



# **MIAMI Project: MIRECC Initiative on Antipsychotic Management Improvement**

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# MIAMI Journey

- 1998-2000
  - Increased recognition of the metabolic effects of second-generation antipsychotic medications
- 2003
  - VA/DOD Clinical Practice Guideline for the Management of Diabetes Mellitus in Primary Care
- 2004
  - Consensus guidelines for physical health monitoring of patients with schizophrenia (Am J Psych, 2004)
  - ADA consensus conference on antipsychotic drugs and obesity and diabetes (Diabetes Care, 2004)
  - Updated VA/DOD Clinical Practice Guidelines for Management of Psychosis

# MIAMI Journey

- 2003-2008
  - Emerging evidence that despite the various guidelines, rates of metabolic monitoring were fairly low
- 2007 - VA OIG Report: Healthcare Inspection: Atypical Antipsychotic Medications and Diabetes Screening and Management. Recommendations included:
  - Implement and document weight reduction strategies
  - Improve treatment and documentation of interventions for elevated fasting blood glucose levels
  - Implement interventions to maintain blood pressures less than 140/90 for younger patients without diabetes who are prescribed atypical antipsychotic medications
  - Achieve target blood glucose levels for younger patients with diabetes who are prescribed atypical antipsychotic medication

# MIAMI Journey

- 2008 - VA Office of Mental Health Services: Report of the Workgroup on Atypical Antipsychotic Medications and Diabetes Screening and Management.
  - Assure access by primary care and mental health clinicians to guidance documents
  - Ensure mental health clinics are able to follow recommendations for monitoring of metabolic risk factors
  - Improve coordination of care between primary care and mental health for patients treated with antipsychotic medication
  - Improve referral of patients with identified metabolic risk factors to *MOVE!* or other wellness programs

# MIAMI Journey

- 2009 - MIAMI Project is funded: VA Office of Mental Health Services Initiative
- 2-year national program designed to implement recommendations from the Atypical Antipsychotics Workgroup
- Administered by the VISN 22 and 16 MIRECCs in conjunction with Mental Health QUERI
- Project Goals: improve monitoring for and management of physical health problems among veterans taking atypical antipsychotic medications
  - Improve adherence to guidelines around metabolic monitoring for antipsychotic medication
  - Decrease the number of veterans who are prescribed antipsychotic medications who are obese
  - Increase the use of weight interventions among veterans who are prescribed antipsychotic medications and are obese

# MIAMI Activities

- Develop and disseminate effective tools for implementing antipsychotic monitoring programs
- Educate champions who will go back to their facilities/VISNs and educate others
- Assist with implementation of metabolic monitoring/management at VA clinics
- Utilize VHS DSS and VA Corporate Data Warehouse to evaluate change in monitoring in VA

# **MIAMI Resources: Practice Guidelines and Wellness Resources**

- [vaww.mirecc.va.gov/miamiproject/](http://vaww.mirecc.va.gov/miamiproject/)
  - Includes background information regarding MIAMI
- [vaww.mirecc.va.gov/miamiproject/guidelines.asp](http://vaww.mirecc.va.gov/miamiproject/guidelines.asp)
  - Clinical practice guidelines for obesity, diabetes, hypertension, dyslipidemia, and atypical antipsychotics
- [vaww.mirecc.va.gov/miamiproject/resources.asp](http://vaww.mirecc.va.gov/miamiproject/resources.asp)
  - EQUIP Wellness Manual
  - Food and Physical Activity Diary
  - BMI Chart

# MIAMI Resources: Educational Tools

- [vaww.mirecc.va.gov/miamiproject/education.asp](http://vaww.mirecc.va.gov/miamiproject/education.asp)
  - Metabolic Monitoring and Management for Patients Taking Antipsychotic Medications: Guidance for VHA Primary Care Providers
  - A poster including essential information regarding metabolic monitoring and management
  - Educational slides to help promote awareness of the problem and educate other clinicians
  - Downloadable powerpoint presentations from 2010 MIAMI Conference



# MIAMI Resources: Technical Assistance Center (TAC)

- [vaww.mirecc.va.gov/miamiproject/technical\\_assistance\\_center.asp](http://vaww.mirecc.va.gov/miamiproject/technical_assistance_center.asp)
- Goal of center is to support sites implementing routine monitoring
- Located in Little Rock at CeMHOR
  - Monday thru Friday
  - 8:00-4:30
  - Phone: 1-888-357-1978
  - Email: [vhalitmiamiproject@va.gov](mailto:vhalitmiamiproject@va.gov)

# TAC Services

- Clinical consultations
  - Metabolic Effects of Antipsychotic Medications
  - Current Monitoring and Management Guidelines
- Advice about implementation strategies
  - General – how to get started, who to involve
  - Specific – how to manage a particular challenge at a specific site
- Advice re: wellness resources for individuals with SMI
  - Accessing programs
  - How they fit with monitoring/management programs
  - How to engage veterans in these programs

# TAC Services

- Central repository for implementation tools
  - Sites can send tools to TAC to share with other sites
  - Distribution of “hardcopy” tools
- “Connector” between sites and between sites and experts

# Successful Strategies Shown to Help Implement Routine Monitoring for Metabolic Side Effects

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**Richard R. Owen, MD**

**Mental Health Quality Enhancement Research Initiative (QUERI)  
Center for Mental Healthcare & Outcomes Research  
Central Arkansas Veterans Healthcare System**



# Overview

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- **Describe evidence for quality improvement (QI) strategies in general**
- **Describe evidence for strategies used to improve antipsychotic management**
- **Implications for implementation of recommendations for metabolic monitoring and management**



# QI Strategies – Overview

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- **Change Strategies**
- **Team Approach**
- **Evidence-Based Quality Improvement**
- **Lessons from QUERI**
  - **Formative Evaluation**
  - **Facilitation**
- **Integrate QI Efforts with System Priorities and Resources**



# Lessons from Research – Change Strategies

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- **Education**
- **Opinion Leaders**
- **Clinical Champions**
- **Academic Detailing**
- **Audit and Feedback**
- **Incentives or Sanctions**



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# Lessons from Research

**Team-Based Quality Improvement**  
**Evidence-Based Quality Improvement**





# Theoretical Support for Team-Based Approach

<b>Theory</b>	<b>Application in <i>ASSIST</i> project</b>
Interpersonal / Sociopsychological Theories (eg, Diffusion of Innovation, Social Influence Theory, Social Cognitive Theory)	Local opinion leaders use their influence to educate peers, encourage evidence-based care, and model targeted behaviors
Organizational Theories	Participation and support from organizational leadership is critical; resources offered to support team efforts
Complexity / Systems Theories	Functional capacity and impact of team (as a whole) may be greater than sum of its parts; exploit ‘fuzzy boundaries’



# Characteristics of Successful Clinical QI Teams\*

Characteristics	Implications
View team goals to be part of the organization's key strategic goals	Ensure that team efforts align with broader org'l goals; provide regular updates on progress to senior leaders
View team leaders as competent, with clout to remove barriers to change	Ensure that team leaders have close connections to senior leaders and have a good understanding of clinical issues involved
Know one another's strengths / weaknesses, respect each other, may have worked together before	Include team members who have worked together in the past and who have good interpersonal skills

\* Reference: Mills PD, Weeks WB. Joint Comm J on Qual Safety 2004;30:152-162. 'Successful' = achieved >20% sustained improvement on targeted clinical behavior.



