

CONTINUING THE JOURNEY: SKILL DEVELOPMENT FOR IMPLEMENTATION, EVALUATION & SUSTAINABILITY

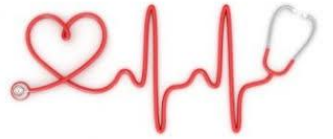
BONNIE LAUDER, MIS, RN, PMHNP,
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Transforming Health Care through Evidence Based
Practice: Practical Skills Workshop
Center for Nursing at the Foundation of NYS Nurses
2113 Western Ave, Guilderland, NY 12084
Wednesday, June 20, 2018 1:30-4:30 pm



PRESENTER DISCLOSURES



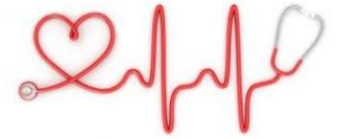
- BONNIE LAUDER, MIS, RN
- YVONNE JOHNSTON, DRPH, MS, FNP

The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

“NO RELATIONSHIPS TO DISCLOSE”



SESSION OBJECTIVES

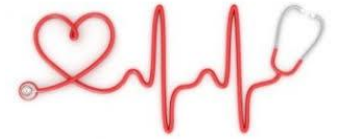


GOAL: *Building on a foundational knowledge, participants will increase their knowledge, skills and confidence in using EBP tools to develop implementation, evaluation and sustainability plans.*

- Develop an implementation plan for an evidence based practice change designed to improve processes and patient outcomes.
- Construct an evaluation plan that includes process and outcome measures for an evidence based practice change.
- Identify strategies for sustaining an evidence based practice change within a healthcare organization.



EBP COMPETENCES FOR NURSES

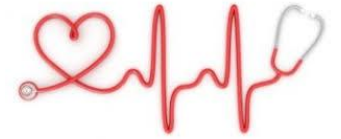


1. Collects practice data (e.g., individual patient data, quality improvement data) systematically as internal evidence for clinical decision making in the care of individuals, groups, and populations.
2. Integrates evidence gathered from external and internal sources in order to plan evidence-based practice changes.
3. Implements practice changes based on evidence and clinical expertise and patient preferences to improve care processes and patient outcomes.
4. Evaluates outcomes of evidence-based decisions and practice changes for individuals, groups, and populations to determine best practices.
5. Disseminates best practices supported by evidence to improve quality of care and patient outcomes.
6. Participates in strategies to sustain an evidence-based practice culture.

FROM: Melnyk, B. M., Gallagher-Ford, L., Long, L. E., & Fineout-Overholt, E. (2014). The establishment of evidence-based practice competencies for practicing registered nurses and advanced practice nurses in real-world clinical settings: Proficiencies to improve healthcare quality, reliability, patient outcomes, and costs. *Worldviews on Evidence-Based Nursing*, 11(1), 5-15.

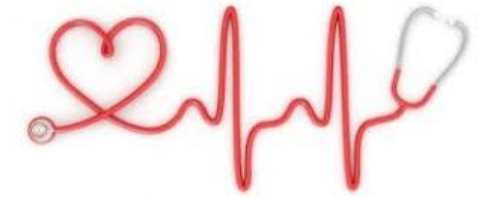


EBP KNOWLEDGE & PRACTICE GAP



- A recent study by Melnyk et al. (2018) revealed that nurses across the United States do not feel competent in evidence based practice (EBP).
- Nurses' self-rating of their EBP competencies related to implementation, evaluation, and sustainability indicated a need for skill improvement.
- While having knowledge of EBP processes is a necessary attribute, it is not sufficient for acquisition of competency.
- Skill building in mentored environments is needed for nurses to develop confidence their EBP abilities.

Melnyk, B. M., Gallagher-Ford, L., Zellefrow, C., Tucker, S., Thomas, B., Sinnott, L. T., & Tan, A. (2018). The first U. S. study on nurses' evidence-based practice competencies indicates major deficits that threaten healthcare quality, safety, and patient outcomes. *Worldviews on Evidence-Based Nursing*, 15(1), 16-25.



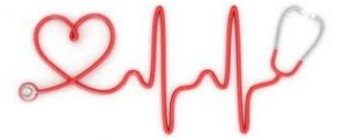
DESIGNING AN IMPLEMENTATION PLAN

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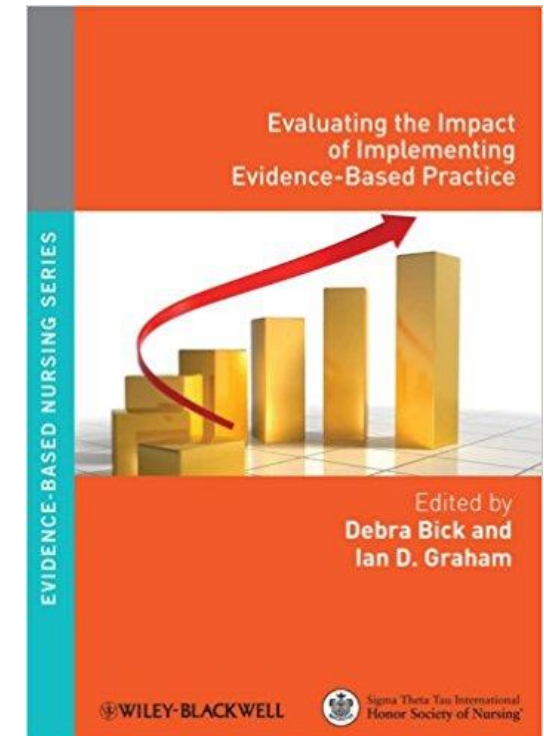
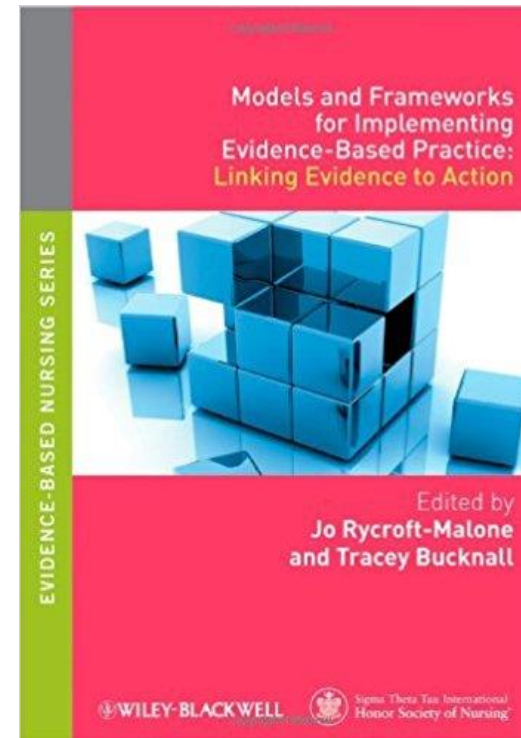
MODELS & FRAMEWORKS FOR IMPLEMENTING & EVALUATING EBP



- Stetler Model
- The Ottawa Model of Research Use
- Promoting Action on Research Implementation in Health Services (PARIHS)
- Iowa Model of Evidence-Based Practice
- Dissemination and Use of Research Evidence for Policy and Practice (Dobbins)
- Advancing Research and Clinical practice through Close Collaboration (ARCC)
- The Joanna Briggs Institute Model
- Knowledge to Action Framework

GREAT RESOURCE:

Schaffer, M. A., Sandau, K. E., & Diedrick, L. (2013). Evidence-based practice models for organizational change: Overview and practical applications. *Journal of Advanced Nursing*, 69(5), 1197-1209.

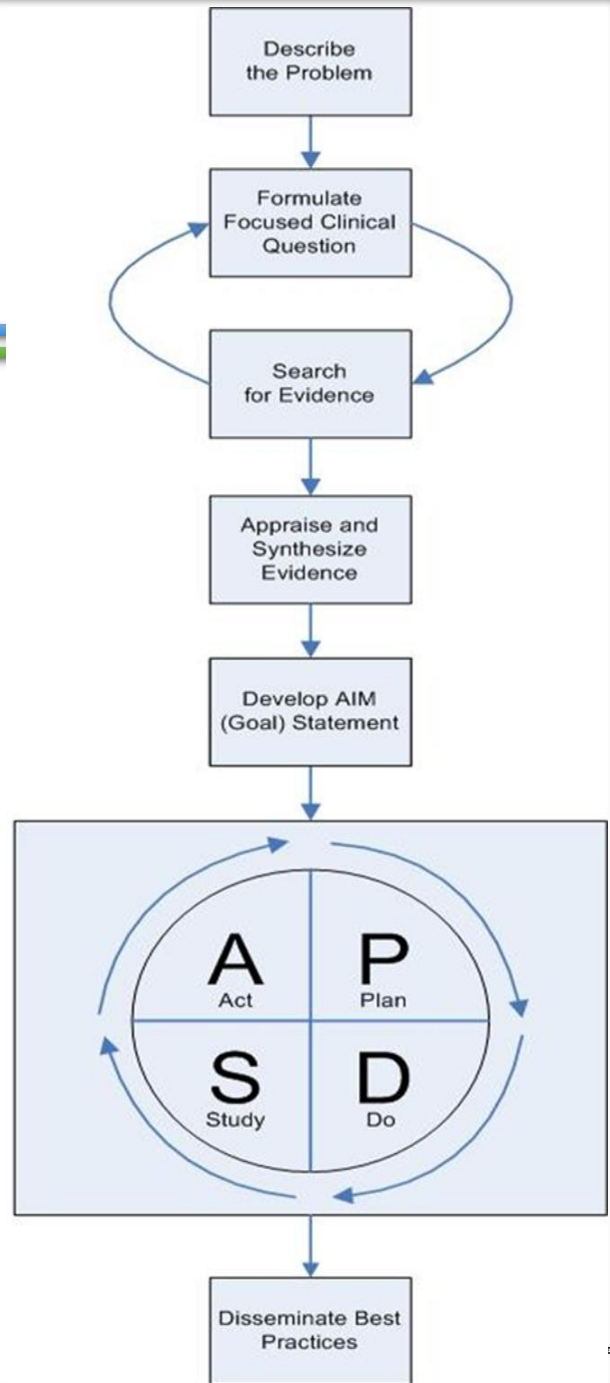




EBP PRACTICE IMPROVEMENT MODEL

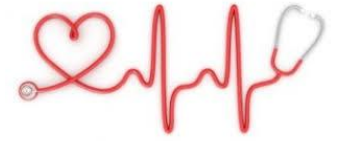


Evidence-Based
Practice
Improvement
Model

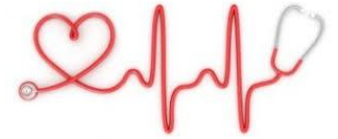


Levin, R. F., Keefer, J. M., Marren, J., Vetter, M., Lauder, B., & Sobolewski, S. (2010). Evidence-based practice improvement: Merging 2 paradigms. *Journal of Nursing Care Quality*, 25(2), 117-126.

