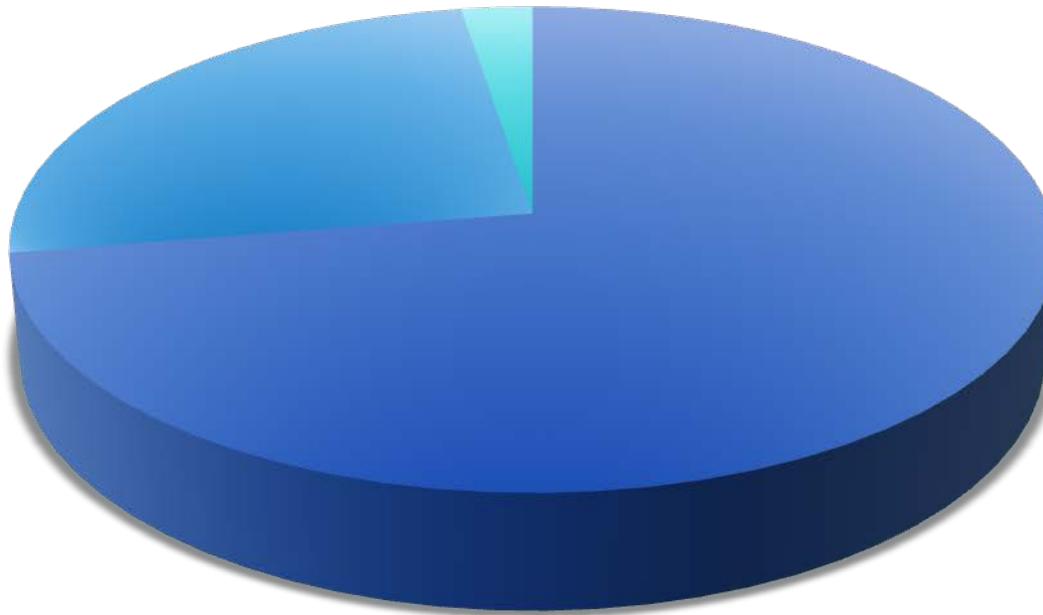




# Training Status, August 2012

## Primary Care Teams

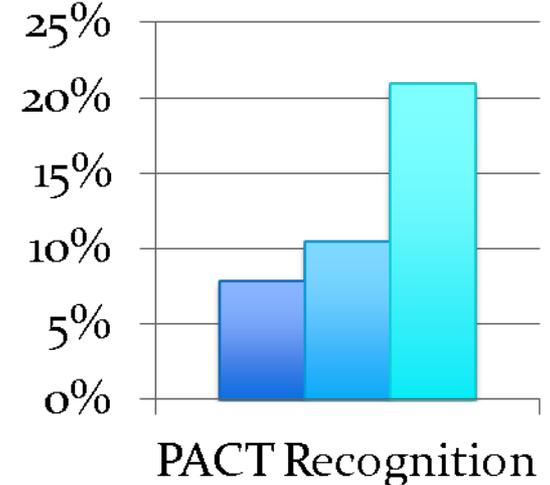
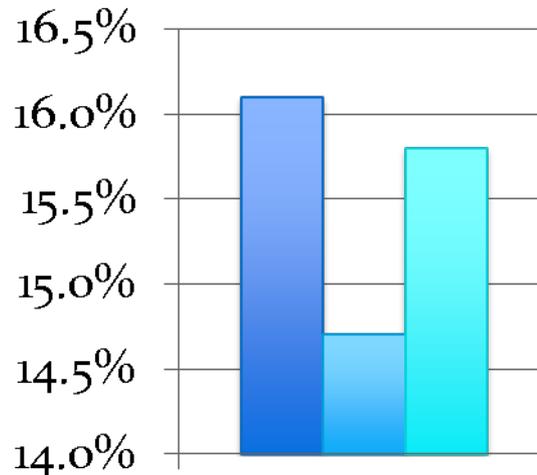
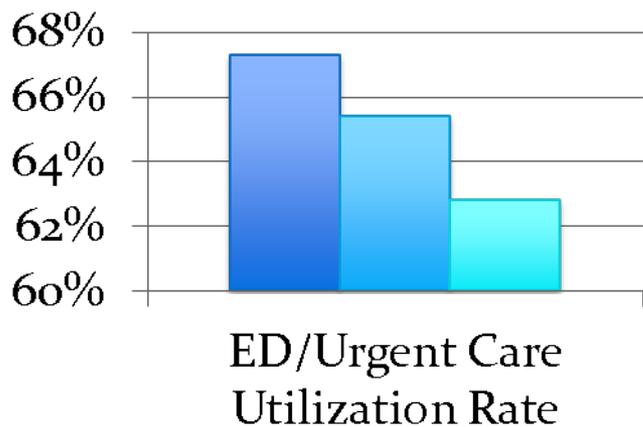
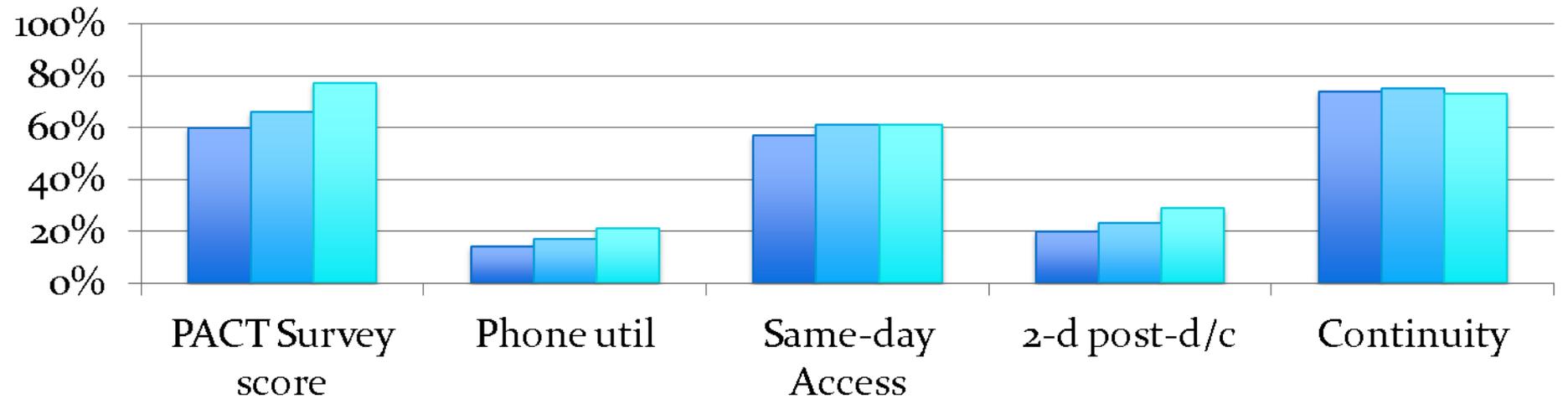
N=7871



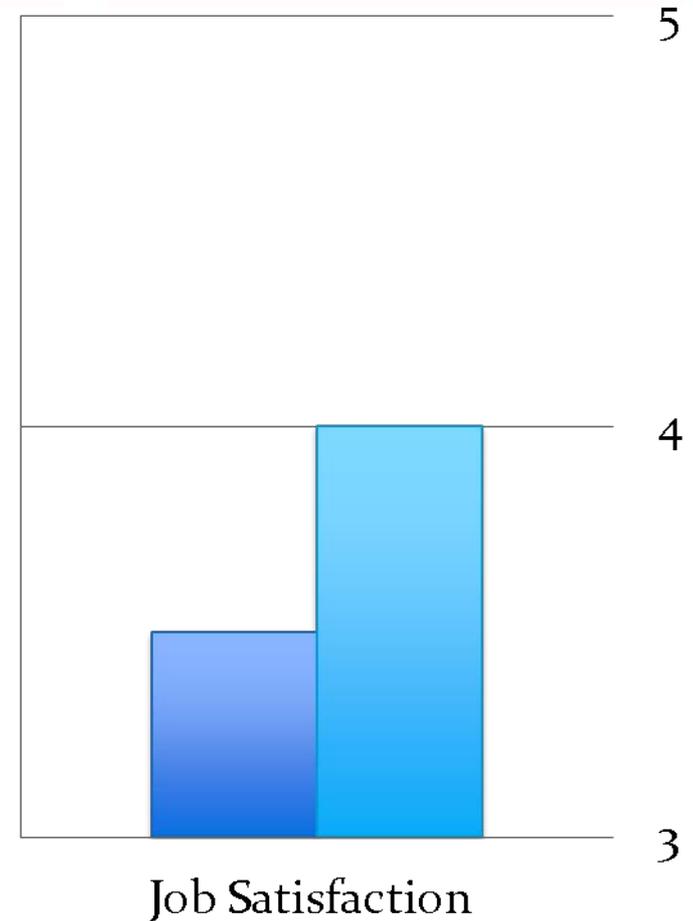
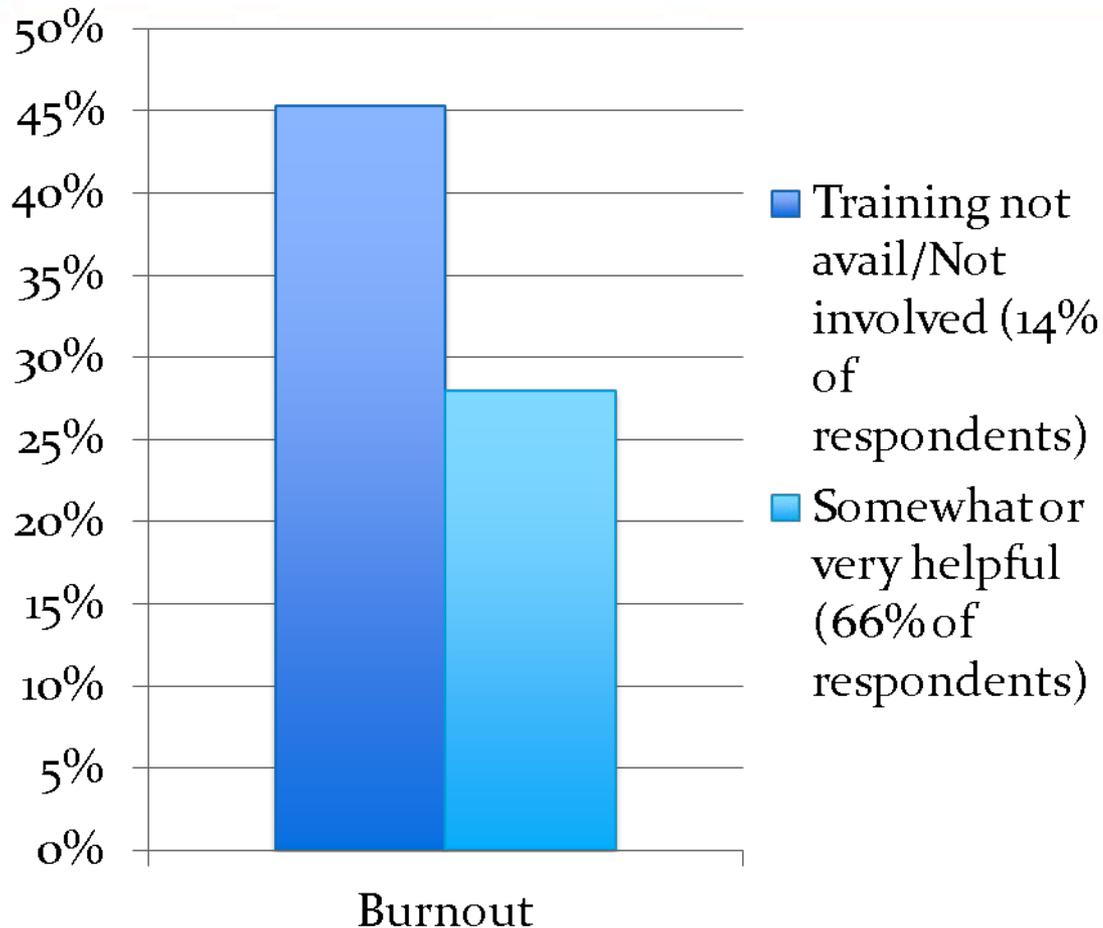
- Untrained
- Learning Center
- Collaborative