# Total Quality Management (TQM) & Continuous Quality Improvement (CQI)

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- **Structured organizational process for involving personnel in planning and executing a continuous flow of improvements to provide quality health care**
- **Implement evidence-based practices**
- **Data-based**
- **Typically conducted based on intuition and anecdotes regarding strategies for changing organization and provider behavior**

Shojania KG, Grimshaw JM: Evidence-based quality improvement: The state of the science. *Health Affairs*. 2005; 24: 138-50.



# Evidence-Based Quality Improvement (EBQI)

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- **Explicit use of the best available evidence to inform decisions about the care of individual patients.**
- **Implement in routine practice the processes and outcomes of care established by the best available evidence.**
- **Tension between centralized & locally driven**



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# Lessons from QUERI

## Formative Evaluation Facilitation



# Research Approach to Implementation Lessons from QUERI

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- Design multi-component interventions based on theory (behavior change, organizational change) and/or results from formative evaluation
- Conduct formative or process evaluation
  - identify determinants of care
  - tailor intervention design and implementation to local context
  - assess barriers to implementation
- Use external facilitation techniques
  - Identify and test new approaches and methods for overcoming barriers
- Conduct summative or impact evaluation



# PARIHS Model\*

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**Successful implementation** of evidence is a function of the relation between:

- nature of the **evidence**
- **context** or environment in which the proposed change is to be implemented and,
- way or method by which the change is **facilitated**

\* Promoting Action on Research Implementation in Health Services  
[Kitson et al, 1998; 2002]



# PARIHS Model Conceptualization of Facilitation

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- *Facilitators help QI teams understand what they need to change and how they need to change it in order to apply evidence to practice.*
  - An appointed role
  - Facilitator may be internal or external to the organization
  - Role is about helping and enabling rather than telling or persuading
  - Focus of facilitation can be narrow (eg, assistance with a specific task) or very broad in nature (eg, system redesign)
  - Broad range of facilitator roles is possible, with corresponding skills and attributes needed to fill role effectively





# “Refined” Description of Facilitation Based on VA QUERI Experience\*

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*Facilitation is a process of interactive problem-solving and support to meet specific implementation goals, which occurs in the context of a recognized need for improvement and a supportive interpersonal relationship.*

- Content of facilitation and skills of facilitator may vary depending on project objectives

\* Stetler CB, et al. *Implementation Science* 2006; 1:23.



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# Lessons from Research

**Integrate QI efforts with existing  
plans/resources**



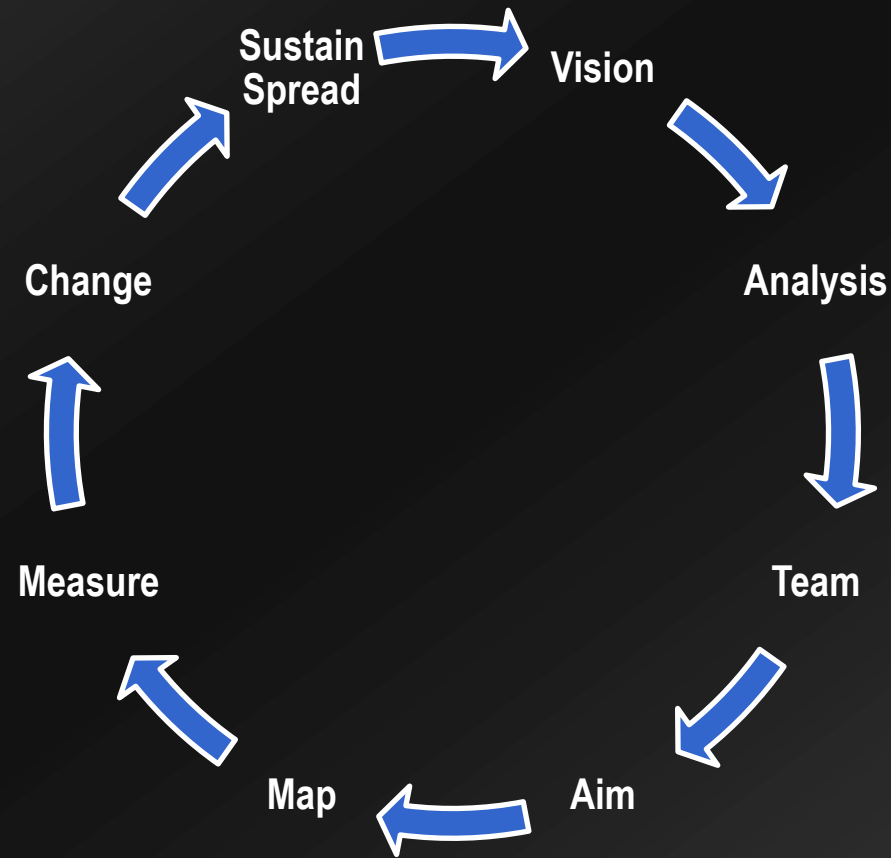
# Integration of QI effort with other efforts/resources

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- **Align with service-level, facility, VISN, national strategic plans**
- **Capitalize on existing resources**
  - **Quality Management/Performance Improvement**
  - **System Redesign**
- **Connect to other experts/initiatives, e.g.,**
  - **Office of Quality & Performance – Clinical Practice Guidelines; Performance Measures**
  - **National Center for Health Promotion/Disease Prevention**
  - **Pharmacy Benefits Management Service**
  - **Patient-Centered Medical Home**