FACTORS INFLUENCING SUCCESS OF EBP IMPLEMENTATION



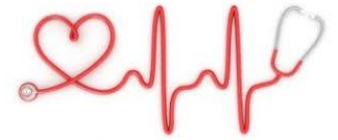
EVIDENCE: NATURE OF INNOVATION/EBP



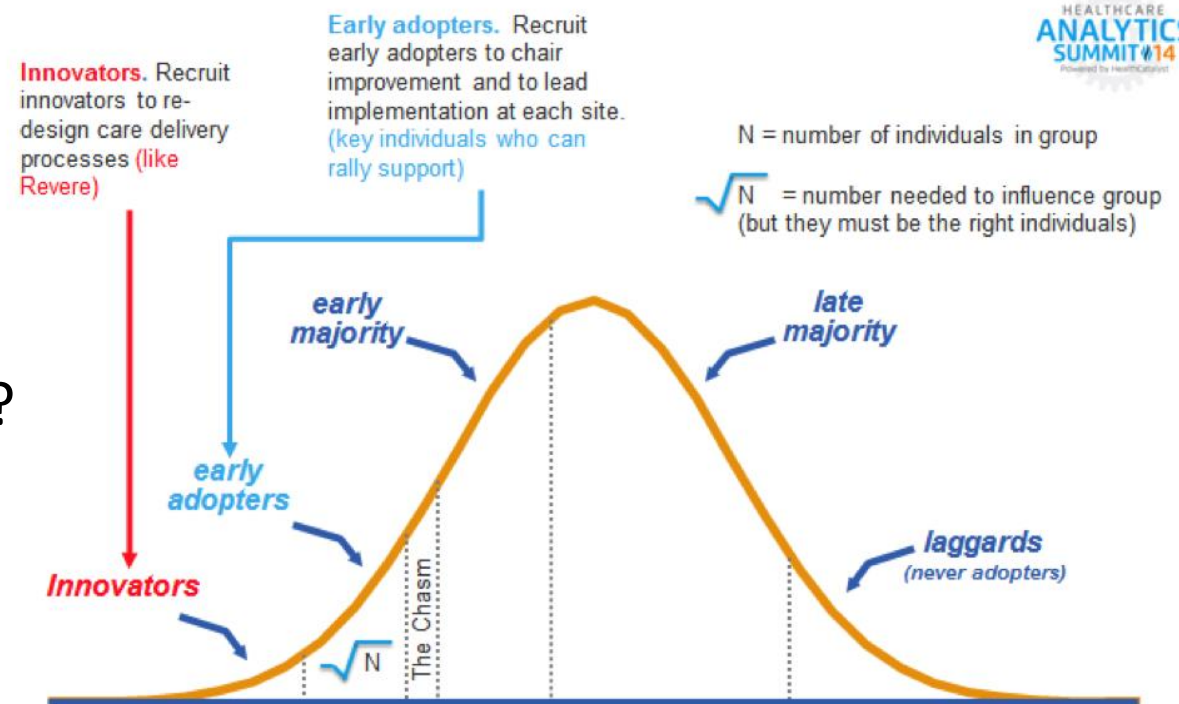
- Strength, quality and consistency of the research evidence
- Volume of evidence
 - Quantitative / Quality / Expert Opinion
 - Systematic review / Meta Analysis / Meta Synthesis
 - Clinical Practice Guideline based on RCTs
 - Change tool kits
- Advantage of the EBP
 - Is it effective?
 - Is it relevant?
 - Does it offer social, economic prestige?
- Compatibility with values, norms and perceived needs of users
 - Have others used it successfully?
 - Can the change be piloted?
- Complexity of the change
 - Stakeholder buy - in
 - Does it need adaptation to the local practice setting?



THE INDIVIDUAL CLINICIAN



- Level of skills related to EBP
- EBP beliefs, views on innovation, critical thinking ability
- Views regarding data about quality gaps demonstrated on audit? Valid? Timely? Comparison to benchmark? Individualized?
- Personality traits
 - What motivates them? Internal or External factors?
 - What is the preferred learning style?
 - How important is the change? Will patient care improve?

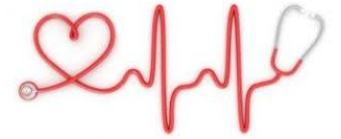


HEALTHCARE
ANALYTICS
SUMMIT #14
Powered by Health Catalyst

* Adapted from Rogers, E. *Diffusion of Innovations*. New York, NY: 1995.



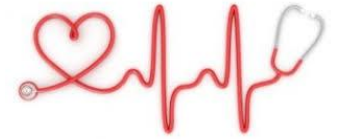
CONTEXT: SOCIAL SYSTEM



- Availability of resources (human, financial, technology and data management systems)
- Organizational size
 - Large, mature, functionally differentiated by specialty
 - Decentralized decision making
- Absorptive capacity
 - Learning culture, clear strategic vision, good managerial relations with EBP implementation integrated in role expectations
- Leadership support in providing time, materials and resources for inter-professional teams



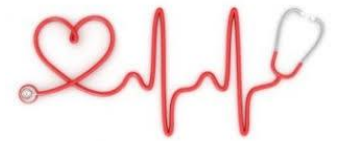
PATIENTS



- Involvement of patients and families improve success
- How can EBP team hear the voice of the patient?
 - Ask and listen to these key Stakeholders
 - Patient representatives
 - Patient advocates
 - Interviews and focus groups
 - Qualitative studies related to the EBP
- Respect of values and preferences



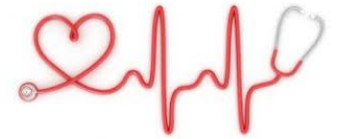
ADOPTION



- Clinician review and “reinvention” of an EBP to fit local context
- Availability of quick reference guides, decision aids and clinical reminders
- Opportunity for intended users of the EBP to interact with and understand the implications of practice change in their own context
- Computerized clinical decision supports and prompts
- Rate of change specific to environment, small tests of change before dissemination



STAKEHOLDERS



Quality Improvement

- Captured as a contribution to totality of QI works
- Project focus is not an urgent issue

Education & Training

- Prepared to assist with didactic or eLearning
- Creation of protocols, policies, procedures

Informatics

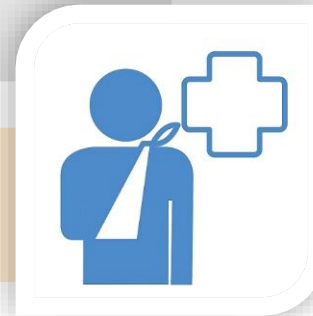
- Data analytics for reporting
- Electronic medical record customization

Financial Planning

- Analysis to account for costs and potential savings
- Budgeting to maintain long-term infrastructure

Frontline Managers Interprofessional Staff

- Validate realistic workflows
- Ensure adoption of change: Champions
- Willing to integrate improvements in practice



Administrators / Executive Leadership

Insurers – Private & Governmental

Allied Healthcare Providers

Laboratory & Diagnostic Services

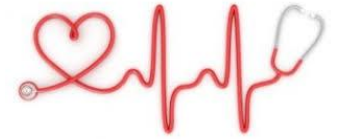
Legal Counsel

Medical Suppliers

Governing/Financial Bodies



ARE YOU READY FOR EBP?



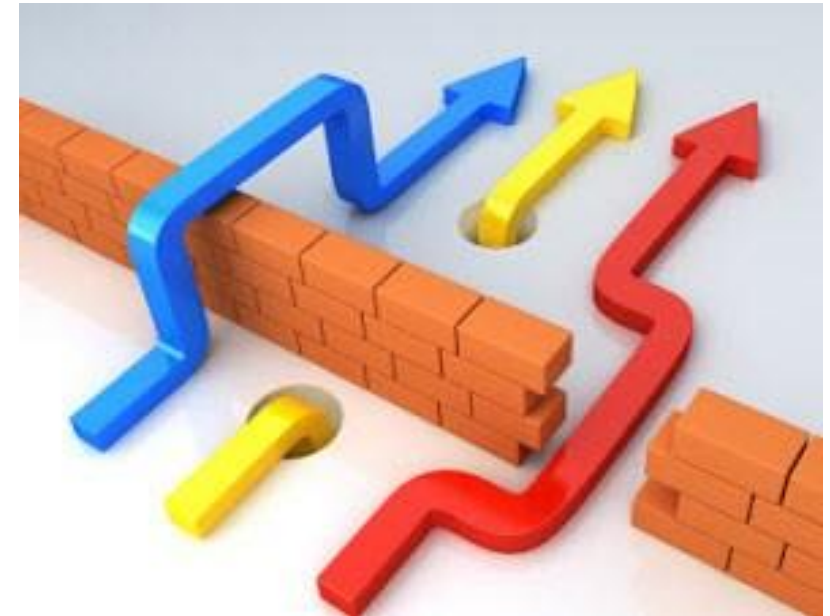
- Identify a problem focused or knowledge focused topic:
 - Organizational priority
 - Magnitude of the problem
 - Health system areas affected
 - Likelihood that change will improve clinical / financial outcomes
 - Availability of internal data and external evidence
 - Level of interest and commitment



HOW WILL YOU OVERCOME BARRIERS?

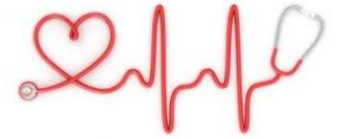


- Compliance burden
- EMR documentation limitations
- Resources availability
- Unstable infrastructure
- Availability of clinical outcome data/
clinician outcomes
- Clinician skill, knowledge and behaviors
 - Unaware of knowledge
 - Does not agree with evidence/feasibility
 - We already do that
 - It take 26 tries to own a skill
- Patient Preferences and Motivation





WHO IS ON YOUR *INTERPROFESSIONAL* TEAM?

