

Health Information Technology Tools to Support the Implementation of a Complex Care Management Program



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Disclosure

We have no financial or commercial conflicts of interest to report regarding this educational presentation



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Learner Objectives

1. The learner will be able to describe the use and implementation of structured data fields in electronic health records (EHRs) as a tool to measure the impact of nursing in the primary care setting.
2. The learner will be able to discuss the challenges of structuring electronic health records to measure the nursing role in complex care management in primary care.
3. The learner will be able to explain the global implications of defining structured data collection using electronic health records for complex care management in the primary care setting.



Federally Qualified Health Centers (FQHCs)

- Nation's largest safety net setting
- Located in designated high need communities
- Caring for 24 million patients annually
- 93% served are below 200% poverty and 35% uninsured

CHC Profile

- Founding year: 1972
- Primary care hubs: 14; 204 sites
- Annual budget: \$100m
- Staff: 1,000
- Patients/year: 100,000 (est. 2017)
- Specialties: onsite psychiatry, podiatry, chiropractic
- Specialty access by e-Consult to 15 specialists

CHC Locations in Connecticut



Elements of the Model

- Fully integrated teams and data
- Integration of key populations into primary care
- Data-driven performance
- “Wherever You Are” approach

Weitzman Institute

- QI experts; national coaches
- Project ECHO[®]— special populations
- Formal research and R&D
- Clinical workforce development

Elements of the Model

THREE FOUNDATIONAL PILLARS

1

Clinical
Excellence

2

Research
and
Development

3

Training
the Next
Generation



Structured Data in Electronic Health Records to Capture Nursing Work in Complex Care Management



Health Information Technology and Complex Care Management

Our Goal:

- Improve the quality of complex care management through health information technology

Key Priorities:

- Learn how to achieve better complex care management with EHRs
- Use EHRs to measure complex care processes in primary care
- Build population health outcomes of complex care into EHRs
- Promote adoption of the develop HIT tools



Complex Care Measures

Complex care measures help us:

- Quantify complex care
- Evaluate complex care services
- Answer specific population outcomes questions
- Provide better complex care management

Complex care processes and outcomes in primary care are difficult to measure



Data Models in Complex Care Management

- Value of a data model
 - A set of rules to define the structure of data
 - Defines the relationships among different kinds of data
 - Helps with the data planning and identifying the data elements within the EHR that are available to use for complex care measures
 - The definition of EHR fields and what kind of information they record should be predetermined based on a data model
- Structured data collection
 - Easy to retrieve data when you need it
 - Easy to generate reports



Current State of Using EHR Data for Complex Care Management

- Underutilization of structured data fields to record complex care processes
- Clinical workflow barriers, which lead to limited attention to and documentation of complex care coordination processes
- Lack of data standardization
- Limited or lack of health EHR systems interoperability



Challenges of Using Existing EHR fields

- EHRs initially were designed to document care of individual patients and for billing insurers for reimbursement of services, and not for measuring population data or clinical processes.
- Existing EHR fields may not suit a data model for measuring complex care.
- Some fields are redundant or use different wording to measure the same thing.
- Limitations in linking data
- Altering fields has consequences for how related fields are populated and accessed, and may interrupt data collection already under way.
- Building new fields requires re-training nurses.



HIT and Complex Care Management in Primary Care: Stakeholders

- Nurses / Clinical Teams
- Business Intelligence
- Quality Improvement
- Research and Evaluation
- Leadership
- Patients



Challenge: Meet the needs of clinical staff

Solution: Work with nurses to create a solution – a dashboard, care templates, and a scorecard



Development of a Dashboard to Provide Decision Support for Complex Care Management in Primary Care

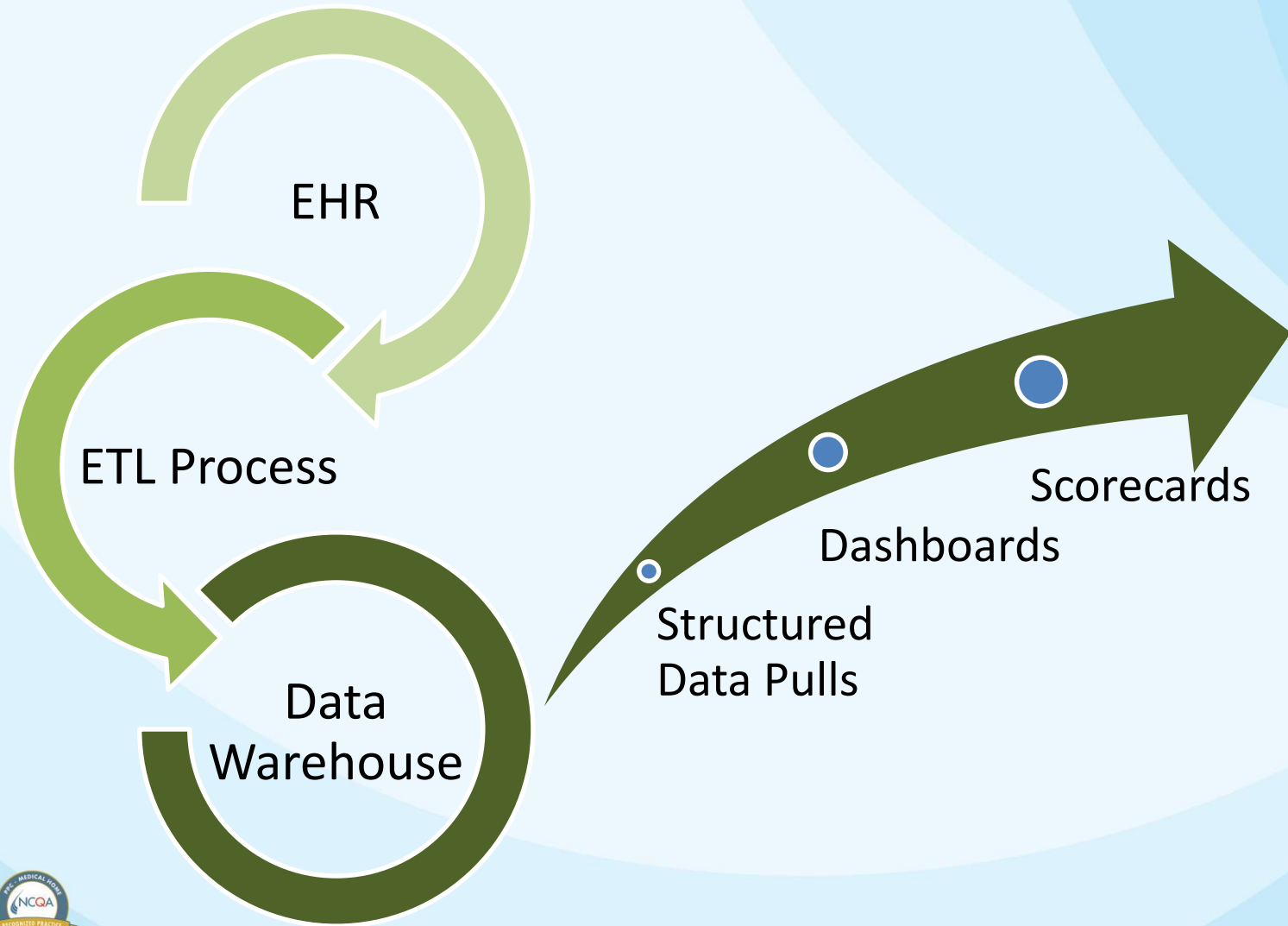


Learner Objectives

1. The learner will be able to describe how an operable population-based electronic dashboard was developed.
2. The learner will understand how an electronic dashboard provides decision support for nurse care managers in primary care.
3. The learner will understand the importance of a nurse-driven dashboard as a tool for Complex Care Management in a global setting.