# Systems Redesign – “VA-TAMMCS”



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# Lessons from Research

**Studies of Strategies to Improve  
Metabolic Monitoring or Management:  
ASSIST and EQUIP studies**



# *A Study of Strategies to Improve Schizophrenia Treatment (ASSIST)*

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- Objective: Increase adherence to recommendations for metabolic monitoring and appropriate antipsychotic dosing
- Evidence-Based Quality Improvement (EBQI) approach with external facilitation
- Two influence strategies with facilitation were compared:
  - Team QI (two sites)
  - Opinion leader with administrative support (two sites)
  - “Usual care” comparison – educational materials only (two sites)
- Richard Owen, PI, with Jeff Smith, Geoff Curran, and Teresa Hudson



# ASSIST Tools

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- Educational tools (for clinicians and patients)
- Clinical support tools
  - ❖ **Pocket-sized booklet with dosing and side effect monitoring recommendations**
  - ❖ **CPRS clinical reminder for SE monitoring**
- Performance monitoring tools (VISTA data)
  - ❖ **Monthly site performance reports**
  - ❖ **Weekly provider-specific feedback on side effect monitoring**



# Barriers to Metabolic Monitoring (Formative Evaluation)

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- **System-level barriers:**
  - Lack of mechanisms, structural resources, staff to ensure that SE monitoring is done
  - Perceived limitations of clinical reminder for metabolic monitoring
- **Provider-level barriers:**
  - Lack of awareness of VA guidelines
  - Low perceived need for quality improvement
  - Inertia – resistance to change
- **Patient-level barriers:**
  - Appointment attendance





# ASSIST Study Results

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- **Team QI site**
  - ❖ **Increased weight monitoring from 70% to 93% at six months**
  - ❖ **Increased glucose monitoring from 53% to 80%**
  - ❖ **Increased lipid monitoring from 29% to 67%**
- **Opinion Leader site**
  - ❖ **Increased weight monitoring from 80% to 88%**
  - ❖ **Increased glucose monitoring from 48% to 63%**
  - ❖ **Increased lipid monitoring from 30% to 57%**



# External Facilitation in *ASSIST*

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- **Facilitator**
  - **Guided formation of QI team**
  - **Assisted team in development of local implementation plan**
  - **Maintained regular contact with local QI team**
    - Email/telephone communication
    - Participate in monthly ASSIST Team meetings
  - **Monitored implementation of project tools/strategies; performance on AP side effect monitoring and dosing**
  - **Identified and problem-solved barriers to implementation**
  - **Assisted in adapting tools/strategies as needed or suggested by local QI team to meet project goals**



# External Facilitation 'Products' (Team QI Facility)

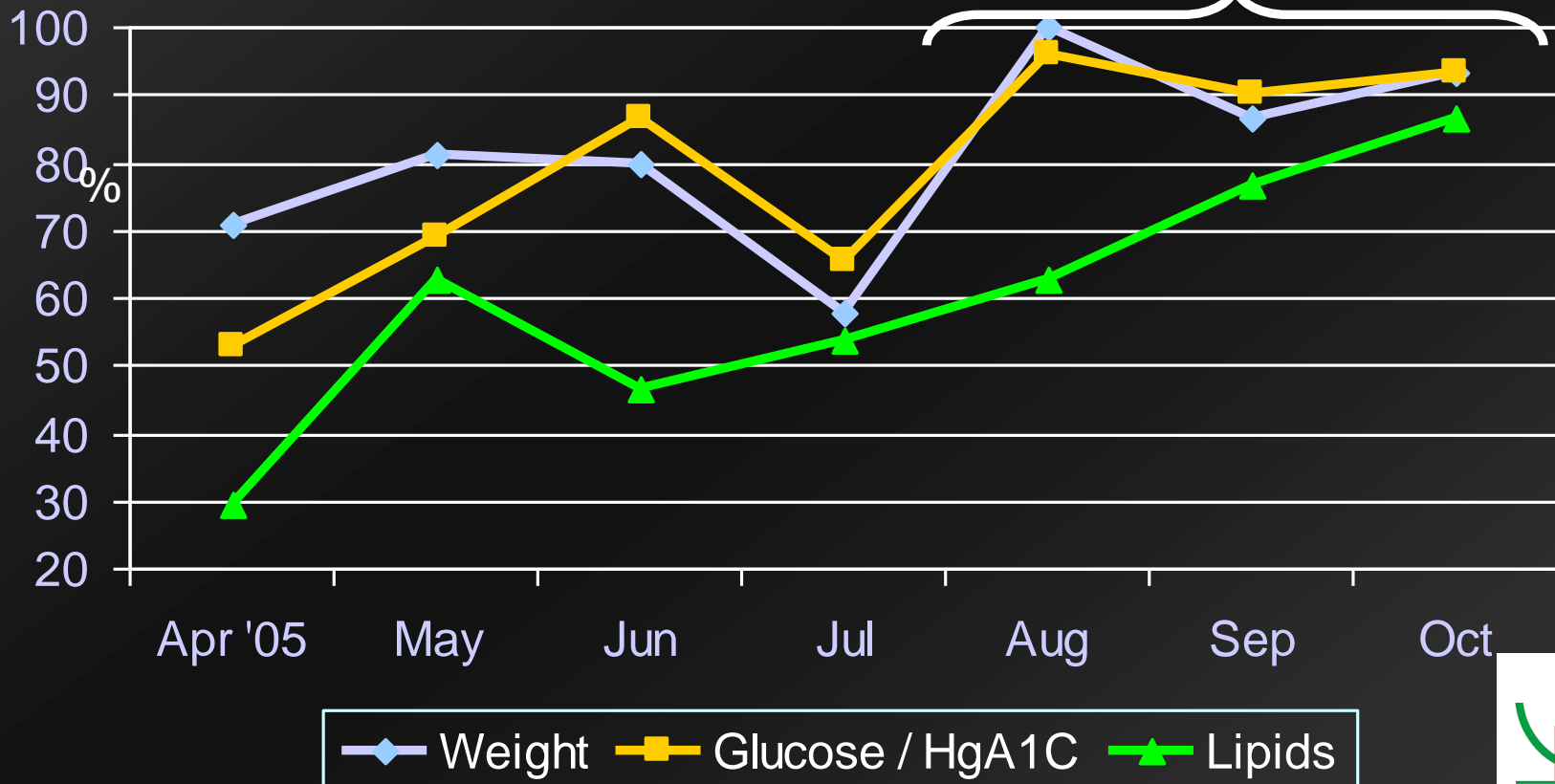
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- Collaborative research-clinical partnership
- Placement of recommendations for antipsychotic side effect monitoring on medication order screens
- Enhanced monthly performance reports, tailored to clinician preferences and specifications
- Development of weekly reporting system identifying patients in need of metabolic side effect monitoring
  - Provider name, patient identifier, AP fill date, medication name, info on monitoring parameters
  - Now fully automated