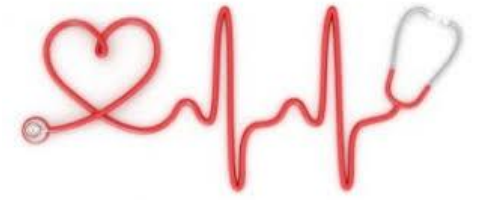


- Team
 - Stakeholders
 - Decision Makers
 - Formal and Informal Leaders

- Search for, grade, and synthesize the evidence

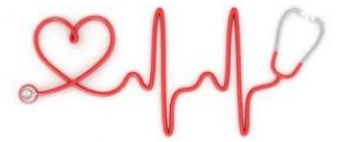
- **COMMUNICATION** to secure resource allocation



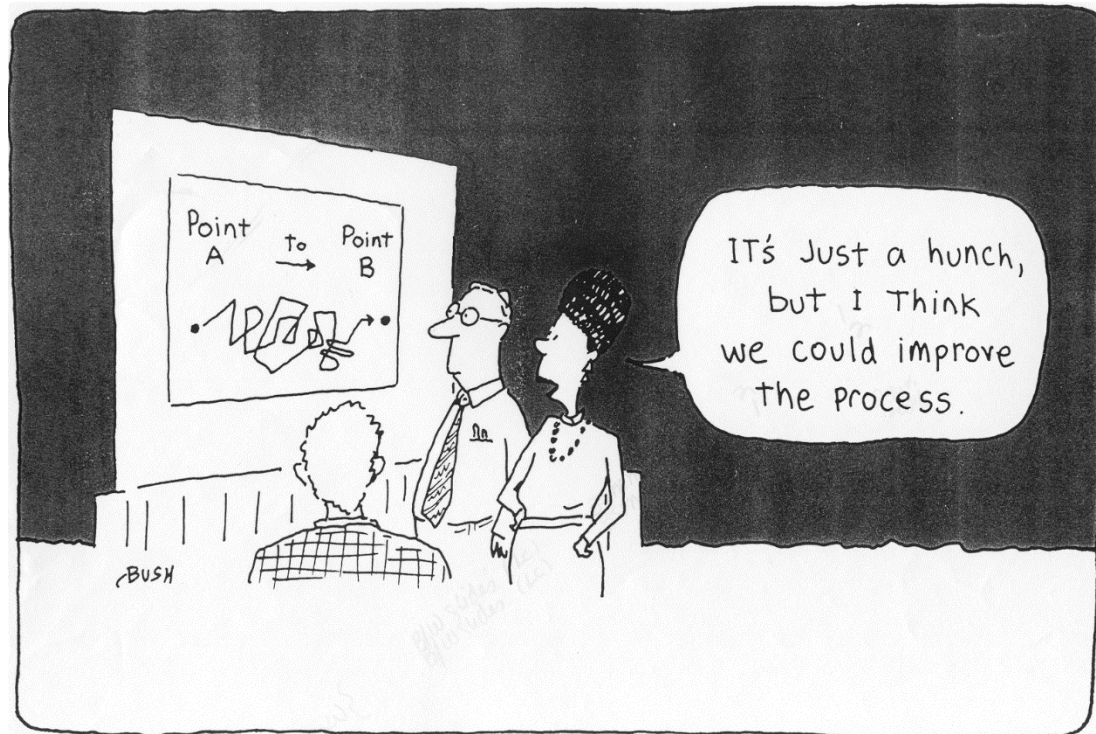


GAP ANALYSIS

- Gap Analysis: Methods and Principles
- How to apply a Gap Analysis to a Performance Improvement Project



CLINICAL PRACTICE IMPROVEMENT



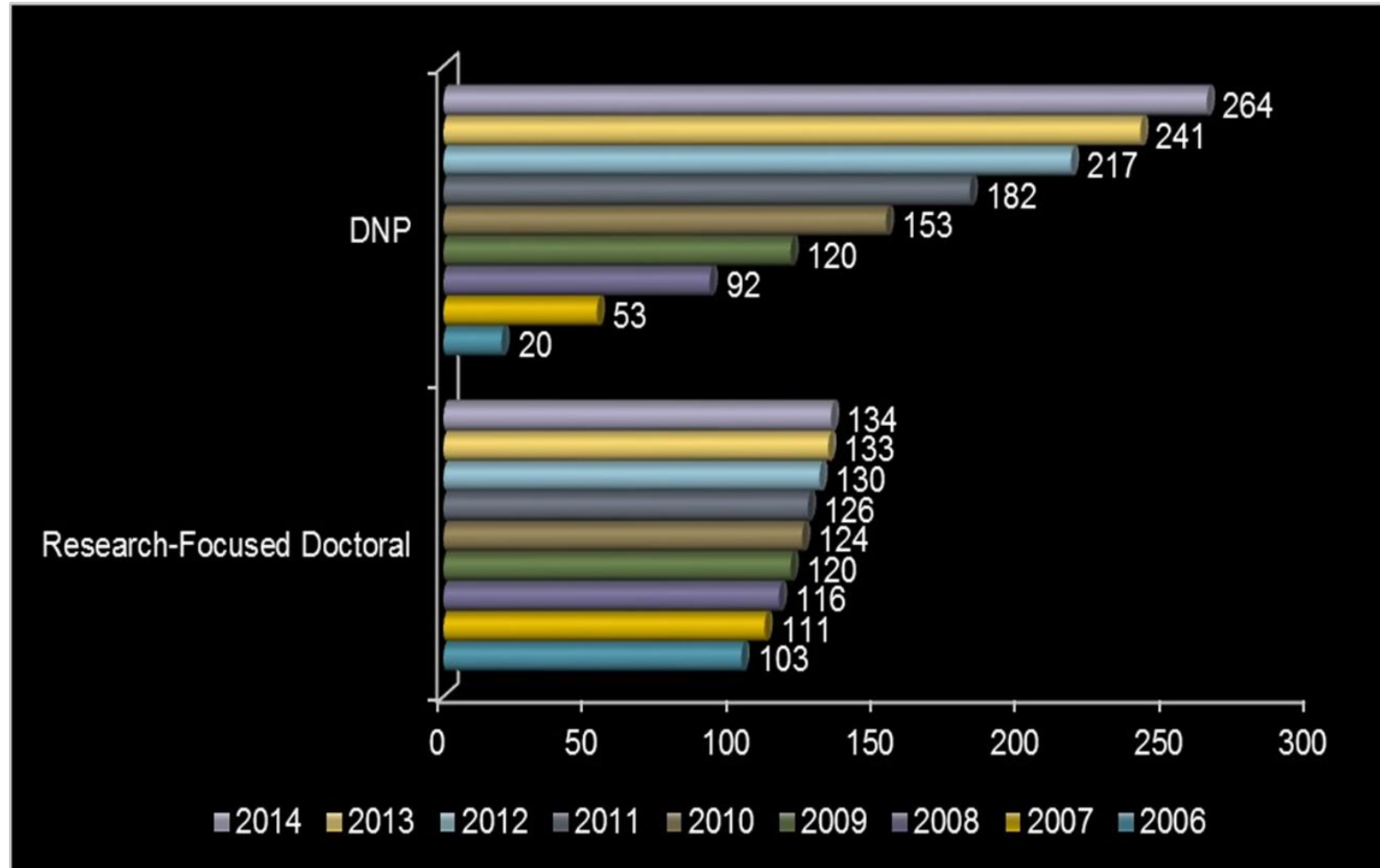
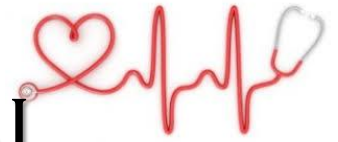
It takes an estimated 17 years for research evidence to be integrated into clinical practice at a 50% use for the relevant population.

Westfall, J. M., Mold, J., & Fagnan, L. (2007). Practice-based research—"Blue Highways" on the NIH roadmap. *JAMA*, 297(4), 403-406. doi:10.1001/jama.297.4.403

Morris, Z. S., Wooding, S., & Grant, J. (2011). The answer is 17 years, what is the question: Understanding time lags in translational research. *Journal of the Royal Society of Medicine*, 104(12), 510-520. doi:10.1258/jrsm.2011.110180

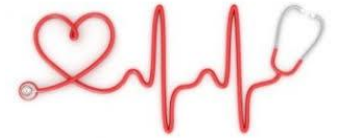


GROWTH IN PRACTICE- AND RESEARCH-FOCUSED DOCTORAL PROGRAMS: 2006-2014





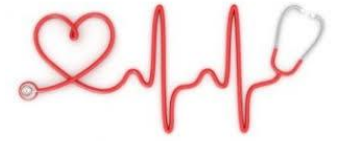
CONTINUOUS QUALITY IMPROVEMENT



- Increase quality and decrease cost by
 - Increasing skills and evidence-based knowledge
 - Incorporating evidence-based practices into current processes to improve outcomes
 - Making current processes more efficient and effective by removing redundant rework and standardizing workflows
 - Creating innovation by re-designing processes and building new models of care

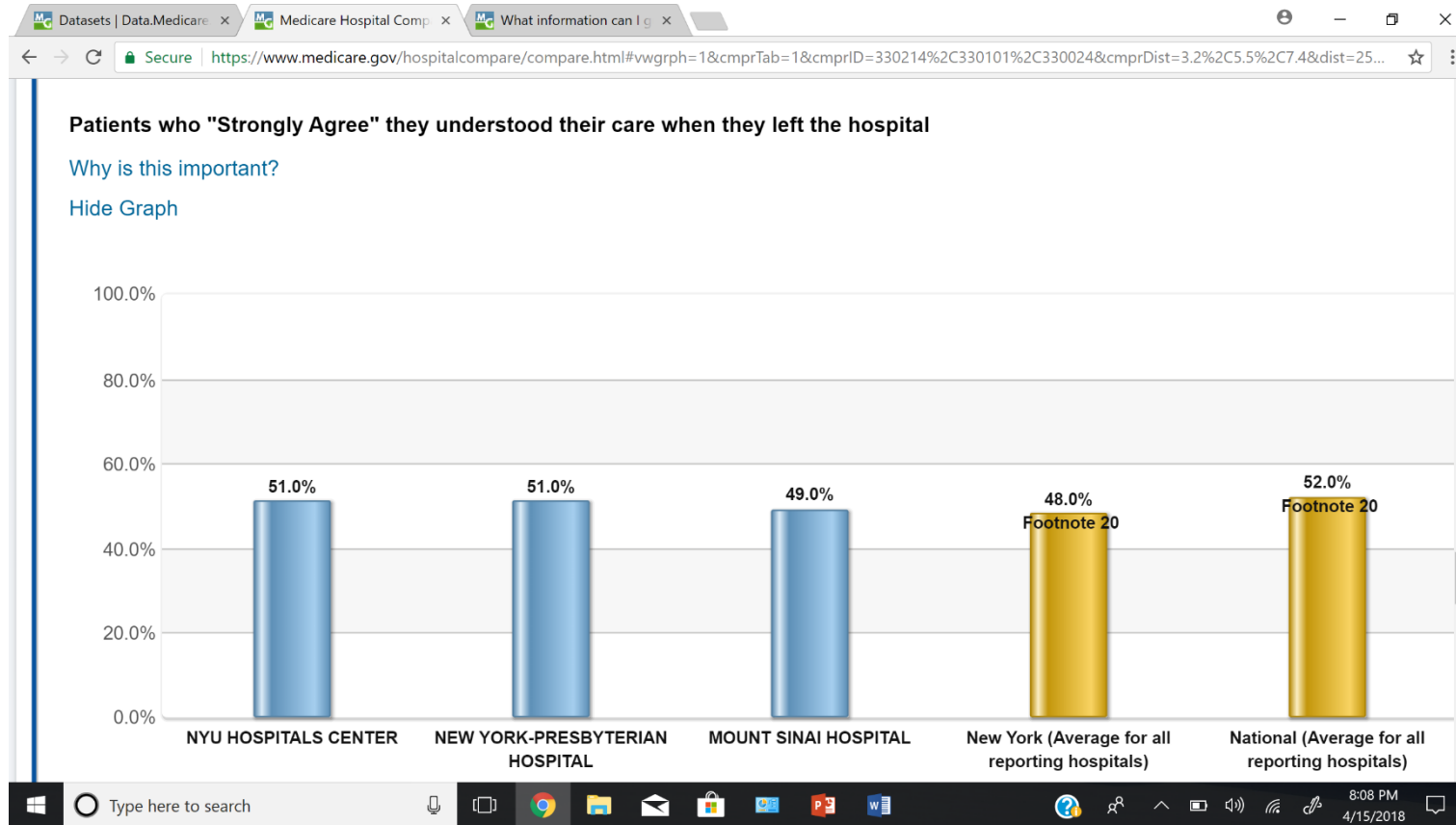
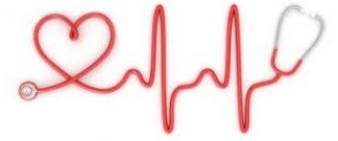


PERFORMANCE SOURCES

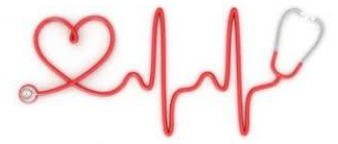


- Available information on your performance
 - State and National Benchmarking
 - Regulatory audits and surveys
 - Organizational Scorecards
 - Staff
 - Customer

HOSPITAL DISCHARGES - BENCHMARKING



HOME HEALTH CARE - BENCHMARKING



Medicare Home Health Agency Comparison - Windows Internet Explorer provided by Visiting Nurse Service of New York

http://www.medicare.gov/homehealthcompare/compare.aspx?loc=10001&aids=337243,337280,337008&SelectedIds=GIRLI...

