The Chronic Care Model: Today's Nightmare or Tomorrow's Dream

Tribal Leader's Meeting

Corning, Ca

March 2008

Dan J. Calac, MD

Indian Health Council, Inc.

Valley Center, CA

Agenda

- Indian Health Council Overview
- Chronic Care Model Components
- Chronic Care Model in Action
- The Synergy of Chronic Care
- Discussion

Indian Health Council, Inc.

Valley Center, CA

Indian Health Council Overview: Background Information

- Location
  - North San Diego County – California
- Population Served
  - Native Americans and family members
  - 5000 Active clinical users
  - User Population 18000
  - 9 North San Diego County Tribes
- Number of Sites
  - Two – Rincon and Santa Ysabel

Indian Health Council Overview: Background Information

- Indian Health Council Overview
  - Non profit 501 (3) c organization
  - Services 12 tribes in the northern San Diego County (Tribal Consortium)
  - Operates under Public Law 638 funding via Consortium tribes
  - Grants provide 22% of other gap funding not provided by Indian Health Service

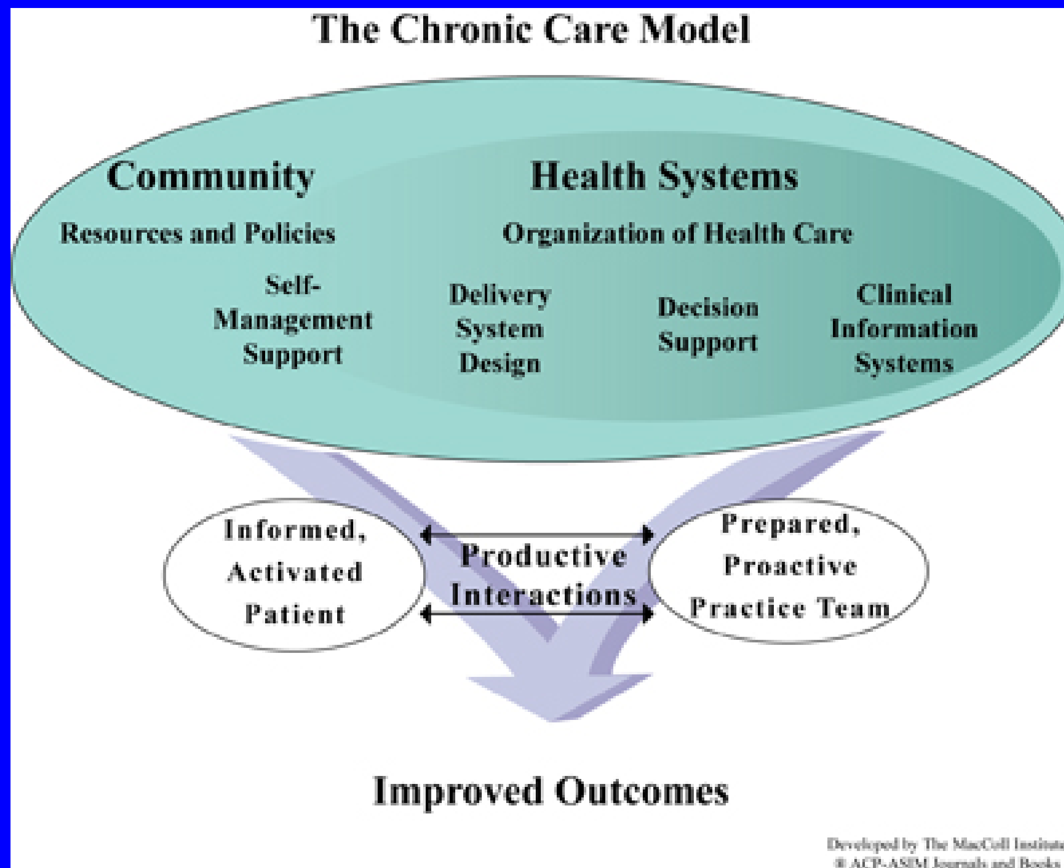
Indian Health Council Overview: Background Information

- Services/Departments
  - Medical
  - Dental
  - Pharmacy
  - Community Health
  - Human Services
  - Operations/Fleet
  - Administration
  - IT

Indian Health Council Overview: Background Information

- Medical Services
  - Internal Medicine
  - Pediatrics
  - OB/GYN (every other week)
  - Accupuncture (3 days a week)
  - Chiropractics (3 days a week)
  - Diabetes Clinic (every other week)
  - Podiatry (every Tuesday)
  - Well Child Clinic (every other week)

The Chronic Care Model



Chronic Care Model Components

- Community
- Health Systems
- Improved Outcomes

Chronic Care Model Components

Community & Health Systems

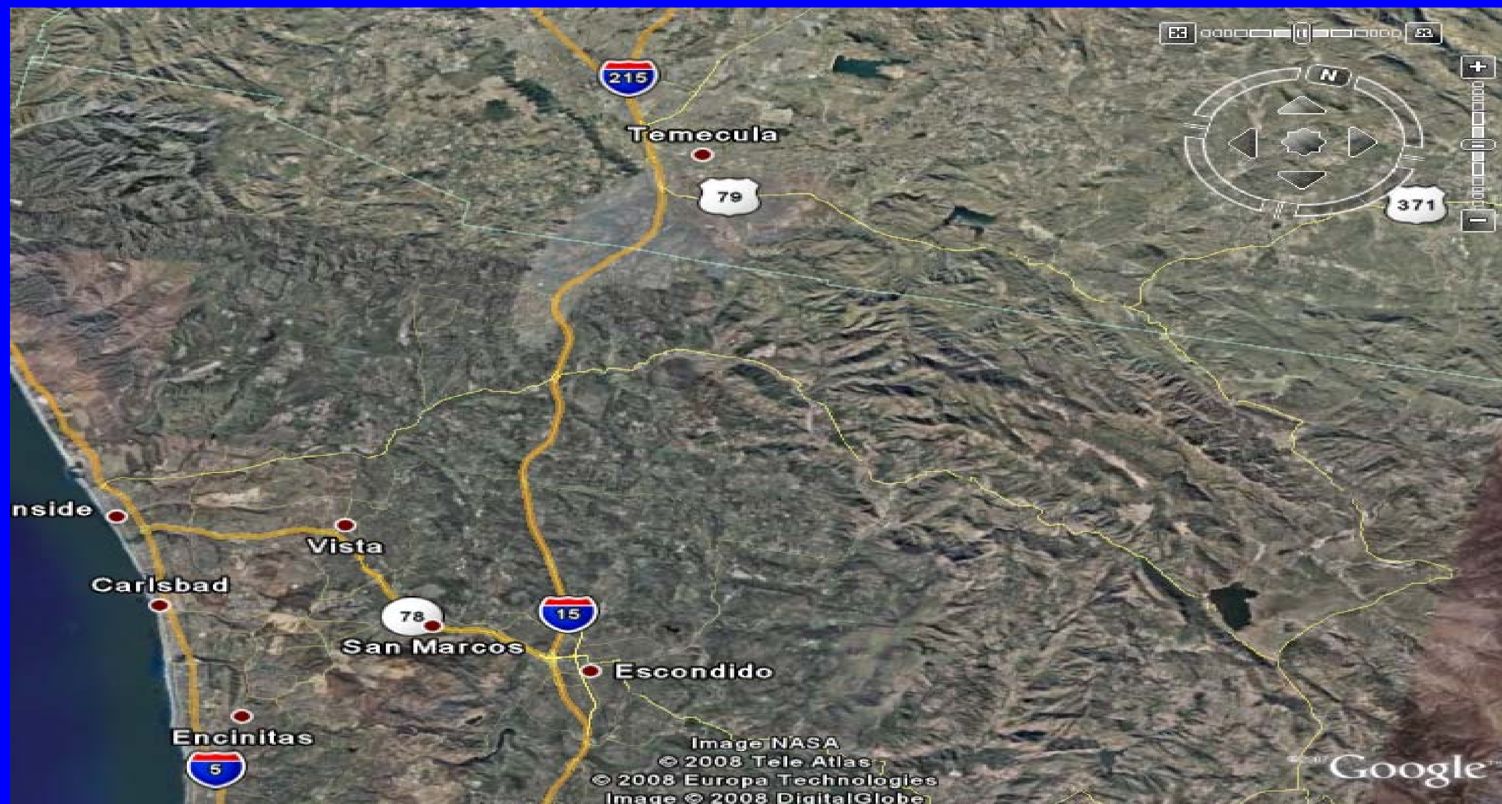
- Resources and Policies & Organization of Health Care
  - Self Management Support
  - Delivery System Design
  - Decision Support
  - Clinical Information Systems