# Metabolic Monitoring at Team QI Facility

Weekly reports implemented



# Effective QI Components

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- **Computer routine to identify patients due for monitoring**
- **Designating a provider or clinic to ensure that monitoring occurred**
  - **Team site – designated team member to review weekly reports and contact providers**
  - **Opinion Leader site – established clinic to perform baseline monitoring**
- **Leadership support**
- **VISN performance measures for SE monitoring**



# Limitations

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- **Case study results may not generalize to other VA sites**
- **One site randomized to Team QI had initial site visit but never began implementation phase of study**



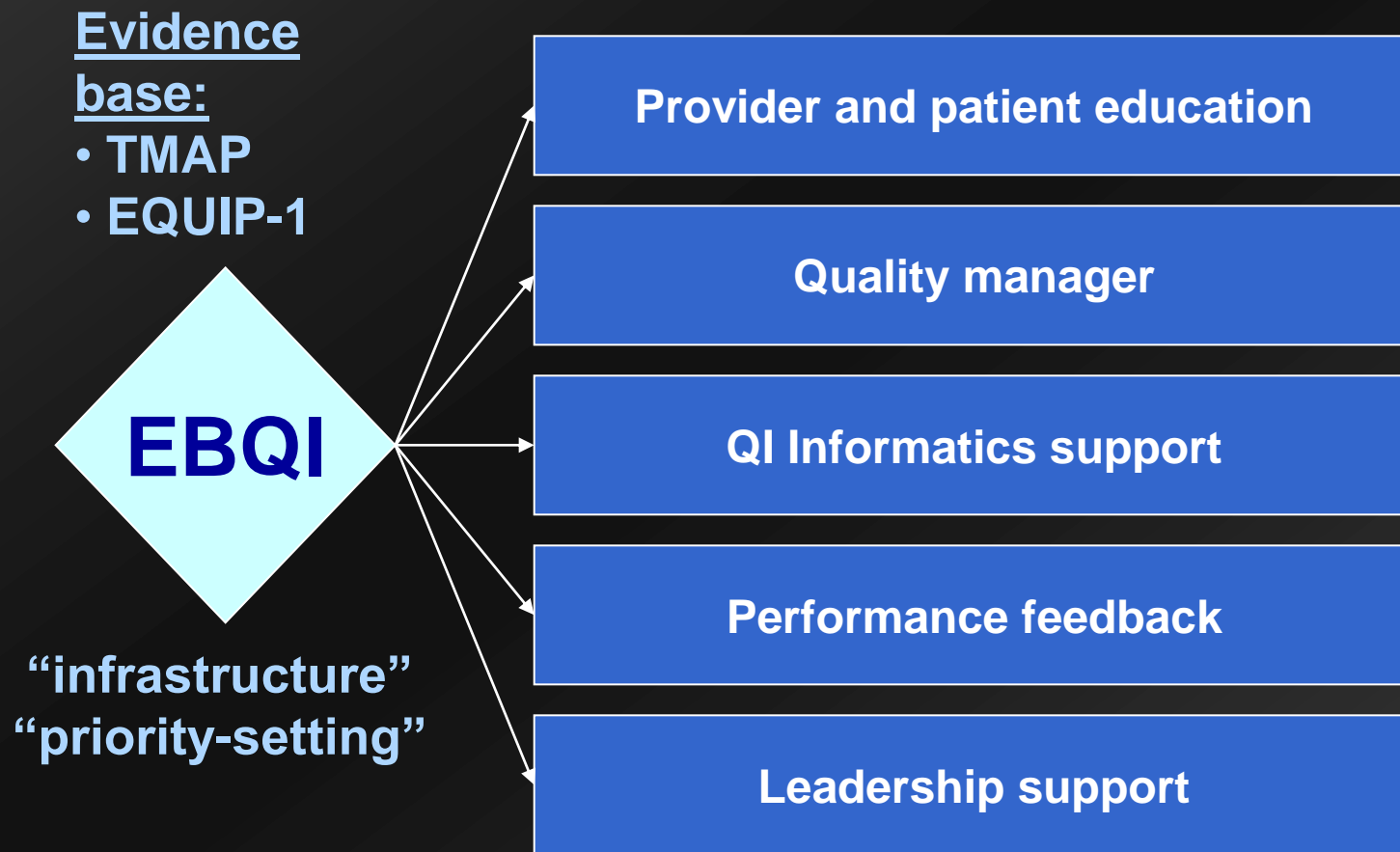
# EQUIP

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- **EQUIP (Enhancing QQuality of care In Psychosis)**
  - HSR&D QUERI implementation research
  - Alexander Young, MD & Amy Cohen, PhD (Co-PIs)
- **Evidence-Based Quality Improvement**
  - implement effective care in specialty mental health
- **8 medical centers assigned to intervention or control**
  - VISNs 3, 16, 17, 22
- **Teams at intervention sites work to make locally driven clinical changes**



# EQUIP: EBQI Design





# EBQI Process

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- **Design choices by VISN leadership based on evidence**
  - pick sites, select 2 care targets, engage local medical center leadership
- **Implementation by Medical Center leadership**
  - supported administratively and technically by researcher team acting as technical experts
  - assemble local QI teams with facilitation and evaluation by researchers
  - review progress & guide reorganization



# Results

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- **791 veterans with schizophrenia enrolled**
  - mean BMI=30 & 78% overweight
- **Limited clinician knowledge regarding treatment options**
- **Intervention**
  - all clinicians informed of treatment options
  - group leaders trained in 16-session intervention
  - all patients screened & educated using kiosk
- **Provision of evidence based care to patients**
  - intervention sites: increased from 15% to 32%
  - control sites: no change



# Take-Home Messages – Successful Implementation/QI efforts Involve:

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- Leadership buy-in and active support
- Urgency for change
- Social influence strategies – e.g., opinion leaders
- Involvement of stakeholders
  - Interdisciplinary team approach
  - Local adaptation and implementation planning
- Integration with existing efforts
- Hard work
- Tools that make hard work more efficient
- Facilitation - internal or external



# QUESTIONS?

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Contact:

Rick Owen, MD

Director, Mental Health QUERI

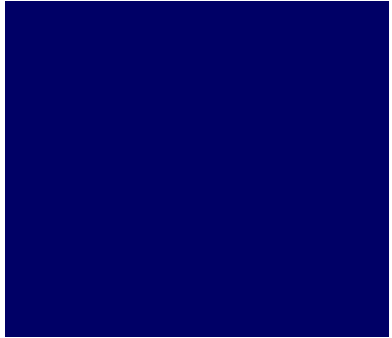
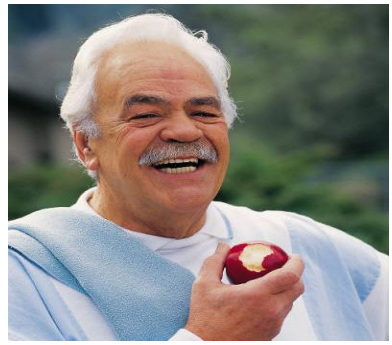
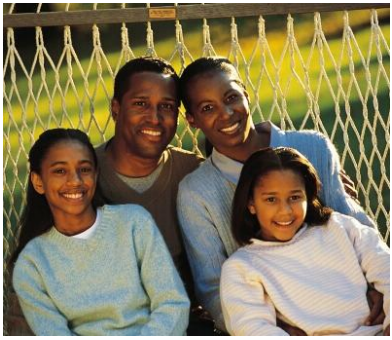
Director, Center for Mental Healthcare & Outcomes Research

Central Arkansas Veterans Healthcare System

Phone: (501) 257-1710

E-mail: [Richard.Owen2@va.gov](mailto:Richard.Owen2@va.gov)

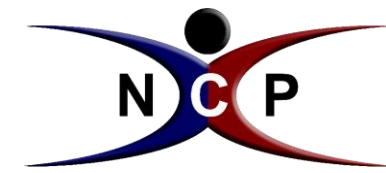




# VHA Weight Management in Review

Lynn Novorska, RD, LDN  
MOVE! Dietitian Program Coordinator

National Center for Health Promotion  
and Disease Prevention (NCP),  
VHA Office of Patient Care Services



# Organization

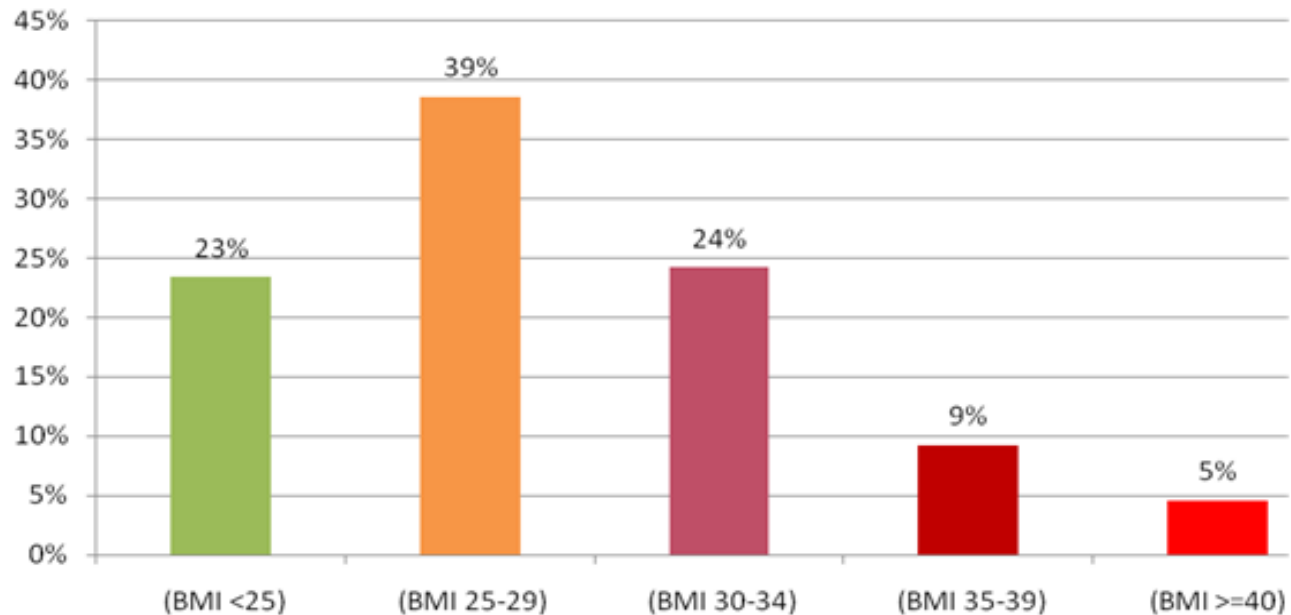
## Office of Patient Care Services –

- VHA National Center for Health Promotion and Disease Prevention (NCP), Durham, NC
- Linda Kinsinger, MD, MPH  
Chief Consultant for Preventive Medicine
- Products:
  - Prevention Policy
  - Clinical Prevention Tools
  - Oversight

# MOVE! Weight Management

- **NCP MOVE! Weight Management Team:**
  - Ken Jones – Clinical Health Psychologist
  - Lynn Novorska – Registered Dietitian
  - Sophia Hurley – Physical Therapist
  - Tony Rogers – Web Master
  - Susi Lewis – Registered Nurse
  - Dr. Kinsinger – Medical Consultation/Oversight
- **Our Products:**
  - Weight management policy
  - Clinical tools for weight management
  - Oversight of weight management care

