The Rural Nurse Care Manager Study: Coordinating Care Using Care Management Plus (CMP)

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- I have no relationships to disclose
- I will not discuss off label use and/or investigational drug or device use in our presentation

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  www.caremanagementplus.org

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Overview of this practice change intervention

- Background of care coordination
- Study aims, design, and outcomes measurements
- Who are the practices that signed on and why did they choose to participate?
- What is expected of the practices and how ready were they for this practice change intervention?
- How are the practices doing?
- What are the early lessons?
- Where are we going?

Background

- Multiple initiatives to transform primary care practices into medical homes
- Typical primary care clinician coordinates care for their panel of Medicare patients with 229 other physicians in 117 different practices. (Pham, 2009)
- Nurse based care management + IT = improved coordination of care and outcomes of chronic illness
- *Care Management Plus* shown to be clinically and cost effective in a large health system (Dorr, 2006, 2007)
- Three-fourths of primary care practices in 2006 employed 5 or fewer physicians

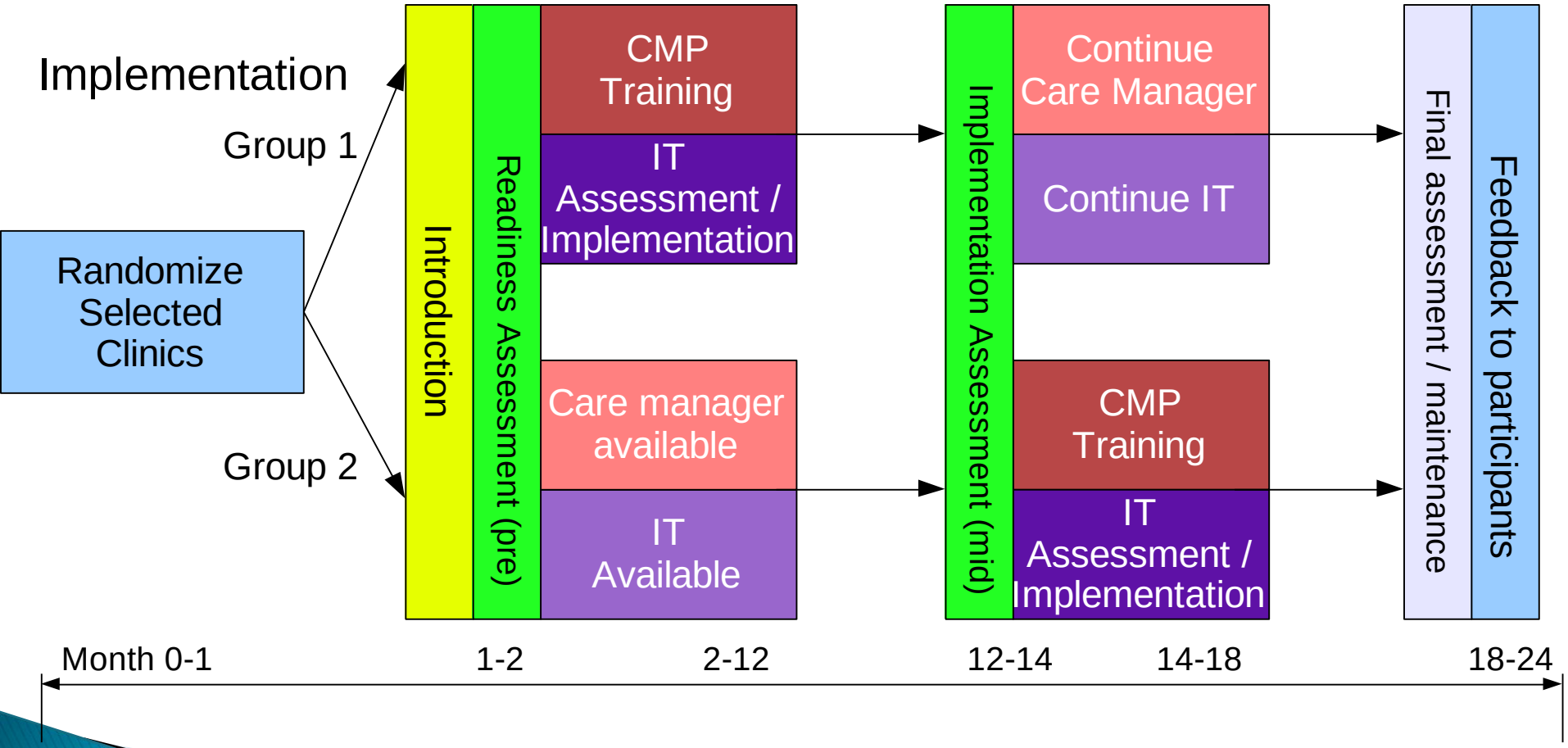
Specific Aims

- Test the **feasibility and acceptability** of nurse-based care management coupled with information technology in rural settings through implementation and expansion of Care Management Plus;

- Evaluate the effect of care management in rural settings on **clinical outcomes**, including hospitalizations, emergency department visits, disease-specific clinical measures, and specialty utilization;

- Evaluate the **economic impact** of nurse-based care management at the overall patient expenditure and primary care practice level.

Study Design



Care Management Plus Program

Referral
- For any condition or need
- Focus on certain conditions

Care management

Care manager
- *Assess & plan*
- *Catalyst*
- *Structure*

Technology
- *Access*
- *Best Practices*
- *Communication*

Evaluation
- Ongoing with feedback
- Based on key process and outcome measures

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CMP Tracking Software

CMT

File Edit View Insert Format Records Tools Window Help

CMT Care Management Menu

Care Management Tracking

Record Entry and Modification

- Patient Information
- Blood Glucose Meter Table Entry
- Care Manager Table Entry
- Diagnosis Table Entry
- Facility Table Entry
- Insurance Provider Table Entry
- Medication Table Entry
- Physician Table Entry