# Effect of Training on PACT Metrics

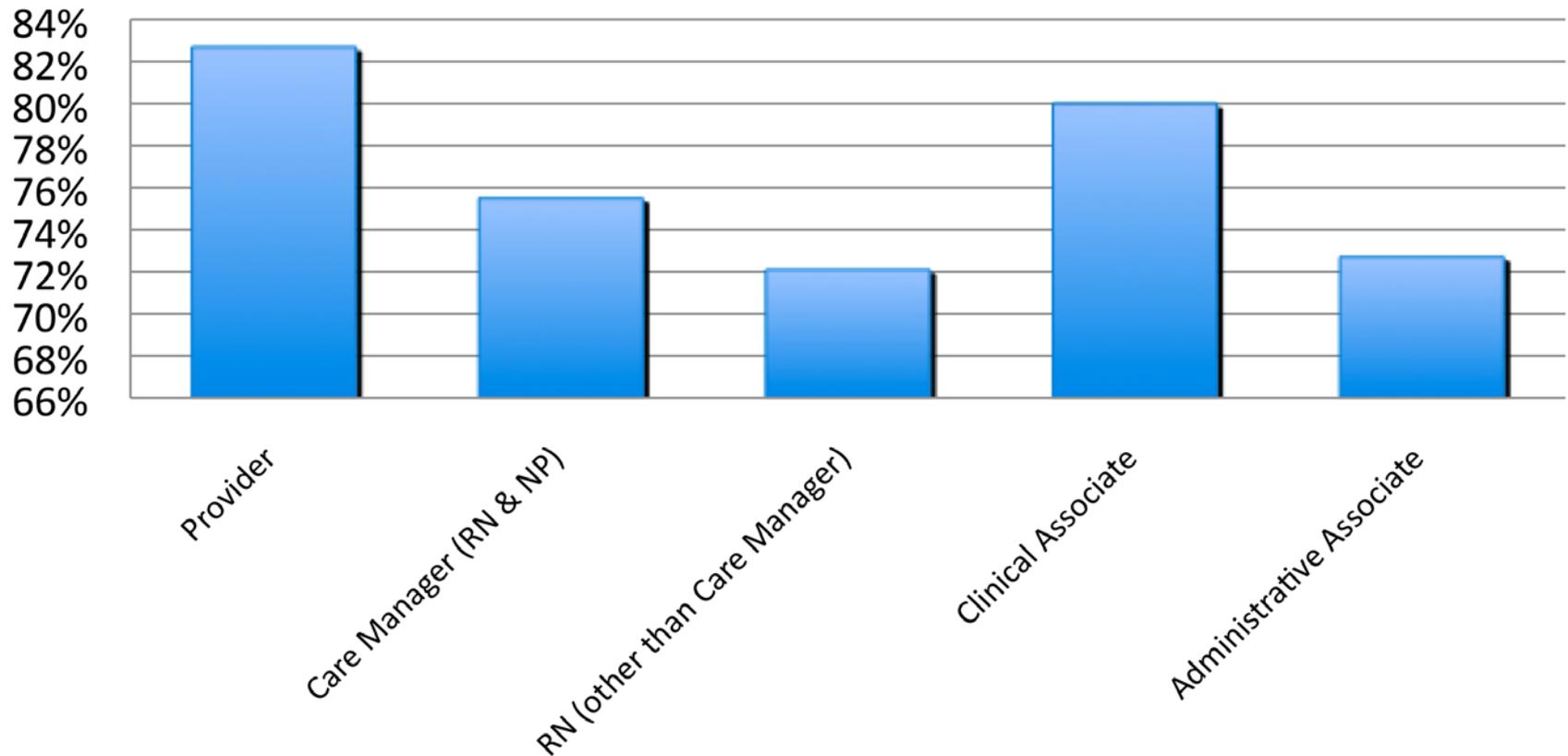
■ Untrained   ■ Learning Center   ■ Collaborative



# PACT Training, Burnout and Job Satisfaction



# More than half my time is spent each week on work that could be done by someone with less training



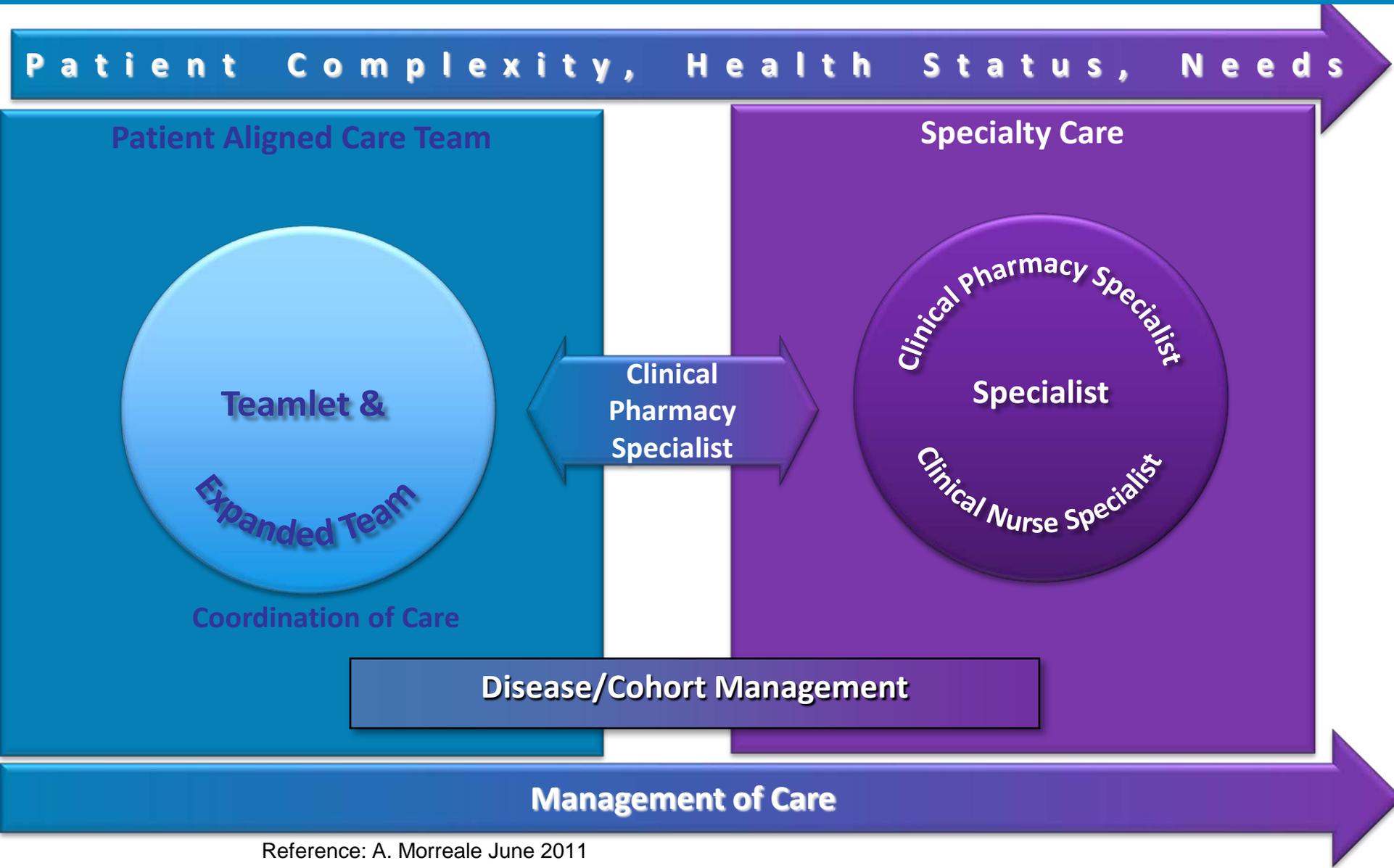
# SPECIALTY PACTS

- HOME BASED PRIMARY CARE (HBPC)
- HIV
- SPINAL CORD INJURY
- WOMEN'S HEALTH
- GERIATRICS
- HOMELESS



**VA initiative to utilize Clinical Pharmacist at the top of their license to Manage Chronic Disease.**

# Clinical Pharmacy Model Vision: Bridging the Gap Between Primary Care and Specialty Care



# Clinical Performance Dashboards

## Patient Populations

	Patients	Definitions
Diabetes	4,829	Definitions
Ischemic Heart Disease	2,514	Definitions
Hypertension	8,532	Definitions

## Patients Requiring Followup

	Patient Report
Upcoming Appointments	Patient Report
Entire Panel	Patient Report
PACT Look-Up	Patient Report
Distance from Medical Center	Patient Report

## Indicator Key

	Target
On Target	
Slightly Off Target	
Off Target	

## FY11 Performance Measures-DM and IHD

	Actual	Target		Not Met	No Measure	Trends	Definitions
<b>Diabetes Mellitus (Composite)</b>	<b>88%</b>	<b>88%</b>					
Diabetes-Outpt-HBA1C Measured Annually	96.8%	96%		154		<b>Trends</b>	Definitions
Diabetes Outpt and HBA1C > 9 (lower is better)	19.5%	19%		790	154	<b>Trends</b>	Definitions
Diabetes Outpt LDL Measured Annually	95.9%	96%		198		<b>Trends</b>	Definitions
Diabetes Outpt and LDL<100	73.1%	75%		1,101	198	<b>Trends</b>	Definitions
Diabetes and BP < 140/90	79.5%	78%		894	96	<b>Trends</b>	Definitions
Diabetes Outpt and Timely Retinal Exam	99.8%	99%		11		<b>Trends</b>	Definitions
Diabetes Outpt and Renal Function Testing	90.2%	92%		473		<b>Trends</b>	Definitions
<b>Ischemic-Heart-Disease</b>							
IHD - Outpt LDL Measured Annually	94.9%	92%		128		<b>Trends</b>	Definitions
IHD - Patients with LDL < 100	74.2%	69%		521	128	<b>Trends</b>	Definitions
Hypertension and BP < 140/90	77.3%	72%		1,789	152	<b>Trends</b>	Definitions



# Knowing Our Baseline

- VA had a robust clinical pharmacy program across the country but we no means to describe it.
  - How many and what types of Pharmacists and Technicians did we have?
  - What sites have strong programs and which sites had opportunities for improvement?
  - What clinical pharmacy metrics can be used to characterize sites?
  - How many clinical pharmacists do we have and in what settings do they work in?
  - How many patients do they see and how many interventions or visits do they perform?



## Baseline (cont)

- Under VA Policy Pharmacists can have a Scope of Practice (SOP) with prescriptive privileges. What did we know about that?
  - How many pharmacists have a SOP in the VA?
  - What clinical areas are most commonly covered?
  - What areas are innovative and unique?
  - What standards are in place to ensure consistency in the SOP process?
  - How are evaluations performed of the clinical pharmacy specialist and the clinical outcomes tracked?