# Prevalence of Overweight/Obesity among Veterans in VHA

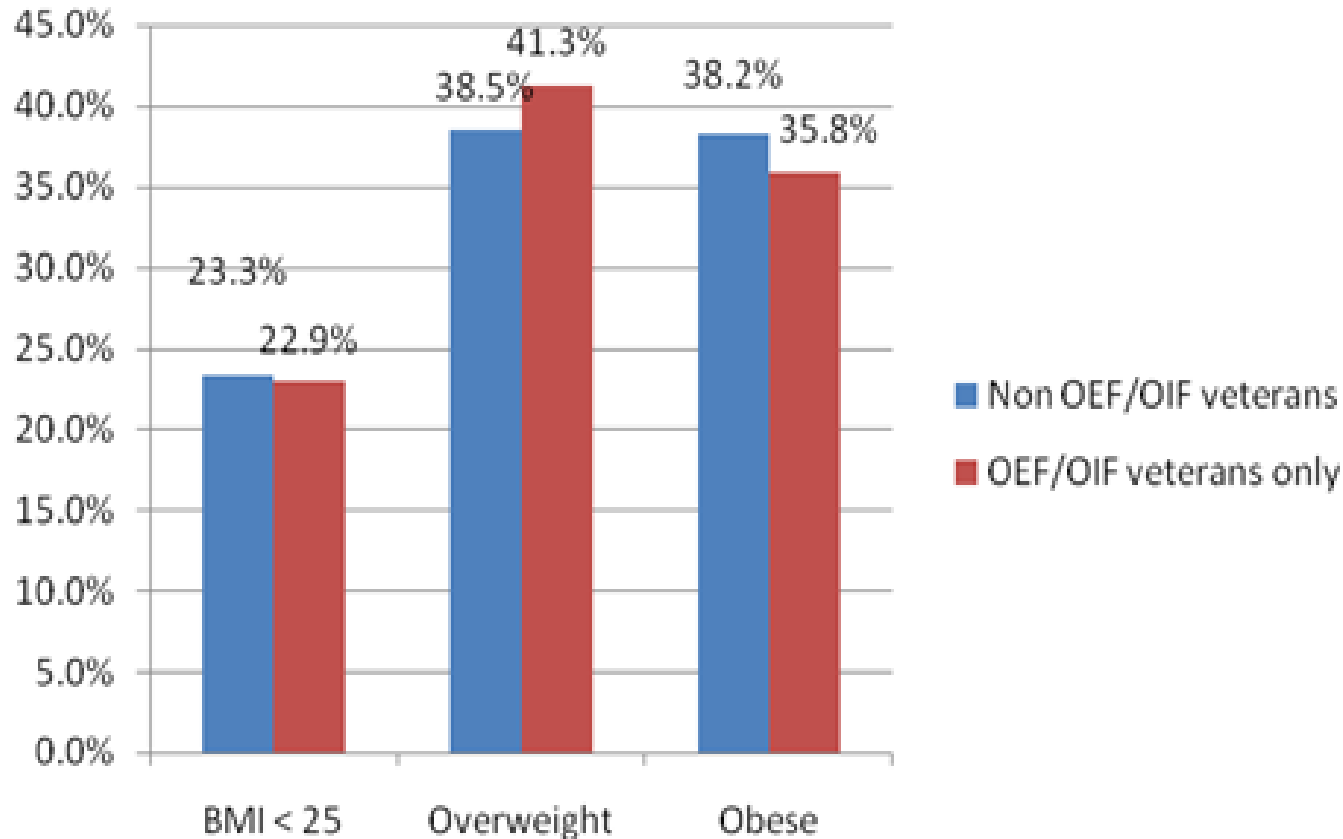


Summary: 77% of Veteran patients are overweight or obese

Based on FY 2008 Corporate Data Warehouse - Vital Signs Data (VSSC) for 4,367,962 with height and weight on the file of approx. 5.5 million patients



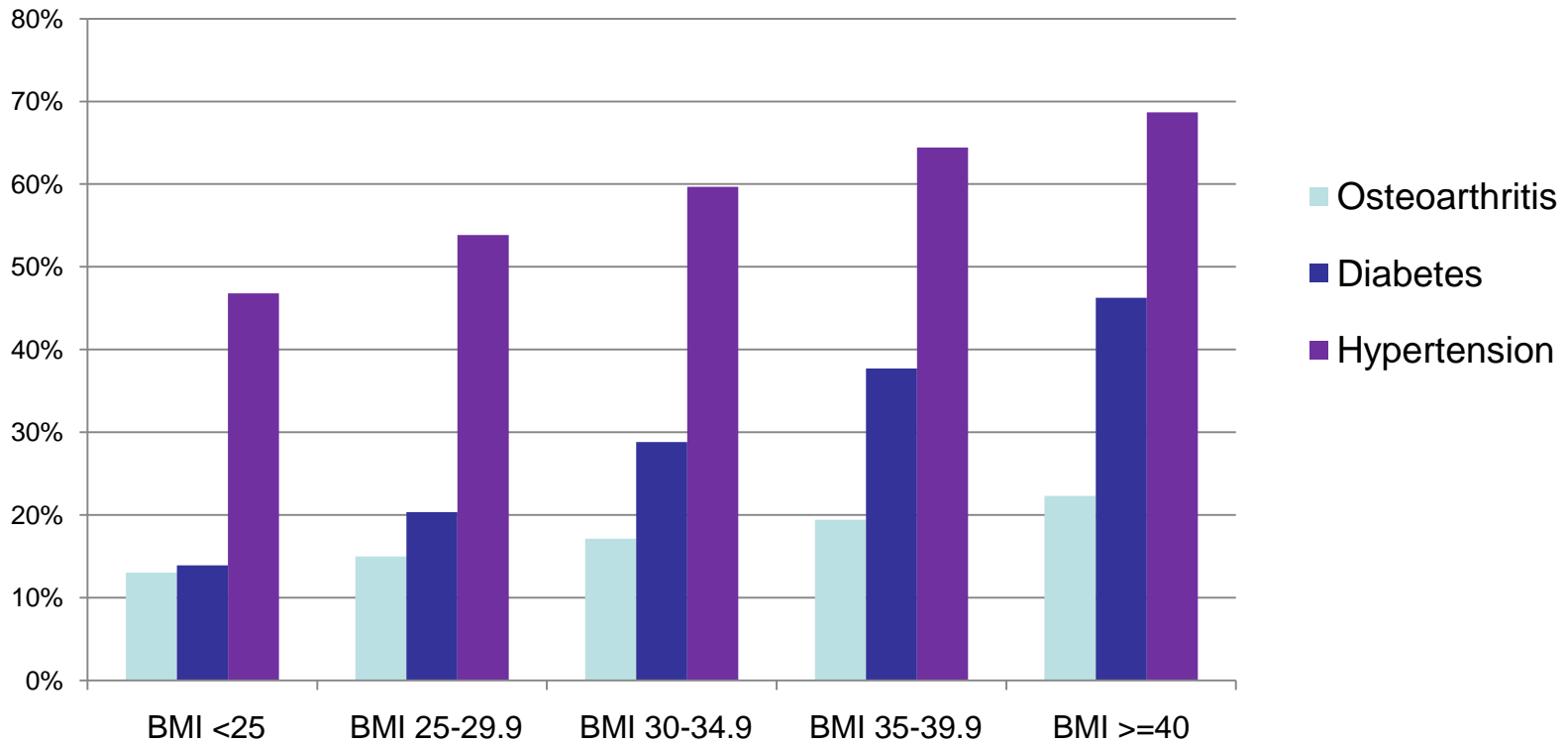
# Prevalence of Overweight/Obesity among OEF/OIF Veterans



Source:  
2008 VSSC  
data



# Common Diseases by BMI



Source:  
2008 VSSC  
data



# A Bit of MOVE! History

- **2001 Primary Care Meeting/Survey**
- **2002 Initial staffing, development of tools**
- **2003 Pilot began**
- **2004 National Program Manager & team formed**
- **2005 Early implementation**
  - VISNs 2, 8, 23 and individual medical centers
- **2006 National Implementation**
  - HealthierUS Veterans Initiative
  - CPG
  - Resources
- **2008**
  - Copayment eliminated by modification of CFR
  - Developed and initiated FY-2009 – Weight Screening Performance Measure
- **2009**
  - First two national meetings with MOVE! Coordinators
- **2010**
  - TeleMOVE! Launched
  - Training update – conversion to LMS
  - HealthierUS Veterans Initiative transformed



