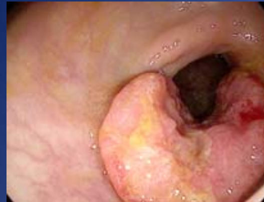
# VA Colorectal Cancer Care Collaborative

Brooklyn Campus

Manhattan Campus



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VA New York Harbor HCS
Brooklyn Campus

## C4: Colorectal Cancer Care Collaborative

- Began in 2005
- To assess and improve the quality of colorectal cancer care from screening and diagnosis through treatment

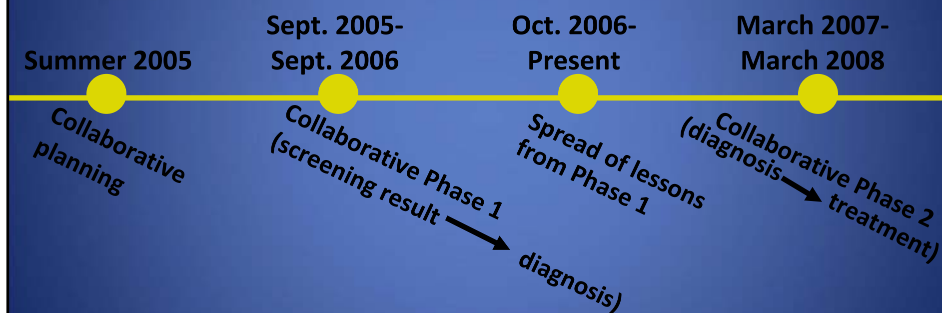
**Phase I: Diagnosis**

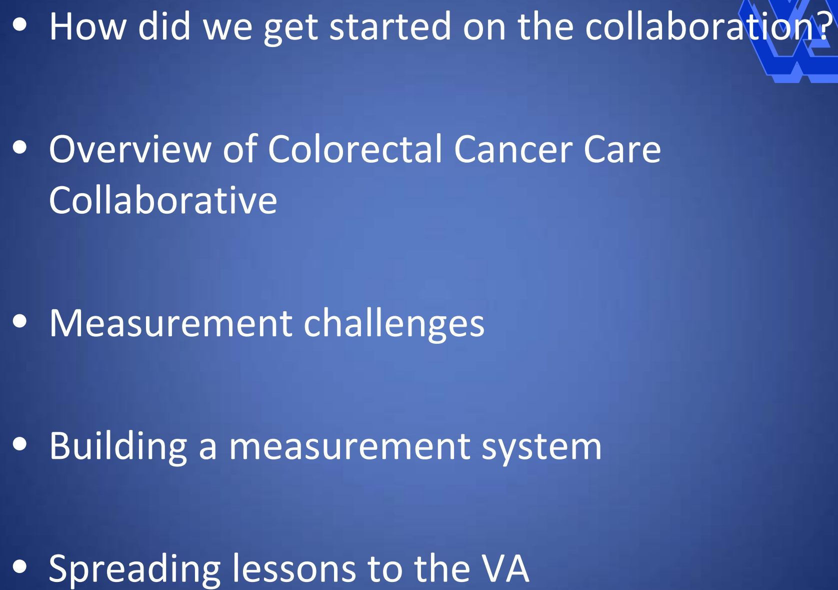
* screening
* presentation with symptoms through diagnosis

**Phase II: Treatment**

* period from diagnosis of CRC through treatment & follow-up

## Time Line






# Why C4?

Initiated in 2005:

- QUERI (Quality Enhancement Research Initiative) research results demonstrated gaps in colorectal cancer diagnosis and treatment
- OIG report
- Congressionally-mandated review of cancer care (GPRA – Government Performance and Results Act)
  - Colorectal, breast, lung, prostate, hematologic