Chronic Care Model Components

Community & Health Systems

- Identifying your Community
  - Rural
  - Mountainous
  - Valley
  - Urban

Chronic Care Model Components: The Community



Chronic Care Model Components

- Community
  - programs and organizations must be able to support and withstand an organizations health care system
  - Question which prevention strategies can be used or discarded

Chronic Care Model Components

- Resources and Policies
  - Personnel
  - Infrastructure
  - Mission and Vision
  - Business Plan/Strategic Planning
  - Clear direction in Procedure & Policy

Chronic Care Model Components

- Organization of Health Care
  - Health quality and improvement is an integral part of the organization
  - Quality is job one
  - Organizational Brevity
  - Active Partnerships/Consortia/Collaboratives

Chronic Care Model Components:

Decision Support

Comprehensive Tx Guidelines

http://www.ihs.gov/NonMedicalPrograms/NC4/nc4-clinguid.cfm

Diabetes	IHS Diabetes Standards of Care	http://www.ihs.gov/MedicalPrograms/diabetes/IHSDiabetesStandardsofCare2006.pdf	30
Hyperlipidemia	National Cholesterol Ed. Program… - *Adult Tx Panel III* (NCEP 3)	http://www.ihs.gov/generalweb/webapps/sitelink/site.asp?link_gov=http://www.nhlbi.nih.gov/guidelines/cholesterol/index.htm	284
	Guidelines for the Treatment of Dyslipidemias in Native Americans	http://www.ihs.gov/MedicalPrograms/cardiology/card/LipidGuidelines.pdf	39
Asthma	National Asthma Education and Prevention Program	http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.pdf	153
Hypertension	JNC 7	http://www.nhlbi.nih.gov/guidelines/hypertension/	104
Depression	MacArthur Foundation's Initiative on Depression and Primary Care	http://www.depression-primarycare.org/	44

Chronic Care Model Components:

Decision Support

IHS Local Treatment Guidelines

http://www.ihs.gov/NonMedicalPrograms/NC4/nc4-guidesA-Z.cfm

Diabetes	DM medication Guidelines (WR)	http://www.ihs.gov/NonMedicalPrograms/NC4/Documents/DM%20Medication%20Guidelines%20(WR).xls	12
	DM Glucose Control Cards – Cherokee	http://www.ihs.gov/NonMedicalPrograms/NC4/Documents/DMGlucoseControlCards-Cherokee.doc	2
Hyperlipidemia	Dyslipidemia Tx Guidelines (WR)	http://www.ihs.gov/NonMedicalPrograms/NC4/Documents/Dyslipidemia%20Tx%20Guidelines%20(WR).xls	8
	Dyslipidemia Cards - Cherokee	http://www.ihs.gov/NonMedicalPrograms/NC4/Documents/DyslipidemiaCards-Cherokee.doc	2
Asthma	Asthma Cards - Cherokee	http://www.ihs.gov/NonMedicalPrograms/NC4/Documents/AsthmaCards9-2004.pdf	4
Hypertension	HTN Tx Guidelines (WR)	http://www.ihs.gov/NonMedicalPrograms/NC4/Documents/HTN%20Tx%20Guidelines%20(WR).xls	4
	HTN & DM – Cherokee	http://www.ihs.gov/NonMedicalPrograms/NC4/Documents/HTNDMCards-Cherokee.doc	2

Chronic Care Model Components:

Decision Support

Prevention Guidelines

General Prevention	United States Preventive Services Task Force (USPSTF)	http://www.ahrq.gov/clinic/uspstfix.htm#Recommendations
Immunizations	Advisory Committee on Immunization Practices – CDC	http://www.cdc.gov/nip/acip/
Community Prevention	Guide to Community Preventive Services – CDC	http://www.thecommunityguide.org/
Falls in Elders	Guidelines for the Prevention of Falls in Older Persons…	http://www.americangeriatrics.org/products/positionpapers/Falls.pdf
Alcohol Misuse	National Institute on Alcohol Abuse and Addiction (NIAAA)	http://www.niaaa.nih.gov/

Chronic Care Model Components:

Decision Support

U.S. Preventive Services Task Force (USPSTF)

An independent panel of experts in primary care and prevention that systematically reviews the evidence of effectiveness and develops recommendations for clinical preventive services.

- Recommendations
- Pocket Guide to Clinical Preventive Services, 2006
- Electronic Preventive Services Selector (ePSS)
- About the Task Force
- Archived Editions of the Guide
- More Information

New Releases in Preventive Services

- Aspirin/NSAIDs for Prevention of Colorectal Cancer (March 2007)
- Screening for Lead Levels in Childhood & Pregnancy (January 2007)
- Guide to Clinical Preventive Services, 2006 (October 2006)

Chronic Care Model Components

- Improved Outcomes
- Better Living
- Healthier Patients
- Happier Patients

Patients: The X Factor

The Chronic Care Model

Informed and Activated Patient ?

Prepared and Proactive Practice Team ?

Productive Interactions ?

Chronic Care Model In Action: Delivery Systems

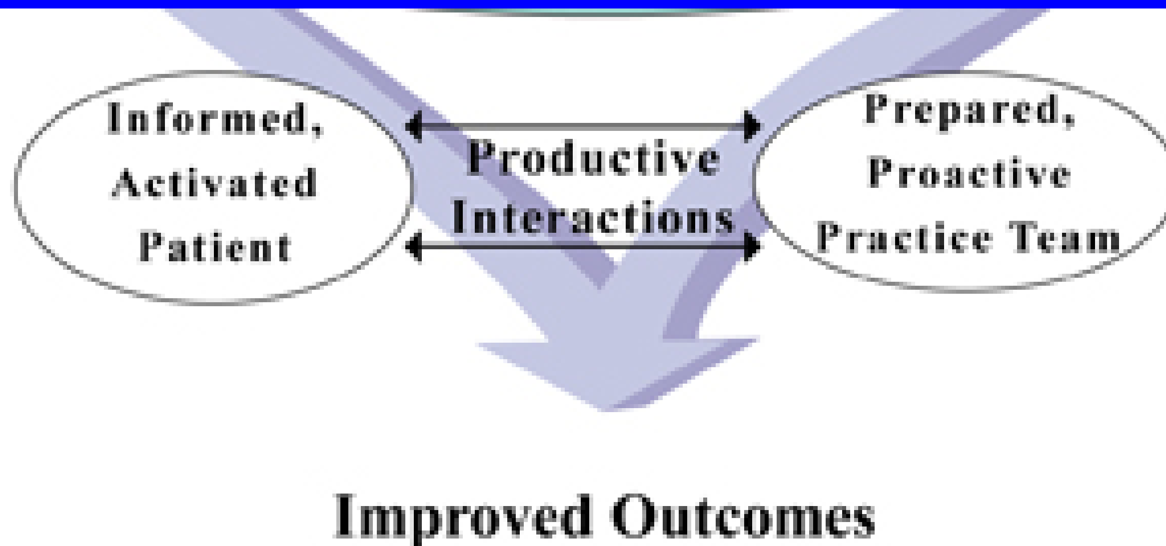
- During the fires, this proud elder arrives at the make shift clinic that is established. She states that she needs her medications. Calmly, the medical provider asks, "What medications are you taking?" The elder reaches into her purse and slams her hand onto the table and yells, "These are my medications!"

