

A National Web Conference on the Importance of Evaluation in Health IT Implementation: Practical Advice for Providers and Healthcare Organizations

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The HIT Conundrum

- There is a need to provide complete evidence of the effectiveness of HIT, but to do so requires complete and convincing demonstration.
- To provide complete and convincing demonstration requires good programs.

- To provide good programs requires well-trained personnel, professional rewards, and a good computer *system*.
- To provide well-trained personnel, professional rewards, and a good *system* requires adequate funding.
- To get adequate funding for HIT requires evidence of its effectiveness.

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Why Do You Evaluate?

- HIT implementation requires formative evaluation to succeed.
- HIT implementation is generally locally supported and evaluation must address local outcome needs.
- Evaluation of HIT implementation should be processed based while research may look at outcomes as a result of the HIT system use.

Evaluation Does Not Necessarily Mean Research

For Whom Do You Evaluate?

- Identify Key Stakeholders
 - Funders of the HIT Project
 - Funders of HIT Continued Maintenance
 - Users of the HIT
 - Community

What Do You Evaluate?

- Technology
- Human and Organizational Factors
- Finances and ROI

Technology Evaluation

- Does it work – reliability?
- Performance Metrics
- Standards and Interoperability
- Customization Tradeoffs
- Usability
- Usefulness

Human and Organizational Factors

- Provider Adoption and Attitudes
- Patient Knowledge and Attitudes
- Workflow Impact
- Process Change
 - Efficiency Metrics
 - Effectiveness Metrics



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Finances and ROI

- Capital Costs
- Implementation Costs
 - Training
 - Process Reengineering
- Maintenance and Amortization Costs
- Anticipated Benefits
- Cost Savings Accrual – for Whom?

Once Implemented

And Operational

What About Outcomes???

HIT Outcome Metrics

- Medical Errors
- Patient Care
- Population Health

Medical Errors

- CPOE and Medication Errors
- Medication Reconciliation
- Handoffs
- Discharge Summaries
- and ...

Patient Care

- Guideline Adherence
- CDS Application
- Impact of Rapid Medical Data Access on Decision Making
- Quality of Life Management
- and...

Population Health

- Management of Chronic Illness
- Impact of RHIOs
- Modeling for Bioterrorist Events and Public Health Disasters
- and...

The Bottom Line

- HIT needs formative evaluation during the implementation process.
- Research needs to be based on health care outcomes using operational HIT systems.
- Widespread acceptance will come from both evaluation (process) and research (outcomes).

The National Resource Center's Evaluation Toolkit: How to write an evaluation plan

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Lead, National Resource Center Evaluation Team*

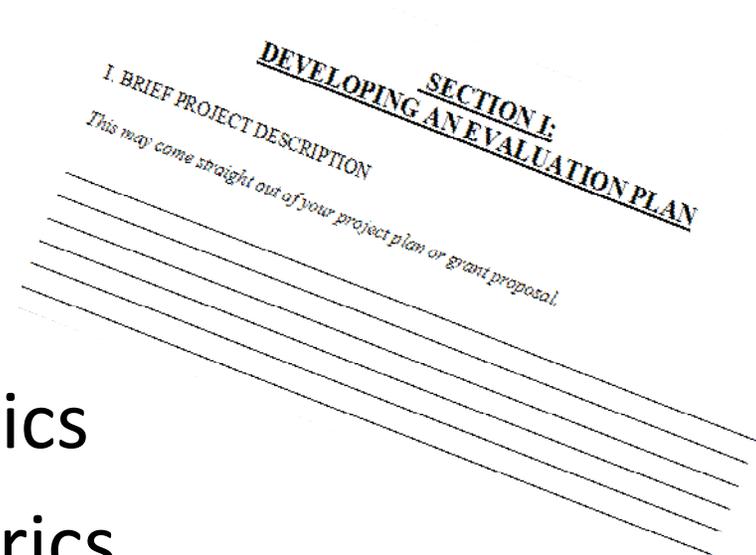


The Evaluation Toolkit

- Created in response to a need
- Intended to guide users through a step by step process to write their evaluation plans
- Constructed as a workbook
- Works well in groups as a brainstorming session