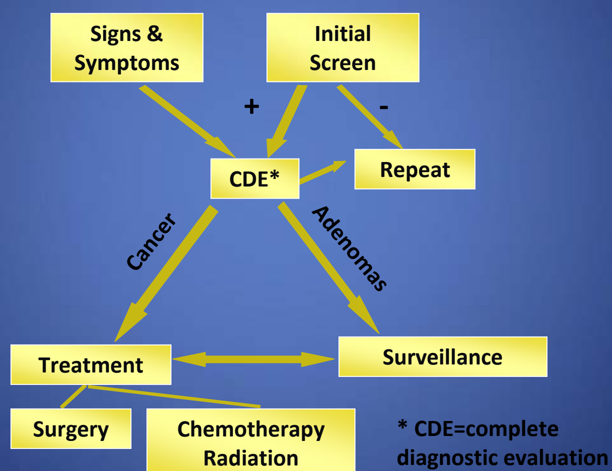
# Colorectal Cancer

- Second leading cause of cancer death
- Third most common type of cancer among men and women in the United States
- 11% of all new cancer cases
- 90% five-year survival when diagnosed at stage I
- 5% five-year survival when diagnoses at stage IV

- Source: VA Colorectal Cancer QUERI Fact Sheet, January 2006

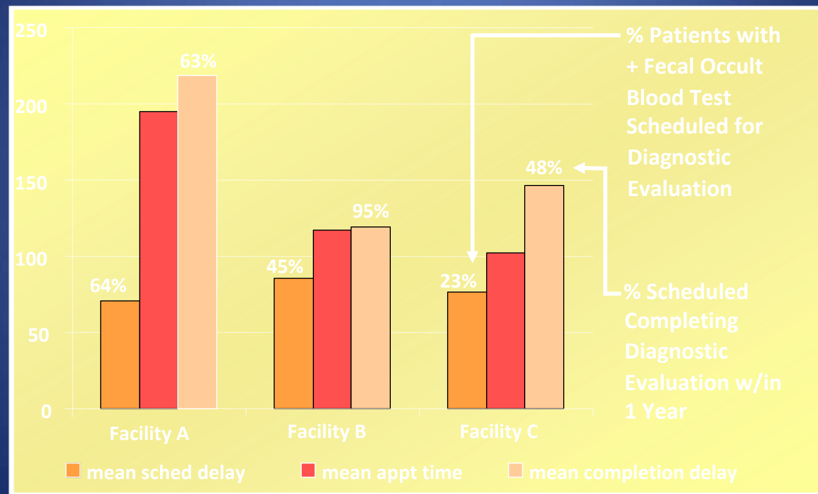
*Source: VA Colorectal Cancer QUERI Fact Sheet, Jan. 2006*

# CRC Continuum




* CDE=complete diagnostic evaluation

## Follow-Up Positive FOBT




## OIG Report: CRC Detection and Management in VHA Facilities Feb. 2006

- Metrics to evaluate and improve CRC dx timeliness
- Prioritization process for dx colonoscopies
- Directive addressing timeframes
  - Pt notification of screening results within 7 working days
  - Consistent notification and documentation requirement for diagnostic testing

# OQP Vision

- Measures and measurement tool development (QUERI/HSR&D)
- Pilot collaborative project to identify and develop improvement strategies/tools (OQP/SR)
- National dissemination of project (SR/OQP)
  - Monitors or Performance Measures to create “pull” for improvement
  - Ongoing support to facilitate sharing, identification of additional effective strategies/tools

# Anticipated Challenges

- Measurement challenges
- Improvement challenges
- Dissemination challenges
- Two phases: diagnosis and treatment
- *Project infrastructure*
  - New partnership model
  - “Just-in-time” planning
- *Pace and design of project*
  - Sense of urgency
  - Cultural “clashes”
    - Research vs. operations
    - Anecdote vs. evidence

# Anticipated Outcomes and Products

- Measurement
  - Standardized facility-level approaches for QI measures
  - Real-time measurement tools
  - Documentation of barriers to national measurement
- Improvement tools/strategies
- Dissemination mechanism
  - Improvement *before* external review published
- Lessons on how to do this better next time
  - Project organization and partner roles
  - C4-type collaborative

# The Partnership

- Quality Enhancement Research Initiative (QUERI)
  - CRC expertise in measurement and improvement
- Office of Quality and Performance (OQP)
  - Performance measurement expertise
  - Quality improvement expertise
- Systems Redesign
  - Expertise in delay reduction
  - National infrastructure, experience, and tools
- Patient Care Services
  - Clinical expertise
  - Link to VA clinical constituencies

