

# Secondary data use: the experience of Care Management Plus

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Funding for this research from The John A. Hartford  
Foundation, AHRQ, Intermountain Healthcare, and the  
National Library of Medicine

More information at [caremanagementplus.org](http://caremanagementplus.org)

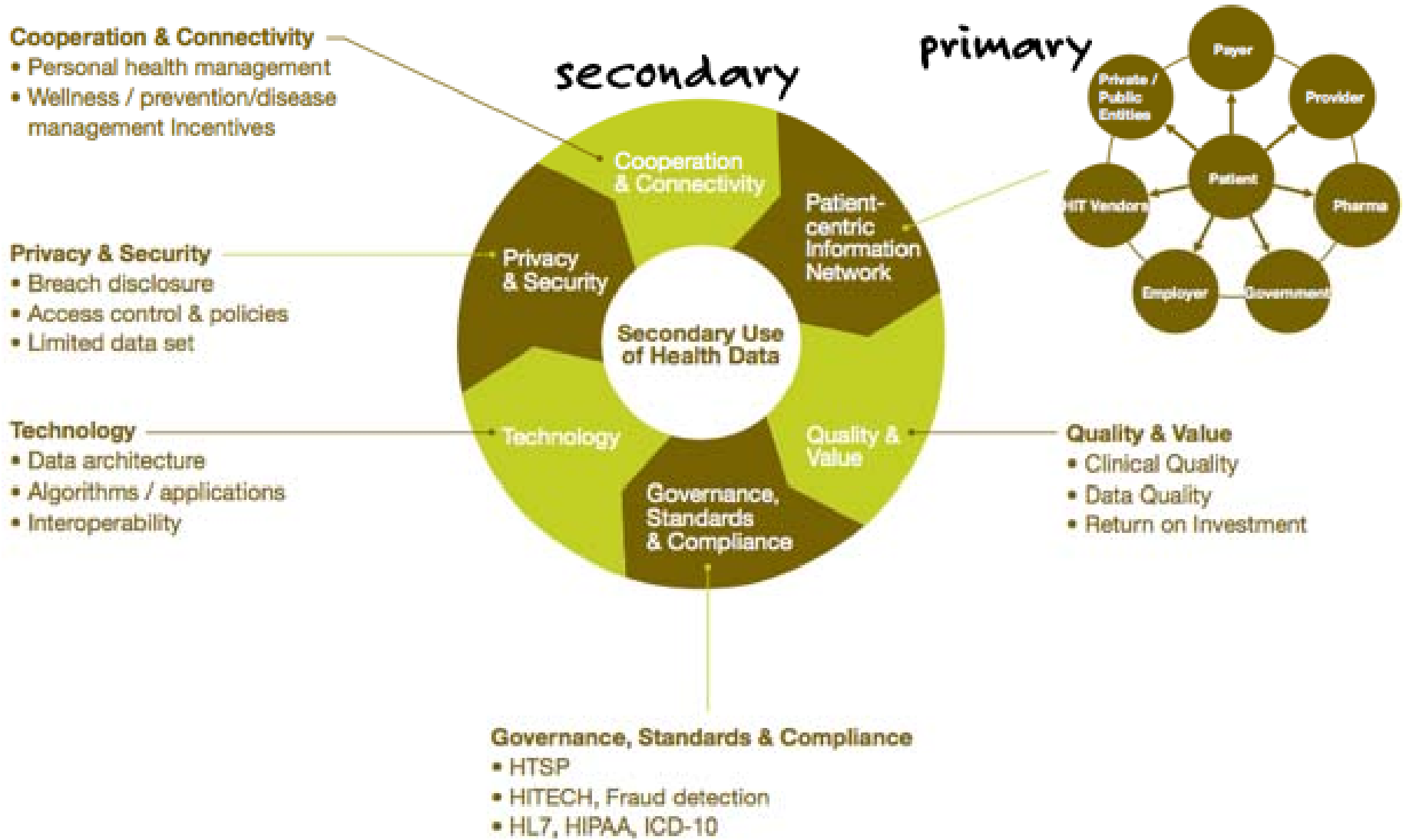
# *Secondary use of health data*

refers to non-direct care use of personal health information (PHI), including but not limited to analysis, research, quality and safety measurement, public health, payment, provider certification or accreditation, and marketing and other business (including strictly commercial) activities. Secondary use of health data can enhance health care experiences for individuals, expand knowledge about disease and appropriate treatments, strengthen understanding about the effectiveness and efficiency of our health care systems, support public health and security goals, and aid businesses in meeting the needs of their customers.