# Resources

- 2006
  - Websites
    - [www.move.va.gov](http://www.move.va.gov) - Patients
    - [vaww.move.med.va.gov](http://vaww.move.med.va.gov) – VA Staff
  - MOVE! Handbook 1101.1 signed by USH in March 2006
  - On-line training – 1<sup>st</sup> release
  - Toolkits and supplements
  - Starter Packs, Clinical Reference Guide & Quick Start Manuals
  - Pedometers available in Prosthetics
  - VSSC Utilization Data Cube
  - VA/DoD CPG
- 2008
  - Co-payment Exempt, June 2008
  - Performance Measure for Screening (FY '09)
- 2009
  - MOVE! Intensive Guidance
- 2010
  - TeleMOVE! – Launch of CCHT Weight Management DMP
  - MOVE! Online Training
  - Revised References

# Goals of MOVE!

- Address obesity using best available medical evidence
- Screen every Veteran and assess risk of excess weight
- For those at risk, offer a weight loss program that can achieve a 5-10% weight reduction
- Base of program is supported self management
- Integrate treatment with Primary Care
- Maintain a program that will evolve through evaluation, identification of best practices, and new evidence

# MOVE! Screening and Treatment

- Screening/Assessment
  - Annual PC Screening - offering MOVE! to “at risk patients” – patient wanting to work on weight complete MOVE!23 Patient Questionnaire
- Supporting Self Management
  - Individual (telephone) – Initially called Level 1
  - Group Sessions – Initially called Level 2
  - Specialty Consultation – Initially called Level 2

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More Intensive Weight Management Care  
(not required to be available at every facility)

- Weight Loss Medications (Level 3) - Available
- MOVE! Intensive (Level 4) – Some Facilities
- Bariatric Surgery (Level 5) – Some Facilities

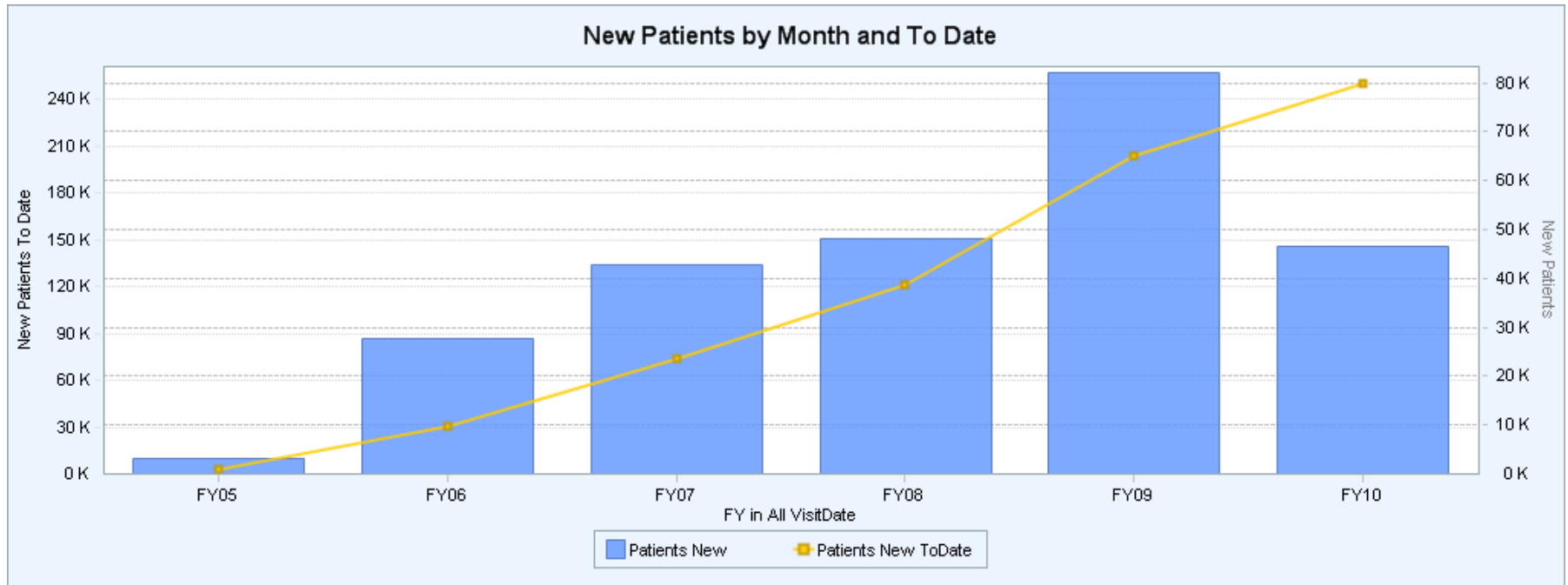
MOV5 Weight Screening: Supporting Indicator (FY '08)  
Performance Measure (FY '09 & 10)

	FY '08	FY 2009	FY 2010 (thru 2 <sup>nd</sup> Qtr.)
National	65% No Goal	90% Target = 65%	94% Target = 90%