Data Driven: the *Right* Data at the *Right* Time



An Operable Nursing Dashboard

- Based on an algorithm of standardized definitions that identifies high risk patients who would benefit from complex care management
- Serves as an actionable complex care opportunity
- Patients receive the care that they need (population level)



Global Alert for Enrollment in Complex Care Management

- Allows for more population-based views of complex care processes and outcomes.
- Provides more complete and more timely access to population health trends and analytics based on the rich data set.
- Helps reduce variations in complex care management
- Minimizes the data collection burden – structured data may be automatically extracted for complex care measurement



Global Alert for Enrollment in Complex Care Management

RN CCM
Global Alert

The screenshot displays the 'Patient Hub' for Anna Test. The interface includes a top navigation bar with tabs for Labs, DI, Procedures, Imm/T.Inj, Referrals, Allergies, CDSS, Alerts, and Notes(1). The patient's information is shown, including DOB (01/01/2010), Age (5Y 11M), Sex (F), and Insurance (BCBS Medical). A 'Billing Alert' window is open, showing a table with one entry: 'RN CC' under the 'Name' column. The 'Global Alerts' tab is selected in the alert window. The background interface also shows a 'Problem List' with 'Diabetes mellitus type II' and 'ASTHMA MODERATE PERSISTANT', and a 'Current Medications' list including 'urosemide 80 mg film', 'Lactic Acid 10% with Vitamin E 10% cream', 'amoxicillin 125 mg tablet', 'Zenchant 35 mcg-0.4 mg tablet', 'Azelex 20% cream', 'insulin aspart 100 units/mL solution', 'Coumadin', 'Depacal 10-1.42 LOZG', 'Tylenol Extra Strength 500 mg tablet', 'naloxone EVZIO', 'Tylenol 325 mg suppository', 'Tylenol 500 mg tablet', and 'Tylenol 120 mg suppository'.

Name	Notes
RN CC	



Global Alert for Enrollment in Complex Care Management

Patient Hub (Test, Anna)

Labs	DI	Procedures	Imm/T.Inj	Referrals	Allergies	CDSS	Alerts	Notes(1)																
Test, Anna Self Info Home: 860-333-3333 635 Main St Meriden, CT-06450 DOB: 01/01/2010 Age: 5Y 11M Sex: F Advance Directive: WebEnabled: Yes Messenger Enabled: Yes Last vMsg: Account No: 236140 Patient Balance: \$0.00 Collection Status: Account Balance: \$0.00 Assigned To: Last Appt: 10/17/2015 03:45 PM Facility: 121:CHC of Middletown Medical Prenatal Next Appt: Facility: Bumped Appts: NONE Case Manager Hx:																								
<table border="1"> <tr> <td>Labs</td> <td>1</td> <td>Tel Enc</td> <td>-</td> </tr> <tr> <td>DI</td> <td>-</td> <td>Web Enc</td> <td>-</td> </tr> <tr> <td>Referrals</td> <td>-</td> <td>Documents</td> <td>1</td> </tr> <tr> <td>Actions</td> <td>-</td> <td>P2P</td> <td>-</td> </tr> </table>									Labs	1	Tel Enc	-	DI	-	Web Enc	-	Referrals	-	Documents	1	Actions	-	P2P	-
Labs	1	Tel Enc	-																					
DI	-	Web Enc	-																					
Referrals	-	Documents	1																					
Actions	-	P2P	-																					

Share

New Appt	New Tel Enc	Print Label(s) ▼	Billing Alert	Patient Docs
Letters	Encounters	Medical Summ. ▼	Rx	Progress Notes
eCliniForms	Devices ▼	Problem List	Medical Record	Send eMsg
Account Inquiry ▼	Guarantor Bal.	Consult Notes	Letter Logs	Fax Logs
Action ▼	New Web Enc	Flowsheets	Messenger ▼	Billing Logs
eHX Consent	Export eHS	Export Labs	Export Documents	ePrescription Logs

Close

Global Alert
on Patient's
Home Page



Reason for Complex Care Management

 Community Health Center, Inc.							
Care Coordination							
[Redacted]							
Patient ID	2 ER Visits in Last 12 Mths.	Hosp. in Last 12 Mths.	Uncontrolled DM	Uncontrolled HTN	Uncontrolled Asthma	4 Chronic Cond.	
[Redacted]		10/13/2015					
[Redacted]		10/15/2015					
[Redacted]		3/3/2015					
[Redacted]		7/21/2015					
[Redacted]		10/1/2015					
[Redacted]		6/11/2015					
[Redacted]		12/24/2014					
[Redacted]		4/15/2015					
[Redacted]		6/5/2015					
[Redacted]		3/11/2015					



Consider Possible Data Sources

 **Community Health Center, Inc.**

Care Coordination

Kamat MD, Leena FP

Patient ID	Uncontrolled DM	Uncontrolled HTN	Uncontrolled Asthma	4 Chronic Cond.
271067		10/15/2015		
286578				
286702		10/15/2015		
290090		3/3/2015		
330519				
332102		7/21/2015		
332287				
335337		10/15/2015		
336056		6/11/2015		
336964		12/24/2014		
336987		4/15/2015		
337528				
337616		6/5/2015		
341208				
342705				
345540		3/11/2015		

From hospitalization document

 **Community Health Center, Inc.**

Care Coordination

Kamat MD, Leena FP

Patient ID	Uncontrolled DM	Uncontrolled HTN	Uncontrolled Asthma	4 Chronic Cond.
271067		10/15/2015		
286578				
286702		10/15/2015		
290090		3/3/2015		
330519				
332102		7/21/2015		
332287				
335337		10/15/2015		
336056		11/2015		
336964		12/24/2014		
336987		4/15/2015		
337528				
337616		6/5/2015		
341208				
342705				
345540		3/11/2015		


From CHN Claims data





Customizing the Sort

e > CHC Data > Site Assets


ons ▾ | | | | 1 of 1 | Find Next | 100% ▾ |



Patient ID ▾	2 ER Visits in Last 12 Mths. ▾	Hosp. in Last 12 Mths. ▾	Uncontrolled DM ▾	Uncontrolled HTN ▾	Uncontrolled Asthma ▾	4 Chronic Cond. ▾	Smoking Status	A1C ▾	Blood Pressure ▾	LDL ▾	Gender	Age
		6/1/2017					former smoker		106/63	72	F	3
		5/31/2017					never smoker	7.3	109/73		F	4
		5/31/2017					former smoker		110/74	94	M	5
		5/25/2017					former smoker	6.2	134/73		F	6
		5/17/2017					never smoker	6.3	157/69		F	9
		5/15/2017					former smoker		166/57	68	F	8
		5/12/2017					former smoker		140/94	125	M	4
		5/11/2017					never smoker	6.9	153/80	73	F	7
		5/10/2017					never smoker	6.3	117/67		M	5
		5/8/2017					never smoker		120/87	60	F	3
		5/8/2017					never smoker		114/72	91	F	5
		5/8/2017					former smoker	10	138/74		F	6
		5/4/2017					former smoker	8.3	125/77	79	M	6
		5/4/2017					never smoker		106/72		F	5
		5/4/2017					current every day smoker	4.9	135/90	15	M	5
		4/28/2017					never smoker		115/69		F	4