# National Clinical Pharmacy SharePoint Site

- New Clinical Pharmacy SharePoint Site has been created  
<http://vaww.infoshare.va.gov/sites/vapharmacyinformatics/ClinicalPharmacy/default.aspx?PageView=Shared>
- Started populating with Medical Home and currently working on all other specialty areas like Hep C, HBPC, oncology, nephrology, etc.
- Content for over 50 job areas includes:
  - Business plans / staffing justifications
  - Peer review examples
  - Competencies
  - Scope of practice
  - Literature sources
  - Functional statements and performance statements
  - Research and Quality improvement project ideas
  - Staffing calculators
  - Data collection sources
  - Contacts and SharePoint Managers
  - Links to useful sites such as VACO library, Workload Capture, VHA tools

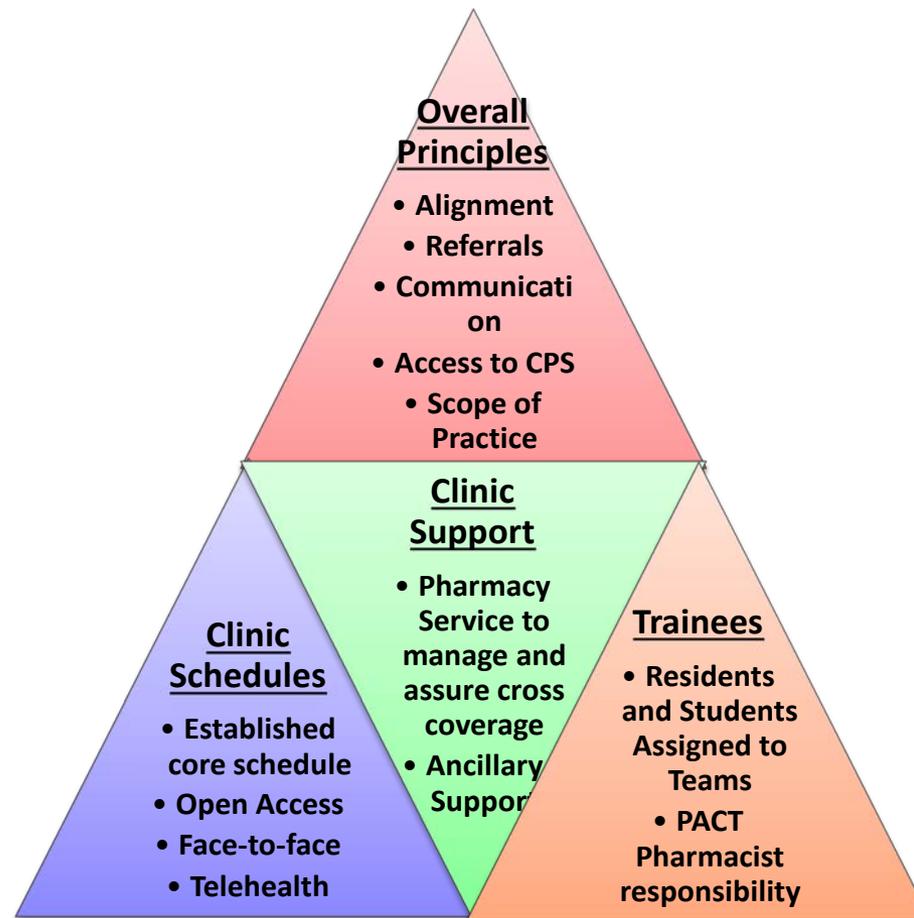
# Create a Uniform System for Scope of Practice

- Develop field guidance on Scope of Practice (SOP)
- Create a uniform system for Scope of Practice
- Outline routine pharmacist activities that do and do not need a SOP
- Revise VHA Directive 2008-043 Scope of Practice for clarity
- Quantify how many clinical pharmacists in the VA have a SOP
- Assure impact of SOP are adequately reflected in pharmacist qualification standards
- Define differences between a Clinical Pharmacist and CPS
- Review standardization of Scope of Practice and Competency for incorporation into Pharmacist Qualification Standards

# Guidance on Implementation of Patient Aligned Care Teams (PACT)

- Created SharePoint Site and national email group to share ideas
- Created Pharmacy Business Rules for sites to follow
- Advisory Members have participate in numerous VISN PBM conferences and meetings, as well as regional collaboratives, to describe the role of the CPS in PACT
- Tracked new FTEE that Pharmacy Services have received across the VA to support PACT
- Conducted Consultation Team Training for Primary Care Services
- Participating in development of a national handbook on PACT

# Pharmacy Business Rules for PACT



# Educational Programming for Leaders: Boot Camps

- Educated all levels of leadership on our transformational plans at National Meeting in Denver.
- Over 400 participants focused heavily on implementation, maintenance, and growth of clinical pharmacy programs
- Created a National Live Meeting Series to support ongoing efforts in transforming practices
- Launched Four Regional Clinical Pharmacy “Boot Camps” in 2011 that trained over 300 Clinical Pharmacists on 7 core chronic primary care diseases
- Established National Volunteer Group of over 200 pharmacists and technicians to work on “boot camp” curriculum and to help maintain and develop a more robust SharePoint site, expert panels, and ongoing support and newsletters

# Did Boot Camps Work? Pre-Post Boot Camp Pharmacist with Scope of Practice

Disease State	CPS with SOP Pre-boot camp - May 2011	CPS with SOP Post-boot camp - February 2012	% Change	N value
Hepatitis C	61	84	38%	23
Pain Management	227	276	22%	49
Hyperlipidemia	783	916	17%	133
Hypertension	745	852	14%	107
Smoking Cessation	460	531	15%	71
Osteoporosis	164	163	-0.6%	-1
Diabetes Mellitus	745	900	21%	155
Global	135	514	<b>280%</b>	379

# Systems Redesign Task Group

- Focusing on optimizing the availability and efficient use of pharmacist, pharmacy technicians, automation, and contracted services resources to improved productivity and effectiveness.
- Create data collection tools to assess staffing, get field involvement, surveys, etc. Explore ways to evaluate existing programs
- Existing resources can be streamlined and redeployed using proven systems redesign principles that have not been universally applied. A few examples include:
  - Identify all potential areas where pharmacy technicians can be transformed into new practices to fully assume the dispensing roles
  - Changes in National, Regional and local Policies
  - Use of Automation
  - Moving all dispensing functions to technicians
  - Using employees at the highest level of their training
  - Eliminate unnecessary tasks
  - Contracting, pre-made, pre-packaged
  - Leveraging innovations from each site
  - Benchmarking and metrics to measure cross sectional performance