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# Primary vs. Secondary data use



From PriceWaterhouseCoopers

# Some problems with Secondary data use (WHO IS PAUL CLAYTON?)



"paul clayton"

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Larger than...

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Any type

Face

Photo

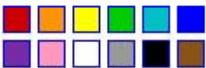
Clip art

Line drawing

Any color

Full color

Black and white



Standard view

Show sizes

### Biography

**Dr Paul Clayton, former chairman of the Food Group at the Royal Society of Medicine**

Dr Paul Clayton graduated summa cum laude in Medical Pharmacology from Edinburgh University, prior to obtaining his PhD.

He is a Fellow of The Royal Society of Medicine and a former Senior Scientific Advisor to the UK government's Committee on the Safety of Medicines.

He has worked with leading doctors and clinical scientists at centres of clinical excellence in the UK and abroad, and hosted the pharmaceutical industry's largest annual event in government buildings.

Dr Clayton has lectured at the Royal College of General Practitioners. He frequently presents at and chairs international conferences on nutrition and health.

His books include Health Defence and other titles.



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# “Hello, Computer” – the benefits of secondary data use



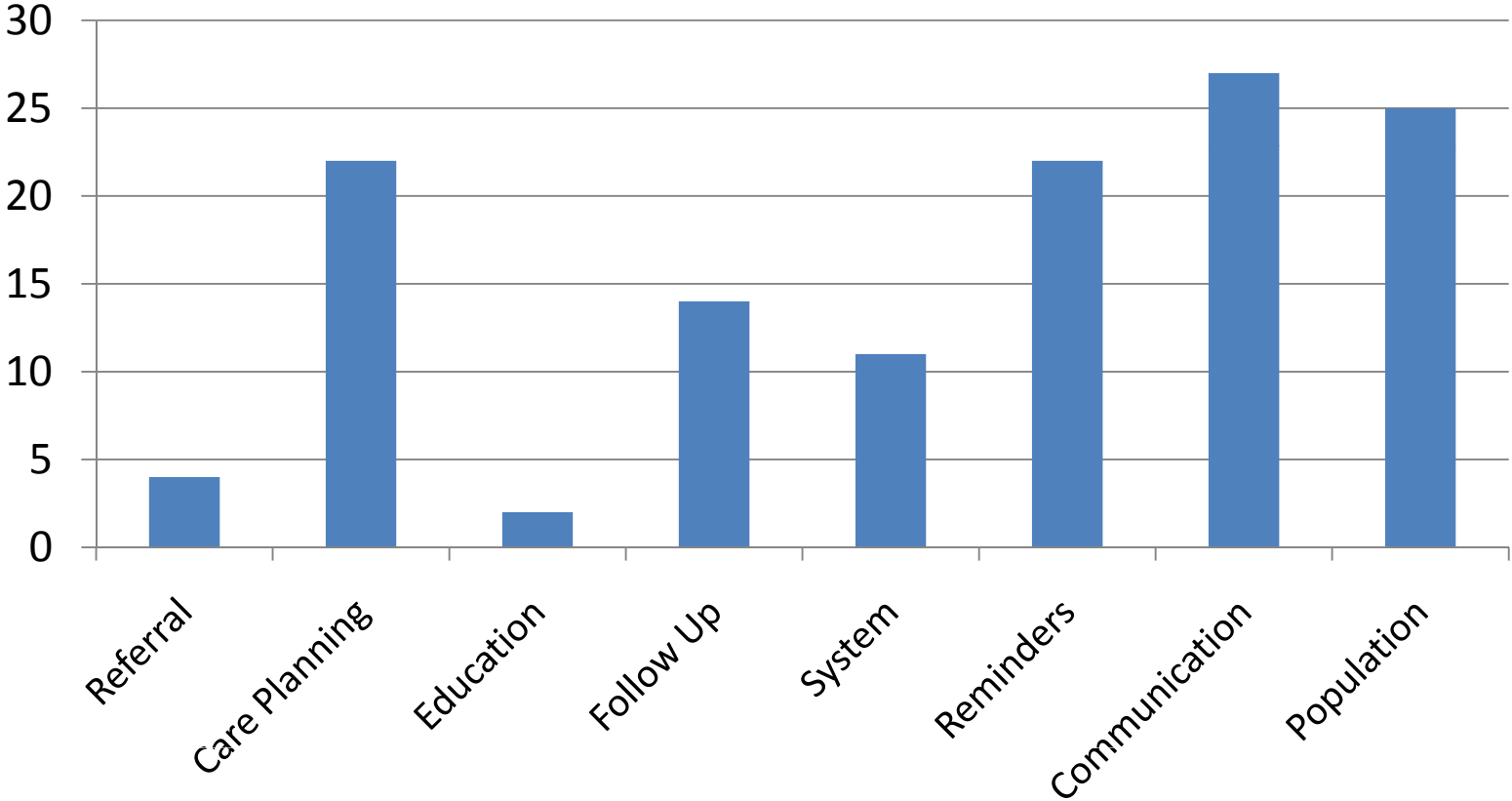
# Example and history: Care Management Plus