Additional Actionable Data



Smoking Status	A1C	Blood Pressure	LDL	Gender	Age	CC Start Date	CC End Date	Last SMG Date	Action Item	Action Item Due Date	Last PCP Visit	Last Dental Visit	Last BH Visit	Portal Enabled
current every day smoker		137/95	79	M	52	3/23/2017					5/11/2017	11/1/2012	10/10/2013	Yes
current every day smoker		112/72		M	61	2/4/2016					7/26/2016			No
current every day smoker		113/70		M	54	5/10/2017					5/9/2017	5/26/2015	1/26/2017	No
never smoker	8.6	131/75		F	65	3/11/2015		3/8/2016			3/23/2017		4/20/2012	No
never smoker	8.7	165/68		M	62	3/26/2015		6/25/2013			5/11/2017	11/9/2015		Yes
never smoker	8.6	114/70		F	46	4/13/2015		4/11/2017			2/23/2017	7/29/2015	8/26/2010	Yes
current every day smoker		142/78		F	56	8/16/2016					6/29/2016		7/21/2016	Yes
never smoker	5.7	161/78		F	62	1/9/2016					2/16/2016		9/17/2015	Yes
current every day smoker	6.5	131/66		M	68	3/20/2015					4/13/2017	1/21/2017		Yes
never smoker	17.4	117/73	14	M	80	2/27/2017		5/8/2017			5/24/2017			No
current every day smoker		138/77		M	59	3/6/2017					5/9/2017	1/24/2007	1/7/2014	No
current every day smoker	9.7	144/84		F	45	8/2/2016					5/16/2017	4/15/2015	6/1/2017	No
current every day smoker	11.5	135/82		M	50	1/14/2016		4/25/2017			5/17/2017	5/2/2016		Yes
never smoker		142/78		F	46	1/26/2017					5/25/2017			Yes
never smoker		108/69		F	49	1/19/2016					6/1/2015			Yes
current every day smoker	5.9	129/64	76	M	70	1/5/2016		5/12/2015			3/31/2017			Yes

Evaluation of the CCM Dashboard

- Krippendorff's Content Analysis
- Close examination of text, categorizing of similar meanings, clustering of categories, themes.
- Transcripts were read 4 times over 3 months.
- Each transcript was read a 5th time and thoughts on categories were written on the margins.
- The data was then grouped under each of these categories
- Categories read and collapsed



Themes

- Provide better care
- Extra work
- Variability in instruction
- Streamlining information



Dendograms

Don't have a lot of time to go on the dashboard
Waste of time mostly
Hours and hours of work
Feels like extra work

Time Consuming

Its very redundant
A lot of tedious work
Not user friendly
Too many screens

Burdensome

Not so useful for care coordination patients
Takes away from complex patients

Useless

Extra Work



Themes Explored: Provide Better Care

- Enhanced their jobs
- ‘have all my people in one spot’
- ‘identify patients who may need more support’
- Could find patients quickly and follow their vitals and lab values easily
- Able to follow patients who had been recently discharged from hospital
- The dashboard allowed them to spend more time on care coordination



Themes Explored: Extra Work

- Use of dashboard was perceived as ‘burdensome’
- It ‘takes away from the patients who actually need care coordination’
- Felt obliged to open the dashboard otherwise they would ‘get into trouble’
- Felt ‘too redundant’
- Took too long to check in on the patients and daily checking in was unrealistic
- Competing tasks took away from time allocated to care coordination
- ‘we are feeding the dashboard with information’



Themes Explored: Variability in Instruction

- Training for dashboard use was inconsistent
- None of the nurses had hands on training
- ‘it would have been helpful to have hands on training with somebody looking at it with us’
- Suggested that a refresher course would be helpful

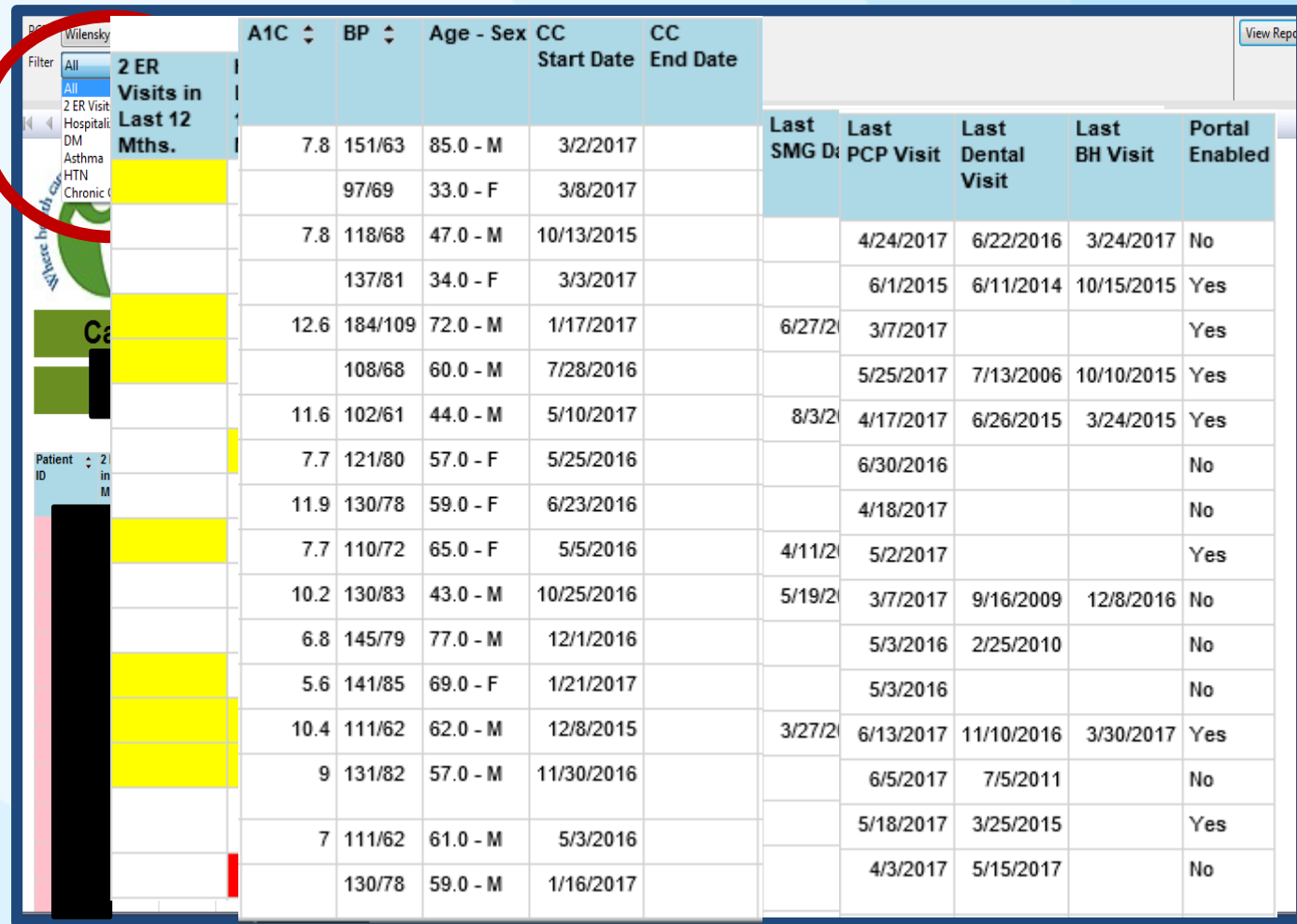


Themes Explored: Streamlining Information

- Complex Care Management panels to be linked to their profiles and be 'nurse driven' instead of PCP driven
- A column that would give 'the reason why we started to do care coordination' on a particular patient
- Seamless navigation through patient templates to obtain pertinent information
- Clarity when a patient should be removed from care coordination
- Accurate and updated information