# C4 Planning Committee

- Organizes the collaborative
- Includes representatives from all partner organizations and other VA collaborative experts
- Subcommittees
  - Measurement Issues
  - Collaborative Operations
  - Dissemination

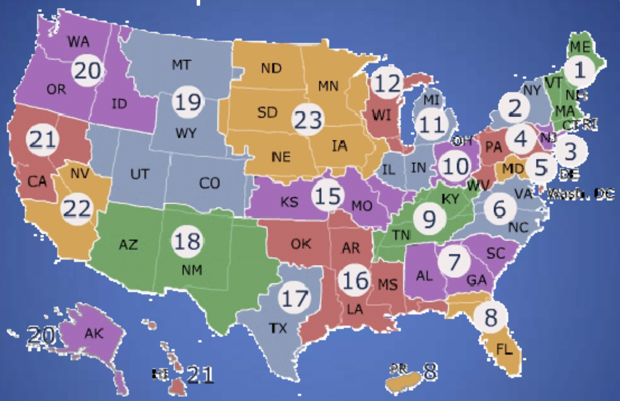
# Changing Systems

Adapted from material presented by Edward H. Wagner, MD, MPH

# C4 Learning Collaboratives

- 21 volunteer facilities (one per VISN) in diagnosis collaborative
- 28 volunteer facilities (at least one per VISN) in treatment collaborative
- Collaborative: structured, sharing with rapid cycle improvement
- Planning and facilitation by partner organizations with the involvement of many VA stakeholders

# Diagnosis Collaborative
# 21 Improvement Teams



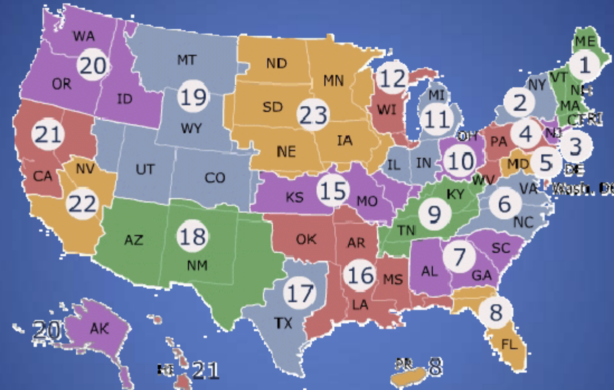

VISN 6 Beckley, WV
VISN 7 Columbia, SC
VISN 8 San Juan
VISN 9 Lexington, KY
VISN 10Columbus
VISN 11Northern Indiana

VISN 1 Providence
VISN 2 Buffalo
VISN 3 New Jersey
VISN 4 Pittsburgh
VISN 5 Washington

VISN 12 Chicago (Hines)
VISN 15 St. Louis
VISN 16 Houston
VISN 17 Temple
VISN 18 West Texas
VISN 19 Salt Lake City

VISN 20 Portland
VISN 21 San Francisco
VISN 22 Loma Linda
VISN 23 Black Hills, SD

# Treatment Collaborative
# 28 Improvement Teams




VISN 6 Beckley, WV
Salisbury, NC
VISN 7 Columbia, SC
VISN 8 Gainesville
VISN 9 Lexington, KY
VISN 10Dayton
VISN 11Northern Indiana

**VISN 1 Providence**
**VA Connecticut**
**VISN 2 Buffalo**
**VISN 3 New York**
**VISN 4 Pittsburgh**
**Lebanon, PA**
**VISN 5 Washington**

**VISN 12 Chicago (Hines)**
**VISN 15 St. Louis**
**VISN 16 Houston**
**VISN 17 Temple**
**VISN 18 West Texas**
**Albuquerque**
**VISN 19 Salt Lake City**

VISN 20 Portland
Puget Sound
VISN 21 San Francisco
VISN 22 Loma Linda
San Diego
VISN 23 Black Hills, SD
Nebraska/W. Iowa