File Edit View Favorites Tools Help Convert Select Snagit

Medicare Home Health Agency Comparison

Preventing Harm

VNS OF NY HOME CARE CHHA (212) 609-1500	GIRLING HEALTH CARE OF NEW YORK INC CHHA (718) 748-7447	VILLAGECARE CERTIFIED HOME HEALTH AGENCY 2 (212) 337-5611	NEW YORK AVERAGE	NATIONAL AVERAGE
How often the home health team began their patients' care in a timely manner.				
94%	92%	97%	93%	89%
How often the home health team taught patients (or their family caregivers) about their drugs.				
81%	80%	89%	85%	87%
How often patients got better at taking their drugs correctly by mouth.				
47%	28%	53%	45%	46%
How often the home health team checked patients' risk of falling.				
97%	96%	95%	92%	94%
How often the home health team checked patients for depression.				
97%	85%	87%	96%	96%
How often the home health team determined whether patients received a flu shot for the current flu season.				
60%	47%	57%	64%	66%

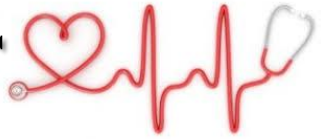
Done Internet 100%

Start Microsoft PowerPoint - [...] Medicare Home Healt...

6:19 PM



OUTCOME AND ASSESSMENT INFORMATION SET (OASIS)



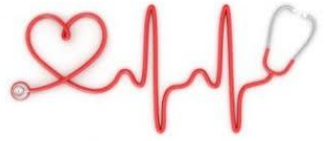
(M0780) Management of Oral Medications: Patient's ability to prepare and take all oral medications reliably and safely, including administration of the correct dosage at the appropriate times/intervals. Excludes injectable and IV medications. (NOTE: This refers to ability, not compliance or willingness.)

Prior Current

- | | | |
|-------------------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 0 - Able to independently take the correct oral medication(s) and proper dosage(s) at correct times. |
| <input type="checkbox"/> | <input type="checkbox"/> | 1 - Able to take medication(s) at the correct times if:
(a) individual dosages are prepared in advance by another person; <u>OR</u>
(b) given daily reminders; <u>OR</u>
(c) someone develops a drug diary or chart. |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2 - <u>Unable</u> to take medication unless administered by someone else. |
| <input type="checkbox"/> | <input type="checkbox"/> | NA - No oral medications prescribed. |
| <input type="checkbox"/> | | UK - Unknown |

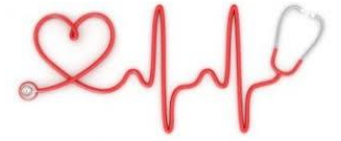


DESCRIBE PROBLEM



At discharge, 47% of the long term home health patient population, improved in managing oral medication

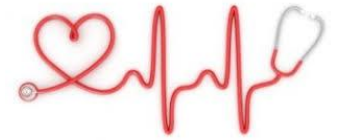
GAP ANALYSIS IN CLINICAL PRACTICE



- **Flowchart Current Practice**
- Ask “**Why**” something is happening
- **Perform Fish Bone Analysis:** Builds a theory of cause and effect
- **Clinical Question:** What does the evidence in the literature document as best practice?
- Develop **Recommended Practice Flowchart** by Integrating Best Practices into Current Flowchart



PROCESS DEFINITION



- If you can't describe what you are doing as a process, you don't know what you are doing. ~ W. Edward Demings (1900 – 1993)

Process - A series of work activities which transform inputs into outputs for the benefit of someone.

System – Multiple processes

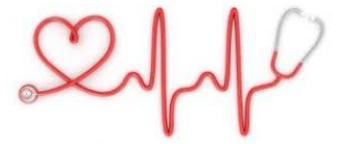


Input

Throughput

Output

CONSTRUCTING A FLOWCHART DIAGRAM

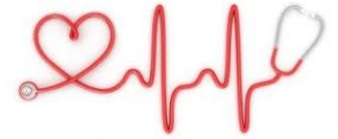





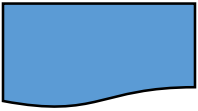
- **Step 1:** Brainstorm the activities
- **Step 2:** Determine the frame or boundaries of the process (scope and roles)
- **Step 3:** Determine the steps
- **Step 4:** Sequence the steps
- **Step 5:** Draw the Flowchart using the appropriate symbols
- **Step 6:** Test the Flowchart for completeness
- **Step 7:** Finalize the Flowchart





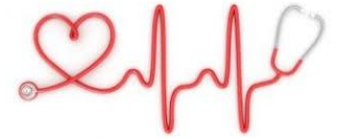
FLOWCHART SYMBOLS


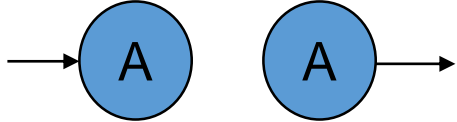




SYMBOL	REPRESENTS	DETAIL/EXAMPLE
	Start/End Input/output	Request for proposal, request for new hire, raw material
	Task, action, execution point (process)	Hold a meeting, make a phone call, open a box
	Decision Points	Yes/No Accept/Reject Criteria Met/Not Met
	Document	A report or form is filled out, job request, meeting minutes



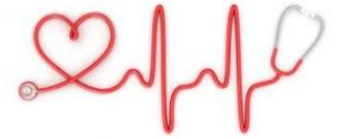
FLOWCHART SYMBOLS



SYMBOL	REPRESENTS	DETAIL/EXAMPLE
	Arrow	Shows direction
	Continuation	Go to another page, go to another part of the chart
	Delay	Waiting for service, report sitting on desk
	Shadow signifies additional flowchart for this task	A major task has subtasks not needed for this study



TYPES OF FLOWCHARTS



■ Macro Flowchart

- Shows only sufficient information to understand the general overall process steps.

■ Top –Down Flowchart

- Pictures major steps in a work process. It minimizes the detail to focus only on the essential steps.

■ Deployment Flowchart

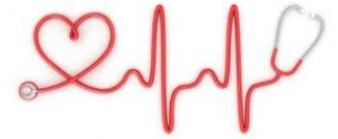
- Shows people or department responsibility and the flow of the process steps or tasks they are assigned with decisions indicated.

■ Workflow Flowchart

- Shows the flow of people, materials, paperwork and machinery within a work setting. When redundancies, duplications and unnecessary complexity are identified, people take action to eliminate these problems

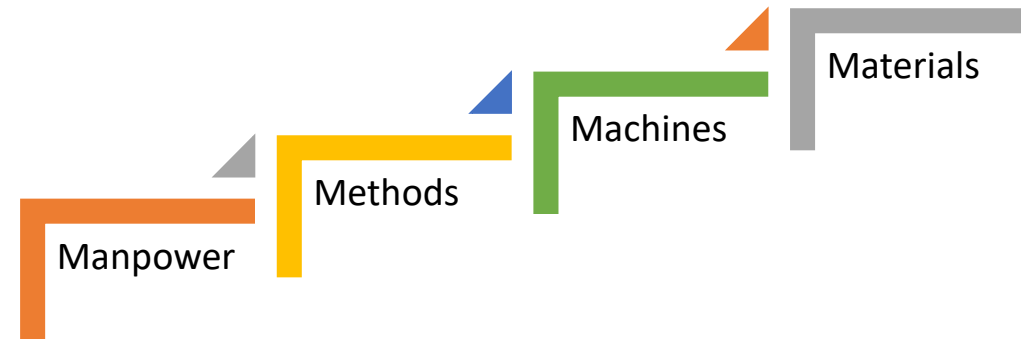


ROOT CAUSES OF ORGANIZATIONAL PROBLEMS



- Organizations are comprised of:

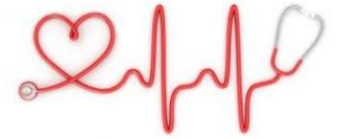
- People (Manpower)
- Processes (Methods)
- Control Mechanisms (Machines)
- Structure (Materials)



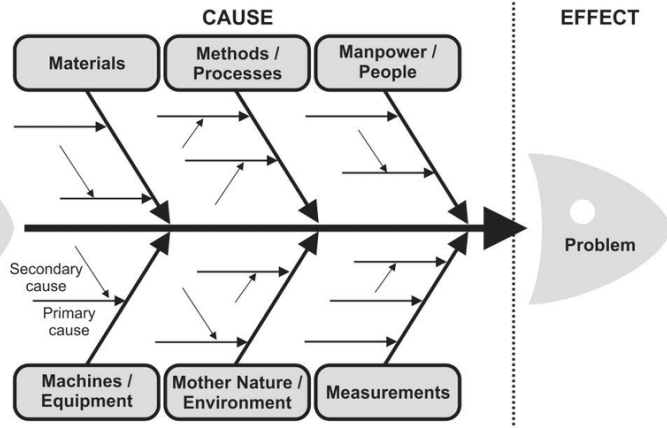
- 85% of problems have their root cause in processes, control mechanisms and structure with the majority in processes; and 15% of the problems are people related