Revised CCM Dashboard



Filter	A1C	BP	Age - Sex	CC Start Date	CC End Date	Last SMG D	Last PCP Visit	Last Dental Visit	Last BH Visit	Portal Enabled
2 ER Visits in Last 12 Mths.	7.8	151/63	85.0 - M	3/2/2017						
		97/69	33.0 - F	3/8/2017						
	7.8	118/68	47.0 - M	10/13/2015			4/24/2017	6/22/2016	3/24/2017	No
		137/81	34.0 - F	3/3/2017			6/1/2015	6/11/2014	10/15/2015	Yes
	12.6	184/109	72.0 - M	1/17/2017		6/27/20	3/7/2017			Yes
		108/68	60.0 - M	7/28/2016			5/25/2017	7/13/2006	10/10/2015	Yes
	11.6	102/61	44.0 - M	5/10/2017		8/3/20	4/17/2017	6/26/2015	3/24/2015	Yes
	7.7	121/80	57.0 - F	5/25/2016			6/30/2016			No
	11.9	130/78	59.0 - F	6/23/2016			4/18/2017			No
	7.7	110/72	65.0 - F	5/5/2016		4/11/20	5/2/2017			Yes
	10.2	130/83	43.0 - M	10/25/2016		5/19/20	3/7/2017	9/16/2009	12/8/2016	No
	6.8	145/79	77.0 - M	12/1/2016			5/3/2016	2/25/2010		No
	5.6	141/85	69.0 - F	1/21/2017			5/3/2016			No
	10.4	111/62	62.0 - M	12/8/2015		3/27/20	6/13/2017	11/10/2016	3/30/2017	Yes
	9	131/82	57.0 - M	11/30/2016			6/5/2017	7/5/2011		No
	7	111/62	61.0 - M	5/3/2016			5/18/2017	3/25/2015		Yes
		130/78	59.0 - M	1/16/2017			4/3/2017	5/15/2017		No

New filter option



History of Present Illness

Diabetes:

Home glucose testing -----Checks QID. Glucose control -----Fair per last A1c of 7.6. Topics discussed Using your glucometer, When to test, What should my FSBS be, Recording your results, Testing Action Plan, Pt verbalized understanding. Hypoglycemia Patient explains that he has not had an episodes in the last few months, but when he does he gets dizzy and his BG reading would be lower than 105 but it has never been below 70. He treats hypoglycemia with half a cup of orange juice and a piece of sweet bread. Symptoms ----- Polyphagia after dinner, denies any other symptoms of hyperglycemia. Foot Problems -----Denies. Diet ----- Patient reports that he consumes too many snacks after dinner and many of these are sweets that he shares with his five year old son. Exercise -----Patient reports that although he does not have a set exercise routine, he does feel that he is very active working as a barber long hours and engaging in active play with his five year old son.

Medications:

Medication review Name of each med, How pt keeps track of meds, Purpose of each med, Why it is important to take meds, Refills needed, Tips for better adherence, pt verbalized understanding. Adherence rate -----Patient reports excellent adherence

Self Management:

Ready to set a new goal? Ready to set a new goal? Yes. SM Goal: Healthy Eating Will substitute evening sweet snacks with sugar free products. SM Goal: Being Active/Exercise N/A at this time. SM Goal: Medication Use N/A at this time. SM goal: Glucose Monitoring N/A at this time. SM Goal: Self Care/Risk Reduction N/A at this time. Confidence Score: -----7.

Care process review:

Foot exam in past year? Foot exam ----- Eye exam past year? Eye exam past year? -----Patient reports that ----- to his eye doctor within the past year, but unsure if retinopathy screening was ----- Patient agrees to bring us the contact information for his eye doctor and to ----- please for us to get those records at his next visit. Hemoglobin A1C in past 6 months ----- A1C Yes Within the last three months. A1c education provided. Patient verbalized understanding.



Care Coordination Drill

Patient ID	2 ER Visits in Last 12 Mths.	Hosp. Last 12 Mths.	DM	HTN	Asthma	4 Chronic Cond.	Smoking Status	A1C	BP	Age - Sex	CC Start Date	CC End Date
		6/2/2016						7.8	151/63	85.0 - M	3/2/2017	
									97/69	33.0 - F	3/8/2017	
								7.8	118/68	47.0 - M	10/13/2015	
									137/81	34.0 - F	3/3/2017	
								12.6	184/109	72.0 - M	1/17/2017	
									108/68	60.0 - M	7/28/2016	
								11.6	102/61	44.0 - M	5/10/2017	
								7.7	121/80	57.0 - F	5/25/2016	
								11.9	130/78	59.0 - F	6/23/2016	
		8/17/2016						7.7	110/72	65.0 - F	5/5/2016	
								10.2	130/83	43.0 - M	10/25/2016	
								6.8	145/79	77.0 - M	12/1/2016	
								5.6	111/85	68.0 - F	1/24/2017	

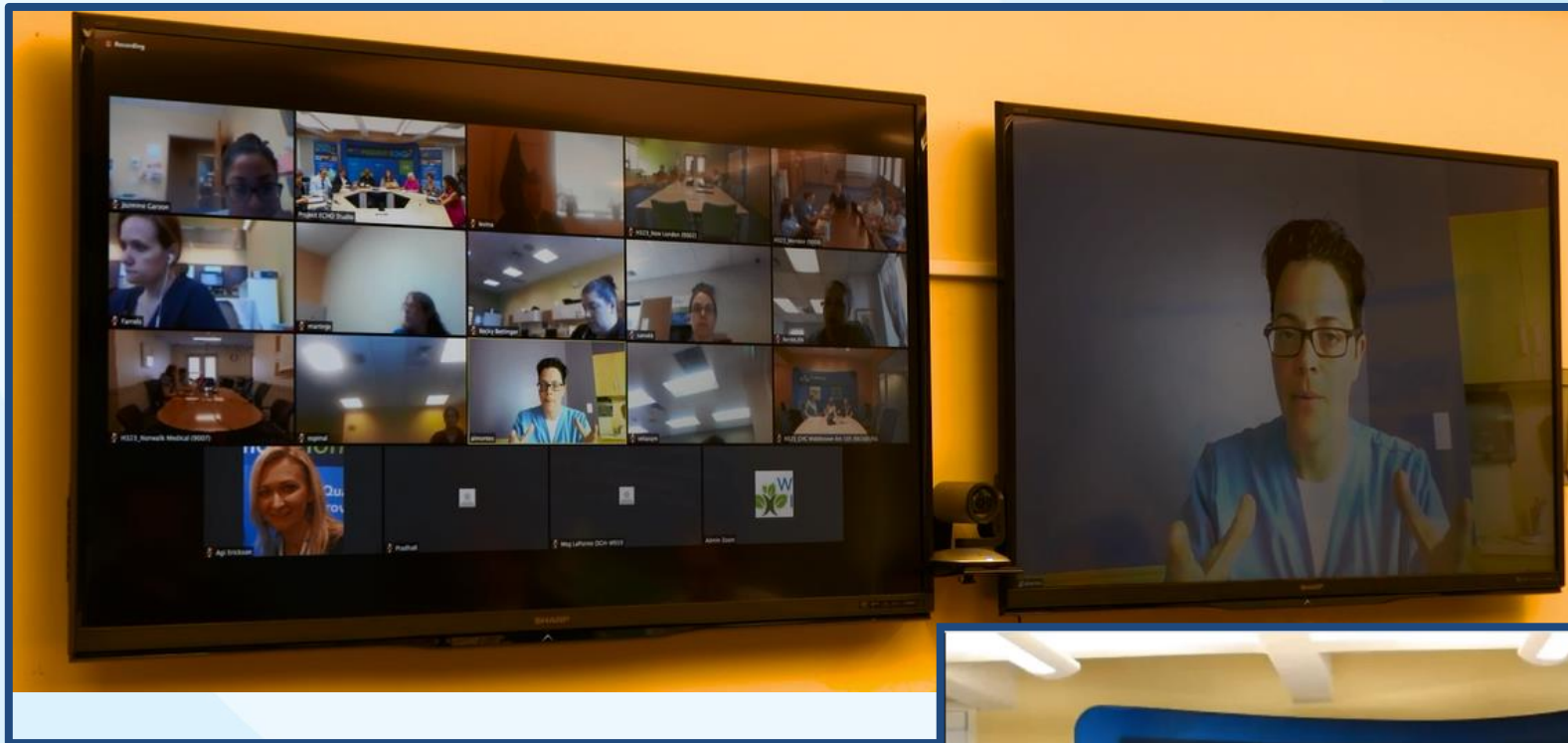
SM goal: Glucose Monitoring, SM Goal: Healthy Eating, SM Goal: Being Active/Exercise, SM Goal: Self Care/Risk Reduction, SM Goal: Medication Use, Confidence Score: -----7