*Larger infrastructure: Electronic Health Record, quality focus*

# Most EHRs, as implemented, STILL don't have necessary functions

**Additional Care Management elements requested from 7 teams with EHRs**



# Quality measure dashboard

**Summary Graphs:**  **Breakouts by Measure:**

-Prevention-      -Diabetes-      -Asthma-      -CAD-      -Hypertension-

**DIABETES**

Team Name	A1c < 7.0% (18+): Target Score: 52%		LDL: Target Score: 55%		Pneumovax: Target Score: 75%	
	Score	N	Score	N	Score	N
OHSU GIM		52% 201		57% 201		70% 200
<a href="#">Cascade</a>		50% 201		57% 201		76% 200
<a href="#">Diamond</a>		46% 263		59% 263		61% 263
<a href="#">Hart</a>		54% 201		55% 201		69% 201
<a href="#">Hood</a>		54% 261		62% 261		78% 261
<a href="#">River</a>		52% 215		53% 215		64% 215
<a href="#">Tabor</a>		68% 31		42% 31		97% 31

Dashboard can be run by clinic, team, or individual PCP

# Secondary data use: benchmarks / comparisons / sharing

**Summary Graphs:**  **Breakouts by Measure:**

-Prevention-      -Diabetes-      -Asthma-      -CAD-      -Hypertension-

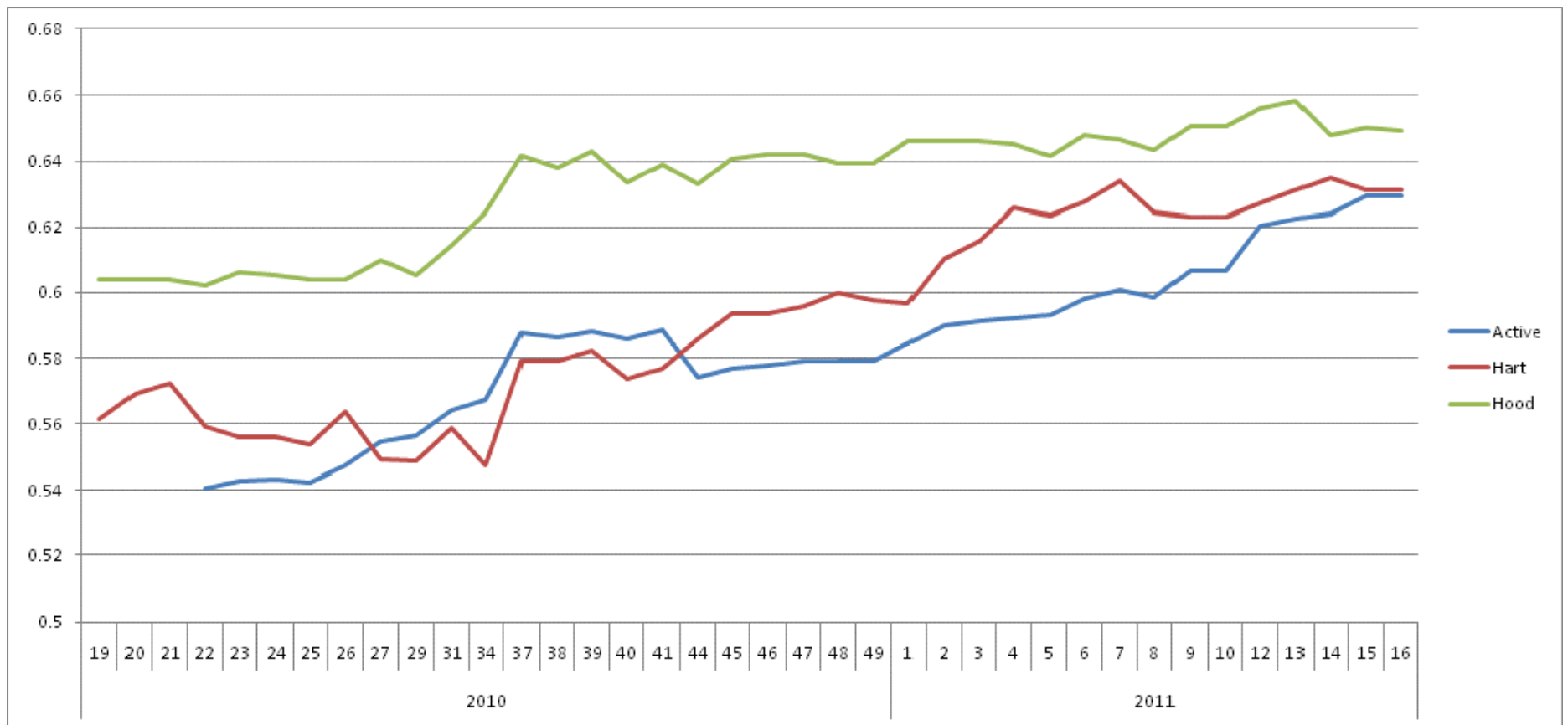
**DIABETES**

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<a href="#">Diamond</a>	46%	263	59%	263	61%	263
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<a href="#">River</a>	52%	215	53%	215	64%	215
<a href="#">Tabor</a>	68%	31	42%	31	97%	31