FISHBONE DIAGRAM OR CAUSE AND EFFECT DIAGRAM



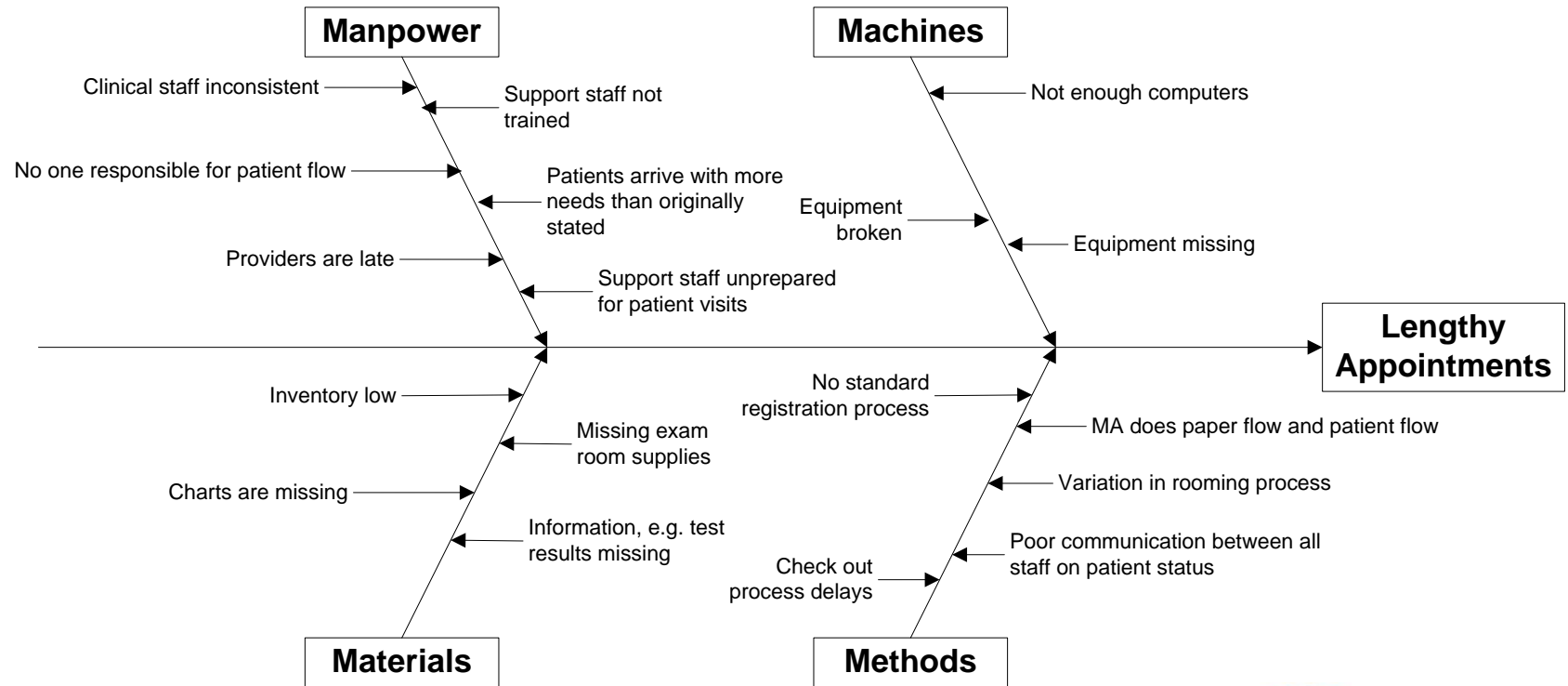
Fishbone (Cause and Effect) of Lengthy Appointments



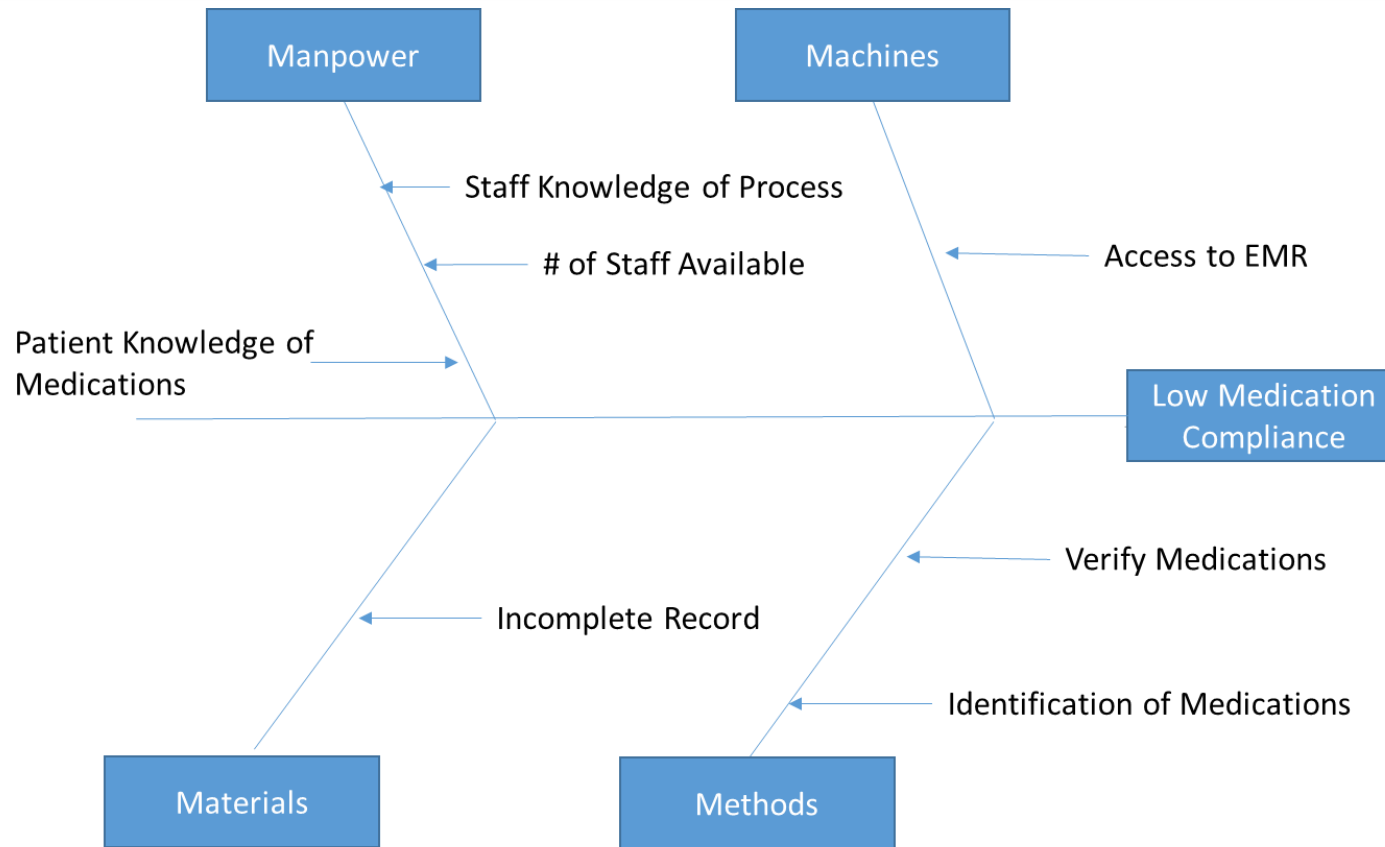
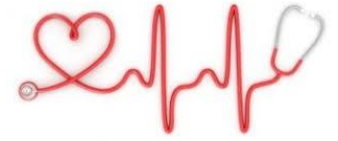
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"Cause and effect is fine, but I'm more of a just because guy."



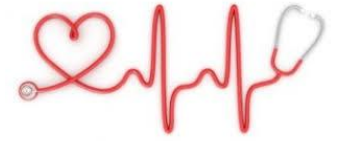
FISHBONE OF MEDICATION COMPLIANCE



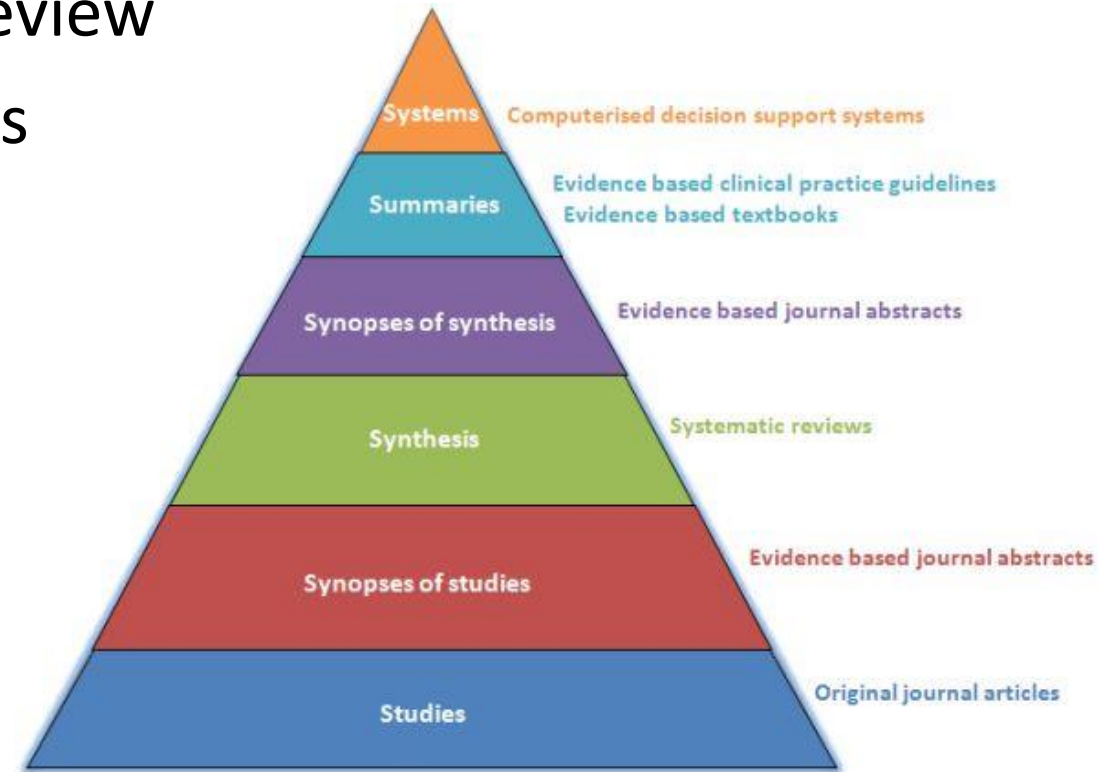
Fishbone of Low Medication Compliance for Hospital Discharged Patient



EVIDENCE BASED INTERVENTION SOURCES

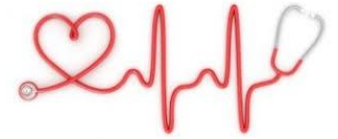


- Literature Search/ Systematic Review
- National Organization Guidelines
- Industry Standards
 - Transitional Care
 - Medication Management





SWOT ANALYSIS

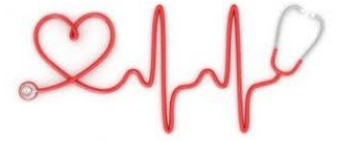


- **Strengths**
 - Characteristics of the organization that will help it achieve successful outcome or reach goals
 - Resources, capabilities that will contribute to success
- **Weaknesses**
 - Characteristics of the organization that might hinder successful outcome / reaching goals
 - Things to avoid when executing program
 - Factors contributing to past failures
- **Opportunities**
 - Environmental factors that might influence/contribute to successful outcome
 - Unfulfilled / open niches not served by other programs (unmet customer need)
- **Threats**
 - Environmental factors that might prevent successful outcome
 - Upcoming changes to status quo (regulatory, political, social, etc.)
 - Factors: Political, Economic, Socio-cultural, Technological





CLINICAL QUESTION & AIM STATEMENT



Problem Statement

- At discharge, 47% of the long term home health patient population, improved in managing oral medication