Evaluation Toolkit-Overview

- Project Description
- Project Goals
- Evaluation Goals
- Choose Evaluation Metrics
- Grade Your Chosen Metrics
- Draft a Plan Around Each Metric
- Write Your Plan



Categories of Measures

- Clinical Outcomes Measure
- Clinical Processes Measures
- Provider Adoption and Attitudes Measures
- Patient Knowledge and Attitudes Measures
- Workflow Impact Measures
- Financial Impact Measures

Consider Metrics to Evaluate

- Conduct brainstorming session
- Collect any measure you think that can help you determine your goals have been met
- Eliminate metrics not important and not feasible
- Identify 3-5 metrics to evaluate

Choosing Final Metrics: Grade Your Metrics

- Determine which metrics are important to measure, taking your stakeholders into consideration
- It may be helpful to use a scale:
 - 1 = Very Important
 - 2 = Moderately Important
 - 3 = Not Important
- This exercise will help your team to filter out those metrics unlikely to provide information of interest to your stakeholders

Choosing Final Metrics Determine Which Are Feasible

- Consider which metrics you've choose are actually feasible to measure
- Consider your available resources: people, money, space, time
- Rather than abandon a project that turns out to have been ambitious, up-front focus on what is achievable
- Again, consider using a scale
 - 1 = Feasible
 - 2 = Feasible with Moderate Effort
 - 3 = Not Feasible.

Rank Your Choices on Both Importance and Feasibility

		Feasibility Scale		
		<i>1-Feasible</i>	<i>2-Moderate Effort</i>	<i>3-Not Feasible</i>
Importance Scale	<i>1-Very Important</i>	(1)	(2)	
	<i>2-Moderately Important</i>	(3)	(4)	
	<i>3-Not Important</i>	(5)		



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Choose Your Final Metrics

- You now have a list of metrics ranked by importance and feasibility
- Narrow the list down to four or five primary metrics
- Keep a list of secondary metrics that you can use if you have the time/people/financial resources to conduct

Examples

- Pharmacy
- Barcoding
- Ambulatory CPOE
- Telemedicine

Example 2: Barcoding nursing evaluation

Describe briefly the HIT intervention	A 725 bed tertiary care hospital is converting to a barcode medication administration system (BCMA). The paper medication administration record will be eliminated and electronically driven by pharmacy-approved physician orders. Each nurse will be given a laptop, which will run a medication administration application that can help manage the medications for which his/her patients are due. Before medications are given to patients, the patient's bar-coded wristband, the medication and the nurse's ID badge will be scanned to ensure the 5 rights.						
A. Describe the expected impact of the HIT intervention	1 Nursing staff will barcode scan all medications before the doses are administered to the patient	2 Use of barcode scanning will catch a significant number of errors ("near misses").	3 Medication transcribing errors will be eliminated	4 Medication administration errors will decrease	5 Nursing efficiency will not be adversely affected	6 Nursing satisfaction will remain stable after implementation	7 There will be resistance from the nursing staff in the first 3 months, but this resistance will be overcome
B. Questions you want to ask in the evaluation plan? These will likely reflect the expected impact (either positive or negative) of your HIT intervention	1) Are medication doses scanned during administration? 2) Are the plans bypassed/manually overridden during scanning?	For units that have implemented BCMA, what kinds of alerts are generated when the nurses scan medication doses? Of the alerts generated, what proportion is overridden by nurses?	To what extent does BCMA reduce the incidence of transcribing errors? Of the errors eliminated, how many of them are serious and have the potential to lead to adverse events?	To what extent do nurses feel that BCMA improves patient safety? To what extent do patients feel that BCMA improves the accuracy and timeliness of medication administration?	Do nurses spend more or less time on medication administration after introduction of BCMA?	How does BCMA affect nursing satisfaction towards their jobs? How does BCMA affect nursing burn-out?	What are the barriers to barcode implementation on the nursing units, and how can these barriers be overcome?