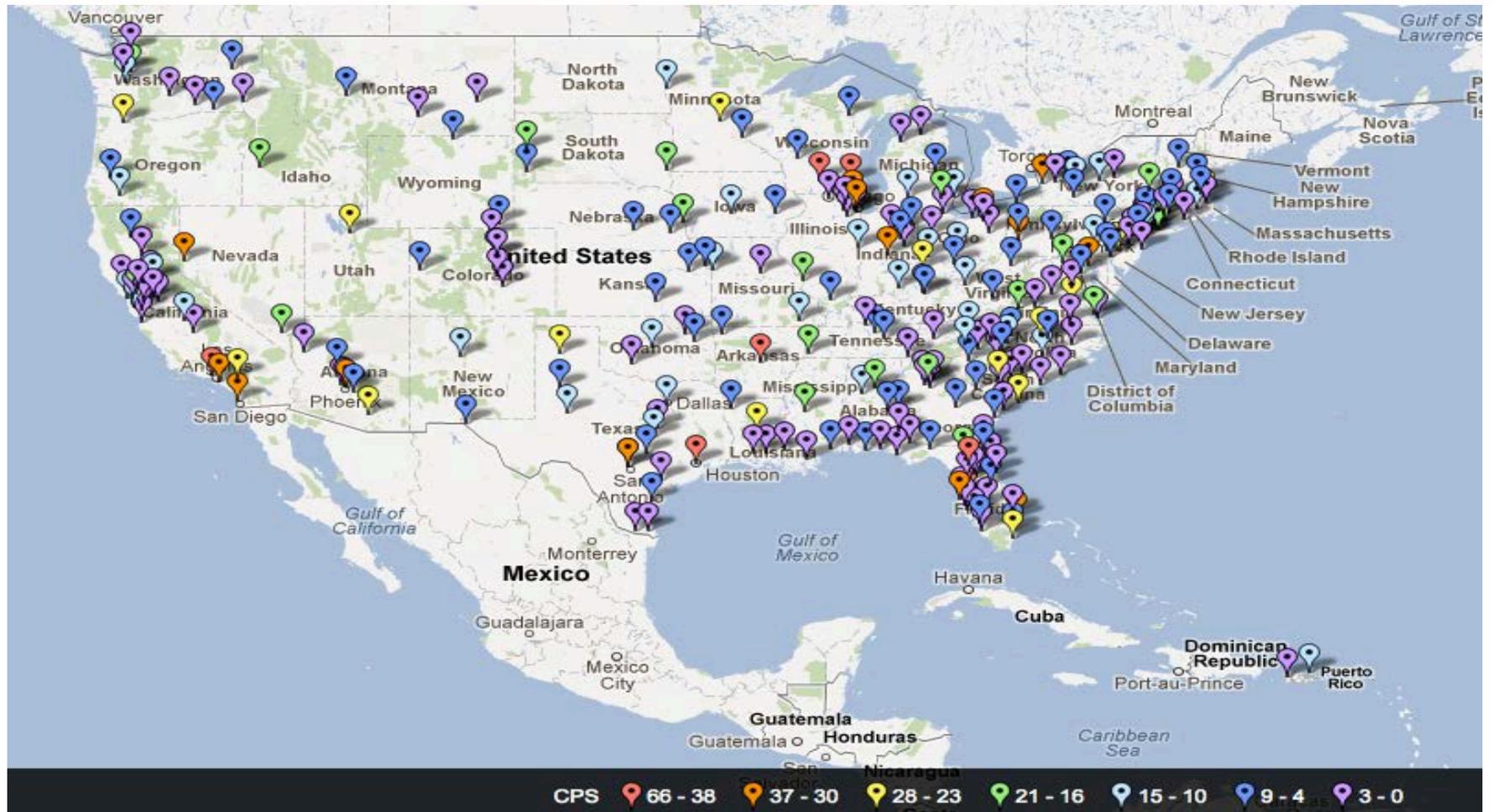


# **WHAT HAVE WE DISCOVERED IN OUR JOURNEY TO TRANSFORM TO NEW PRACTICES?**

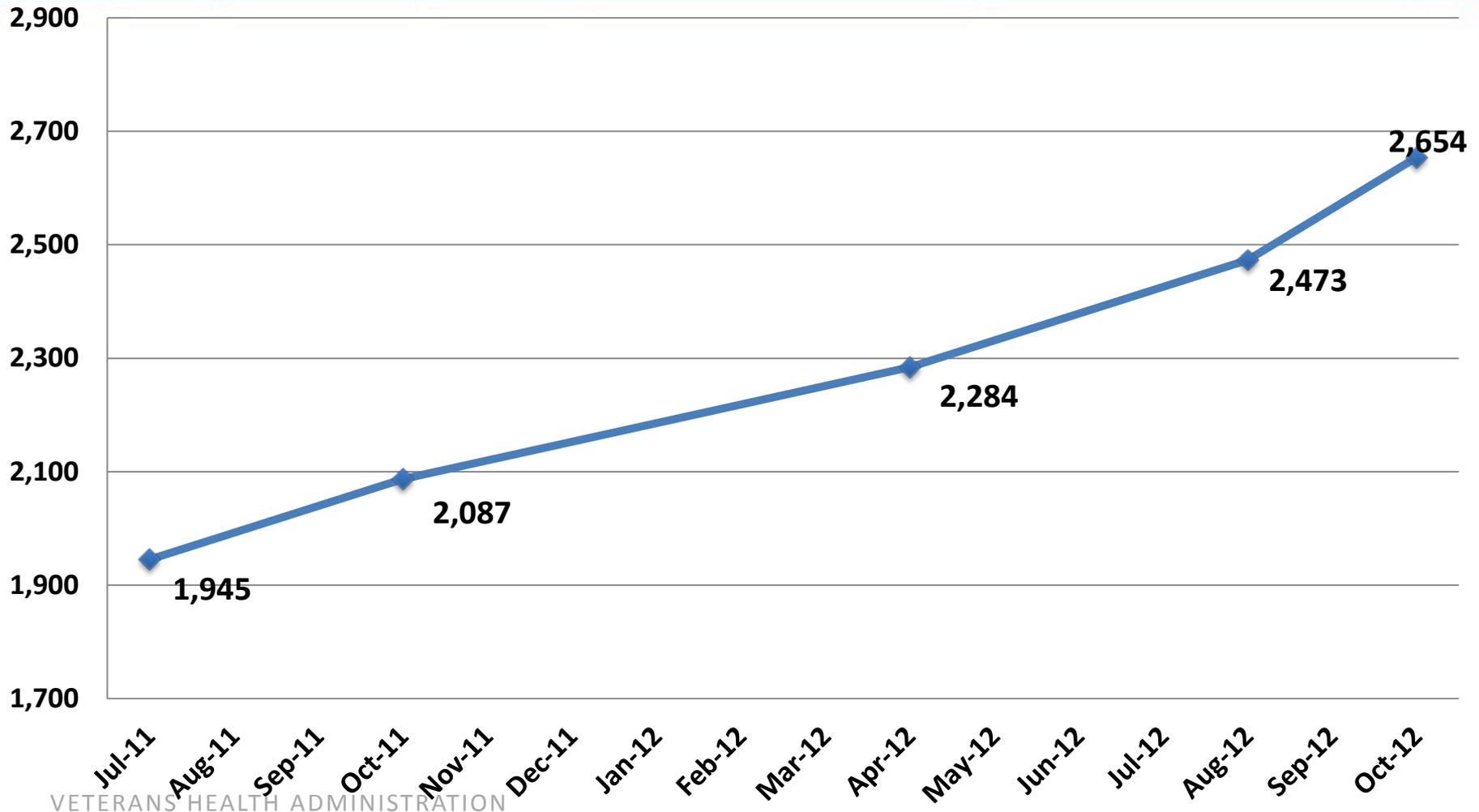
# Facts

- We have a little more than 7500 pharmacists and 4100 Technicians in the system
- Their activities were diverse and not well organized
- There are many practices that are highly advanced but have never been shared outside the local system
- There is broad, but inconsistent use of technicians, policies and practices

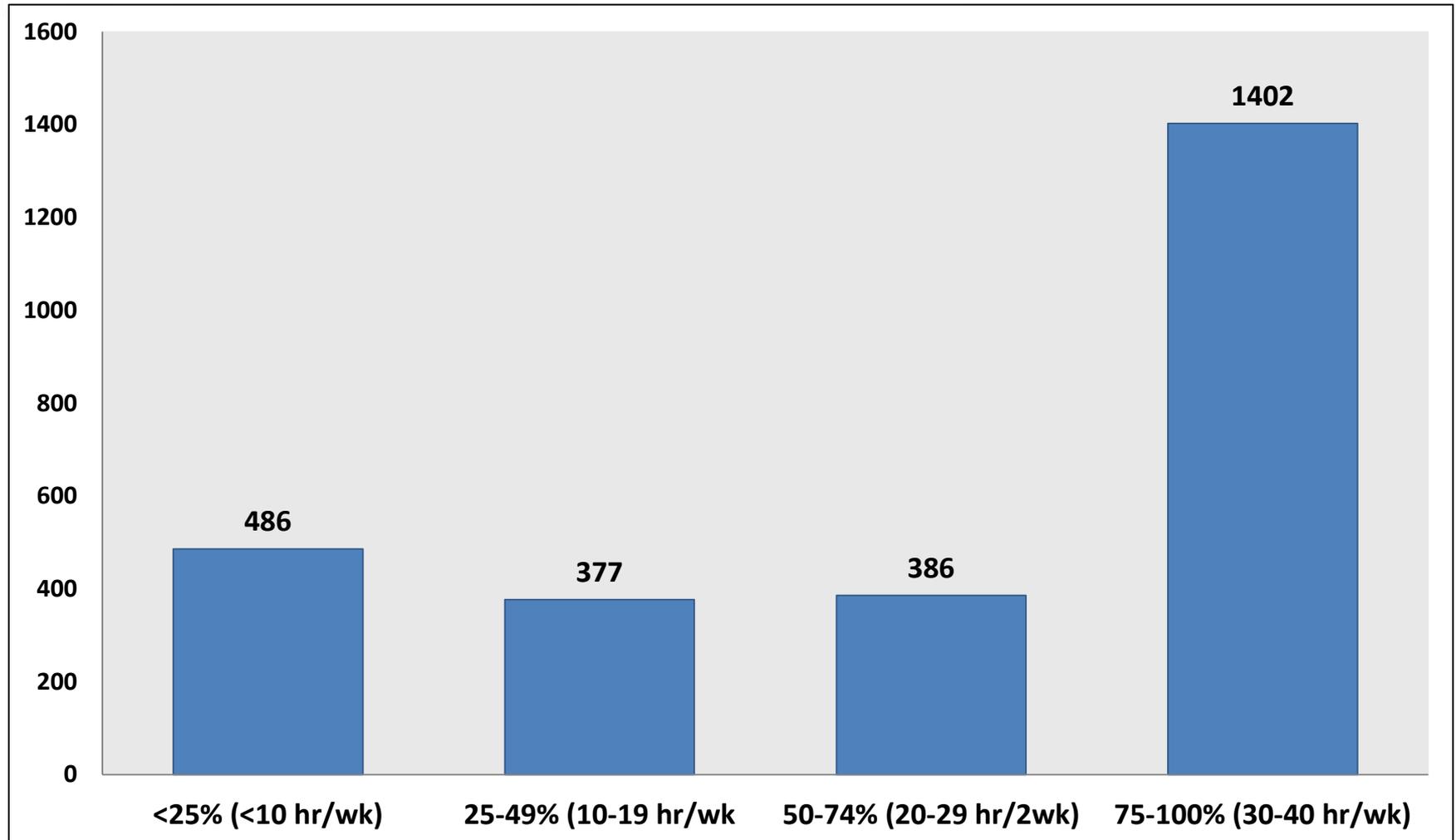
# Pharmacists with a Scope of Practice (n=2654)



# Pharmacists With a Scope of Practice – Growth Over Time



# Percentage of Time Spent Working Under Scope of Practice



# Demographics of VA Pharmacists

VHA has approximately 6,700 Pharmacists



Total pharmacists with SOP is over 2,600 (39%)