# Benchmarks – comparing sites

% of patients with diabetes with LDL < 100



# ICCIS Interactive Quality Reports

**Selected Measure:** Diabetics with hemoglobin A1c measured in the past 6 months (18-75)

**Total:** 7

[Print](#)

**Value Adherence Rate:** 57.143%

**Date Adherence Rate:** 85.714%

Update									
No Longer in Practice	Assign to CM Task	Patient	Phone	Physician	Lab	Lab Result	Lab Date	Exclude from ALL Diabetes	Exclude from this Measure ONLY
<input type="checkbox"/>	<input type="checkbox"/>	<a href="#">Binnes, Harry</a>	9874584587	Pamel Fieldman	A1C	9.1	10/06/2009	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<a href="#">Cline, bobby</a>	987.546.7765	Hillary Caseman	A1C	6.1	09/30/2009	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<a href="#">Gibbs, Jenny</a>		Carl Generic				<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<a href="#">Holden, Henry</a>		Carl Generic	A1C	7.7	10/06/2009	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<a href="#">Montoya, Jerry</a>	124.256.3526	Hillary Caseman	A1C	5.9	10/02/2009	<input type="checkbox"/>	<input type="checkbox"/>

The abilities to document exclusions at multiple levels and generate targeted population-based review cycles avoid the problems caused by static quality reports and allow providers to efficiently focus outreach efforts on high risk populations.