Clinical Question

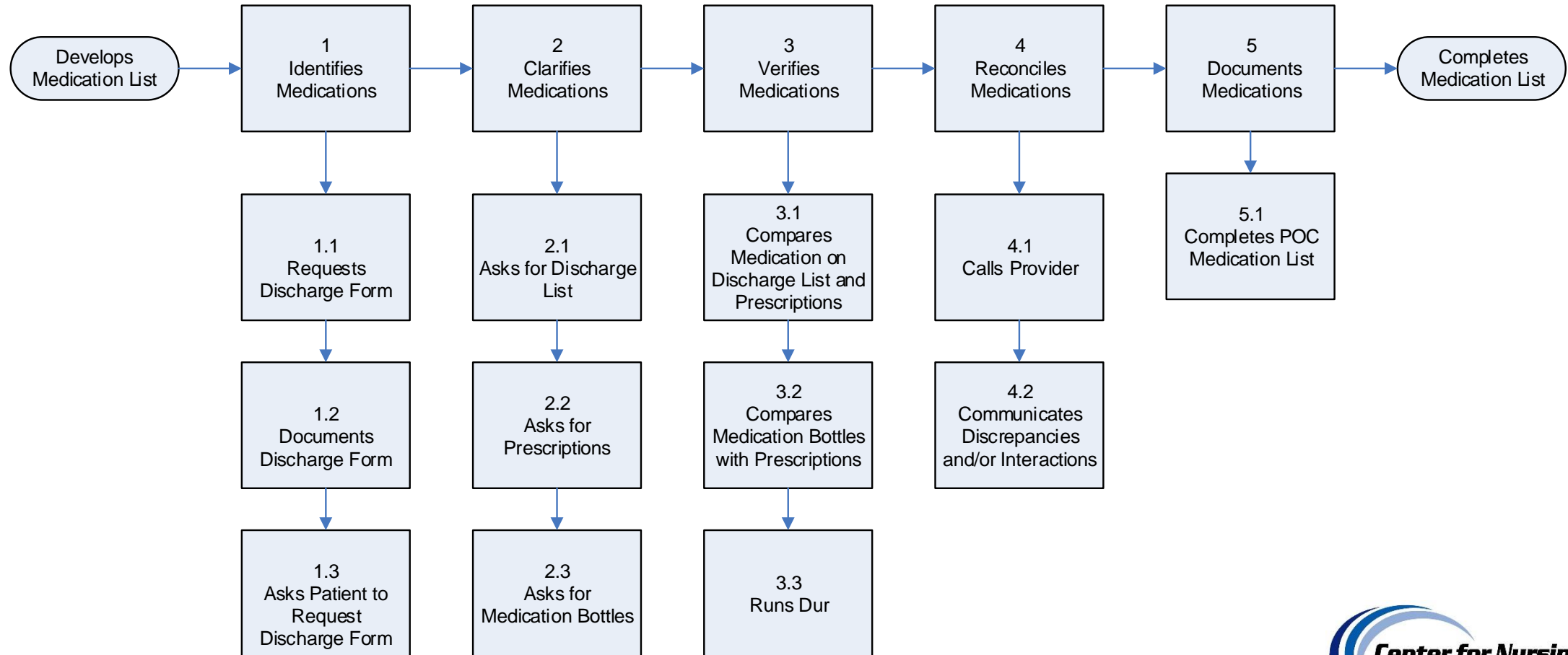
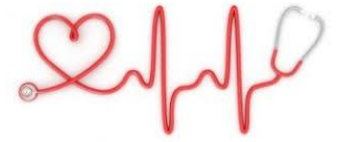
- In long term home health care patients (*patient population*) would a reconciled medication list (*intervention*) increase independent in managing oral medications (*outcome*)?

AIM Statement

- Improve medication reconciliation by 10% (process measure) within 3 months (time) in our long term home health patients.

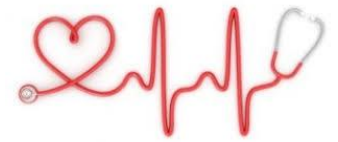


TOP DOWN FLOWCHART: DEVELOPING AN ACCURATE MEDICATION LIST

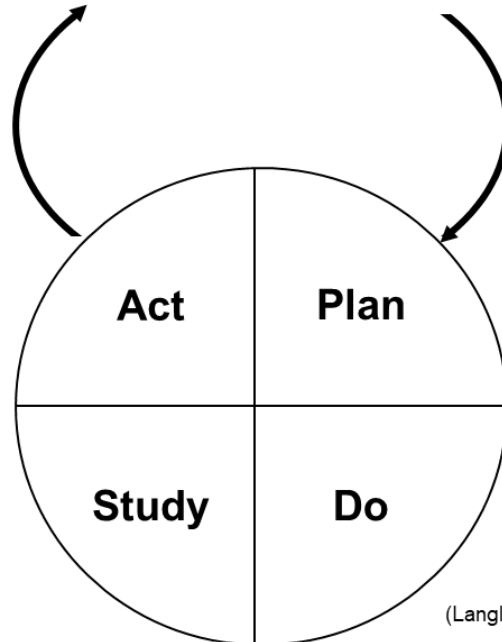




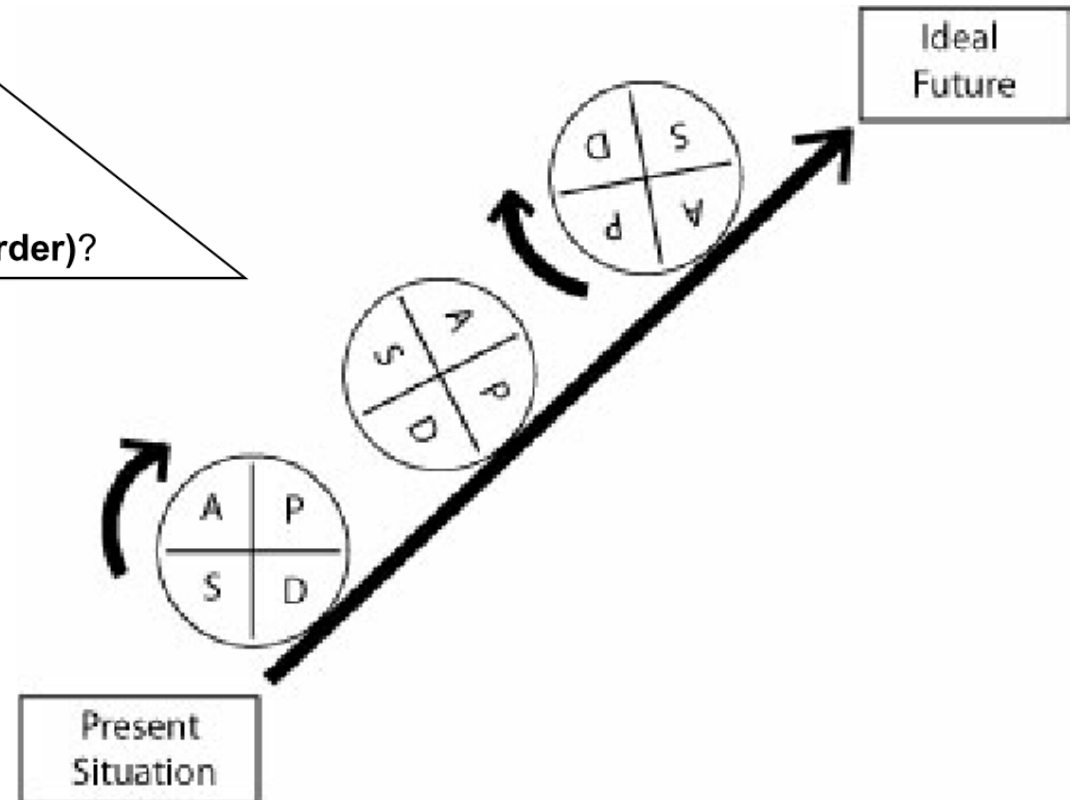
COMPONENTS OF THE PDSA MODEL FOR IMPROVEMENT

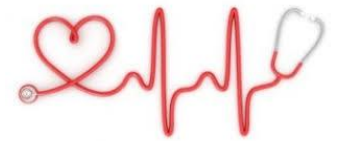


What are we trying to accomplish (**aim**)?
How will we know that a change is an improvement (**measures**)?
What change can we make that will result in improvement (**change: working smarter not harder**)?



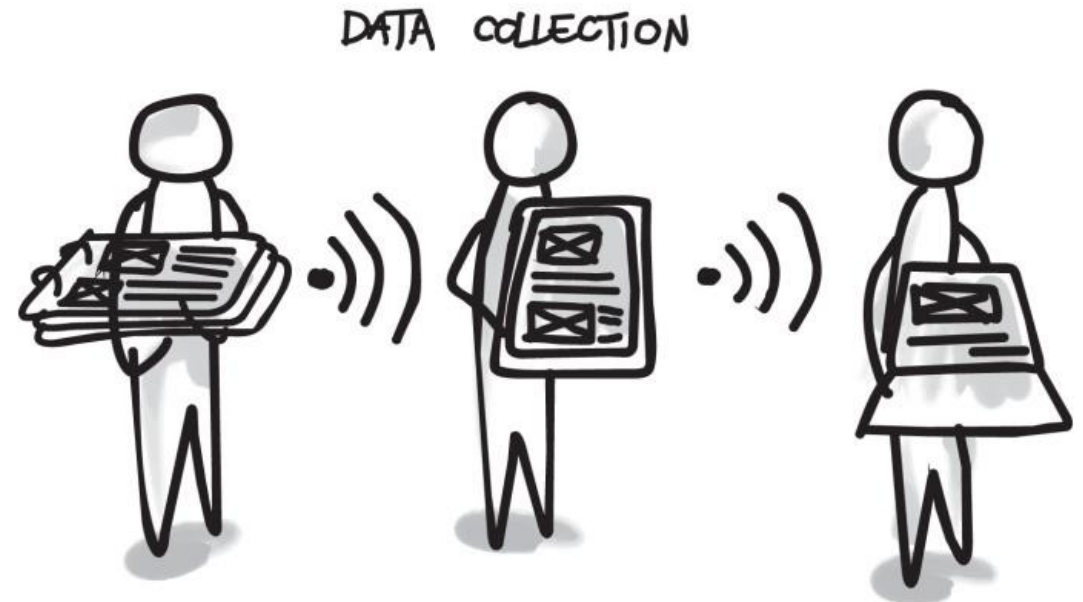
(Langley et al, 1996)



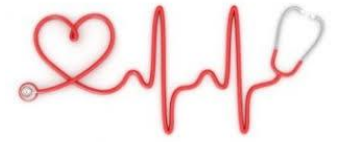


INTEGRATE & MONITOR THE NEW PROCESS

- Create new process map or procedure
- Develop spreadsheet, tables or tools to collect data
- Have people collect they own data
 - It facilitates quicker understanding and change
 - They see immediate effects of their practice and change behavior to meet the goal