Self-Management
Goal in EHR

Self-Management
Goal Details



Training Primary Care RNs to a New Model



Project ECHO: RN complex care
Management: 24 RNs participate
bi-weekly for two hours of didactic,
Plus case presentation and feedback



Project ECHO Complex Care Management: Training Primary Care RNs to a New Model

- First session on 9/24/15
- Duration: 2 hours; 1 didactic and ~2 cases
- All 12 sites involved – Approx. 35 nurses
- Faculty consists of:
 - Chief Nursing Officer
 - Medical Provider
 - Pharmacist
 - Behavioral Health Provider
 - Homecare Nurse
 - Complex Care Management Specialist and Certified Diabetes Educator
 - Registered Dietician and Certified Diabetes Educator
 - Access to Care Coordinators



**Complex Care
Management**



Equipping RNs for Complex Care Management

Didactic Topics Covered:

1. Complex Care Management
2. Care Transitions
3. Homecare Nursing
4. Health IT for Complex Care Management
5. Complex Pain Care
6. Substance Abuse
7. Self-Management Goal Setting
8. Medical Nutrition Therapy
9. Diabetes Management
10. Diabetes Medication Management
11. Personality Disorders
12. CT Medicaid: Intensive Case Management Program
13. Medication Reconciliation
14. HIV PrEP and PEP
15. LGBT Cultural Competency
16. Asthma (Tx, Meds, Spirometry)
17. Wound Care
18. COPD
19. Congestive Heart Failure
20. Obesity and Weight Management

Future Topics:

1. HIV
2. Hepatitis C
3. Role of the Complex Care Management Nurse
4. Anxiety Disorders
5. Triage for Behavioral Health Concerns and the Suicidal Patient
6. Psychiatry Medications
7. Buprenorphine Treatment

Transition Care Template

- A template based on Coleman's (2004) pillars to document the care of patients transitioning from hospital to home
- The template aims to aggregate information from multiple providers and settings into a single location
- EHR - populated with data from the transition template (e.g., hospital discharge data, self-care, VNA referrals, ED discharges, falls, patient concerns and red flags) offers a view of processes of transition care and clinical outcomes not possible otherwise.



Transition Care Template

The screenshot shows the eClinicalWorks 10 interface. The top navigation bar includes File, Patient, Schedule, EMR, Billing, Reports, CCD, Fax, ePayment, Tools, Community, Meaningful Use, Lock, and Help. The main header displays 'eClinicalWorks 10' and user information. The left sidebar contains various icons for Practice, Resource Scheduler, Blankson, APRN, Office Visits, zzzFasciano, R..., Progress Notes, Telephone/Web..., Labs/Imaging, CCMR, Registry, Referrals, Messages, and Documents. The main content area is titled 'Progress Notes' and shows a patient's information: T, TEMPLATES, 9M 4D, F, Info, Hub, Allergies, Billing Alert. The patient's details include: 114 turnpike road, Westborough, MA, H:508-836-2700, DOB:09/05/2016, eHX Status: No. The patient's insurance information is: Ins: Self Pay, Acc Bal: \$0.00, Guar: TEMPLATES, Gr Bal: \$0.00. The patient's medical history includes: Medical Summary, CDSS, Alerts, Labs, DI, Procedures, Growth Chart, Imm/T.Inj, Encounters, Patient Docs, Flowsheets, Notes, P. E. D. The patient's progress notes are displayed, with a red circle highlighting the 'HPI: Hospital Transition' section. A red arrow points from this section to the 'Hospital Transition' text in the blue box on the right. The 'HPI: Hospital Transition' section includes: Hospital Discharge From: ---, ED Discharge: ---, Admission Date: Admission Date, Admission Reason: ---, Discharge Date: ---, Medication: Medications Reconciled? ---, Medications Filled? ---, Medication adherence: ---, Reasons for poor med adherence: ---, System for taking medications? ---, Medication errors identified: ---, Follow-up/Discharge Plan: Other agencies providing services? ---, If yes, has patient been contacted by agency? ---, Reviewed discharge instructions: ---, Follow up appointment with PCP? ---, Specialist follow up: ---, Transportation: ---, Red Flags: Alarm symptoms present: ---, Alarm symptom/zone sheet reviewed? ---, Self-Care: Patient needs assistance with: ---, Support System: ---, Community Services: ---, Patient's Concerns: Patient is concerned about: ---, VNA Referral: ---, Falls: Patient fell in hospital: ---, Patient fell at home: ---, Patient at risk for falls at home: ---, Home safety evaluation: ---. The 'Current Medication:' section is also visible. The bottom of the interface shows a toolbar with buttons for Send, Print, Fax, Record, Lock, Details, Scan, Templates, Claim, Letters, Ink, and eHX Options.

Hospital Transition



Transition Care Template

HPI: ▼

Hospital Transition

Hospital Discharge

From: ---

ED Discharge

-> ---

Admission Date:

Admission Date ---

Admission Reason: ---.

Discharge Date:

->Discharge Date ---

Medication

Medications Reconciled? ---

Medications Filled? ---

Medication adherence ---

Reasons for poor med adherence ---

System for taking medications? ---

Medication errors identified: ---

Follow-up/Discharge Plan

Other agencies providing services? ---

If yes, has patient been contacted by agency? ---

Reviewed discharge instructions ---

Follow up appointment with PCP? ---

Specialist follow up ---

Transportation ---

Red Flags

Alarm symptoms present ---

Alarm symptom/zone sheet reviewed? ---

Self-Care

Patient needs assistance with: ---

Support System ---

Community Services ---

Patient's Concerns

Patient is concerned about: ---

VNA Referral: ---.

Falls

Patient fell in hospital ---

Patient fell at home ---

Patient at risk for falls at home ---

Home safety evaluation ---



Percent of Fields Completed

Question	% completed
Hospital Discharge	90%
Admission Date:	81%
Admission Reason:	77%
Follow-up/Discharge Plan	75%
Medication	67%
Discharge Date:	65%
Self-Care	48%
VNA Referral:	46%
ED Discharge	46%
Falls	29%
Patient's Concerns	25%
Red Flags	13%



Lessons Learned and Next Steps

- Nurses who use it like it
- Templates often not fully completed
- Clinical care documentation vs. population management
- Need to address barriers to outreach:
 - No discharge plan from hospital to PCP
 - Patients difficult to reach
 - Patients don't know their discharge plan
- Need to train new staff, review right workflow, right team member, remind/address overall template use
- F/U chart reviews



Self Management Goal Template

The screenshot shows a medical software window titled 'HPI (Test, Carlotta - 06/14/2017 10:00 AM, Establishe)'. The window has a sidebar on the left with a tree view of medical categories. The main area is titled 'Nursing Care Coordination/Self Management' and contains a table for tracking goals. Two red circles and arrows highlight specific parts of the interface:

- A red circle around 'Nursing Care Co' in the sidebar, with a red arrow pointing to the 'Symptom' column header in the table.
- A red circle around 'Self Management' in the sidebar, with a red arrow pointing to the 'Notes' column header in the table.