# ICCIS Care Coordination Workflow

A centralized reminder list of tasks and communications that were proactively planned but incomplete allows population-based tasks to be merged with individual encounter tasks.

## Care Manager Encounter Tickler List

Care Manager:		Start Date:		End Date:		Run				
All Care Managers		11/23/2009		12/23/2009		Run				
For Time Period: 11/23/2008 to 12/23/2009										
<a href="#">Select</a>	Scheduled Date	Scheduled Time	Encounter Type	Reason	EHR ID	First Name	Last Name	Phone	PCP	Notes
<a href="#">Select</a>	2009-12-18		Telephone Contact	Clinical Protocol(s)	4582317	Mariah	Bouchard	456.732.5236	Carl Generic	Quality Measure: Age PHQ2: 0 Lab Date: 12/01/2009
<a href="#">Select</a>	2009-12-17	08:00	Telephone Contact	Goals	4582317	Mariah	Bouchard	456.732.5236	Carl Generic	PHQ9 Follow-Up:
<a href="#">Select</a>	2009-11-16	13:00	CM Office Visit	Status Check	88888888	zzzzbugs	zzzzbunny			Meet with family and patient to discuss care plan
<a href="#">Select</a>	2009-11-28		CM Office Visit	Clinical Protocol(s)	4582317	Mariah	Bouchard	456.732.5236	Carl Generic	
<a href="#">Select</a>	2009-11-16	13:00	CM Office Visit	Status Check	88888888	zzzzbugs	zzzzbunny			Meet with family and patient to discuss care plan
<a href="#">Select</a>	2009-11-12	12:00	CM Office Visit	Status Check	9999999	ZZDavid	ZZowen			Meet with Patient and family members to discuss a care plan
<a href="#">Select</a>	2009-10-30	10:00	Care Conference	Diabetes	88888888	zzzzbugs	zzzzbunny			
<a href="#">Select</a>	2009-10-21	08:00	Telephone Contact	Goals	65748398	bobby	Cline	987.546.7765	Hillary Caseman	Goals Follow-Up:
<a href="#">Select</a>	2009-10-10	08:30	Home Visit	Functional Status	1324234	Harry	Binnes	9874584587	Pamel Fieldman	Goals Follow-Up: Nutrition: eat less;