# *Six Access Principles:*

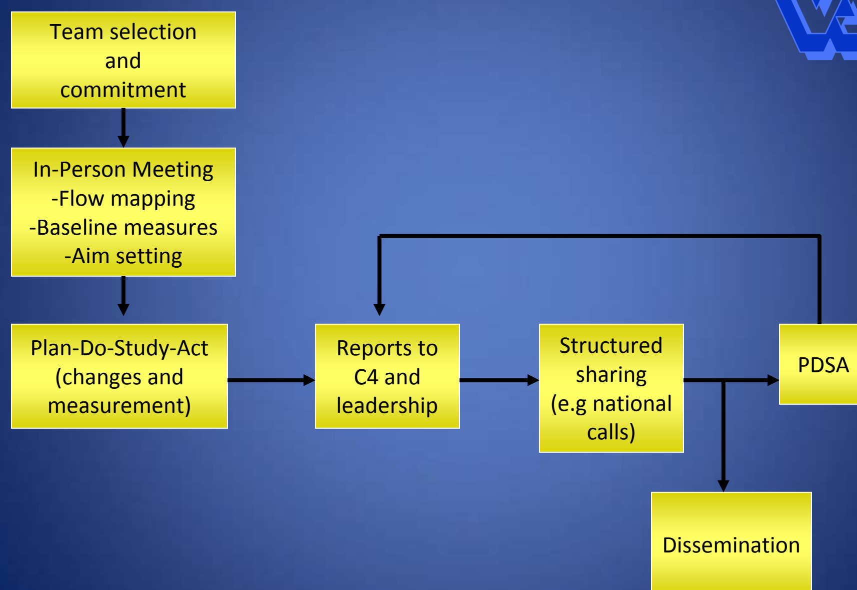
Ways to Improve Access

1. Know, Understand, and Measure Demand and Supply
2. Work Down the Backlog
3. Reduce Work Flow Streams
4. Develop Contingency Plans
5. Reduce Unnecessary Demand for Services
6. Increase Supply of Highest Value

# C4 Learning Collaborative Process

- Flow-mapping and initial data collection
  - QUERI measurement using CPRS data
  - Local measurement
- Setting aims
- Plan-Do-Study-Act (PDSA) cycles
- Coaches aid in the improvement process
- Collaborative sharing via in-person meetings, monthly national calls, monthly reports to coaches and senior leaders, updates to VA leadership, website, and listserv

# Collaborative Process

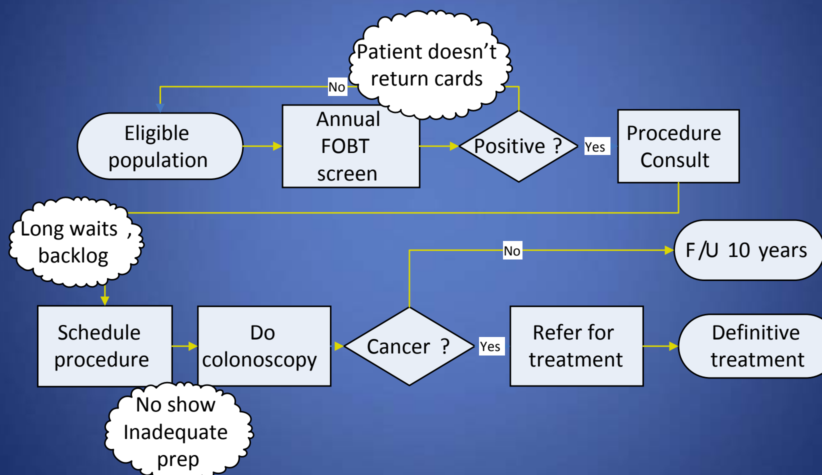


# C4 Team Composition

- Facility Management
  - Facilities volunteered for the collaborative
  - Applications signed by the medical center director, chief of staff, and nursing executive
  - Sites chosen to provide size, complexity, geographic diversity
- Team Formation
  - Teams include physicians, nurses, and other representatives from the involved clinical services
  - Designated project manager
  - Information technology representative