Of These 2,600

Residency  
trained =  
62%

BPS  
Certification  
= 34%

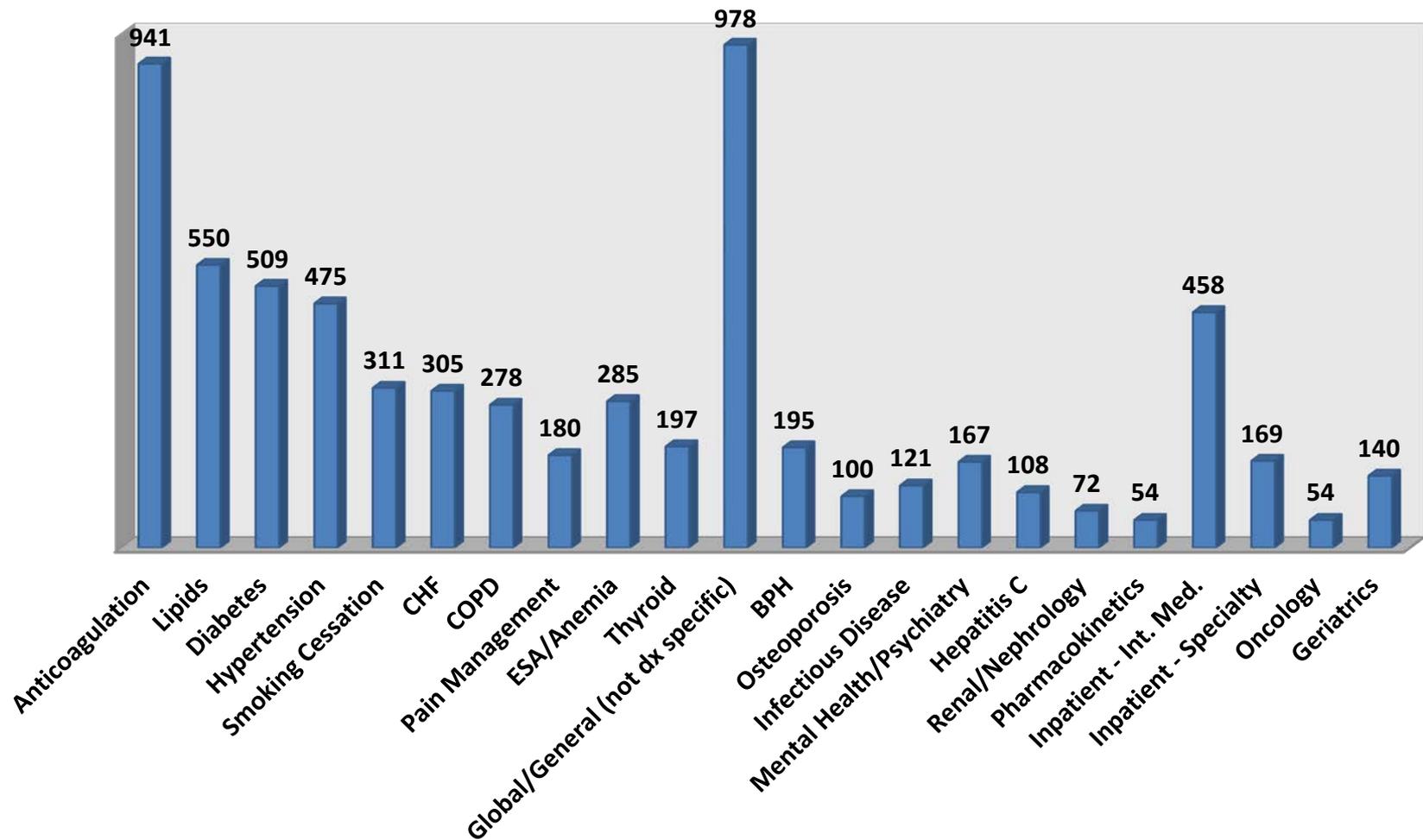
Other  
Certification  
= 13%

Residency  
and/or BPS  
certification  
= 66%

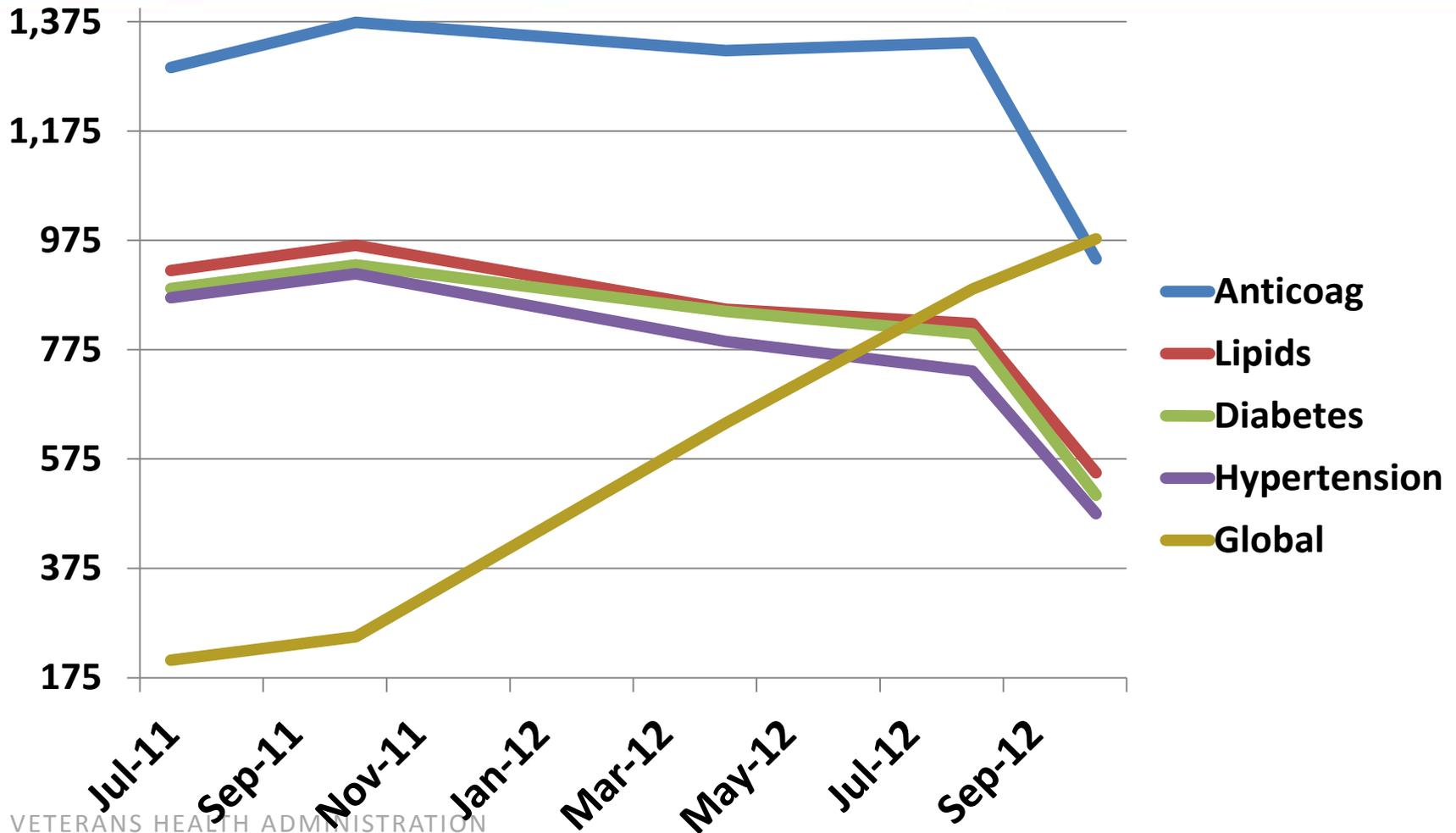
Residency  
and/or BPS  
and/or Other  
Certification  
= 73%

PharmD =  
89%

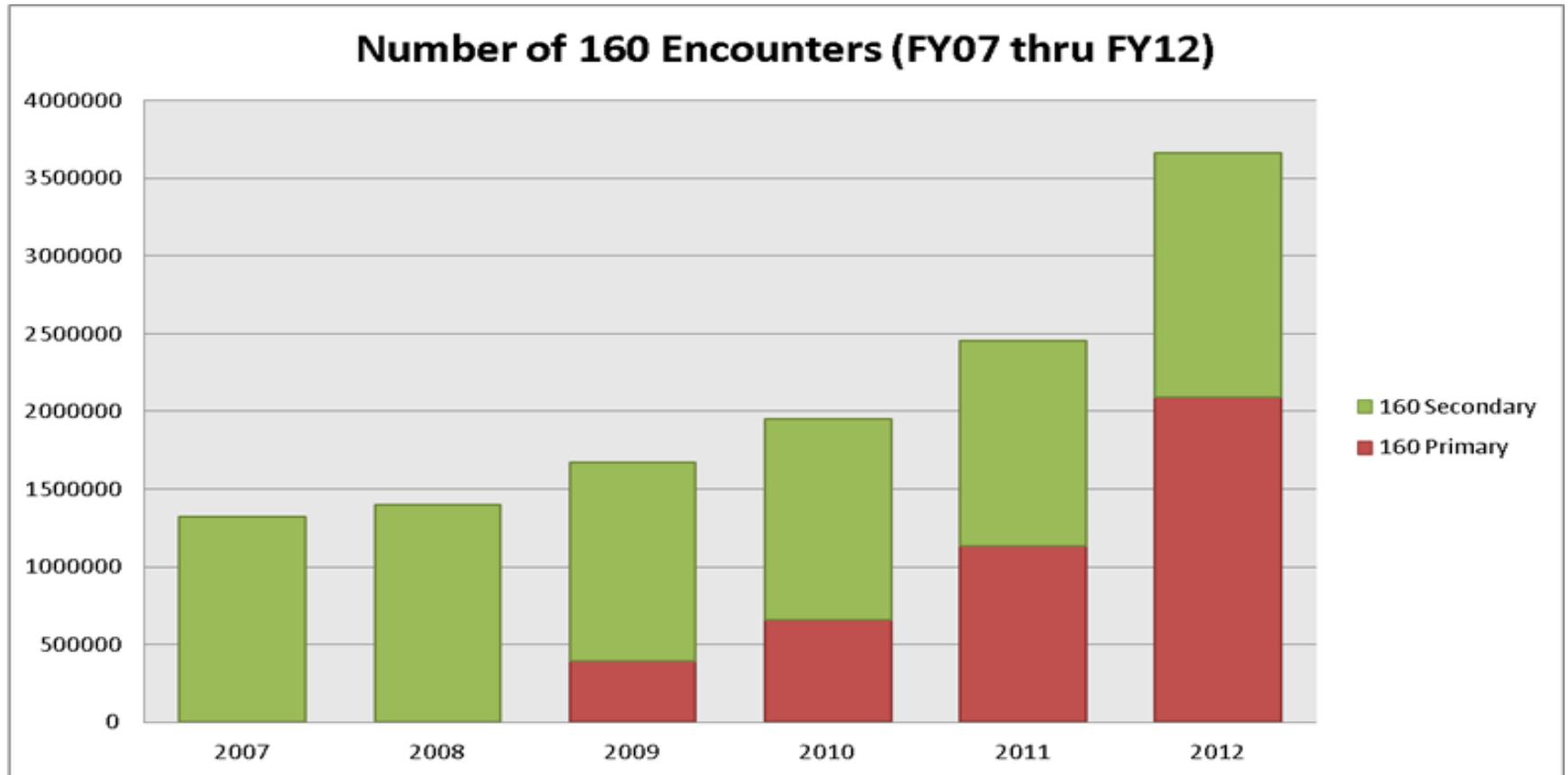
# Pharmacist SOP by Disease State



# Scope of Practice Trends



# Clinical Pharmacy Encounter Growth





**Proving Transformation to  
New Practice Models is all  
about Outcomes!!**

# Issues with Outcomes Studies

Single Site - utility  
for scalability is  
limited

Small numbers of  
patients which may  
not allow for strong  
statistical analysis

Descriptive in  
nature and lack  
control groups

Multiple centers  
analysis suffer from  
methodological  
issues

A better way is  
needed!

# Pharmacist vs. PCP Managed CV Factors

<b>N= 150</b>	<b>CPS Referral</b>	<b>PCP Alone</b>	<b>P-value</b>
Appropriate Treatment of Hypercholesterolemia	96%	68%	p < 0.0001
Goal LDL values achieved below 105mg/dL	85%	50%	p < 0.0001
Appropriate antiplatelet/anticoagulation therapy prescribed	97%	92%	p = 0.146
Appropriate Therapy with ACE-I or Alternative in those with EF <40%	89%	69%	p < 0.05
Cardiac Events	27	22	p = 0.475

# VA San Diego Diabetes Management Clinic

	Baseline Mean±SD	3 Months Mean±SD	Change
Age, yrs	62.1 ± 1.3	NA	NA
HbA1C, %	10.8 ± 1.3	8.4 ± 2.0	- 2.4
FPG, mg/dL	215 ± 82	150 ± 76	-65
Weight, lbs	230.2 ± 53.3	228.8 ± 58.1	- 1.4
BMI, kg/m <sup>2</sup>	32.5 ± 6.7	32.7 ± 8.1	0.2
LDL, mg/dL	92 ± 39	80 ± 28	-12
TG, mg/dL	361 ± 381	257 ± 178	-104
HDL, mg/dL	38 ± 10	36 ± 7	-2
SBP, mmHg	130 ± 16	128 ± 14	-2
DBP, mmHg	71 ± 11	69 ± 12	-2

\*C.Morello June 2010 n=60

# Pharmacist Managed ESA Study

<b>Hemoglobin Range</b>	<b>Pharmacist-Managed Clinic (N=1807) n (%)</b>	<b>Usual Care (N=606) n (%)</b>	<b>p-values</b>
<b>&lt; 10 g/dl</b>	349 (19)	127 (21)	0.81
<b>10-12 g/dl</b>	1284 (71)	345 (57)	<0.0001
<b>&gt; 12 g/dl</b>	174 (10)	134 (22)	<0.0001

- CPS use of ESA is safer based on number of patients staying within FDA recommended Hb range of 10-12 (71% vs.. 57%) and the number of Hb that exceeded 12 (10% vs.. 22%)
- CPS followed their patients more closely based on number of Hb and iron studies, which might explain better achievement of Hb goals on lower doses of medications



# **Pharmacists Achieve Results with Medications Documentation (PhARMD) Project**

**Measuring Interventions and Outcomes System Wide Using a Pharmacotherapy Intervention Tracking Tool**

# PBM PhARMD Project Tool Design

## CPS Documentation of Pharmacotherapy Interventions

Anticoagulation Intervention

Compliance/Adherence Addressed

Contraindication to Medication

Drug Interaction Addressed

Drug Not Indicated

Duplication Of Therapy

Medication Interventions

Med Reconciliation Performed

Non-formulary Review/Conversion

Prevent /Manage Drug Allergy

Manage Adverse Drug Event

Nonpharmacologic Intervention

Therapeutic Drug Monitoring or Diag Eval

Diabetes Intervention or Goal Met

Hypertension Intervention or Goal Met

Heart Failure Intervention or Goal Met

Lipid Intervention or Goal Met

Bone Health Intervention

Smoking Cessation Intervention or Goal Met

Hepatitis C Intervention or Goal Met

PBM designed a clinical reminder tool for roll-out by end of calendar year. Project aligns with VHA Transformational Initiatives

Tool provides documentation of clinical interventions related to medication management by Clinical Pharmacy Specialists (CPS) across VHA, as non-physician providers.