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Data Exchange Toolkit

- Created out of a need: feedback from SRDs was that they were different from the grantees
- Basic format similar with the focus being on evaluation of projects involving data exchange
- Data Exchange Metrics
- Data Exchange Examples

Metrics

- Centered around data exchange between:
 - Outpatient providers and laboratories
 - Outpatient providers and pharmacies
 - Providers and providers
 - Providers and radiology centers
 - Providers and public health departments



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Feedback for the toolkit

- “It’s been a very tangible way for me to herd the evaluation team”
- “ With such great substance to it, it made my life much easier”
- “From a process point of view it was terrific “
- ”Toolkit very valuable”
- “Served as check list so we wouldn’t forget certain things”
- “Very good for me to stay on track and not forget things”



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The toolkits may be found at the following links:

- [Evaluation Toolkit](#)
- [Data Exchange Toolkit](#)
- [The National Resource Center for Health IT](#)

IT Project Evaluation

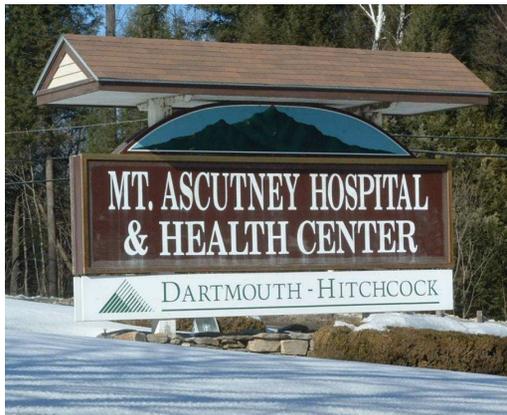
From Conception Through Implementation

C. Frederick Lord, M.D.

Chief Medical Officer,

Rural Health IT Corp. Inc.

Consultant, Mt. Ascutney Rural Health IT Consortium



The Beginning

- Evaluation begins with the planning process.
- A firm concept of what is to be accomplished is key.
- Is the problem to be solved, or the outcome to be achieved, amenable to an IT solution?
 - OR is the problem training, work flow, documentation-stuff that can't be fixed with a computer?!



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Goals of the IT Project

- Must consider several factors:
 - What functions will the system be required to perform?
 - What is missing from the milieu to make the task possible?
 - An application?
 - A data base?

Goals

- How will the new hardware/software make the performance of the task
 - Easier
 - Faster
 - More accurate
 - More thorough?

Consider:

- What needs to be done?
- How is it done now?
- What has to change to make converting the task to electronic format work in *this* milieu?
 - The application? OR
 - The Users? OR
 - BOTH
 - » People, processes, and technology direct the problem. If you can't identify which of these, if not all is the problem, even evaluation will not help you here.



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Some Truths:

- Trying to enhance, not *necessarily* change work process.
- **HOWEVER**, if the work process must be changed, the solution must support the change, **NOT** drive it.
- Software systems should support, not drive the work

For example

- Just because functionality exists does NOT mean you have to use it
 - Present forms and fields that must be completed that are not necessary .
 - Requires unnecessary work that curtails productivity and results in unhappy users.

First Evaluation Step

- Get consensus of the desired outcomes of the project
- Foster User buy-in
- Focus goals
- Give project some form- helps with project planning and evaluation planning.



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Results Summary

Show All Pages and Questions

Filter Results

To analyze a subset of your data, you can create one or more filters.

Total: 85
Visible: 85

Share Results

Your results can be shared with others, without giving access to your account.

Status: Disabled
Reports: None

2. Information

1. First Name:

<input type="button" value="View"/>	Total Respondents	79
	(skipped this question)	6

2. Last Name:

<input type="button" value="View"/>	Total Respondents	79
	(skipped this question)	6

3. Type of health care professional:

		Response Percent	Response Total
Physician		20%	17
Nurse Practitioner		4.7%	4
Physicians Assistant		4.7%	4
Nursing (RN, CMA, LPN)		40%	34
Administrative Support		2.4%	2
Technician		2.4%	2
<input type="button" value="View"/>	Other (please specify)	25.9%	22
Total Respondents			85
		(skipped this question)	0

15. I believe the use of electronic health information technologies will positively effect my relationship with patients.						
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Response Average
Rate:	1% (1)	2% (2)	34% (28)	45% (37)	17% (14)	3.74
Total Respondents						82
(skipped this question)						3

16. Why do you believe the electronic health information technologies will have this effect on your relationship with patients?		
View Total Respondents		67
(skipped this question)		18