Chronic Care Model In Action: Delivery Systems

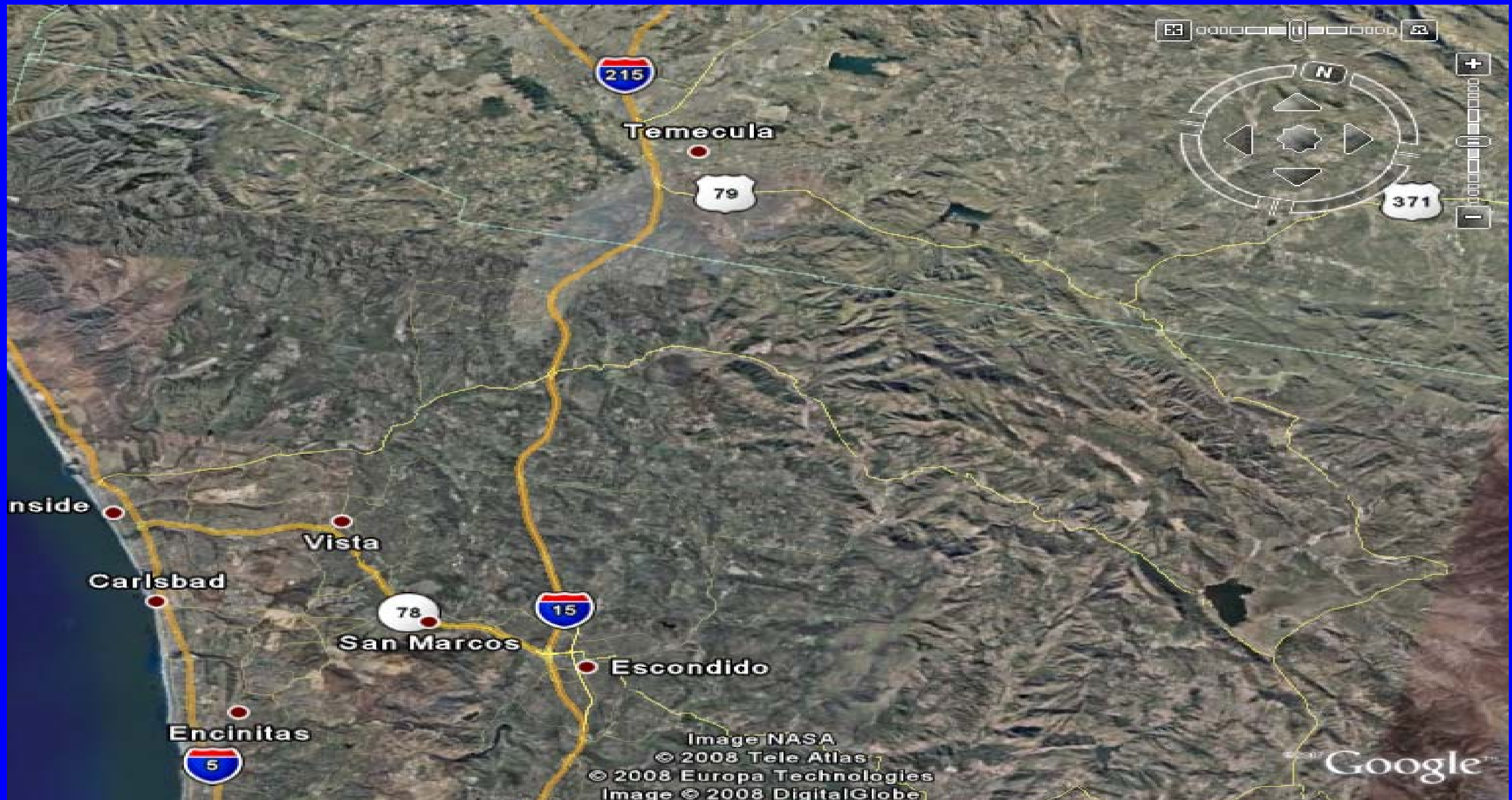
Chronic Care Model In Action: IHC's Microsystem

- Selection
  - Active clinical users with at least three visits in last year to Provider for microsystem
- Population
  - All ages
  - Across all conditions
  - 772 Patients
- Core Team
  - FNP
  - RN
  - Two MA's
- Support Staff
  - CMO, Leadership, Pharmacist, Community Health, Behavioral Health

Chronic Care Model In Action: Dealing with the X Factor



Chronic Care Model In Action: Dealing with the X Factor



Chronic Care Model In Action: The Team Huddle

- Team Huddle
  - Daily – First thing in the Morning
  - Use each team member to the highest of their ability
  - Move work away from the provider
  - Anticipate the clients needs
- Improvements
  - Move teams together
    - Allows for continuous communication among members

Huddle Activities

- Review Clients for the day
  - Chart Review
    - Initially used GPRA Health Summaries from RPMS
  - Use of iCare started in June 2007
    - Review reminders
    - National Measures Met or Not met
  - Medication records and refill needs addressed
- Assign Duties
- Throughout day Huddle
  - Add Ons
  - Walk ins

Clinical Information Systems: Empaneled Patient Population

- Process
  - Set goal for completion
  - Reviewed all visits in last 18 months
  - Assigned clients based on who they saw most frequently
  - Anticipate process will be fluid for next 12+months.
- Benefits
  - Continuity of Care
  - Set and track improvement goals for panel
  - Gives teams ownership of a patient population

iCare National Measures

IHS iCare - DEMO,PATIENT O

File Tools Window Help

Quick Patient Search:

Name: DEMO,PATIENT O

HRN: 999993
SSN:
Gender: M
Age: 54
DOB: Apr 12, 1953
Perf Met? NO

Tribe: CHIPPEWA-CREE IND. ROCK BOY RES., MT
Community: POMONA
Address: 555 NOBODY CARES
POMONA,CALIFORNIA 99921
Phone: 000 444 1111
Alt. phone:
DPCP:
Case Mgr:

Insurance:

Barriers to Learning:

Cover Sheet | Flags | Reminders | Natl Measures | Face Sheet | Health Summary | Wellness Summary | Labs | Meds | Radiology | Problem List

Performance Glossary

Patient National Performance Measures data from CRS 2007 current as of: Oct 06, 2007 06:52 AM