# CRC Screening Process

Problems All Along the Path



# High Leverage Changes to Eliminate Delay

- Access
  - Match supply & demand daily
  - Reduce the backlog
  - Decrease appointment types
  - Develop contingency plans
  - Reduce demand
  - Increase supply/ Optimize the team
- Office Efficiency
  - Balance supply & demand for non-appointment work
  - Synchronize patient, provider, & information
  - Predict & anticipate patient needs
  - Optimize rooms & equipment
  - Manage constraints

Think Lean

# Service Agreements

Purpose
- Specialists can't do everything best
- PC can't do everything best
- Best utilization of resources

Elements
1. Define the work.
   - It is not "NO" work
   - It is not "ALL" work
   - It is the work that only I can do (colonoscopy)
2. The sender agrees to send the right work *packaged* the right way.
   - Referral templates
   - Guideline driven
   - All the information to safely complete the procedure
3. The receiver agrees to do the work right away

## CRC Dx Improvement Strategies

- Decrease inappropriate screening
- Strengthen service agreements/consult templates
- Improve patient colonoscopy prep
- Track positive screens to ensure follow-up
- Fee-base or contract to get rid of backlog
- Add permanent staff
- Other (LOTS!!!)

# Process Change

| *N = 128 to 131 Facilities* | Fully Implemented | In Process of Implementing | Not Implementing |
|---|---|---|---|
| Strategies to decrease cancellations/no shows | 82% | 12% | 6% |
| Create/revise of PC/GI service agreement | 64% | 22% | 14% |
| Consult template revision | 59% | 25% | 16% |
| Track colonoscopy supply and demand | 56% | 28% | 16% |
| Form an multidisciplinary improvement team | 56% | 22% | 22% |
| Revise colonoscopy prep ed and/or protocols | 54% | 21% | 25% |
| Participate in an improvement collaborative | 51% | 21% | 28% |
| Initiate/increase use of fee-based colonoscopies | 44% | 16% | 40% |
| Revise CRC screening clinical reminder | 43% | 31% | 26% |
| Create system for tracking FOBT+ patients | 42% | 38% | 20% |
| Track number of inappropriate FOBTs | 33% | 28% | 39% |
| Hire additional nurses/other staff for colonoscopies | 29% | 33% | 38% |
| Track number of incomplete colonoscopies | 28% | 20% | 52% |
| Hire additional colonoscopists | 23% | 35% | 42% |
| Add additional endoscopy suites | 15% | 27% | 58% |
| Contract additional onsite colonoscopists | 15% | 18% | 67% |

- Process Improvement
- QI Infrastructure
- GI Capacity Building

Reminder Resolution: Colorectal Cancer Screen

| Action: | Reminder resolved for: |
|---|---|
| ORDER SCREENING COLONOSCOPY | 1 month |
| SCREENING COLONOSCOPY SCHEDULED | 1 month |
| SIGMOIDOSCOPY DONE (here or elsewhere) | 5 years |
| COLONOSCOPY DONE (here or elsewhere) | 10 years |
| ORDER COLORECTAL SCREENING (FOBT) | -- |
| COLORECTAL SCREEN DONE (here or elsewhere) | 1 year |
| Declined | -- |
| Contraindicated for short term | 1 month |
| Life expectancy less than 6 mos. Screening procedures not indicated. | |
| Contraindicated: History of cancer of esophagus, liver, or pancreas | |

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**Colorectal Cancer Screen:**
**Colorectal screening ordered today**

Orders: **OCCULT BLOOD**

Order Placed

Reminder Resolution: Colorectal Cancer Screen

| Action: | Reminder resolved for: |
|---|---|
| ORDER SCREENING COLONOSCOPY | 1 month |
| Brooklyn GI consult | |
| New York GI consult | |
| SCREENING COLONOSCOPY SCHEDULED | 1 month |
| SIGMOIDOSCOPY DONE (here or elsewhere) | 5 years |
| COLONOSCOPY DONE (here or elsewhere) | 10 years |
| ORDER COLORECTAL SCREENING (FOBT) | -- |
| COLORECTAL SCREEN DONE (here or elsewhere) | 1 year |
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Progress Note text inserted automatically.