11. Portal Elements

17. Please rate the following elements in order of importance (1 being most important and 8 being least important)										
	1 Important	2	3	4	5 Neutral	6	7	8 Least Important	N/A	Response Average
Ability to view clinical documentation (includes visit notes)	20% (16)	18% (14)	8% (6)	11% (9)	14% (11)	11% (9)	5% (4)	5% (4)	9% (7)	3.66
A link to allow documentation in Penchart	8% (6)	10% (8)	4% (3)	15% (12)	15% (12)	11% (9)	19% (15)	5% (4)	14% (11)	4.78
Ability to view discharge instructions	1% (1)	6% (5)	14% (11)	11% (9)	10% (8)	16% (13)	16% (13)	14% (11)	11% (9)	5.31
An easily readable chart	38% (30)	10% (8)	22% (18)	8% (6)	4% (3)	5% (4)	4% (3)	1% (1)	9% (7)	2.63
A link to create new prescriptions in Penchart	1% (1)	4% (3)	5% (4)	6% (5)	11% (9)	8% (6)	10% (8)	31% (25)	24% (19)	6.16
Medication History (prior medications)	12% (10)	14% (11)	16% (13)	15% (12)	5% (4)	12% (10)	11% (9)	1% (1)	12% (10)	3.86
Problem list	9% (7)	19% (15)	18% (14)	14% (11)	14% (11)	10% (8)	4% (3)	5% (4)	9% (7)	3.82
Encounter Summary	2% (2)	11% (9)	5% (4)	11% (9)	15% (12)	14% (11)	14% (11)	18% (14)	10% (8)	5.32
Total Respondents										80
(skipped this question)										5

18. Please feel free to use this space to comment as to why your top choices are important to you:		
View Total Respondents		41
(skipped this question)		44

12. Need for information

19. How quickly do you need access to clinical information in order for it to be useful?

		Response Percent	Response Total
Instantaneous		63.3%	50
Within one hour		16.5%	13
Within one day		11.4%	9
Within one week		1.3%	1
Any time is acceptable		7.6%	6
Total Respondents			79
(skipped this question)			6

20. What barriers presently exist to your adopting electronic clinical information technology?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A	Response Average
Unable to implement	9% (7)	35% (28)	18% (14)	6% (5)	4% (3)	28% (22)	2.46
Not enough time for training	6% (5)	19% (15)	22% (17)	27% (21)	11% (9)	15% (12)	3.21
Ongoing costs and staff time	8% (6)	20% (16)	24% (19)	13% (10)	10% (8)	25% (20)	2.97
Program is difficult to use	6% (5)	34% (27)	22% (17)	16% (13)	9% (7)	13% (10)	2.86
Unproven return on investment	13% (10)	20% (16)	29% (23)	3% (2)	5% (4)	30% (24)	2.53
Difficulty in changing workflow patterns	3% (2)	16% (13)	34% (27)	20% (16)	13% (10)	14% (11)	3.28
Concern over completeness and accuracy of records	3% (2)	27% (21)	20% (16)	28% (22)	8% (6)	15% (12)	3.13
Unable to rely on other practices and people to maintain patient data	4% (3)	15% (12)	23% (18)	30% (24)	11% (9)	16% (13)	3.36
Concern about Patient-privacy (e.g. HIPAA)	14% (11)	35% (28)	27% (21)	8% (6)	1% (1)	15% (12)	2.37
Support for product not readily available	6% (5)	32% (25)	25% (20)	10% (8)	8% (6)	19% (15)	2.77
Total Respondents							79
(skipped this question)							6

Open-Ended Results Detail

Filter Results

To analyze a subset of your data, you can create one or more filters.

Edit Filter...

Total: 85

Visible: 85

Share Results

Your results can be shared with others, without giving access to your account.

Configure...

Status: Disabled

Reports: None

Page Size: Show 50 per page

Displaying 1 - 29 of 29 << >> Go

Please provide any additional comments/concerns you have about the new clinical portal being developed at MAH in the space provided below.