Clinical Group	Measure Name	Performance Status	Adherence Value
DIABETES	Diabetes Dx Ever*	NO	
	Documented A1c*	N/A	
	Poor Glycemic Cont >9.5	N/A	
	Ideal Glycemic Control <7	N/A	
	Controlled BP <130/80	N/A	
	LDL Assessed	N/A	
	Nephropathy Assessed**	N/A	
	Retinopathy (All Sites)	N/A	
DENTAL	Dental Access General	NO	
	Sealants	-	
	Topical Fluoride-# Pts	-	
IMMUNIZATIONS	Influenza 65+	N/A	
	Pneumovax Ever 65+	N/A	
	Active IMM 19-35 mos***	N/A	
CANCER-RELATED	Pap Smear Rates 21-64	N/A	
	Mammogram Rates 52-64	N/A	
	Colorectal Cancer 51-80	NO	
	Tobacco Cessation	N/A	
BEHAVIORAL HEALTH	FAS Prevention 15-44	N/A	
	IPV/DV Screen 15-40	N/A	
	Depression Screen 18+	NO	
CVD-RELATED	Children 2-5 w/BMI =>95%	N/A	
	IHD: Comp CVD Assessment	N/A	
OTHER CLINICAL	Prenatal HIV Testing	N/A	
DIABETES	BP Assessed	N/A	
	Foot Exam	N/A	
	Depression Screening	N/A	
	Comprehensive Care	N/A	
	Influenza Vaccine	N/A	
	Pneumovax Vaccine Ever	N/A	
DENTAL	Top Fluoride-# Apps	-	
IMMUNIZATIONS	Active Clinical 19-35 mos	N/A	
CANCER-RELATED	Tobacco Assessment 5+	NO	
	Tobacco Use Prevalence	N/A	
CVD-RELATED	BMI Measured 2-74	NO	
	Assessed as Obese	N/A	
	Cholesterol Screening 23+	NO	

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iCare Reminders

IHS iCare - DEMO,PATIENT O

File Tools Window Help — Quick Patient Search:

Name: DEMO,PATIENT O

HRN:	999993	**Tribe:**	CHIPPEWA-CREE IND. ROCK BOY RES., MT
SSN:		**Community:**	POMONA
Gender:	M	**Address:**	555 NOBODY CARES
Age:	54		POMONA,CALIFORNIA 99921
DOB:	Apr 12, 1953	**Phone:**	000 444 1111
		Alt. phone:	
Perf Met?	NO	**DPCP:**	
		Case Mgr:	

Insurance:

Barriers to Learning:

Cover Sheet | Flags | **Reminders** | Natl Measures | Face Sheet | Health Summary | Wellness Summary | Labs | Meds | Radiology | Problem List

Reminder Name	Due Date	Next Due	Last Date Performed
Tdap		past due	
FLU-SPLIT		due	
BLOOD PRESSURE	Oct 06, 2007	MAY BE DUE NOW	
HEIGHT	Oct 06, 2007	MAY BE DUE NOW	
WEIGHT	Oct 06, 2007	MAY BE DUE NOW	
PHYSICAL EXAM	Oct 06, 2007	MAY BE DUE NOW	
CHOLESTEROL	Oct 06, 2007	MAY BE DUE NOW	
RECTAL	Oct 06, 2007	MAY BE DUE NOW	
TOBACCO USE SCREENING	Oct 06, 2007	MAY BE DUE NOW	
COLORECTAL CA-SCOPE/XRAY	Oct 06, 2007	MAY BE DUE NOW	
COLORECTAL SCREENING	Oct 06, 2007	MAY BE DUE NOW	
COLORECTAL SCREENING	Oct 06, 2007	MAY BE DUE NOW	
TD-ADULT	Oct 06, 2007	MAY BE DUE NOW	
ALCOHOL USE SCREENING	Oct 06, 2007	MAY BE DUE NOW	
DEPRESSION SCREENING	Oct 06, 2007	MAY BE DUE NOW	

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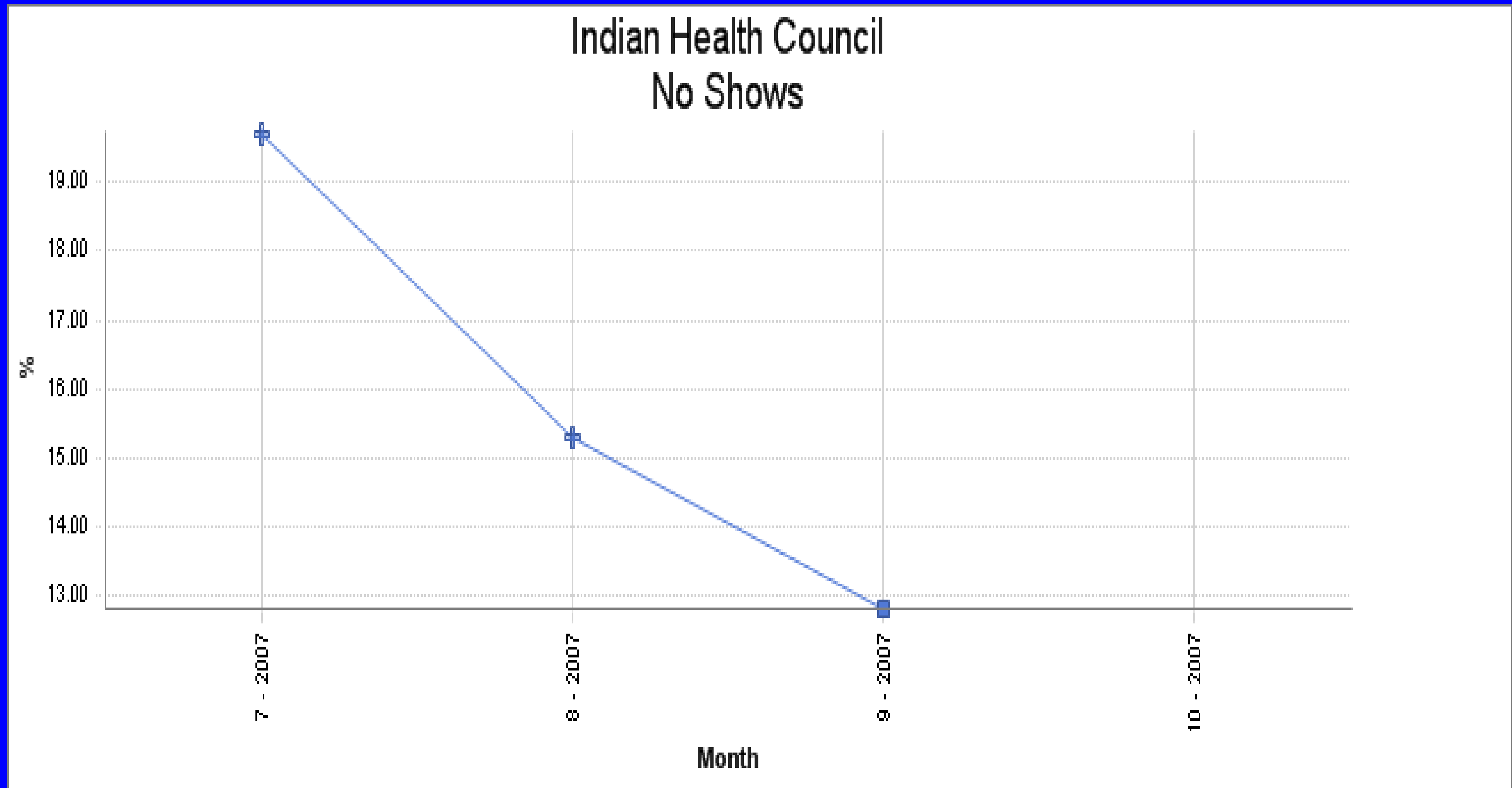
Microsystem No Show rates



Goals to Results

- Set Goals which can be measured
- Measure Often
- Report Results
- Use data to identify areas of Improvement
- Engage Staff and Community

PCC FORM UPDATED

Encounter Form updated 8-07 - Microsoft Word

Updated 11/6/2007

Allergies:

Smoker: _____ **Yes** _____ **No** _______ **Previous**

Exposure to environmental Smoke: _______ **Yes** ______ **No**

Snellen 99173
Correct:___ **Uncorrected:**___
L_________ **R**___________ **Both**___________

O2 SAT RA ______ ____ **LO2** ______ **94760**	**Peak Flow** ______ **Pre** ______ **Post** **94010**	
Neb Tx ______ **94640** **2nd** ______ **09976**	**Temp**	
Ht.	**Wt.**	**BMI**
B/P	**Pulse**	**Resp**