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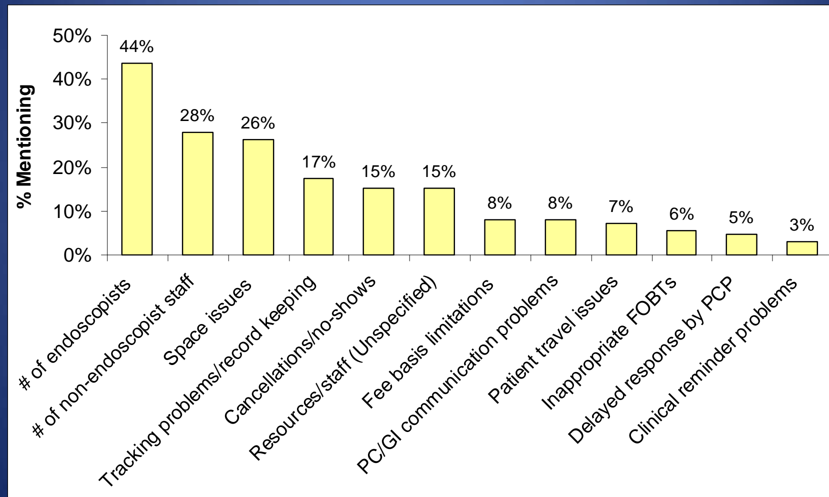
**Colorectal Cancer Screen:**
**Consult requested for screening colonoscopy.**

Health Factors: **COLONOSCOPY ORDERED**
Orders: **GENERAL CONSULTS**

Allows tracking
Places order

## What have been the most significant barriers to improvement?




## FY09 FOBT Follow-up Monitor

*Proportion of patients with a positive colorectal cancer (CRC) screening FOBT with diagnostic colonoscopy $\leq$ 60 days after the positive screening FOBT.*

- *Numerator: Those in denominator who had complete diagnostic colonoscopy $\leq$ 60 days after a positive CRC screening FOBT*
- *Denominator: Number of patients with a positive CRC screening FOBT in the measurement month*
- *Exclusions:*
  - *Patients who refuse follow-up colonoscopy*
  - *Patients who choose to have follow-up colonoscopy outside (i.e., neither performed nor paid for by) the VA*
  - *Patients determined to be clinically "inappropriate" for colonoscopy*
  - *Patients who have had a previous positive FOBT in the FY09*
  - *Patients whose FOBT was not performed as a CRC screening FOBT.*

## Colorectal Cancer Care Measurement System

These measures, when mapped to NCCN Guidelines, will:

a. Identify facility level gaps in care to patients

b. Identify facility level deviations from established standards of patient care

c. Identify systemwide gaps in care to patients

d. Identify systemwide deviations from established standards of patient care

## CCQMS Development Process

- Solicited input from VA constituencies
  - Office of Patient Care Services
  - Oncology Field Advisory Committee
  - Team of members at participating sites
- Developed specific quality indicators and measures
  - Sample quality indicator: proportion of patients with resected colon cancer with $\geq$ 12 lymph nodes examined by pathology
- Indicators and measures form the basis for computerized measurement and analyses tools

# CCQMS Development Process

- Facilities collect measurement data from VA computer systems
- Information to C4 participants
- During the improvement collaborative, facility and VA-wide reports are being produced
- A goal is to increase data extraction capabilities during the time of the collaborative
- Potential to serve as a model for other cancer care quality measurement efforts

# CCQMS Data Entry

CRC Cancer Care Quality Measurement System

Overall Progress

Guy, Test I - 987-65-4321 ( unknown - Ar

Guy, Test Q - 123-45-6789 ( 1/1/2005 -

Guy, Test Z - 123-45-6879 ( 1/1/2000 - Living

New Entry

Information Items | Reports

**Patient Identity**
Patient Identity
**Vital Status**
Vital Status
Patient Information
Type of Cancer
Incident Case
Staging

Please indicate the following staging information from the time of diagnosis.