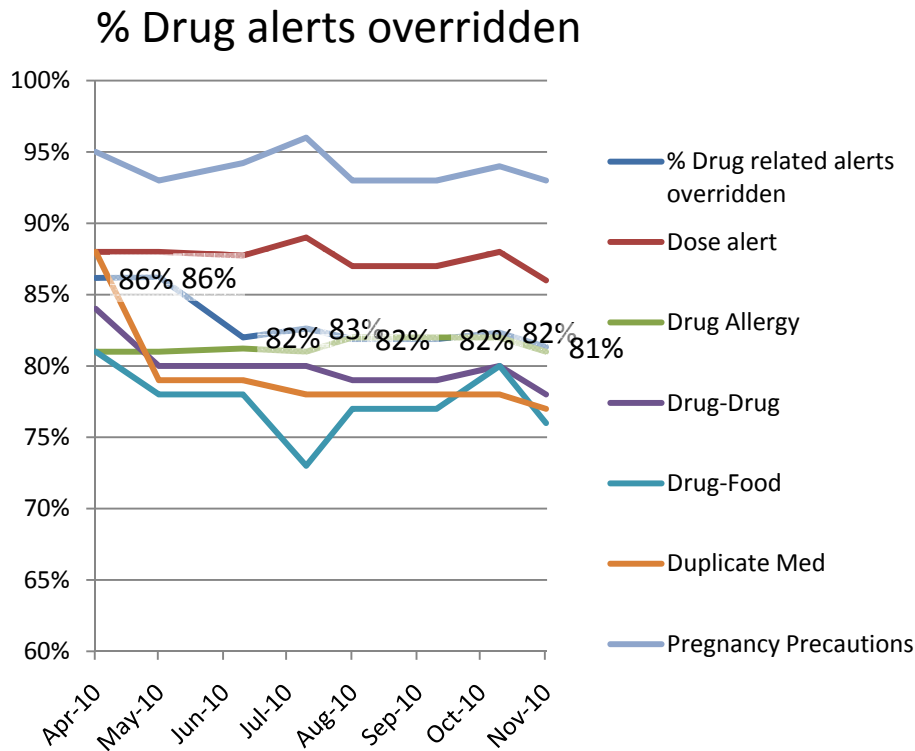
Patient Worksheet					
Binnes, Harry					<a href="#">PRINT</a>
MRN: 1324234	Sex: M	DOB: 01/24/1956			
Phone: 9874584587	PCP: Parnel Fieldman				
Care Manager: Susie Example	Caregiver:				
Next Care Management Encounter			Last Care Management Encounter		
Sched Date	Sched Time	Encounter Type	Sched Date	Sched Time	Encounter Type
01/06/2010	09:00 AM	CM Office Visit	12/04/2009	08:00 AM	Telephone Contact
Diagnoses					
Diabetes, Cystic Fibrosis, Anemia					
Medications					
Medication	Dosage	PRN	Med Start Date		
albuterol		<input type="checkbox"/>	08/07/2008		
Goals					
Status	Follow Up Date	Goal	Note	score	Set Date
Completed	12/21/2009	Nutrition		10	12/05/2009
Completed	12/21/2009	Activity		5	12/05/2009
Completed	11/13/2009	Activity		6	11/13/2009
Completed	11/13/2009	Nutrition		8	11/13/2009
Pending		Meds			10/06/2009
PHQ					
Date	PH2 Score	PHQ9 - Severity	Q9 Suicide	Followup	
12/02/2009	6	25	3		
11/05/2009	3	17	3	12/04/2009	
07/07/2009		10	2		
07/02/2009			0		
Functional Status					
Date	ADL	IADL	MMSE	Pain	
07/08/2009			2	9	
12/11/2009					
Care Actions					
Diabetes	Date/Value	Status	Preventative Care	Date/Value	Status

# Patient Worksheet

When working with persons with multiple illnesses or complex illness, a clinical summary that captures a core set of information improves patient outcomes (1). Care coordination and behavioral modification (goal setting) elements often require special effort and the quality summary requires more advanced monitoring and implementation than most standard EHRs provide.

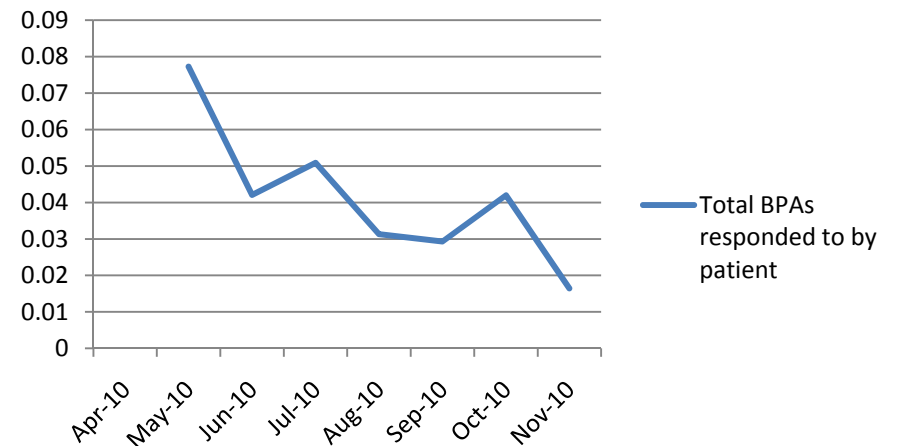
Diabetes	Date/Value	Status	Preventative Care	Date/Value	Status
A1c in Last 6 mo	10/06/2009	OK	Patient > 50 needs flu shot at least once		<b>YES</b>
A1c < 7	9.1	<b>A1c out of Range</b>			
LDL Last Year	09/30/2009	OK			
LDL < 100	130	<b>LDL HIGH</b>			
Last Doctor's Visit is not available					