MONITORING PROCESS & OUTCOMES

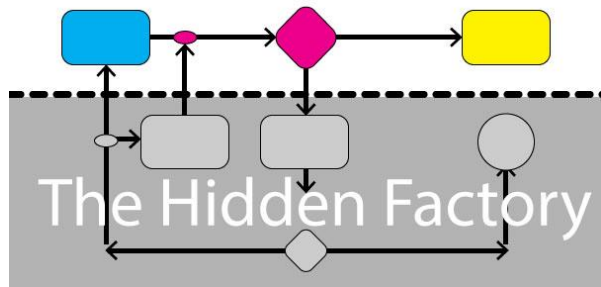


Metrics for Completing a Medication List at Transitions												
Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Number of Patients Admitted From Intake	10	13	15	10	12	20	23	24	30	32	40	42
The Number of Discharge Forms Obtained at Referral by Intake	2	3	2	5	7	10	8	14	25	23	31	35
The Number of Discharge Forms Obtained and Given to Nurse by Patient	6	6	8	4	6	9	8	10	13	15	20	23
The Number of Incidences Where the MD/NP was Called to Clarify Medications Descripcencies	8	8	10	7	5	3	13	10	13	12	16	11
The Number of Incidences Where the MD/NP was Reached to Clarify Medications Descripcencies (initial)	2	3	4	2	2	1	6	4	5	5	8	4
The Number of Incidences Where the Nurse Manager Was Contacted to Clarify Critical Medications Descripcencies	3	2	2	1	4	4	3	5	1	5	4	6
The Number of Patients Sent Back to the Hospital for Medication Descripcencies	1	0	1	0	1	2	0	0	1	2	1	1
The Percentage Discharge Forms Obtained and Given to Nurse by Patient	20%	23%	13%	50%	58%	50%	35%	58%	83%	72%	78%	83%
The Percentage of Incidences Where the MD/NP was Reached to Clarify Medications Descripcencies (initial)	25%	38%	40%	29%	40%	33%	46%	40%	38%	42%	50%	36%
The Percentage of Patients Sent Back to the Hospital for Medication Descripcencies	10%	0%	7%	0%	8%	10%	0%	0%	3%	6%	3%	2%



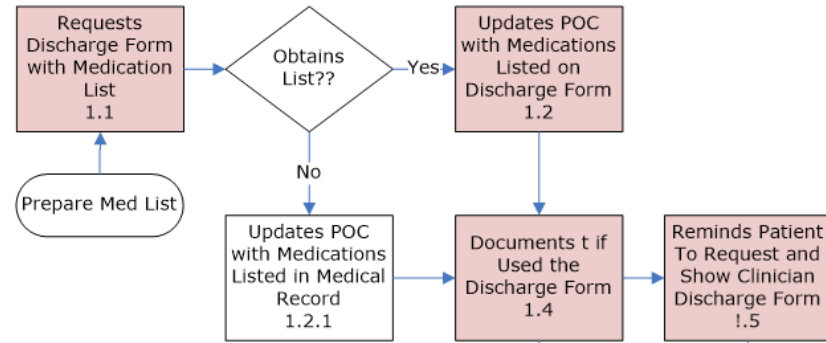
REMEMBER M&E INFORMATION IS USEFUL ONLY IF IT IS USED!

Input Throughput Output



Develop/Complete Accurate Medication List At Transitions From Hospital to Home (01/01/09)

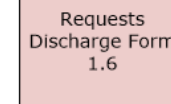
Referral Intake Staff



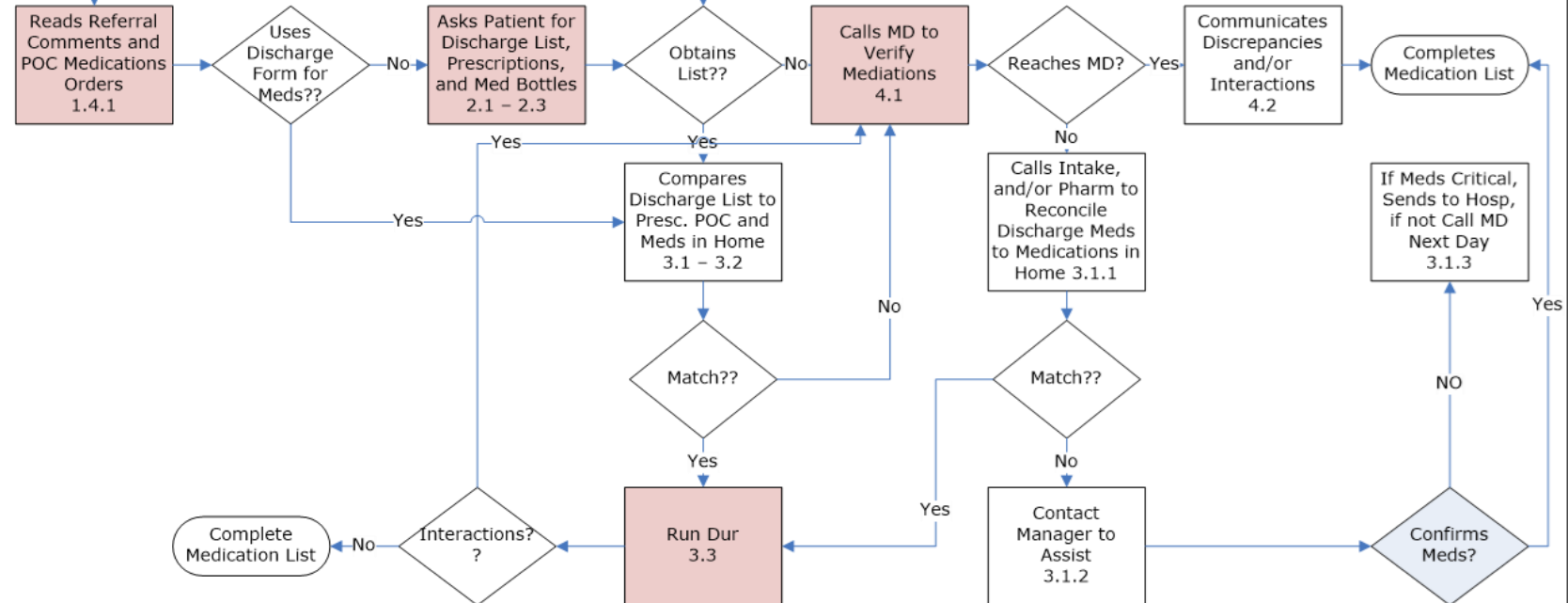
Change Ideas:

- Obtain Discharge Form
- Ask Patient to Obtain Form and Give to Nurses
- Contact Manager
- Develop Medication List

Patient

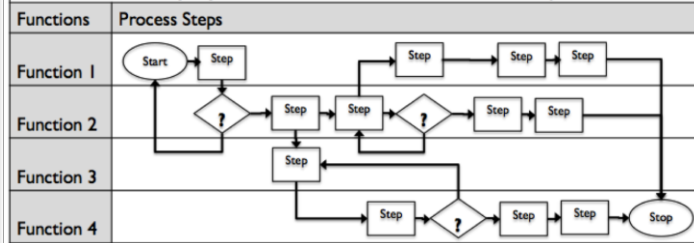


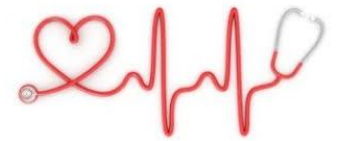
Home Care Nurse



DEPLOYMENT FLOWCHART

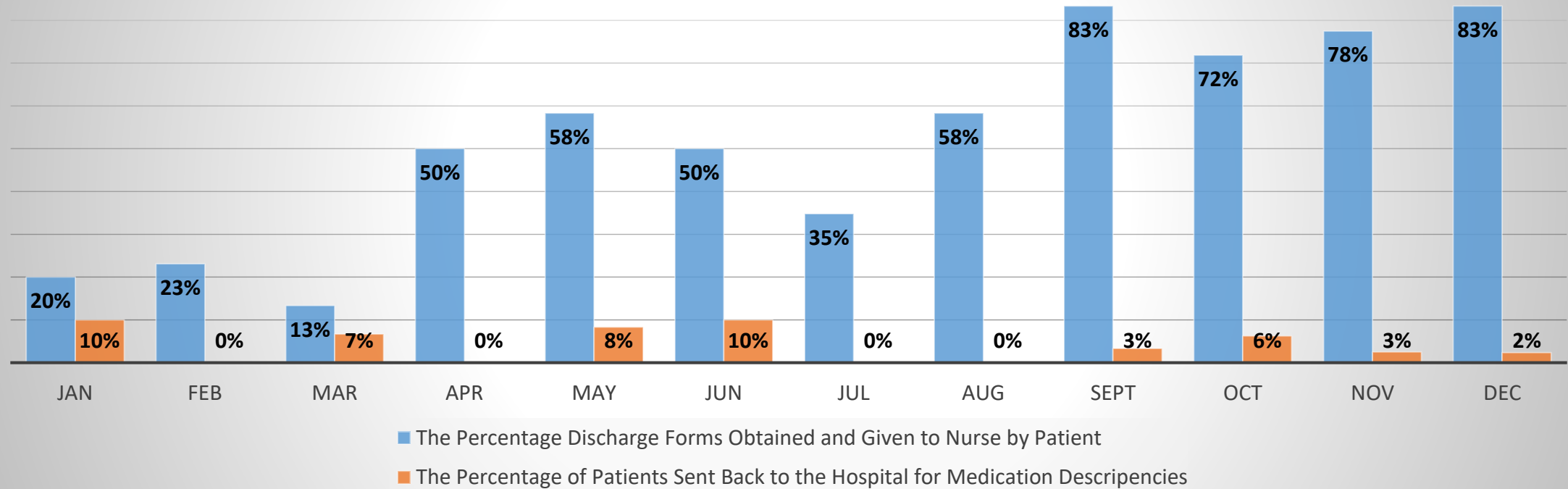
Deployment Flowchart or Swimlane Map

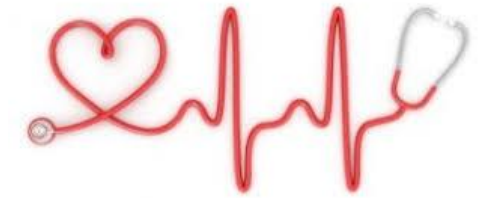




MEDICATION OUTCOMES

Medication Obtained and Hospitalization Percentages

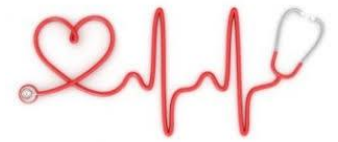




DEVELOPING AN EVALUATION PLAN

YVONNE JOHNSTON, DRPH, MS, FNP

BONNIE LAUDER, MIS, RN, PMHNP, CPHQ



WHAT IS EVALUATION?

Activity directed at collecting, analyzing, interpreting, and communicating information about the workings and effectiveness of interventions

This **research** is really going to help move our field forward.

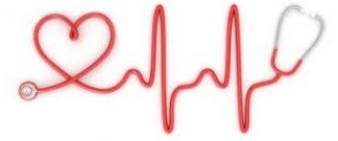


This **evaluation** is really going to help our program become more effective.