Diabetics ____ **Foot Exam** __Normal __Abn ___Ref to Pod
____SMBG _____Yes _____No

Chief Complaint

Diagnosis

Indian Health Services Indicators

EDUCATION	**Understanding**	**Goal Set Goal Met/Not**	**Code**
Diabetic 15 30 45 60 min	G F P R	GS GM GNM	
Initial Assessment Nutrition Each 15 min	G F P R	GS GM GNM	97802
Re-assessment Nutrition Each 15 min	G F P R	GS GM GNM	97803
Nutrition 2 or more people Each 30 min	G F P R	GS GM GNM	97804
Nutrition other	G F P R	GS GM GNM	V65.3
Tobacco Cessation	G F P R	GS GM GNM	
HIV	G F P R	GS GM GNM	V65.44
STD	G F P R	GS GM GNM	V65.45
Contraception/Family Planning	G F P R	GS GM GNM	V25.09
Medication Education	G F P R	GS GM GNM	V65.49
Wound Care Site ______________	G F P R	GS GM GNM	
Patient Ed Other ______________	G F P R	GS GM GNM	
SCREENINGS	**COMPLETED**	**RESULT**	
Depression Screen PHQ 2 – PHQ 9	YES NO R		
DV Screening use pt. ed. code	YES NO R	NEG POS HX	PED
ETOH Screening – CAGE	YES NO R	0/4 1/4 2/4 3/ 4 4/4	
Cancer Screenings Breast Cervical Colon Testicular	Note: (Offered/Referral etc)		

Progress Note | **Physical Exam**

Page 1 Sec 1 1/2 At 0.6" Ln 1 Col 1

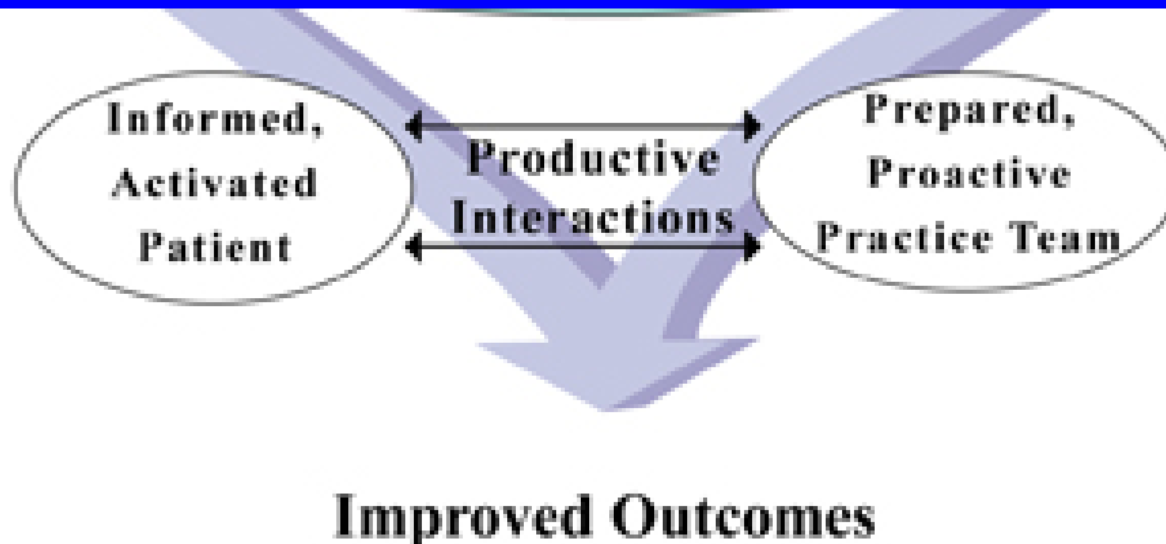
Improvement Efforts

- Completed manual audit to address perceived data discrepancies.
- Realization that all outside referrals, procedures and hospitalizations/ER visits are not entered into system.
- Post audit - manually entered historical data for colonoscopies.
- Started training staff, particularly those who receive data first (Health Information), in data entry of outside events.
- In-serviced staff on findings.

Delivery Systems

- Process Mapping
- Pharmacy Refill Process
  - Problem – Complaints re: length of time to refill meds
  - Patient Satisfaction issue
- Mapping Process
  - Initial Map had 49 steps
  - Goal set to eliminated 50% of steps

Chronic Care Model In Action: Dealing with the X Factor



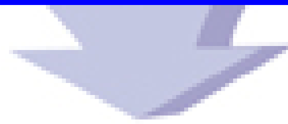
How do we Screen for Cancer

- INREACH
- Charts are reviewed during huddles for delinquencies (each team member is active in reviewing chart – MA, RN, and Provider)
- Starting to use iCare for huddles.
- Anyone due for follow up is reminded during work up and then again by provider during face to face visit.

How do we screen for Cancer

- OUTREACH
- Microsystem nurse generates reports on delinquencies.
- Shares reports with team members – reminder letters mailed.
- Community Health – PHN's and CHR's use lists and use in planning home visits. Will be adding iCare to work stations in Community Health so that reminders and natl measures can be reviewed prior to the visit and then in turn drive the visit.