General Reports

- Patient List
- Encounter Tickler
- Encounter Summary

Mental Health Reports

- PHQ9 List

Diabetes Reports

- ADA Report
- Patient Goal Progress Report
- Patient Education Progress Report

Queries

- View Queries

Admin Time

- Administrative Time Information
- Administrative Time List

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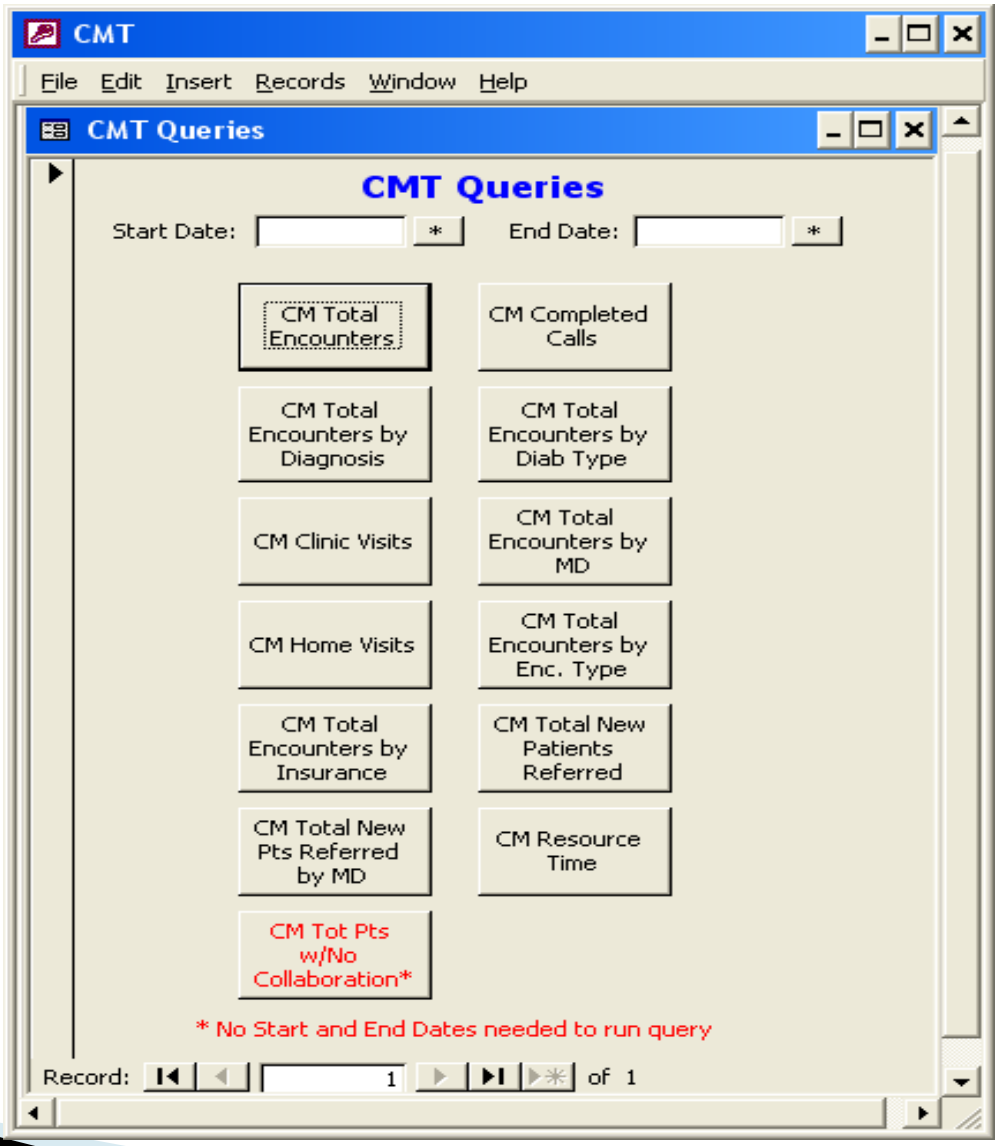
Care Management Queries



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RE-AIM Outcome Measurements

- Reach
  - #patients who would potentially benefit from Care Management Program (CMP) (billing data)
  - #patients referred to CMP, activity and demographics (CMT database)
- Effectiveness
  - Patient satisfaction—CAHPS, telephone random sample
  - Improvement in clinical outcomes—quality measures
  - Decrease in utilization—ED visits, hospitalizations
  - Clinic Level Cost and Productivity and Global Patient Expenditures—clinic level and overall expenditures through clinic billing data, expenditure data from BCBS/Medicaid

RE-AIM Outcome Measurements

- Adoption
  - Relative rate of participation of clinicians
  - Pre and post interviews of clinicians and care managers
  - Pre-and post ACIC
- Implementation
  - Describe the level of fidelity to the protocol on the part of the care managers and clinicians through CMT data analysis
- Maintenance
  - Analyze the semi-structured interviews of clinicians regarding plans to continue nurse care management, the CMT tracking database, plans to participate in PQRI measurements in the future