1. I am anxious t learn more about it as this paper is the first I've heard of it. It sounds exciting and I hope to be able to learn it soon.
2. Note from Greg - Dr. White skipped question 20
3. Barriers are team working together.
4. The workgroup does not have any users from the clinic. (But not sure if this is the intent). Otherwise the program sounds great! Very exciting.
5. Note from Greg - Jean did not answer this section.
6. I am anticipating the portal will help improve use of the EMR. If it doesn't, we need to have a computer system meltdown party! Seriously, I think a portal is the best integration idea yet.
7. Looking forward to implementing, exciting for us.
8. I think integrating all the systems would improve our patient care and therew would be less duplication.
9. I hope it will do what we envision.
10. Note from Greg: User did not answer question #20
11. The support from Greg and Tim and all in the IT dept is great! The company's support is not.My neutral answers are mainly-I am not sure one-way-or-the-other yet.
12. The anesthesia department would like to adopt an electronic record system of our own and we are looking into buying a system for this. We would like to make sure that our system is compatible with the portal. We would welcome assistance in this venture.
13. I think Penchart is just plain poorly designed. It tries to think for us by providing templates. These templates actually reduce the quality of our notes and you never know fully what another provider really saw in a patient (versus just clicking normals in a template).
14. I have no opinion at this time, based on my job responsibilities.
15. I do think you loose the specifics in the tx session. To do a note quickly, you end up clicking a generic button that most likely leaves the note very nonspecific. It does take time to document in Penchart because unless you have a laptop, you cant do documentation while youre treating the pt. As I referenced before, Im hesitant with typing as Im trying to make a connection with the pt.
16. the only electronic access we currently have at the nursing home is the front office pen chart to contact the doctors which i like very much, we have no access to charts or ability to chart in charts etc.
17. would have to know more about system
18. Would like admissions/Er computers to talk to the clinic's computers. This way if one makes a correction then the other systems get updated.
19. Should help greatly linking present electronic records.
20. Anyone can learn if they want to.
21. I think it will be an improvment
22. None at present
23. We should just have one universal program that would give each department what they need. More than one person could have current access to the pts record. If we must have more than one program then the programs should talk to each other.

Ongoing Project

- Process Evaluation
 - Allows monitoring of progress of implementation
 - Allows troubleshooting of “glitches” and identification of possible pitfalls
- Outcome evaluation
 - Did you do what you set out to do?
 - How did you do with that?
 - How are you going to measure?
 - Leikert scale,
 - qualitative vs. quantitative,
 - how to analyze.



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Mt. Ascutney Consortium

- Statement of Purpose- what's the point?
- Goals- general
- Measurement of Impact- the effect on specific areas
- Chose metrics
 - Define what to measure.
 - Determine relative importance of each measure to the stakeholders

AHRQ National Resource Center- Knowledge Library

- www.ahrq.gov Knowledge library, search for “evaluation plans”
- http://healthit.ahrq.gov/portal/server.pt/gateway/PTARGS_0_3882_81659_0_0_18/AHRQ%20NRC%20Evaluation%20Toolkit.pdf

Goals

- II. GOALS OF THE PROJECT
- Anywhere, anytime provider access to medical records and information
- Portability to numerous common devices and interfaces
- Ultimate reduction in overall costs, by obviating the need for couriers, fax, and other methods of transfer of paper records
- Enhanced collaboration with healthcare organizations, government agencies, payers and other third parties
- Medication tracking and electronic ordering to address medication errors and attendant adverse drug reactions/errors (ADE)
- Reduce information-related errors in treatment and overall care
- Creation of a framework to allow for the installation of future technologies and addendums to the Electronic Health Record
- Creation of a system which can be scaled up and duplicated repeatedly in other places, so that other partners may be added
- HIPAA compliance and dependable security of patient records
- Creation of a stringent, dependable back-up, disaster-recovery system
- Improved rates of clinician adoption, because clinicians can go to a single place to get all relevant information on a patient, rather than having to open multiple applications
- Time savings to clinicians as the portal's unified, "single-view" environment integrates and displays clinical data derived from multiple systems around the organization
- Clinicians will be able to view, update and add new data to multiple systems and applications from within a single user interface
- A comprehensive view of patient status and medical history can be gained from within one window, allowing for improved and timely clinical decisions



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Goals of the evaluation

- Quantitative Measures
 - Technical impact
 - Human Impact
 - Business case
- Determine Qualitative measures



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Technical Impact

- Data availability in all/potential systems to be accessed
- Data from all systems are accurately displayed.
- Data in all systems are accurately synchronized.
- Data in all systems are synchronized and displayed in a timely manner.
- Data synchronized and displayed in the portal are the correct data for the needs of the providers and patients in the formation of an Electronic Health Record (EHR).
- Data remains secure in legacy systems and is secure in portal solution.
- Single Sign On feature translates to legacy systems to reduce number of passwords to be managed by providers.
- Data is available from remote locations and remains secure from those locations.