CPRS tools provide the ability to document Pharmacotherapy interventions which have demonstrated:

- Potential to reduce harm to patients
- Potential cost avoidance to healthcare system

CPS demonstrate the ability to document clinical interventions and therapeutic achievements for specific disease states

# PBM PhARMD Clinical Reminder Tool

## Tool Design and Use

Primary Care Conditions Addressed:

Hypertension

Goal for patient (required to choose one):

- Patient's goal is <130/80
- Patient's goal is <140/80
- Patient's goal is <140/90
- Patient's goal is:

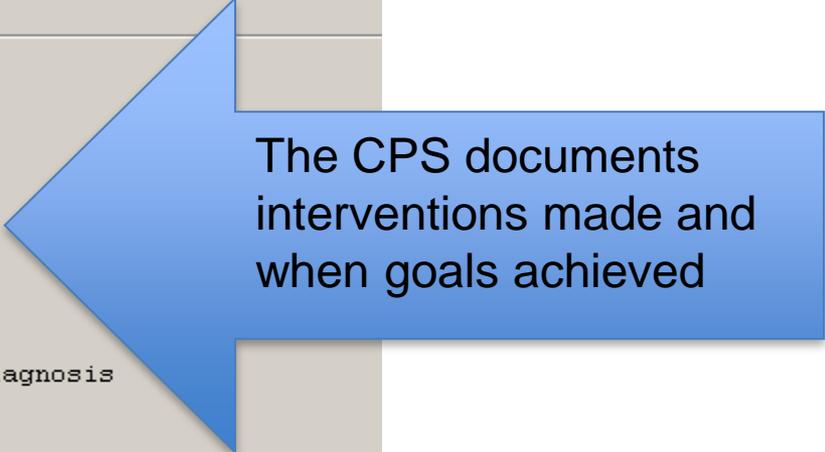
Medication intervention

- Initiate new medication for previously untreated diagnosis
- Adjust dose or frequency of a current medication
- Discontinue, change to different medication, or add new medication to current therapy
  - \*\*If related to management of an ADE or allergy, please document as well under additional pharmacotherapy intervention, manage ADE or allergy

Nonpharmacologic intervention made

\*\*Examples include, but are not limited to:  
disease state education,  
lifestyle counseling and education,  
providing educational materials,  
providing home monitoring devices,  
making referrals for additional care

At goal as product of CPS med management care



The CPS documents interventions made and when goals achieved

# PBM PhARMD Pharmacotherapy Reminder Tool

## Tool Design and Use

### Additional Pharmacotherapy Interventions:

#### Anticoagulation Therapy

- Anticoagulation initiation
- Anticoagulation education provided
- Dose adjusted due to supratherapeutic INR
- Dose adjusted due to subtherapeutic INR
- Dose adjusted due to other reason

Compliance/Adherence addressed

Contraindication

Drug Interaction

Drug not indicated

Duplication of therapy

Manage adverse drug event

Medication Reconciliation Performed

Non-Formulary review/conversion

Nonpharmacologic intervention made for disease state not listed above

\*\*Examples include, but are not limited to:

disease state education,  
lifestyle counseling and education,  
providing educational materials,  
providing home monitoring devices,  
making referrals for additional care

Prevent or manage drug allergy

Therapeutic drug monitoring or diagnostic evaluation  
(e.g. Amiodarone, Epoetin, Anticoagulation, etc.)

Medication intervention for disease state not listed above

- Initiate new medication for previously untreated diagnosis
- Adjust dosage or frequency
- Discontinue, change to different medication, or add new medication to current therapy

\*\*If related to management of an ADE or allergy,  
please document as well under additional pharmacotherapy  
intervention, manage ADE or allergy

# PBM PhARMD Project

## Defining Metrics and Reports

- CPPO Corporate Data Warehouse (CDW) database house metrics
- Initial metrics defined by PBM PhARMD Project workgroup, further refinement ongoing
- Staging tables and initial report parameters in SQL created for report generation
- Dashboards developed
  - Desire to have reports fluid and able to move between metrics easily, provide site level data along with individual CPS and patient specific data
- Awaiting additional security and site report access on CDW

# PBM PhARMD Project

## Metrics and Reports Available

- Total Number of Disease state Interventions per Clinical Pharmacy Specialist (CPS)
- Total Number of Additional Pharmacotherapy Interventions per Clinical Pharmacy Specialist (CPS)
- Average number of interventions per CPS visit
- Cost avoidance associated with specific pharmacotherapy interventions
- Number (%) of patients at goal by facility
- Time to goal for disease state (visits and days) by facility
- Cost of disease state specific medications per CPS
- *Time to goal → Review of Treatment to Goal for disease specific interventions (IN DEVELOPMENT)*

# PBM PhARMD Expansion Pilot Results

## April 2012 to January 2013

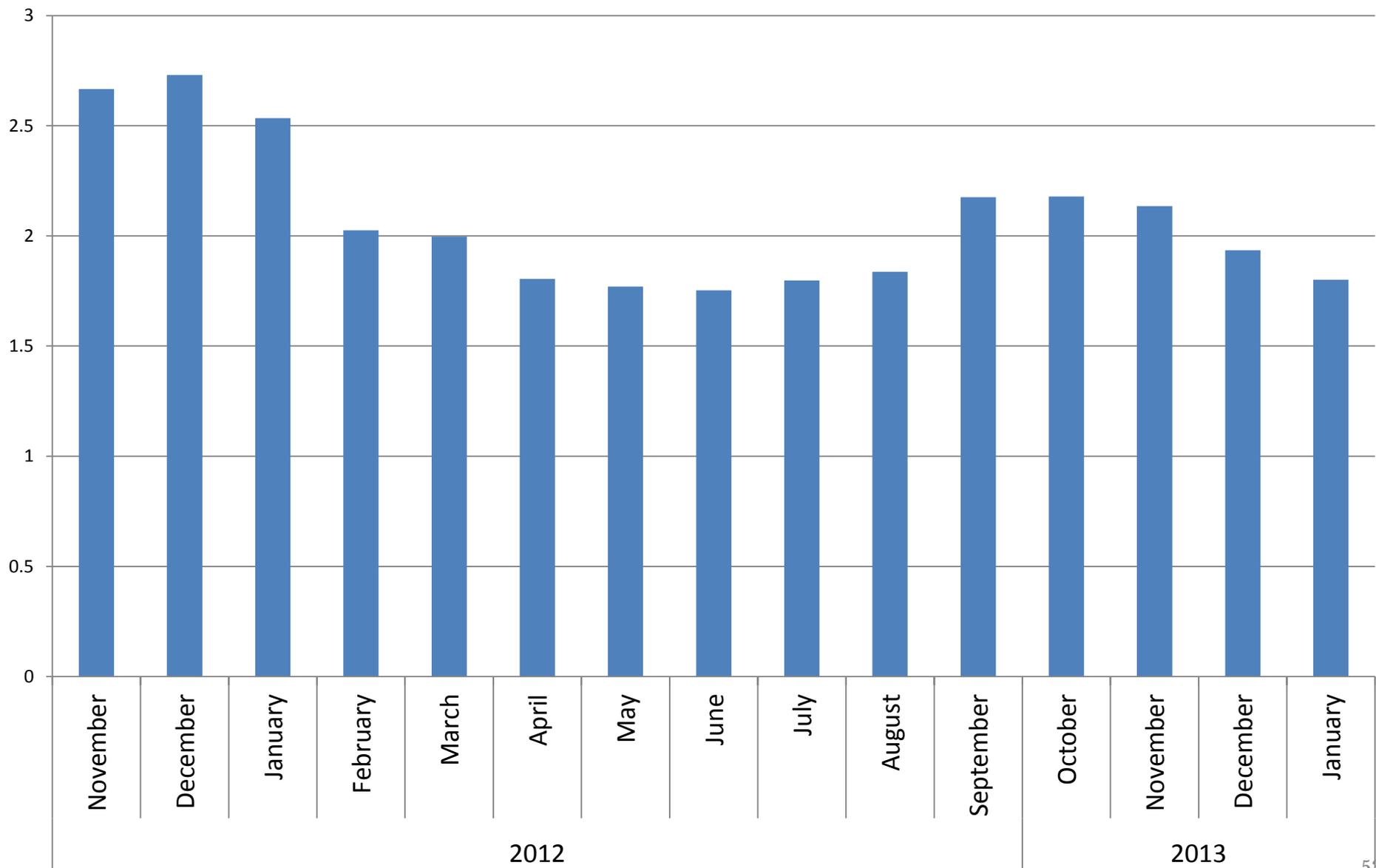
- Tool utilized by 314 pharmacists at 26 VA sites

Metric	Results
Number of Interventions made by the CPS	76,098
Number of Patients	19,229
Number of Visits	39,671
Avg. Number of Interventions per visit	1.92 (range of 0.6-2.6)



# PBM PhARMD Expansion Pilot

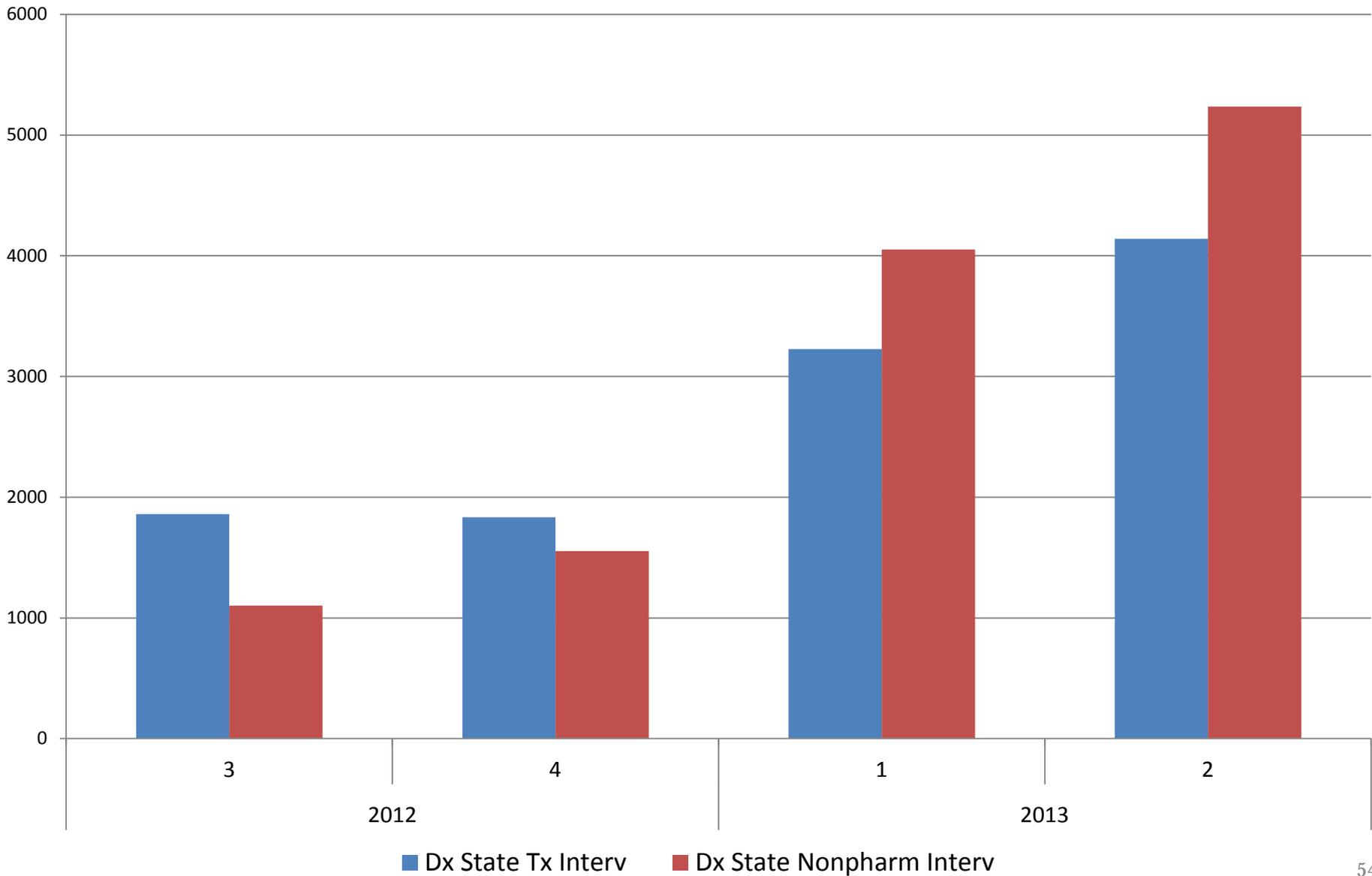
## Average Number of CPS Intervention Per Visit