# Clinical decision support comparisons





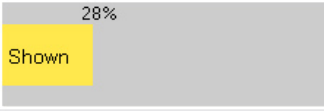



## OHSU clinical decision support dashboard

### Total BPAs responded to by patient



# CDS 'best performers'

## Clinical Decision Support Dashboard

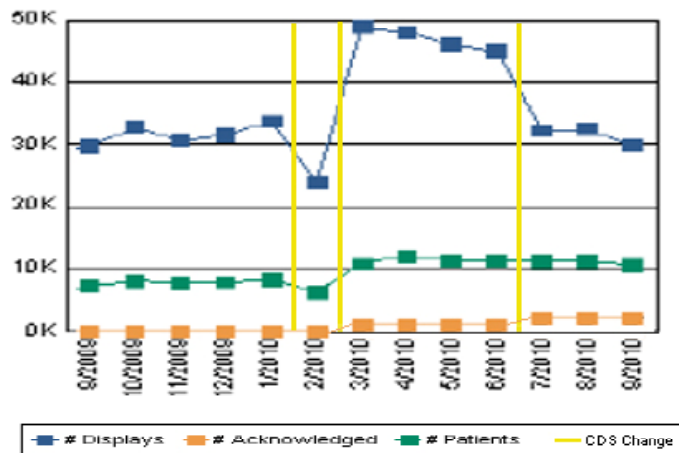
Summary Graphs:		Overall Team Comparison	Detail Graphs:		---Please Select---				
Active Report to PDF		Report Manager							
-Prevention-		-Diabetes-		-Asthma-		-CAD-		-Hypertension-	
Measure: A1c measured in last 6 months:		Adherence Rate  Target Score: 59%		6 Month Trend 		Score	N		
CDS Use									
Clinic Adherence						58%	1194		
Adherence (Shown CDS)						39%	337		
Adherence (Responded CDS)						0%	1		
Reminder for measure		Patient w/ DM needs A1c testing every 6 months <a href="#">Adjust CDS</a>							
NNTR		46							

## Measure: Diabetic patients (18+) should have an A1c in last 6 months

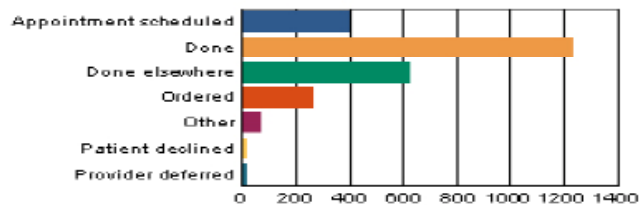
CDS: Patient has not had an A1c in last 6 months (rec: A1c every 6 months)

CDS Use Summary:

### CDS Interaction Summary for past year



8.9% of Displays Acknowledged last month



### Past CDS Changes

- Include last value in reminder
- Remind before pt apt and during apt
- Change to nurse only reminder

### Record New Change

Title:

Right addressed by change:

- Information
- Person
- Format
- Channel
- Point in workflow

Note:

Save and return to Dashboard

Cancel



- Oregon Health & Science University
  - David Dorr, PI
  - Kelli Radican
  - Susan Butterworth
  - Nima Behkami
  - Marsha Pierre-Jacques Williams
  - Gwenivere Olsen
  - Molly King
  - Cara Heisler
- Columbia University
  - Adam Wilcox
- Intermountain Healthcare
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  - Larry Casalino

# Thank you!

- [dorrd@ohsu.edu](mailto:dorrd@ohsu.edu)
- [www.caremanagementplus.org](http://www.caremanagementplus.org)

- Notes page