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Human Impact

- Provider adoption
- Provider Usability
- Quality of images (Radiology)
- Provider Satisfaction
- Patient Satisfaction
- Reduced time in waiting room
- More provider/patient interaction
- Reductions in adverse drug events by having accurate medication and allergy information available at the point of care.
- Visit cycle time.



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Business Case

- Reduction in duplication of patient registration in multiple systems during a visit.
- Reduced provider time on task
- Reduction in travel by remotely located Radiologist group
- Elimination vendors to program/maintain interfaces).
- Reduction in time on task for manually scanning records from legacy systems into other existing systems.
- Reduced delays in billing because of notes remaining uncompleted awaiting additional documentation (scanned docs; rad reports, advanced directives, etc).

Evaluation Metrics Technological Impacts – Goals

- 1) Goal: Data that is available in other internal and external systems that stores patient data across the continuum of care can be accessed, synchronized and displayed in the EHR Portal as part of the patient record. Measure: Available data/accessible data, and makes sense to use.
- 2) Goal: Data from other systems being accessed are displayed accurately. Measure: Displayed data = Accessed data.
- 3) Goal: Data in all systems are accurately synchronized. Measure: Synchronized data = disparate system data and Synchronized data = displayed data.
- 4) Goal: Data in all systems are synchronized and displayed in a timely manner. Measure: Length of time to display data from back-end queries that provide data to the portal.
- 5) Goal: Data synchronized and displayed in the portal are the correct data for the needs of the providers and patients in the formation of an Electronic Health Record (EHR). Measure: Data provided = Data needs of the providers.
- 6) Goal: Data remains secure in legacy systems and is secure in portal solution. Measure: System is secure and HIPAA compliant internally and remotely.
- 7) Goal: Single Sign On feature translates to legacy systems to reduce number of passwords to be managed by providers. Measure: Number of systems that cannot be accessed using single-sign on and must be launched individually from the portal/Number of systems providers access to provide care.
- 8) Goal: Data is available from remote locations. Measure: Number of failed attempts to review patient records via the portal/Number of valid attempts.

Metrics-Human Impacts –

- 9) Goal: Provider adoption. Measure: Number of providers using the system/total number of providers treating patients.
- 10) Goal: Provider Usability. Measure: Data flow in portal/How providers want data flow configured to their specifications.
- 11) Goal: High quality of images (Radiology). Measure: Number of usable images/Number of images transmitted to portal.
- 12) Goal: Provider Satisfaction with tools. Measure: Likert scale of satisfaction with technology to assist with patient care decision making. (Balanced Scorecard survey and baseline measures in place outside of project).
- 13) Goal: Patient Satisfaction with provider encounters. Measure: Likert scale of satisfaction with visit experience. Measure: Likert scale of satisfaction with visit. (Press-Ganey survey and baseline measures currently in place outside of project for inpatient visits, In-house survey and baseline measures currently in place outside of project for outpatient clinic visits as part of IHI Access and Efficiency project)
- 14) Goal: Reduced time in waiting room for patients. Measure: Cycle time from check-in to completion of patient visit.
- 15) Goal: Reductions in adverse drug events causing subsequent admissions by having accurate medication and allergy information available at the point of care. Measure: Medication interaction and allergy admissions from undocumented conditions/All Medication interaction and allergy admissions.
- 16) Goal: Adequate provider training on the use of the portal tools. Measures:
 - Total Staff
 - Estimated Duration vs. Actual Duration
 - Number of attendees - Estimated vs. Actual
 - Percent of total attended
 - Percent of estimated attended