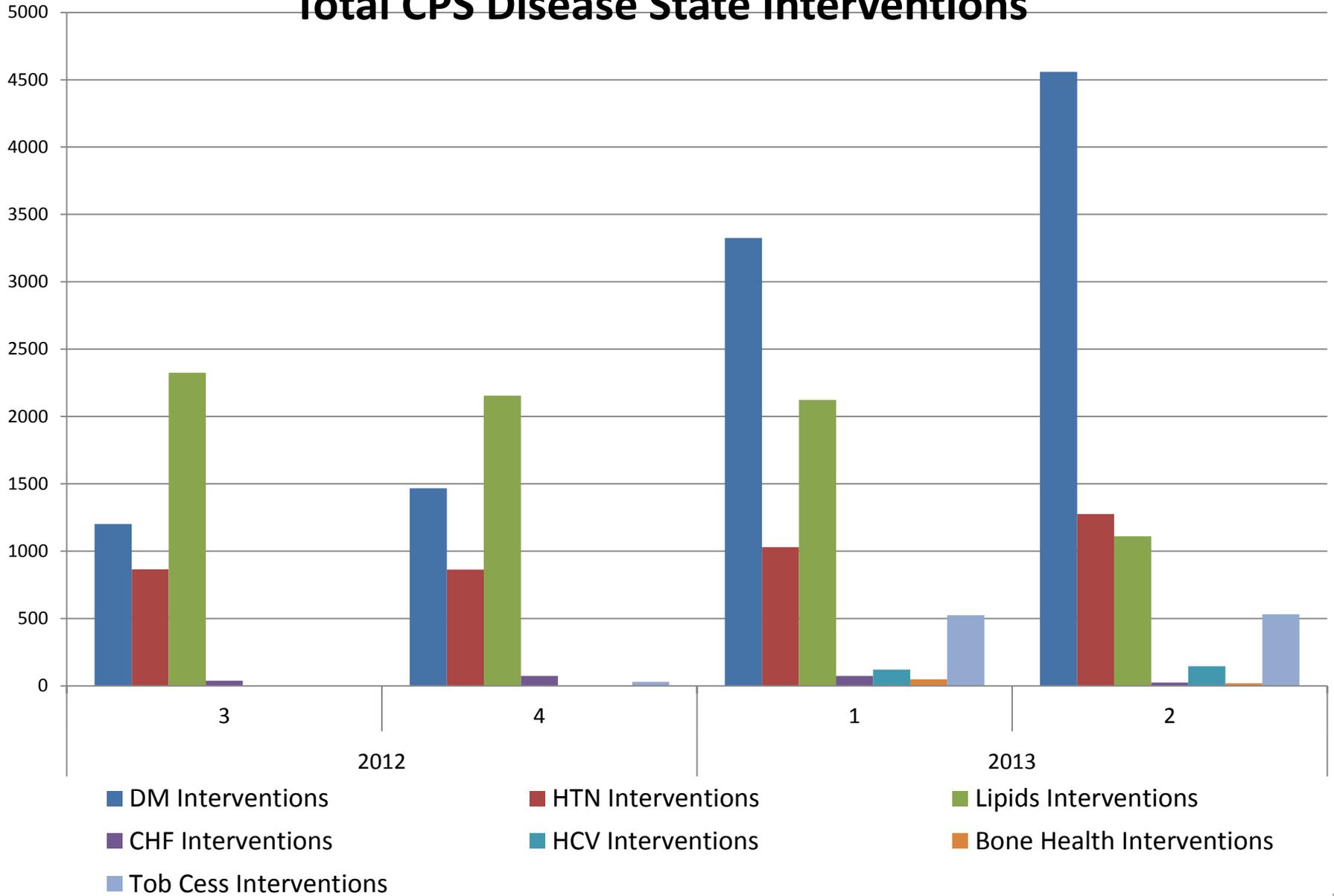
# PBM PhARMD Expansion Pilot

## CPS Disease State and Nonpharmacologic Interventions



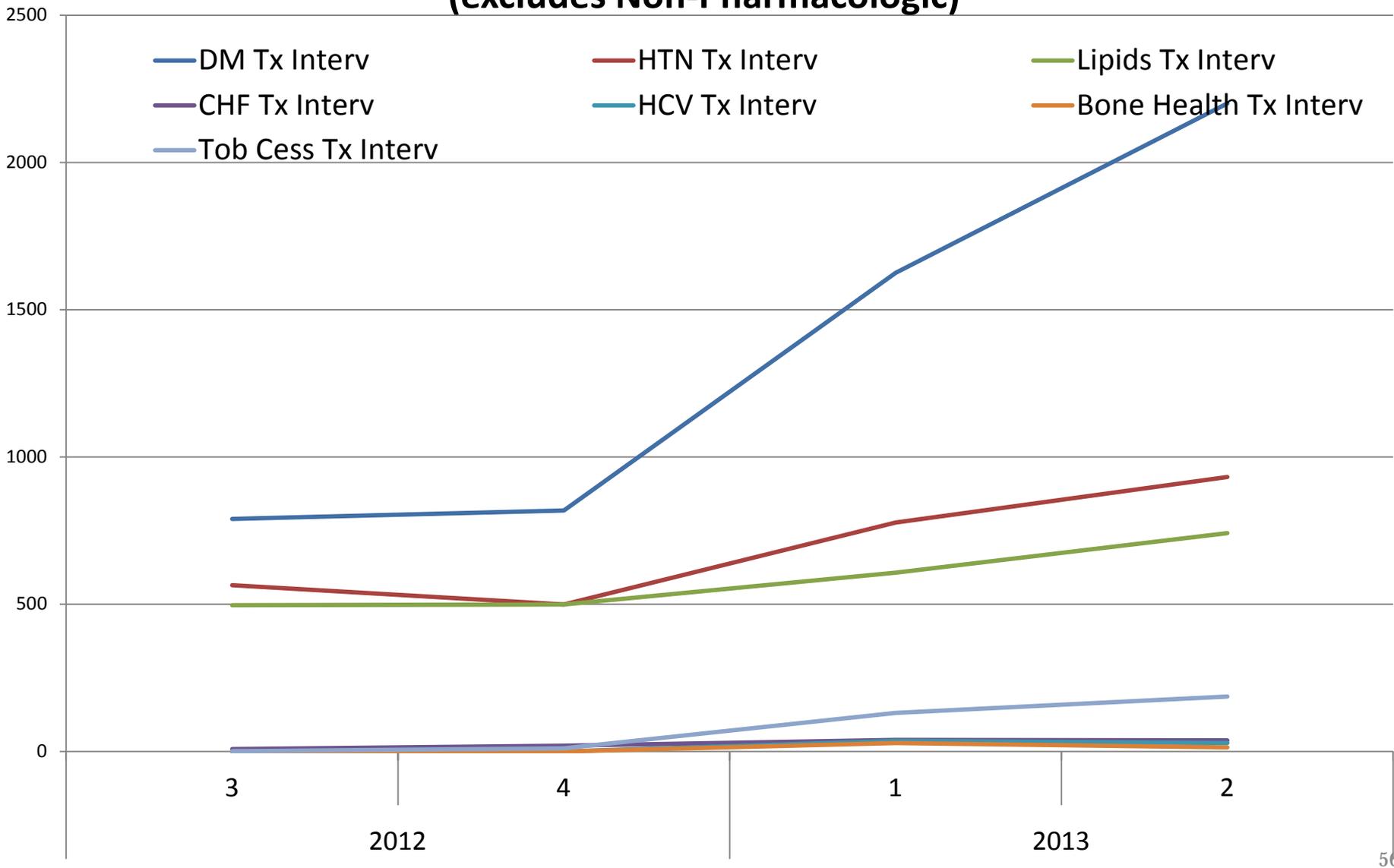
# PBM PhARMD Expansion Pilot

## Total CPS Disease State Interventions



# PBM PhARMD Expansion Pilot

## CPS Disease State Medication Interventions (excludes Non-Pharmacologic)



# Linking Cost Avoidance to CPS Interventions

## Development of a Cost Benefit Model

- Development of cost benefit model underway
- Lee et.al. provides base for cost avoidance of interventions made by clinical pharmacists in VHA
- Analysis needed when the pharmacist functions as the prescriber as seen in PhARMD project
- Aldridge et.al. showed that 7% of interventions made in ER had potential to cause harm.

Type of Intervention	Avg Cost Avoidance per intervention (Lee et. al)	Possible Cost Avoidance assoc with CPS Interventions
Disease State Medication Interventions	\$363.73	<b>\$6,533,318.26</b>
Adj Dose or Frequency	\$363.73	<b>\$616,522.35</b>
Drug Interaction	\$398.97	<b>\$83,384.73</b>
Drug Not Indicated	\$91.88	<b>\$30,923.62</b>
Duplicate Therapy	\$169.91	<b>\$22,937.85</b>
New Tx for Existing Diagnosis	\$1,861.46	<b>\$4,275,773.62</b>
Manage ADE	\$674.61	<b>\$1,204,853.46</b>
Manage Allergy	\$289.48	<b>\$43,132.52</b>
Total CPS Cost Avoidance (based on Lee et.al.)		\$12,810,846.41
Total CPS Cost Avoidance based on 7% (Aldridge et.al.)		\$896,759.25

# PBM PhARMD Project

## Future Implications for Use

- Use of tool nationally has multiple implications for the profession of pharmacy and practice within VHA

Opportunities include:

- ✓ National Benchmarking of pharmacy interventions and outcomes
- ✓ National, VISN and Local Cost justification of new and existing pharmacists
- ✓ Comparison of pharmacy interventions in VHA to other healthcare organizations
- ✓ Use in OPPE process for Scope of Practice
- ✓ Creation of Clinical Pharmacy Staffing tools and models
- ✓ Identification of best practices for more rapid sharing of information
- ✓ Identification in potential gaps in care that may exist at facilities
- ✓ Marketing the impact of clinical pharmacy care at the facility, VISN, National levels

# What Type of Pharmacists Do We Need?

- Is a Pharm.D. degree with its clinical training good enough to do many tasks?
- Do they need to have a residency?
- Is Board Certification a necessary skill?
- Do we have time to wait to get individuals with these skills?
- Are there ways to train people internal to the system to assure they have the knowledge, skills and abilities to do the job?
- Do those with advanced education outperform those without?

## Questions We would Like To Answer

- Years of Experience vs. BCPS vs. residency – do younger tend to have more degrees?
- Do they get better outcomes?
- Difference geographically or similar
- Are there practice setting differences (specialty vs. primary care) based on residency BCPS?
- Do generalists achieve similar outcomes compared to specialists (e.g. anticoagulation, Diabetes)
- What are the contributions of trainees (residents and students) in improving outcomes?
- Does the school or residency you were trained at make a difference in outcomes?