<http://vaww.pdw.med.va.gov/MeasureMaster/MMIndex.asp?qtr=20102>



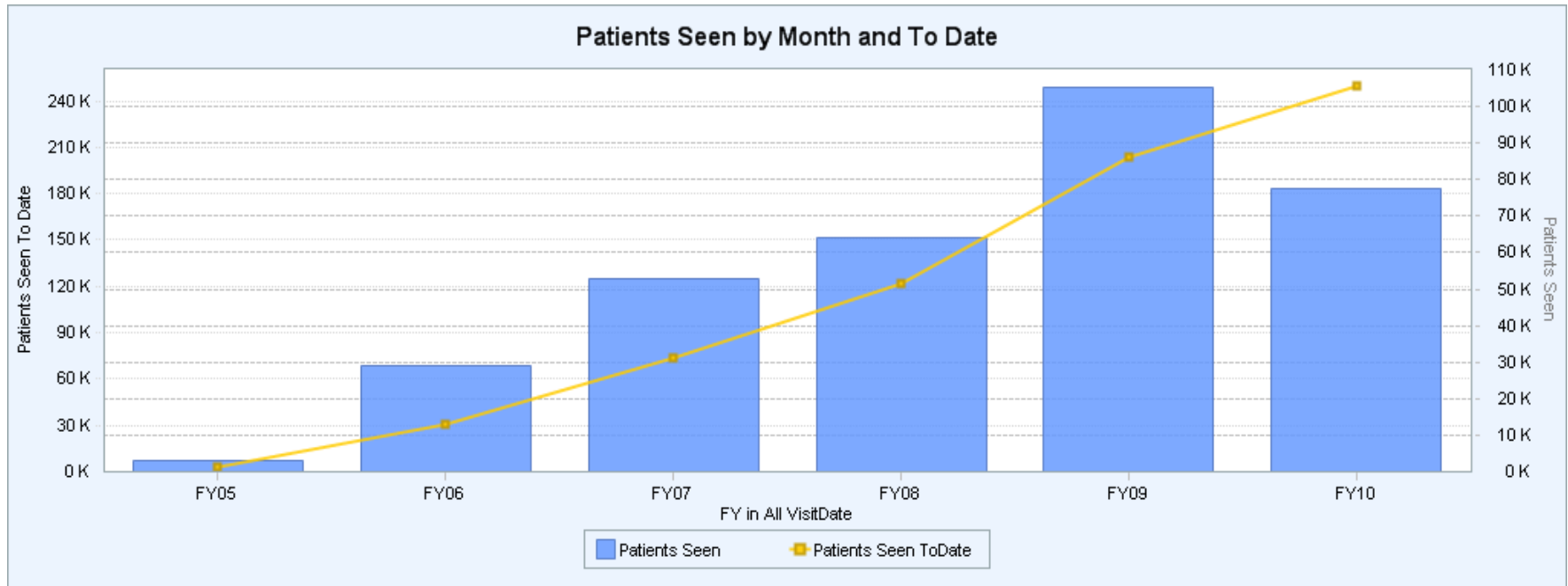
# MOVE! Patients to Date Nationally (at least one visit)



- Total = 250,048 Patients
- Averaging about 6,300 new patients per month



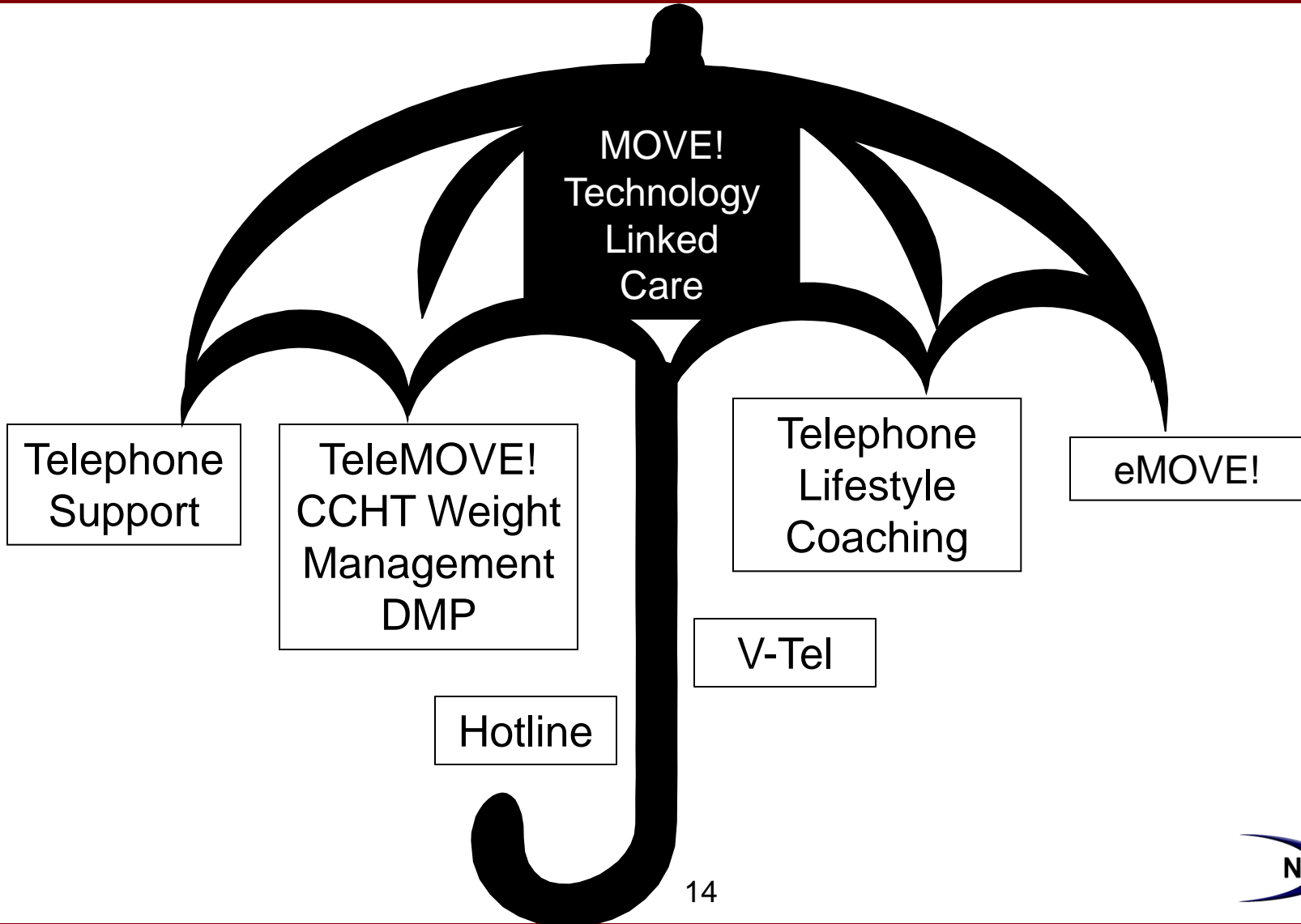
# MOVE! National Data Treatment Encounters



Total Visits = 1,363,297

$1,363,297 / 250,048 = 5.5$  contacts per patient

# What's next?



# Questions?



## National Center for Health Promotion and Disease Prevention

VHA Office of Patient Care Services  
Linda Kinsinger, MD, MPH, Chief Consultant for Preventive Medicine  
3022 Croasdaile Drive, Suite 200  
Durham, NC 27705  
(919) 383-7874 (ext. 228)  
[www.prevention.va.gov](http://www.prevention.va.gov)

Lynn Novorska, RD, LDN  
MOVE! Dietitian Program Coordinator  
(919) 383-7874 (ext. 245)

Susi Lewis, MA, RN, CPHQ  
MOVE! Special Projects Coordinator - Clinical Resources  
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