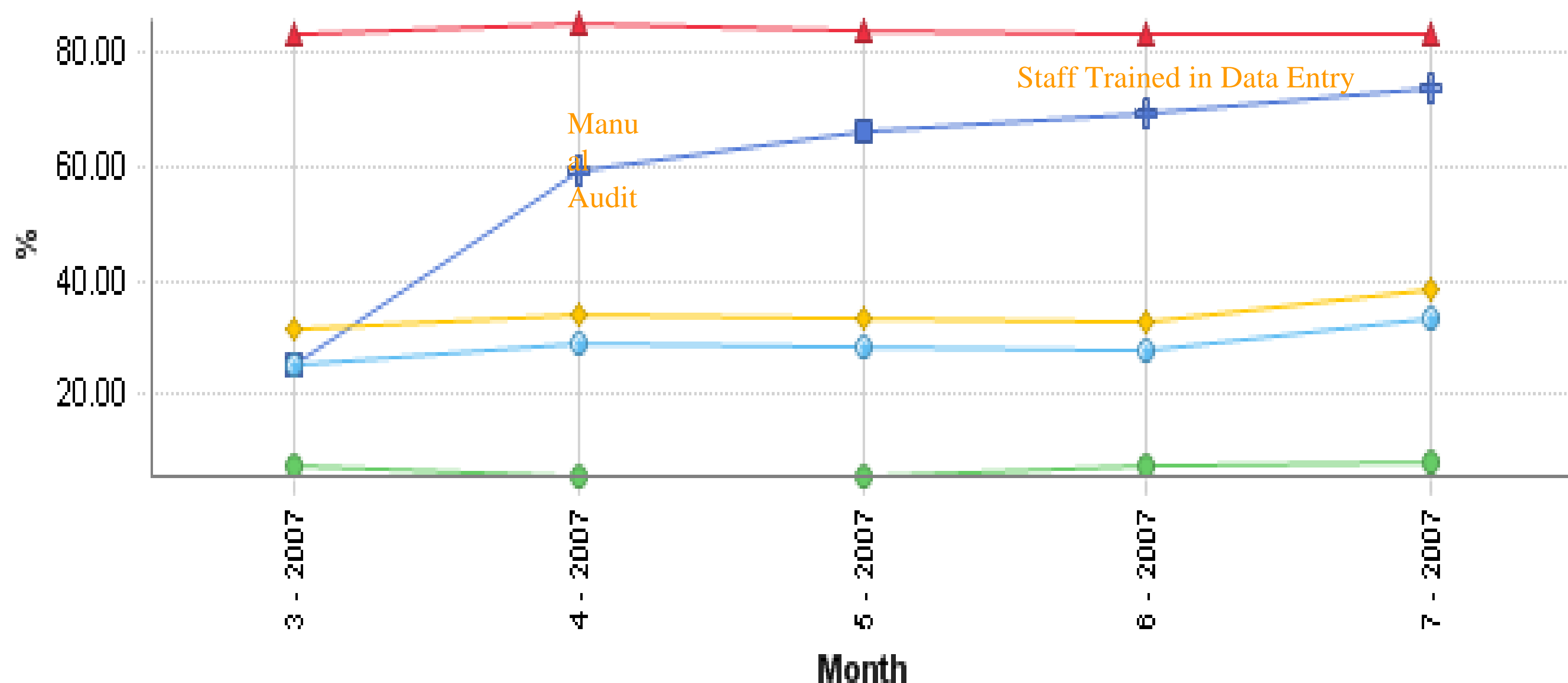
Chronic Care Model: Improved Outcomes



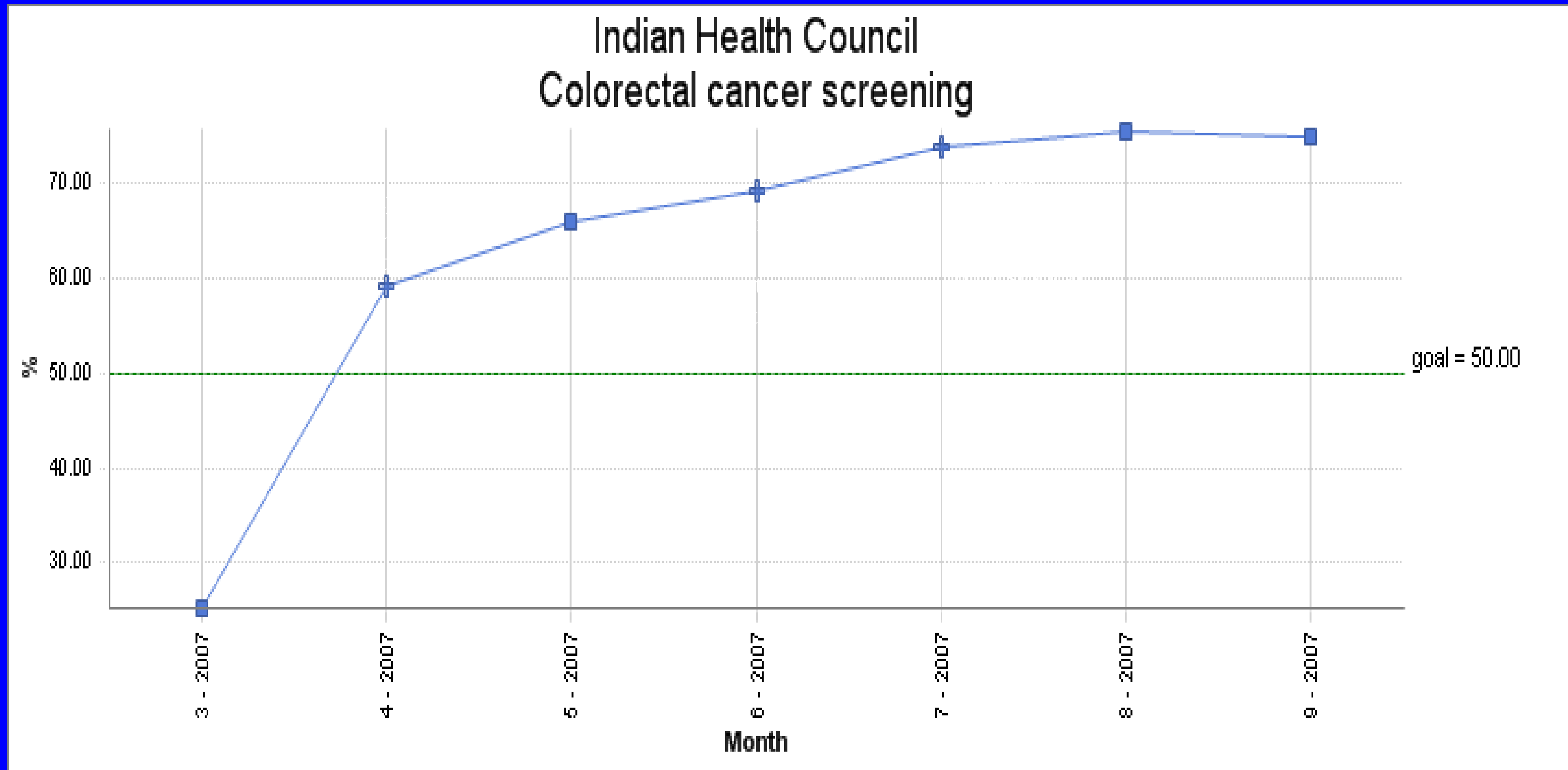
Improved Outcomes

Developed by The MacColl Institute
® ACP-ASIM Journals and Books

Colorectal Cancer Screening



Improved Outcomes: Colorectal Screening



Next Steps

- Using data to drive the visit
- Changes made to PCC+ form to capture screening data points
- Monthly reporting to determine Improvement needs
  - Reports keep team abreast of where improvements are needed
- Spread
  - iCare added to work stations throughout Medical Department and Community Health Department
  - Additional teams set up
    - Trained on Huddles
    - Use of iCare

Outside Referrals

- Colon Cancer Screens and diagnostic mammograms are generally referred out.
- Provider writes necessary referrals
- Nurse Case Managers schedule the appointments
- Medical Records staff follows up on collecting reports
- Results are given to ordering provider to sign off.
- OOOPPPS – who enters the data??? Now training staff to enter outside data.