# National Implementation Challenges

Consistent use of CPS Justification Documents including business plans, position papers, literature and slide sets



Updated Functional Statements, Performance and Qualification Standards



Standardized Ongoing Professional Practice Evaluation Assessment Methodologies



Creation of Competency & Training Assessment Tools Documents

# National Implementation Challenges (cont)

Local, Regional or national Data Warehouse Support



Standardized Methods to rollup Outcomes Assessments from all sites to further measure the success of the CPS



Pharmacy Resident and Student Integration



Methods to reorganize Pharmacy Services to incorporate the Medical Home & Specialty Models and increase employee satisfaction



Identifying the Role of the Pharmacy Technician in the model

# New Projects and Priorities for 2013: Practice Based Changes

**Identify additional areas of unmet need in the ambulatory care area including, pain management, diabetes, dementia, Home Based Health care, mental health.**



**Identify additional areas of unmet need in the inpatient setting including, Antimicrobial stewardship, Emergency Room Pharmacy, ICU, and Oncology**



**Move toward defining CPS as an Non-Physician Practitioner**



**Refine our Quality Assurance and Outcomes research capability to take on more ground breaking, publishable assessments of the CPS role in primary and specialty care.**



**ARE SIMILAR FORCES HAPPENING OUTSIDE THE VA?**

# Clinical Pharmacist Outcomes –Kaiser Literature Examples

## Quality – Saving Lives

Clinical Pharmacy Services improve patient quality outcomes by saving lives & reducing adverse events

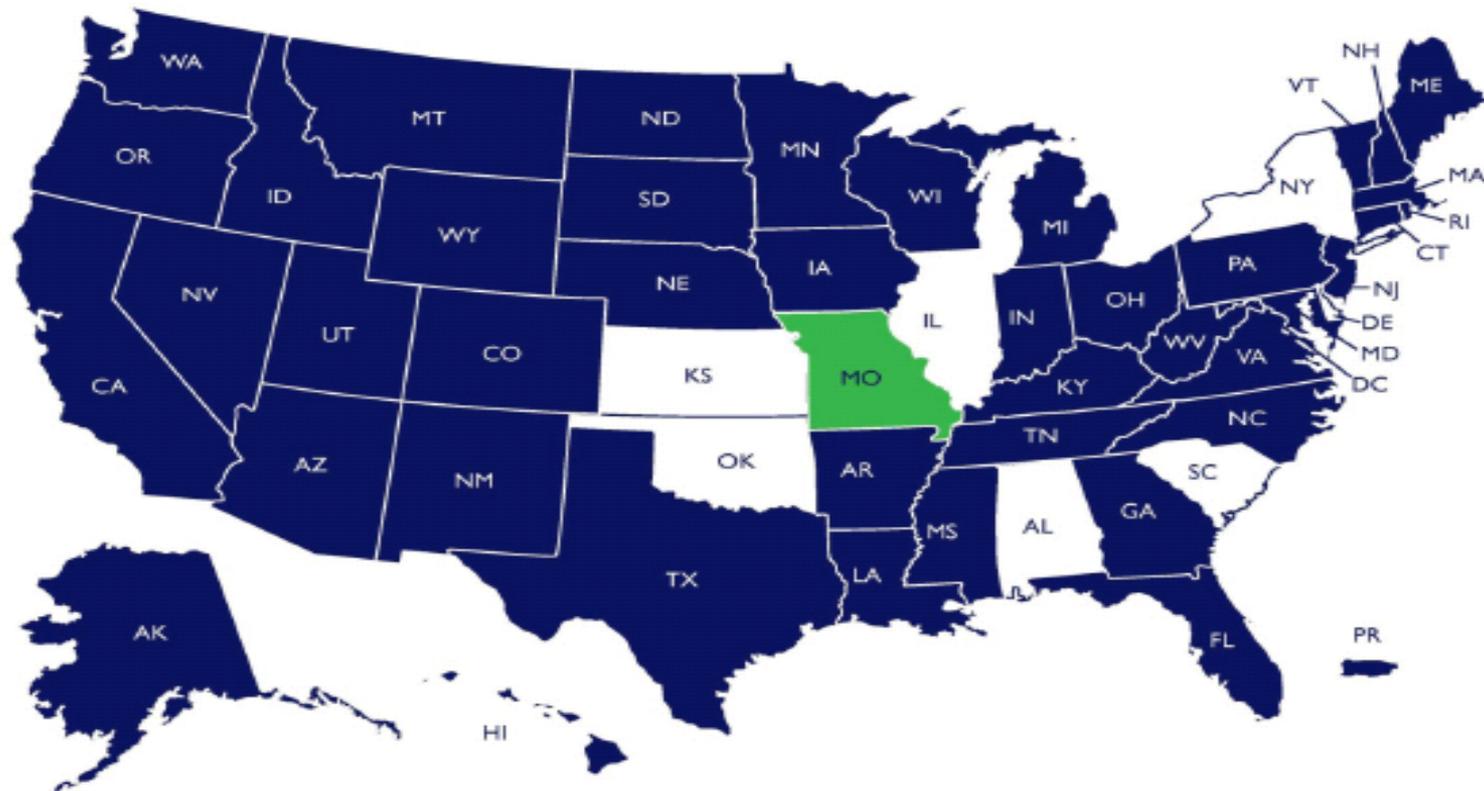
Within their specific patient populations, CPS reduces mortality:

89%↓	<ul style="list-style-type: none"> <li>Early intervention by Collaborative Cardiac Care Program (Clinical Pharmacy Cardiac Risk Service (CPCRS) and Cardiac Rehab) reduces all-cause mortality rates by 89%                             <ul style="list-style-type: none"> <li>James A. Vohs Winner 2008</li> </ul> </li> </ul> <p style="text-align: right;"><i>Pharmacotherapy 2008</i></p>
88%↓	<ul style="list-style-type: none"> <li>Early intervention by Collaborative Cardiac Care Program reduces cardiac-related mortality rates by 88%</li> </ul>
78%↓	<ul style="list-style-type: none"> <li>Clinical Pharmacy Call Center (CPCC) reduces mortality rates for patients discharged from Skilled Nursing Facilities by 78% within the first 60 days of discharge                             <ul style="list-style-type: none"> <li>James A. Vohs Winner 2007</li> </ul> </li> </ul> <p style="text-align: right;"><i>Pharmacotherapy 2008</i></p>
50%↓	<ul style="list-style-type: none"> <li>CPCC reduces mortality rates for Medicare members who participate in our Medication Therapy Management (MTM) program by 50%</li> </ul> <p style="text-align: right;"><i>Annals Pharmacotherapy 2009</i></p>

Within their specific patient populations, CPS reduces adverse events:

81%↓	<ul style="list-style-type: none"> <li>Clinical Pharmacy Anticoagulation &amp; Anemia Service (CPAAS) reduces the risk of bleeding by 81%</li> </ul> <p style="text-align: right;"><i>J Thromb Thrombolysis 2003</i></p>
62%↓	<ul style="list-style-type: none"> <li>CPAAS reduces the risk of blood clotting (<i>thromboembolism</i>) by 62%</li> </ul> <p style="text-align: right;"><i>CHEST 2005</i></p>
36%↓	<ul style="list-style-type: none"> <li>CPCC reduces ED visits for patients discharged from Skilled Nursing Facilities by 36%</li> </ul> <p style="text-align: right;"><i>Pharmacotherapy 2008</i></p>

# Collaborative Practice Agreements (CPAs)<sup>10</sup> - Opportunities Under ACO arrangements



## THE RESULT



# Walgreen by the Numbers

- 7600 Stores on the best corners in America
- 67% of US population lives within 3 miles of a Walgreens
- 70,000 providers, mostly pharmacist
- 26,000 pharmacists are certified in immunizations
- 728 Take Care Clinics
- 119 “Medical Campus” Pharmacies



**Regulatory & Political Change would make a huge difference**

## The CPS as a Health Care Provider

- Currently Pharmacists are not recognized in the Social Security Act (SSA) or CMS as Health Care Providers, practitioners, or Non-Physician Practitioners (NPPs)<sup>3</sup>
- The following health care professionals are recognized as providers by the Social Security Act:<sup>3,9</sup>
  - physician assistants, nurse practitioners, certified nurse midwives, clinical social workers, clinical psychologists, and registered dieticians / nutrition professionals
- CMS final Rule- May 2012 - New regulations allow hospitals to expand definition of medical staff to include PAs, APRNs, and *pharmacists* to perform all functions within their scope
- Payment for services not addressed. True implications are not clear

# The CPS and Independent Practice (IP)

In a recent letter of public support for the report titled *Improving Patient and Health System Outcomes through Advanced Pharmacy Practice. A Report to the U.S. Surgeon General, 2011*, Dr. Regina Benjamin stated the following...

1. Health leadership and policy makers should further explore ways to optimize the role of pharmacists to deliver a variety of patient-centered care and disease prevention, in collaboration with physicians or as part of the healthcare team.
2. Utilization of pharmacists as an essential part of the healthcare team to prevent and manage disease in collaboration with other clinicians can improve quality, contain costs, and increase access to care.
3. Recognition of pharmacists as health care providers, clinicians and an essential part of the health care team is appropriate given the level of care they provide in many health care settings.
4. Compensation models, reflective of the range of care provided by pharmacists, are needed to sustain these patient oriented, quality improvement services

# Technology Implications Health in the Palm of Your Hand

## Examples

- AliveCor – FDA approved electrocardiogram
- Dr. Mole app
- iHealth BP5 – wireless blood pressure cuff
- Digfit – Fitbit
- Zeo sleep sensor
- iBGStar – blood glucose monitor will evolve
- Wireless thermometers
- Smart Scales – body weight
- ICU on wrist device
- Cellscope – iPhone otoscope & dermascope
- Cell microscope – allow uploading, used in foreign countries
- Portable Echo –Vscan instead of stethoscope
- iRhythm – holter alternative in a patch
- Tricoder – Xprize

## Implications

- Lower cost
- Widespread availability in doctors office with no need for delays or referrals
- Virtual encounters
- Immediate patient feedback





# IMPLICATIONS FOR OUR INITIATIVES

## Discussion Section - Right Care

- Substantial data exists that Clinical Pharmacist can improve care in Chronic disease states as proven by VA, Kaiser and other capitated, managed care models. In these settings they have made the pharmacist a mid-level provider or work under current state collaborative practice agreements.
  - How can and should this data be used to push for engaging our under utilized pharmacist workforce.
  - What can be done to get CMS to designate pharmacists as providers so that their documented positive services can be paid for.
  - Since systems like VA & Kaiser don't bill for Pharmacy Services but rather have justified paying them by achieving better outcomes why can ACO's, medical groups and others accomplish the same by directly hiring pharmacists?
  - What models and data, similar to that collected by the VA, can be centralized to demonstrate outcomes achieved by Pharmacist on the teams?
  - How do we educate the providers about the value of the pharmacist as a team member rather than as a threat to their practices or income?

## Discussion Section - Right Care (cont)

- Will Physician Shortages; growing demographics of elderly; and more insured needing care increase opportunities for pharmacist as providers?
- MTM Services in the retail environment are exploding and businesses like Walgreens have changed their entire business model from distribution to MTM.
- Lower trained individuals, including pharmacy technicians, are being worked to the top of their license so what are the implications for Pharmacist graduating today?
- What are the implications of technology, like cell phones & EMR's, to make information more readily available at various points of care including retail pharmacies?



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