c/o	denie	Symptom	Duration	Notes	Cl
5		Ready to set a new goal		2 Yes, Confidence Score	X
		SM Goal: Healthy Eating		New goal: reduce soda in	X
		SM Goal: Being Active/Exe			X
		SM Goal: Medication Use			X
		SM goal: Glucose Monitorin			X
		SM goal: Smoking			X
		SM Goal: Healthy Coping			X
		SM Goal: Self Care/Risk Re			X
		SM Goal: Problem Solving			X
		SM Goal Other:			X

Nursing Care
Coordination

Self Management

Self Management Goal Template

Progress Notes

Test, C HPI (Test, Carlotta - 06/14/2017 10:00 AM, Establish)

Pt. Info Encounter Physical Hub

Nursing Care Coordination/Self Management Show popup for c/o Order Categories

Self Management Hypertension

c/o	denies	Duration	Notes	Cl
S	Ready to set a new goal			
S	Following Up On Current		New goal: reduce soda in	
	SM Goal: Healthy Eating		New goal: reduce soda in	
	SM Goal: Being Active/Exe			X
	SM Goal: Medication Use			X
	SM goal: Glucose Monitorin			X
	SM goal: Smoking			X
	SM Goal: Healthy Coping			X
	SM Goal:Self Care/Risk Re			X
	SM Goal: Problem Solving			X
S	SM Goal Other:			X

Denies All Clear All Custom

Notes ☐ Header ☒ Footer Browse... Spell check Clear

Vitals New Examination

Ready to Set
New Goal

Self Management Goal Template

The screenshot shows a software window titled 'HPI Notes' with a 'Structured' tab. It displays a table for setting goals. The table has three columns: 'Name', 'Value', and 'Notes'. The first row is 'Confidence Score =' with a value of '9'. The second row is 'Motivational Interviewing Use' with a value of 'Yes'. A red circle highlights the 'Confidence Score =' row, and a red arrow points from a text box to it.

Name	Value	Notes
Confidence Score =	9	
Motivational Interviewing Use	Yes	

Confidence
Interval

Motivational Interviewing



Self Management Goal Template

HPI (Test, Carlotta - 06/14/2017 10:00 AM, Establishe) *

HPI Notes

Free-form Structured

Options for SM Goal: Healthy Eating Dictate B U C Reset Clear Spell chk

New goal:

Established goal:

Reduce sweet drinks

Reduce portions

Reduce sweets/snacks

Increase fruits

Increase vegetable intake

Lower fat milk

Reduce red meat intake

Reduce salt intake

Reduce fried food

Broil/bake/boil food

Use "healthier oils" canola/olive

Other:

Duration ☐ Days ☐ Weeks ☐ Months ☐ Years

Location/Radiation Onset Severity

Nature Aggravated by Relieved by

Associated Symptoms

< Prev Custom OK Cancel Next >

Select or type the self-management goal



Self Management Goal Template

The screenshot shows a medical software interface with a window titled 'Following Up On Current Goal'. The window has a table with two columns: 'Name' and 'Value'. The 'Name' column header is circled in red, and a red arrow points from a text box on the right to this header. The window also has buttons for '< Prev', 'Custom', 'Close', and 'Next >'. The background shows other windows like 'HPI (Test, Carlotta - 06/14/2017 10:00 AM, Establishe) *' and 'HPI Notes'.

Follow-up on a current self-management goal



Self Management Goal Template

The screenshot shows the 'HPI Notes' window with the 'Structured' tab selected. Below the tab are buttons for 'Default', 'Default for All', and 'Clear All'. A table with three columns: 'Name', 'Value', and 'Notes' is displayed. The first row has a red circle around the 'Name' cell containing 'Progress Toward Goal (0-10)'. A red arrow points from this cell to the right. Below the table is a numeric keypad with buttons for digits 0-9, a decimal point, and a 'C' button. At the bottom of the window are buttons for '< Prev', 'Custom', 'Close', and 'Next >'.

Name	Value	Notes
Progress Toward Goal (0-10)	Yes	

Progress
Toward Goal

Development of a Nursing Scorecard to Track Metrics to Support Complex Care Management



Objectives

1. Describe the purpose and implementation of a nursing scorecard.
2. Understand the importance of tracking population metrics for nurses providing complex care management.
3. Explain the global implications of nursing scorecards in the primary care field



Goal: Quantify care coordination numbers and outcomes as part of overall nursing performance

Solution: Nursing Scorecard

- Why a scorecard?
- Development of scorecard
- Scorecard review
- Related data
- Revisions/lessons learned



Nursing Scorecard

A scorecard that indicates performance on selected complex care measures for primary care nurses and providers.

Performance feedback:

- Credible and timely
- Responsible party is clearly identified
- Based on current clinical data
- Flexible query function for drilling down into a measure
- Data available for benchmarking



Why a Scorecard?

- “Live” data
- Reinforces a “measurement culture”
- A framework for decision-making
- Linkage of strategy and resource allocation
- Learning and continuous improvement
- Greater management accountability
- Support staff in understanding the value of their work



Development of Care Coordination Scorecard

- Designed in coordination with CC Dashboard
- Define potential CC patients
- Discipline-specific measures
- Include both Clinical and Operational measures
- Track core program objectives over time
- Link data with desired responses
- Ensure usability
- Dedicated time for use

Design
&
Implementation



Potential Complex Care Patients

- Transition patients
- High Emergency Department Utilizers
- Uncontrolled Diabetes
- Uncontrolled Hypertension
- 4+ Chronic conditions