Primary Tumor (T)
T2
Regional Lymph Nodes (N)
MX
You did not enter complete T, N, M information. If this information is not available, please indicate the documented cancer stage.
does not apply
Determined Stage
I

Pathology Report
Diagnosis Procedure
Other Procedures Included in the Diagnostic Workup
Screening or Symptoms Leading to Diagnosis
Informing Patient about Cancer
Psychosocial Support at Diagnosis
Treatment Plan
Clinical Trial

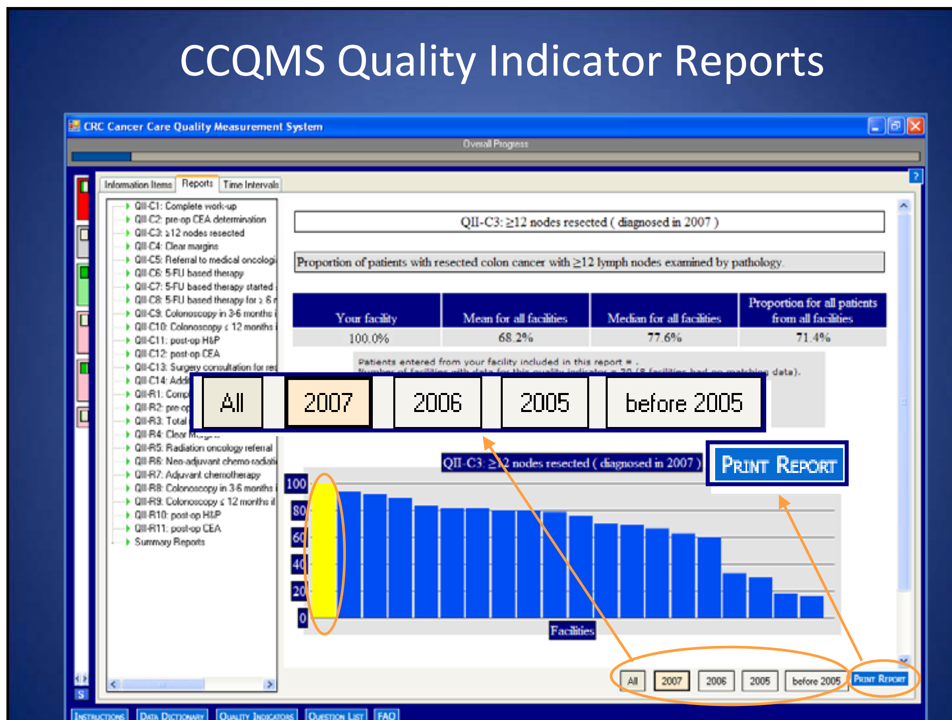
INSTRUCTIONS | DATA DICTIONARY | QUALITY INDICATORS | QUESTION LIST | FAQ

PREVIOUS | PRINT ENTRY | NEXT

# CCQMS Reporting Feature

- Immediate feedback on concordance with NCCN guidelines and their progress in meeting the quality indicators
- Displays facility de-identified data for reference and comparison

# CCQMS Quality Indicator Reports



# DUSHOM FY2009 CRC Diagnosis and Treatment Monitor

- Opportunity to spread improvement nationally
  - Facilities begin to look at their processes for colorectal cancer care
  - Medical centers identify improvement opportunities, collect data on an indicator in their area of opportunity, begin improvement work
- Tools/lessons available from the collaborative

# Cancer Care Collaborative: Focus on colorectal cancer at the VA-New York Harbor Healthcare System

Carol Luhrs, MD, Andrea Leaf, MD, Maura Langdon, MPA, Kathy Geritano, CTR, Lillian Reyes, NP and Daniel Garry, RN, QM

## Timeliness of treatment-rectal cancer

2006-2008 median days from colonoscopy to treatment

- Colon cancer – 12 days
- Rectal cancer – 49 days

Aim Statement

By 10/1/09, for patients with rectal cancer who are candidates for neo-adjuvant therapy, decrease median days from colonoscopy to initiation of neo-adjuvant chemo-radiation from 49 to 35 days.