Negative Screens

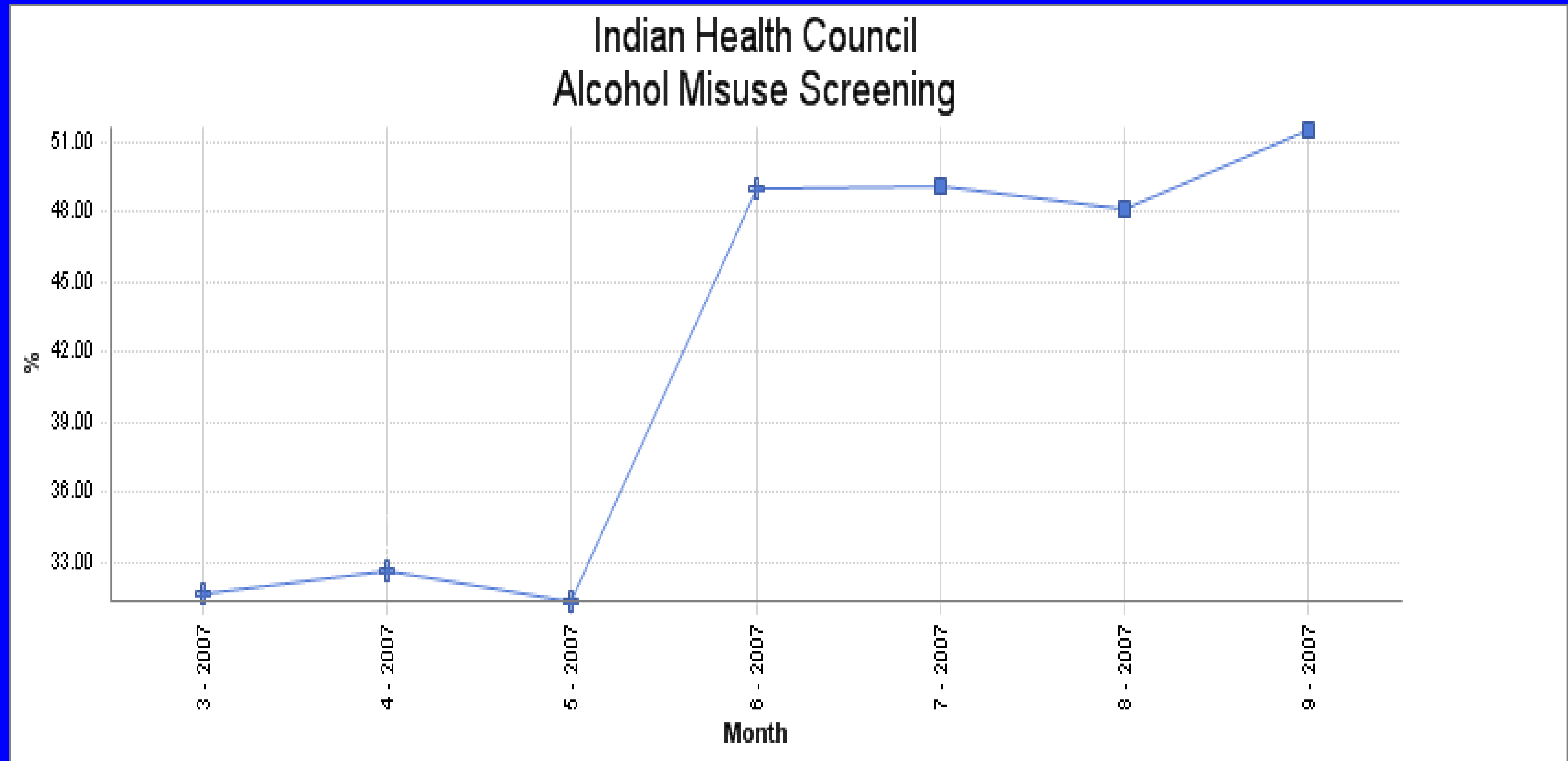
- Clients are entered into data base with follow up needs and timeframe ie: 1yr, 6mo, 3mo etc.
- This completed for
  - Mammograms
  - Paps Screens
  - Diabetic Eye Exams
  - Diabetic Foot Exams
  - Immnuizations
  - Laboratory Tests
  - Just started with Colonoscopies
  - iCare also prompts reminders for all Cancer screens as well as tobacco, domestic violence and depression screens.

(Note: although these are all available staff not consistently using health summaries and reminders in planning for visit)

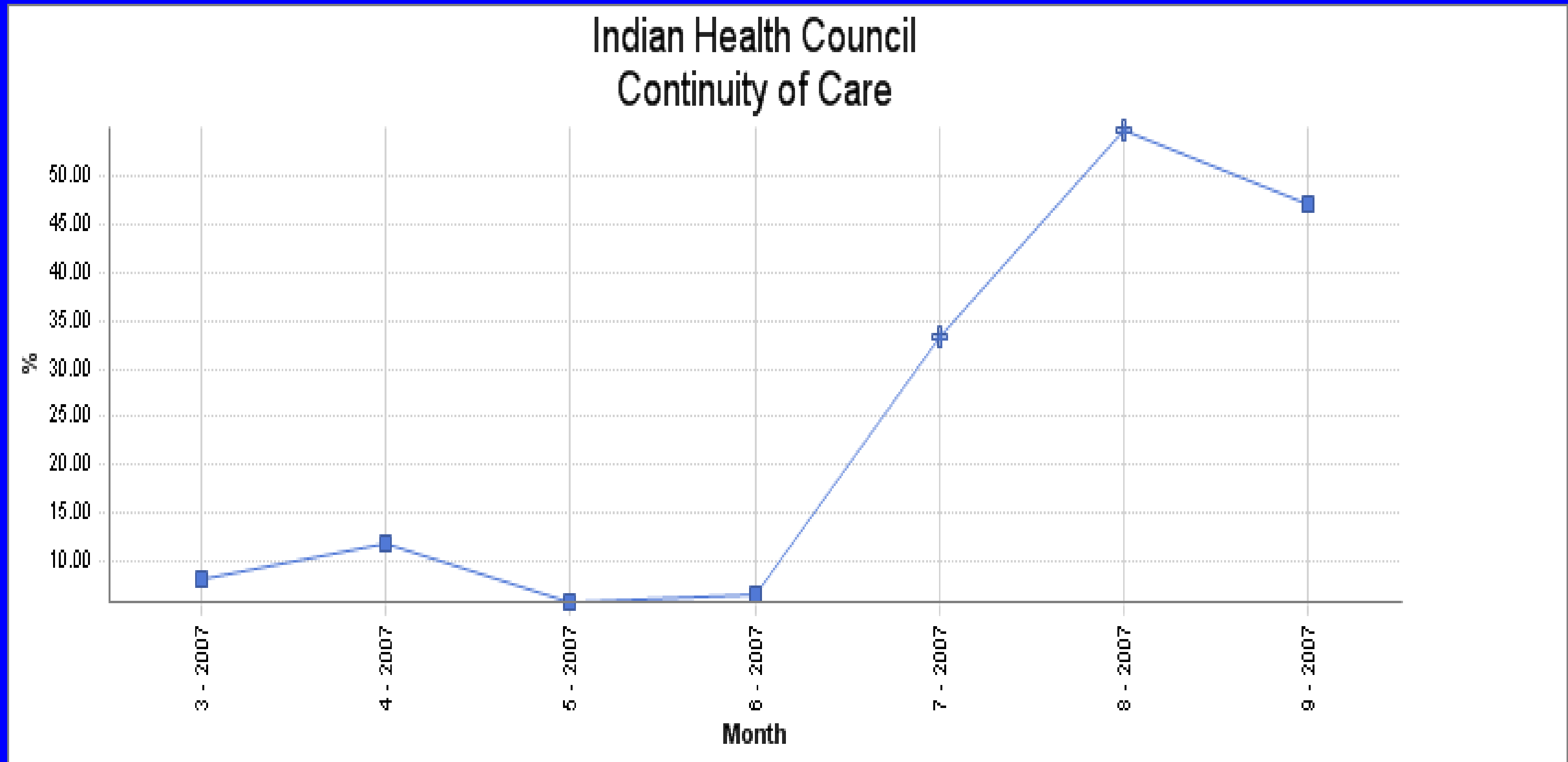
Positive Screens

- Protocols in place, using evidence based guidelines, for positive Mammograms and Pap Smears – nurse case managers coordinate necessary follow up.
- Providers make recommendations for positive colon cancer screens – nurse case managers coordinate services.