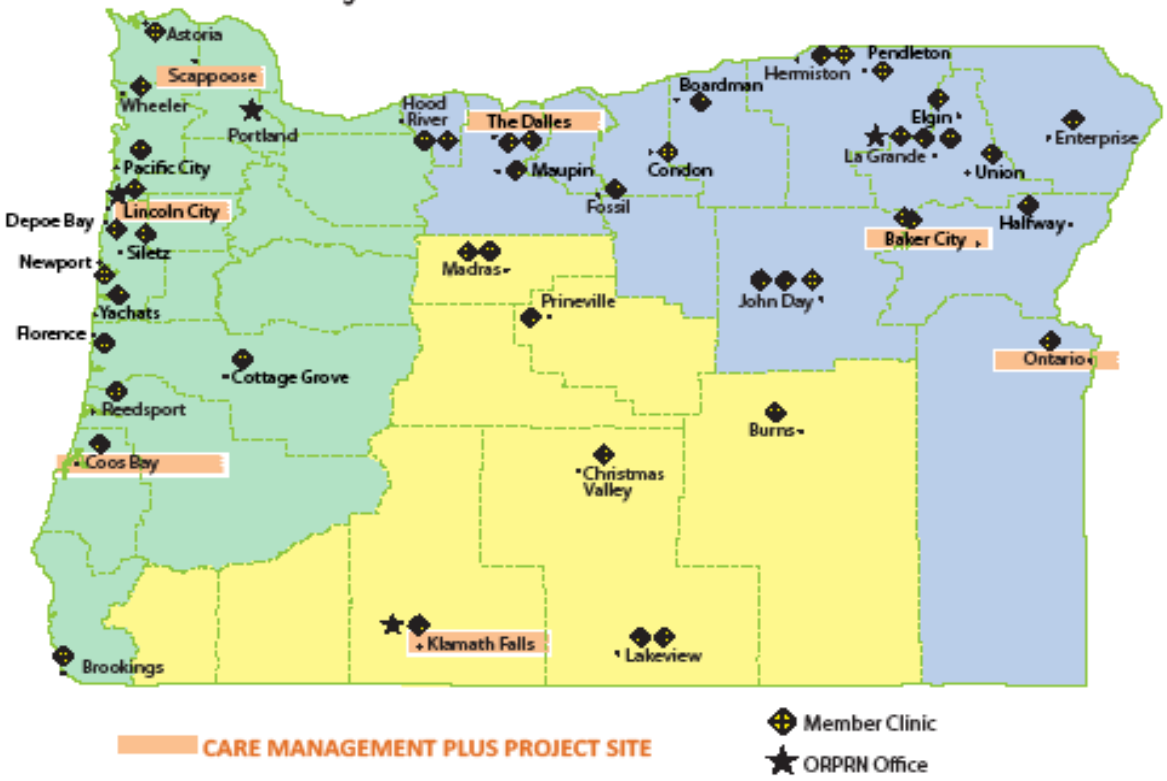
Participating Study Clinics

- Treasure Valley Pediatrics
- Columbia Hills Family Medicine
- Klamath Open Door Family Practice
- North Bend Medical Center Pediatrics
- Eastern Oregon Medical Associates
- OHSU Family Medicine at Scappoose

Group 1

Group 2

Oregon Rural Practice-Based Research Network



Practice Deliverables

- Designate a care manager for 17 months (Group 1) with enough FTE to implement the project
  - 3 to 5% of patient panels (>18 years old) with chronic conditions
  - 1.0 FTE manager cares for up to 1000 patients/year
  - For example, 10,000 patient panel requires .4 FTE manager
- Nurse Care Manager to participate in a 2 day training program in Portland
- Clinicians and staff to participate in pre- and post-intervention surveys
- Clinicians to complete ACIC pre- and post-intervention
- To provide data from the clinics' billing systems

Resources provided by OHSU

- Training in care coordination for patients with chronic conditions
- Care management software and support
- A summary of clinic's own clinical and economic data: de-identified aggregate outcomes for the entire project
- Payment to offset training time and data collection by the care managers and clinic staff--$6,000/practice

How are the practices doing?