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Metrics- Business Case

- 17. Goal: Reduction in duplication of patient registration in multiple systems during a visit. Measure: Number of actual patient registrations in systems/number of department encounters.
- 18. Goal: Reduced provider time on task. Measure: Time spent looking up records/time available for appointments.
- 19. Goal: Reduction in travel by remotely located Radiologist group. Measure: Pre-implementation miles traveled vs. post implementation miles traveled. Currently, remote radiology group travels an average of 110 miles per day to complete studies at 4 served locations.
- 20) Goal: Elimination of duplicate costs for multiple interfaces (elimination of reliance on vendors to program/maintain interfaces). Measure: Cost reduction. Current interface programming from existing vendors for CPSI and Amicore average \$16,000.00 for sending and receiving ends of interface. Potential is for billing interface to be programmed from Penchart to Clinical billing system (Medical Manager). Emergency department has requested lab interface between CPSI and their ED application, Codonix. Cost is \$10,500.00 on CPSI end and \$35,000.00 for Codonix programming. PACS Radiology Information System and Demographic interface programming cost is \$25,000.00. Initial first year savings from committed-to interfaces is \$86,500.00 by programming these interfaces with existing staff using the Orion vendor tools set.
- 21) Goal: Reduced delays in billing because of notes remaining uncompleted awaiting additional documentation (scanned docs; rad reports, advanced directives, etc). Measure: Delays in billing that have negative impact on cash flow result from uncompleted notes. Delay in note completion results from time awaiting additional results, scanned documents, or radiology reports to document within the visit. Average number of days to complete a note for billing pre-implementation vs. Average number of days to complete a note for billing post-implementation.



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QUALITATIVE METRICS

- Past provider statements at Mt. Ascutney Hospital that could be potentially impacted by project.
- Emergency Department Doctor: “We do not access the medication lists in Penchart because they are found to be inaccurate.”
- Clinic Doctor. “Most clinic physicians do not access the patient’s electronic chart in Penchart because it is too time consuming. They do not access data in the inpatient CPSI system because it is too difficult to learn”.
- Clinic Doctor: “The existing electronic communication systems are not efficient and available to all providers that need the documentation”.
- Clinic Doctor: “I run behind on my visits because I am waiting for documentation to be gathered from other systems. These include order results and other reports.”
- Clinic Doctor: “The system does not display information that is easily identified from past visits, I have to spend too much time searching”.
- Clinic Manager: “The built-in canned reports are not comprehensive enough to assist with decision making and I need a programmer to get me the data.”
- **IMPORTANT TO CONSIDER. THEMATIC ANALYSIS WILL IDENTIFY COMMON THEMES.**

GRADE METRICS IN ORDER OF IMPORTANCE TO STAKEHOLDERS

- Very Important: 1, 2, 3, 5, 6, 10, 12, 13, 14, 15, 20
- Moderately Important: 4, 9, 11, 16, 17, 18, 19, 21
- Not Important: 7, 8

DETERMINE WHICH MEASUREMENTS ARE FEASIBLE

- Feasible: 1, 2, 3, 5, 6, 7, 8, 9, 10, 16, 20, 21
- Moderate Effort: 4, 11, 12, 13, 14, 17, 18, 19
- Not feasible: 15

Chose your battle

Green = do it; Yellow= do it after the green in # order
 Red= forget it

	Feasible	Moderate Effort	Not Feasible
Very Important	1, 2, 3, 5, 6, 10, 20	12, 13, 14	15
Moderately important	9, 16, 21	11, 17, 18, 19	
Not important	7,8		



Reasonableness

- ***People who draft your plan should be knowledgeable about what is feasible and what is not.***
- ***Goals and objectives, and the measurements used, must be realistic.***

Probably not.....

- **Proposed goal for the 1st quarter:**
“Regular clinician information and training sessions will begin throughout the Consortium.”

- **Response from a team member:**

“J.,

Just at first blush, this is impossible and “C.” will know it...so will “Dr. M”. This is a whole project just by itself... I know this is a goal that needs to be pursued and I agree with it, but for practical and logistical reasons, I think this ought to be moved WAY down the list, and stretched over multiple quarters. Otherwise, anyone who reads this (who knows anything) is going to think we’ve been into the mushrooms- again...



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Draft Plan

Around each metric

- *Overview-general considerations*
- *Time Frame*
- *Study Design/ Comparison group*
- *Data Collection Plan*
- *Analysis plan*
- *Power/Sample size Calculations*

Thank you

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Questions & Answers

Our Panel

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Thank You for Attending

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