Improved Outcomes: Alcohol Screening



Improved Outcomes: Continuity of Care



Delivery Systems

Automating the Process

RxRefills - [Process Refill Requests]

File Edit View Insert Format Records Tools Window Help Adobe PDF

Type a question for help

Arial 9

Prescriber:

Refill Information

Prescriber: CALAC D
Date Requested: 11/6/2007
Time Requested: 11:36:14 AM
Comments
Select Approver
Approved By
Refills Approved: 0
Entered By
Enter Password
Deny

Prescription Information

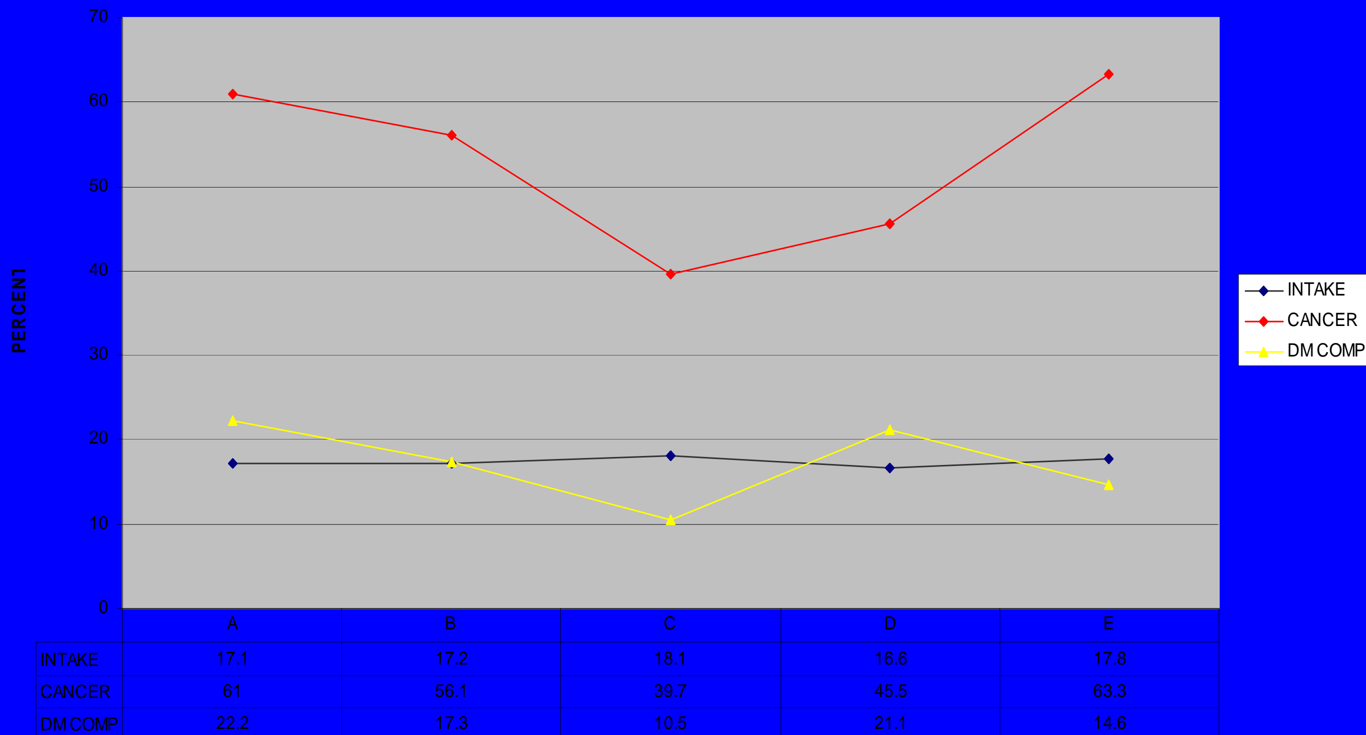
Patient Name: SCHOSTAG ROBERT
Rx Number: 515300
Date Of Birth: 12/21/1950
Medical Record
Drug Name: TABLET CUTTER
Directions: UUD
Quantity: 1
Last Fill: 8/7/2007
First Fill: 8/7/2007

Request Number 2 Of 5 Refill Requests For
MD: CALAC D Pt: SCHOSTAG ROBERT

STOP

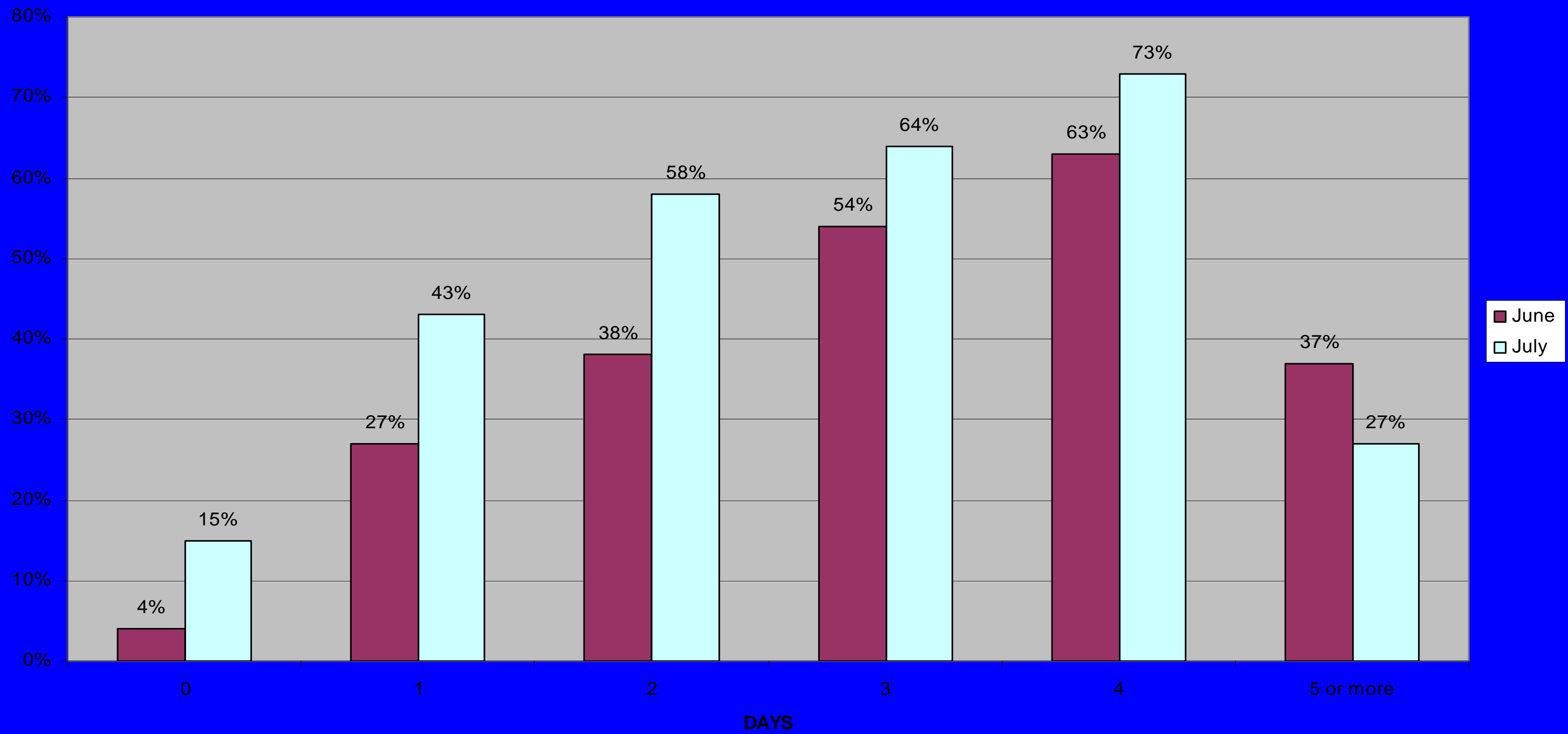
Form View NUM

Results



	A	B	C	D	E
INTAKE	17.1	17.2	18.1	16.6	17.8
CANCER	61	56.1	39.7	45.5	63.3
DM COMP	22.2	17.3	10.5	21.1	14.6

Results



Look What We Are Doing

Add picture of display board in main lobby

Outcomes

- By looking at process from start to finish
  - Identified multiple areas of waste and duplication
  - Process affected staff across departments
- Tested and made changes to delivery system process with noted improvement
- Continue to refine process
  - Automated process using Access Program being tested now.

STRUGGLES – We all have them

- Keeping Leadership and Community informed
  - Keep it short and to the Point
    - Use Extranet report assessment and summary page
  - Make it visual
    - Graphs with annotations – show where changes are made and the outcomes – good or bad.
  - Post your efforts for all to see
    - Keep your results Updated

Questions

Contact Info

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