## Rectal Cancer Value Stream Map

Treatment of Patient with Rectal Cancer
VA-NYHHS (2006-2008)

* New patient with rectal cancer: Colonoscopy to chemo - RT 16 days; RT Request 1 day; TRUS 4 days.

## Three Major Constraints

Primary constraint: days from Radiation Oncology consult request to initiation of RT–29.5 days (11-59)

Secondary constraint: days from colonoscopy to RT consult request – 20 days (0-62)

Third constraint: days from colonoscopy to trans-rectal ultrasound - 20.5 days (0-37)

## Timeliness: PDSA Cycles for Constraints #2 & #3

| | Cycle #1 | Cycle #2 | Cycle #3 | Cycle #4 |
|---|---|---|---|---|
| P | GI Service to present all patients with mass seen on colonoscopy at next Tumor Board | Develop hard-copy checklist of pre-treatment studies (eg., CEA, CT s, TRUS, Consults) to simplify the ordering | GI service will order checklist at the time of colonoscopy | Create an electronic order set from the checklist . |
| D | Informed TB members that pts with rectal ca will be presented immediately | List steps: 1-Consulted with GI, Surgery, Medical and Surgical Oncology regarding checklist content. 3-Created paper checklist 4-Tested on one rectal cancer pt | 1-Meet with both Bk and NY campuses 2- NY campus needs more time to discuss and decide 3-Bk implements checklist | 1-Contact IRM to prepare order set 2-Test order set |
| S | Next newly diagnosed patient with rectal cancer presentation to TB | RT consult request 1 day after Colonoscopy | Checklist is used for new patient at BK and less time to RT consult and TRUS | Order Set being reviewed for modifications |
| A | Adopt - TB presentation required for all newl rectal cancer | Adapt – Develop electronic order set based on checklist | 1-NY campus accepts checklist 2-Adopt checklist at both campuses | To Follow |

## Reliability: PDSA Cycles for Major Constraint

| | Cycle #1 | Cycle #2 | Cycle #3 | Cycle #4 |
|---|---|---|---|---|
| P | Review process of obtaining surveillance colonoscopies at BK and NY campuses | Colorectal access database used to identify patients due for surveillance colonoscopy(SC) in the past 3 months. | The colorectal access database will be used to identify patients due for SC in the next 3 months. | Develop a shared folder to provide easy access to patients due for SC |
| D | 1.Meet with Chiefs of GI from both campuses 2.Review medical records of patients with Stage I – III colorectal cancer from 2006-7 and prepare Value Stream Map | 1. Cancer Registrar (CR) obtained the list of patients from the access database for patients due for SC in prast3 months. 2. CR reviewed the medical record for documentation and date of SC. | 1. CR obtained list of patients from the access database due for colonoscopy in next 3 months. 2. CR notifies GI of patients due for SC. | Meet with IT specialist to develop shared folder. CR enters patients due for SC and date performed. |
| S | Major constraints:, Reliability of referral to GI by Primary Care, Surgery or Oncology | 5 patients due for surveillance colonoscopy 1-3/09. 4 patients had SC; one refused. | 5 patients due for SC in coming 3 months (5/09-7/09). GI was notified and patients were scheduled. | Ongoing. |
| A | Accept this data as baseline. | Adopt this procedure as a back-up to verify that SC is performed. | Adopt this procedure to notify GI of patients due for SC. | |

## Reliability of Surveillance Colonoscopy

Colorectal Cancer Access Database reviewed

- 2007 – 50%
- 2006 – 55%

Aim Statement

By 10/1/09, Increase the percentage of patients with colorectal cancer who have surveillance colonoscopy from 50% to 90%

## Surveillance Colonoscopy Value Stream Map

Value Stream Map
Surveillance Colonoscopy for Year One
Stage I-III Colorectal Cancer patients

## Major Constraints

Primary constraint: reliability of provider (surgery, primary care, oncology) referring patient to GI for surveillance colonoscopy

Secondary constraint: timeliness of surveillance colonoscopy

# VA

Putting veterans first.

We are far from perfect but constantly striving to be better!