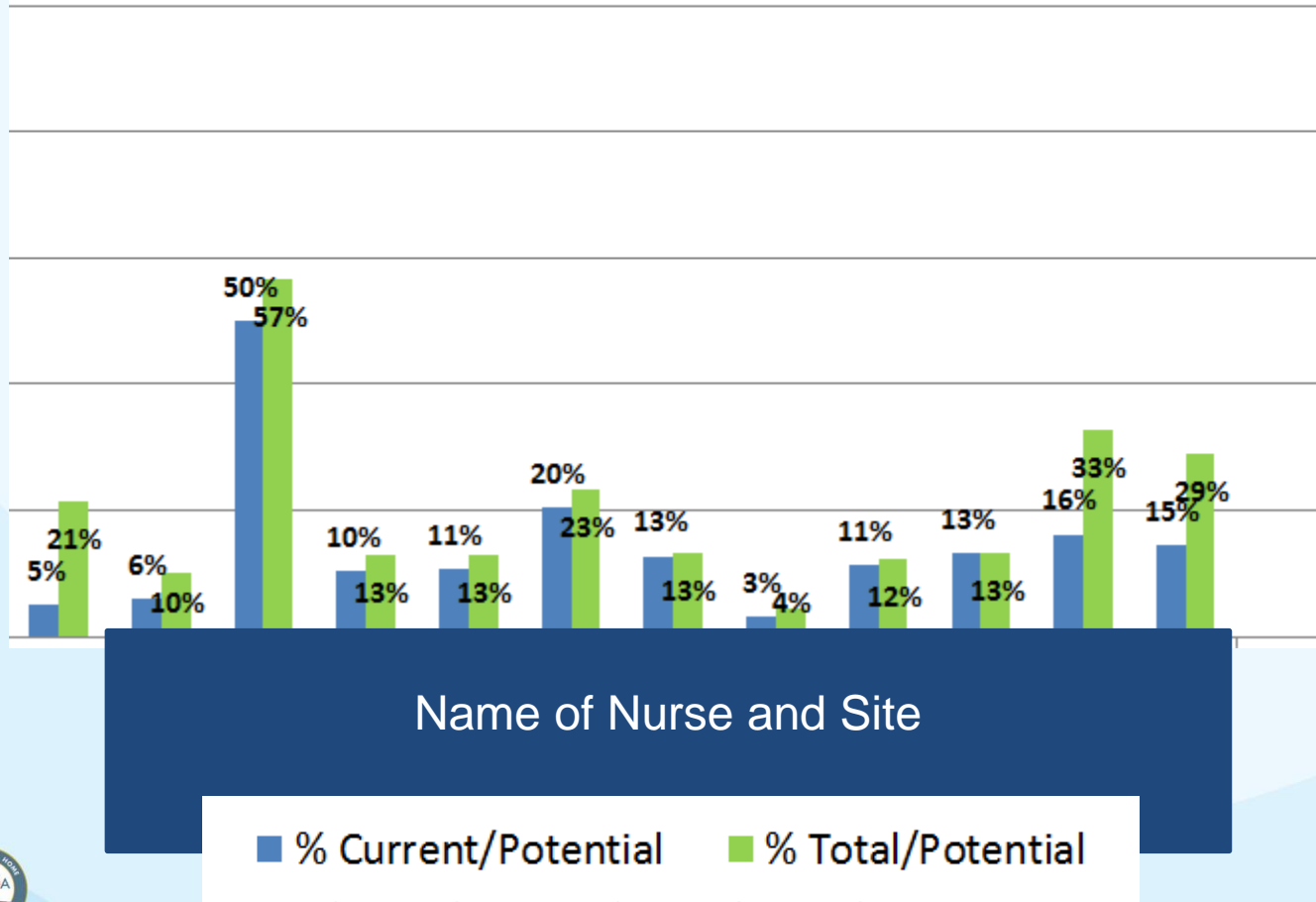
Care Coordination Scorecard: Raw Data

Nurse	PCP	Current CCM Patients	Total CCM Pts. Ever	Eligible CCM Patients	CCM Telephone Encounters	Patients with HTN	HTN Controlled		Patients with Diabetes	DM Controlled	
		n	n	n	n	n	n	%		n	%
Nurse A	Provider	10	10	103		226	143	63.3%	96	68	70.8%
	Pedi	1	1	1		1	1	100.0%		0	
	Total	11	11	104		227		63.4%	96	68	70.8%
Nurse B	Provider	22	56	188	37	451	297	65.9%	211	164	77.7%
	Provider	13	17	167	7	245	163	66.5%	120	95	79.2%
	Total	35	73	355	44	696	460	66.1%	331	259	78.2%
Nurse C	Provider	24	54	149	93	280	191	68.2%	119	97	81.5%
	Provider	35	63	217	151	465	263	56.6%	185	144	77.8%
	Total	59	117	366	244	745	454	60.9%	304	241	79.3%
Nurse D	Provider	18	134	136	220	271	169	62.4%	104	81	77.9%
	Provider	13	99	130	250	288	226	78.5%	142	112	78.9%
	Total	31	233	266	470	559	395	70.7%	246	193	78.5%



Care Coordination Scorecard: Summary

Care Coordination: Enrollment by Nurse, as of 5/1/2017



Complex Care Management Scorecard

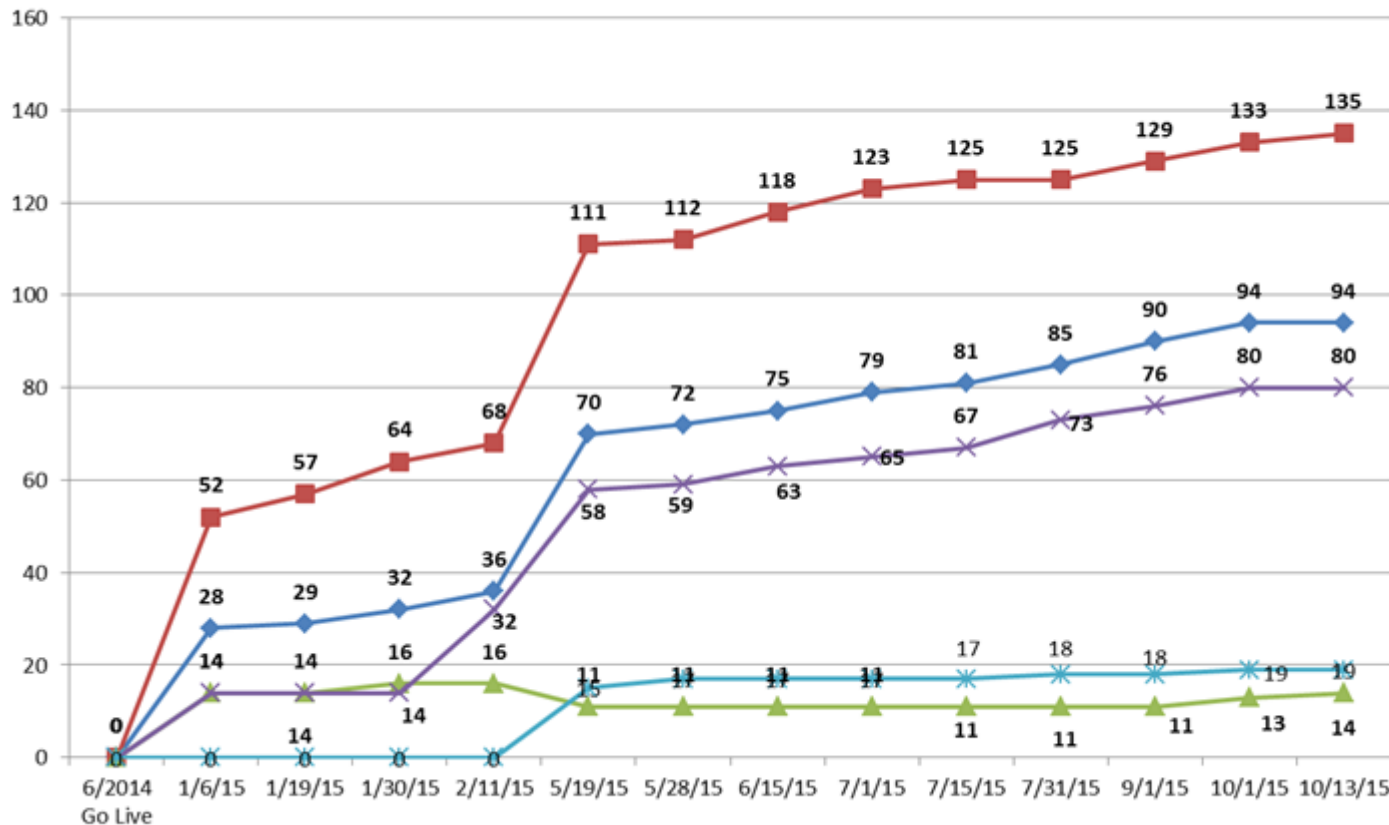
Nurse	PCP	Panel Size	Total CC Patients	Potential CC Patients	CC TE's	HTN Controlled	HTN Patients	Controlled HTN
		61	135	275	151	362	516	70.2%
		26	46	95	29	216	277	78.0%
		35	89	180	122	146	239	61.1%
		10	14	122	14	124	190	65.3%
		3	3	16	4	12	22	54.5%
		7	11	106	10	112	168	66.7%
		12	19	131	20	139	227	61.2%
		12	19	131	20	139	227	61.2%

DM Uncontrolled	DM Patients	Controlled DM
46	220	79.1%
22	120	81.7%
24	100	76.0%
17	81	79.0%
3	10	70.0%
14	71	80.3%
20	102	80.4%
20	102	80.4%