- Variable levels of readiness and capacity
- Monthly Care Manager Tracking CMT Database reports from KOD and TVP
- Quality measures selected

How are the practices doing—Monthly Care Manager Tracking Reports

	KOD FM (13 mos)	TV Peds (10 mos)	Total
# patients seen	365	344	709
# patient encounters	590	543	1133
# of Encounter Types			
Telephone	283	167	450
MD Office	38	229	267
CM Visit	164	98	262
Non-encounter related	70	0	70
Home	30	4	34

How are the practices doing—Monthly Care Manager Tracking Reports

	KOD FM (13 mos)	TV Peds (10 mos)	Total
# of Encounter Reasons			
Status Check	190	285	475
New Patient	172	19	191
Resource Management	89	78	167
Unknown	12	88	100
DM Follow-up	62	3	65
Med Assistance	51	4	55
Med Management	10	14	24

How are the practices doing
Top 10 diagnoses by # of encounters

Diabetes	180
Tobacco use	92
Hypertension	90
Depression	59
Chronic pain	41
COPD	36
Alcohol Dependence	33
Lupus	31
PKU	29
Pregnancy	29

Developmental Delay	93
IEP	74
GERD	68
Social Service Intervention	68
ADHD	65
Autism	63
Asthma	55
IFSP	54
Apnea	51
Cerebral Palsy	49

Klamath Open Door FM

Treasure Valley Pediatrics

Clinic Quality Measures

- Treasure Valley Pediatric Clinic (ages 0 to 21)
  - Patients with Pervasive Developmental Disorder evaluated with clinic version of Childhood Autism Rating Scale (CARS)
  - Type 1 DM patients will have HbA1C measured in the last 3 months
  - Patients with Anxiety Dx will be evaluated every 6 months with Screen of Child Anxiety Related Disorders (SCARED)
- North Bend Medical Center Pediatrics (ages 0 to 18)
  - Diabetic patients will have a HbA1C level measured in the last 3 months
  - Newly-diagnosed depression patients ages 13-18 will have a PHQ 9 administered at each monthly visit
  - Asthma patients who are on preventive medication will have a current action plan in place

Clinic Quality Measures

- **Columbia Hills FM**
  - All diabetic patients will have a HbA1c measured in the last 6 months
  - All diabetic patients will have LDL Cholesterol measured in the last 12 months
  - All diabetic patients will have BP measures in the last 6 months
- **Eastern Oregon Medical Associates**
  - Diabetics will have HbA1C measured in the last 6 months
  - Diabetics will have LDL cholesterol in the last 12 months
  - Diabetics will have a depression screen with a PHQ9 in the last 12 months
  - Patients >75 years will be screening for cognitive impairment with the Mini-Cog and 2 question screen
  - Patients >65 years will be screened for fall risk with the "Get-Up-And-Go" test and a 2 question screen

Clinic Quality Measures

- Scappoose FM
  - Diabetic patients will have a HbA1c measured in the last 3 months
  - Diabetics will receive pneumovax at diagnosis and again after age 65
  - Diabetics will have an LDL cholesterol in the last 12 months
  - Diabetics will have a target HbA1c level of < 7.0%
  - All clinic patients not diagnosed with depression will be administered the PHQ2 depression screen in the last 12 months

- Klamath Open Door FM
  - All diabetic patients will have a HbA1C measured in the last 6 months
  - All diabetics will have a clinical goal of HbA1C of <7.0%
  - Patients, ages 5 to 40, with mild, moderate or severe persistent asthma will be prescribed a long-term control medication
  - Patients with CAD will be prescribed aspirin or clopidogrel
  - Patients, ages >18 years with hypertension will have a blood pressure reading less than 140/90 at their last clinic visit

What are the early lessons?

- Ongoing engagement is vital
  - Frequent face-to-face visits, the Practice Enhancement Research Coordinators (PERCs) are key
  - Developing a learning community among the intervention practices to learn from each other.
- Identify the decision makers in the practice, it is not always the clinician champion
- To implement an effective care management program the practices need resources beyond a model and software. Translation--$$$ are needed as well as ongoing facilitation
- Change across an entire practice is difficult
- Practice change fatigue is real
- Listen and be responsive to the care managers and clinicians

Where are we going?

- Work with the practices to find ongoing sources of revenue to support a care management program
- Projects such as the rural nurse manager study are building blocks and additional study opportunities may be available