Care Coordination Scorecard: County Summary

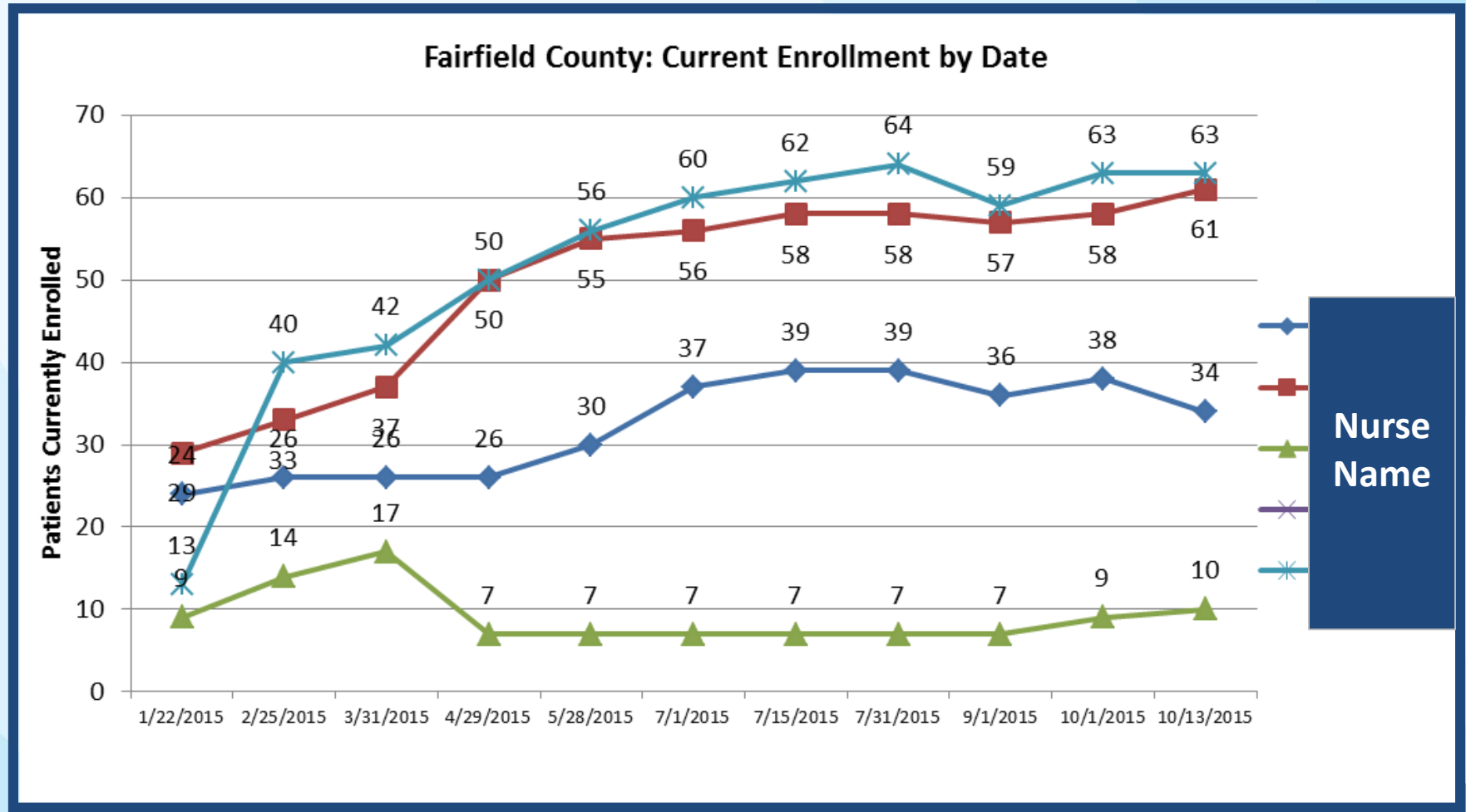
Fairfield County Sites: Total CC Enrollment



Nurse
Name

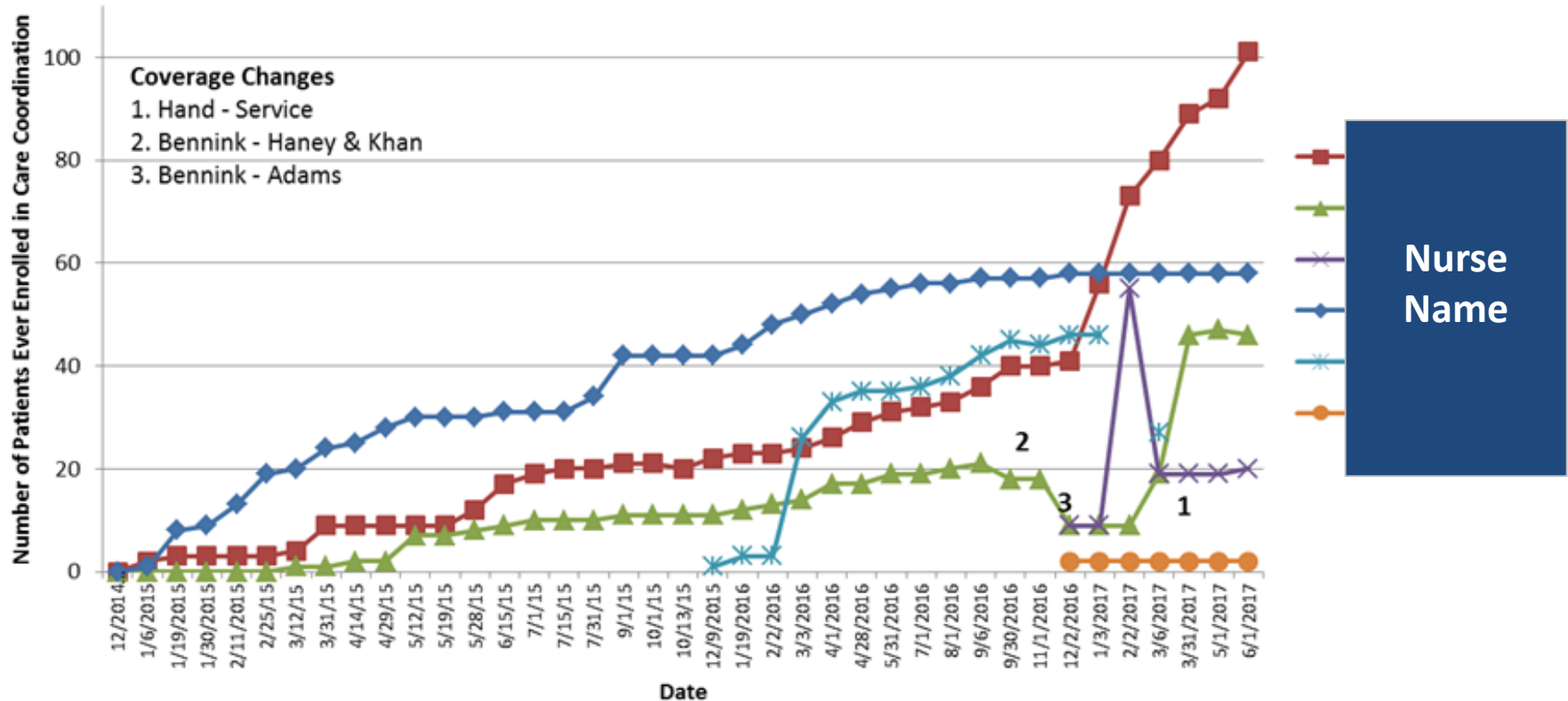


Care Coordination Scorecard



Care Coordination Scorecard

Middlesex County: Total CC Enrollment



Lessons Learned

- Focus on Design & Implementation
- Include the Frontline team members in every step
- Ongoing improvement
 - Design
 - Measures
 - Data
- Ongoing training/Support
- Evaluate usability
- Celebrate success





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