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STRUCTURE – PROCESS – OUTCOME



Structure: Institution & Provider Attributes

- Material resources, facilities, equipment, funding
- Human resources, personnel, administration, organizations

Process: What done to the patient

- Patient/provider activities in delivering/receiving care
- Content of care, care planning
- Delivery of care (frequency, duration, quality)

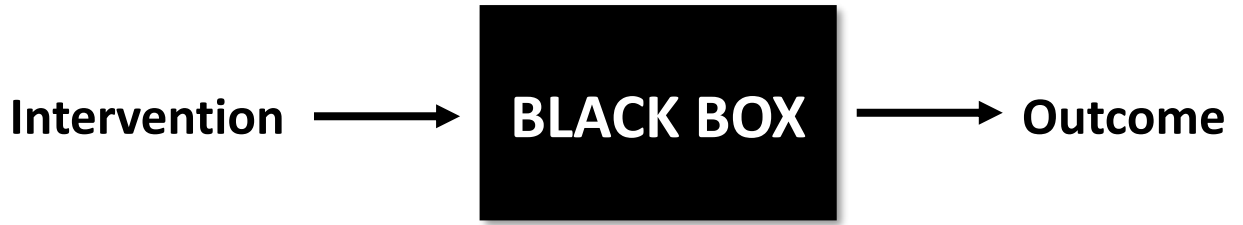
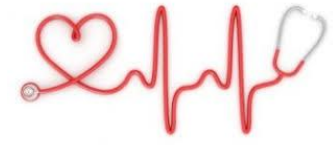
Outcome: What happens to the patient

- Knowledge, attitudes & behaviors
- Satisfaction with care, effects on healthcare utilization
- Measures of physical / cognitive function

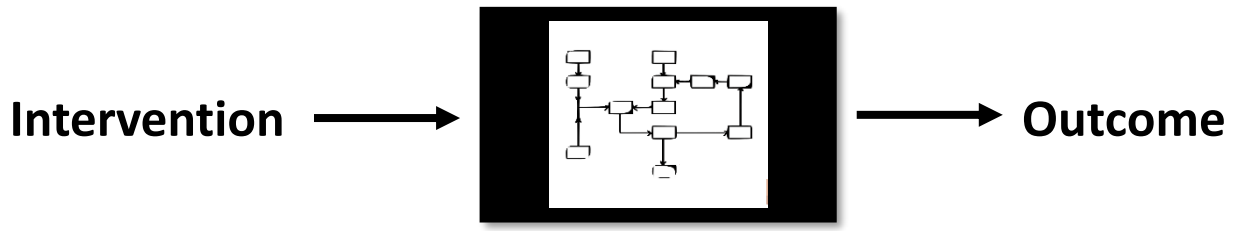
Donabedian's
Quality
Framework



EVALUATION: OUTCOME VS. PROCESS

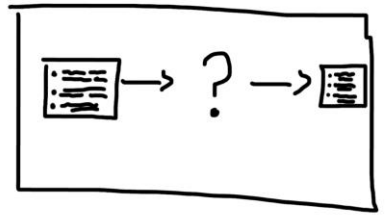


Outcome Evaluation

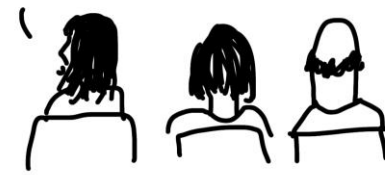


Process

Process Evaluation



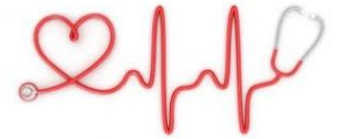
Could you provide us with a little more detail on step two?



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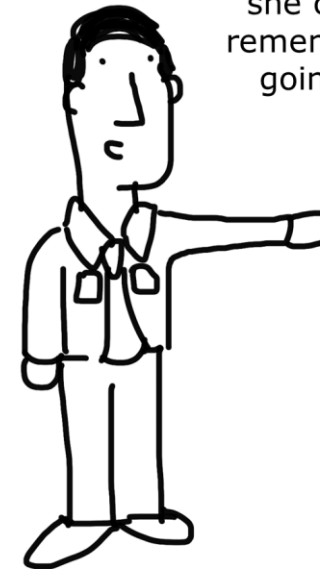
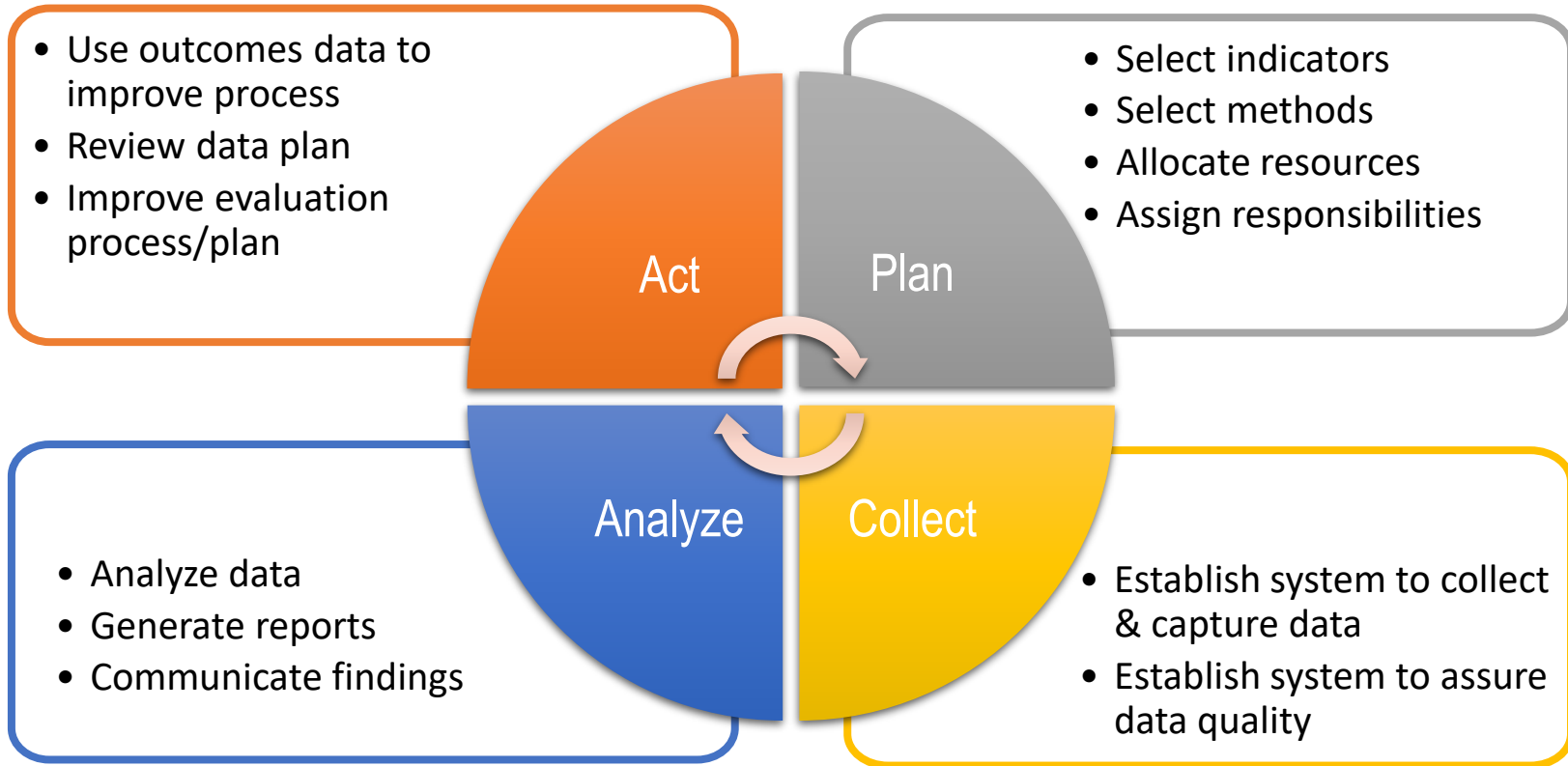
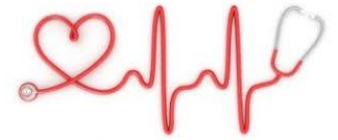
TYPES OF EVALUATION



TYPE OF EVALUATION	PURPOSE	KEY ELEMENTS	EVALUATION QUESTION
Process	Assessment of project & intervention activities for: - Monitoring - Quality improvement - Accountability	Interventions (description & context) Resource utilization Administration Participation (recruitment & reach) Implementation (including barriers & success strategies)	What resources are being used? How is the project being administered? Is the project reaching the intended audience? How is the project being implemented?
Outcome	Determine achievement of: - Objectives - Goals	Evaluation design Data collection methods (evaluation tools & outcome measures) Data analysis	Were project objectives met? What changes were observed ? Can these changes be attributed to the project?
Impact	Determine long-term effects	Ongoing surveillance and monitoring of key indicators	What effects did the project have in the long-term?



EVALUATION PROCESS



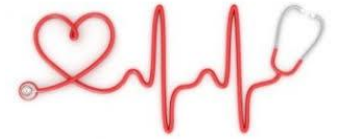
This is our evaluator. Every time she collects data it will help us remember what we said we were going to do in the first place.



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GOALS & OBJECTIVES



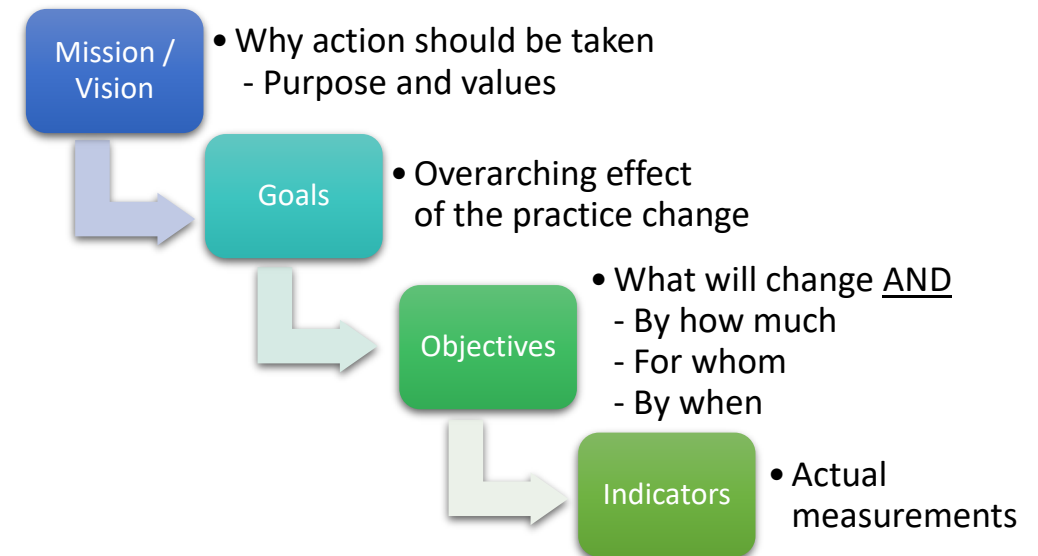
■ Goal

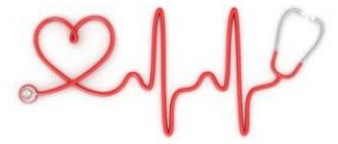
- A broad statement of a desired, long-term outcome

■ Objectives

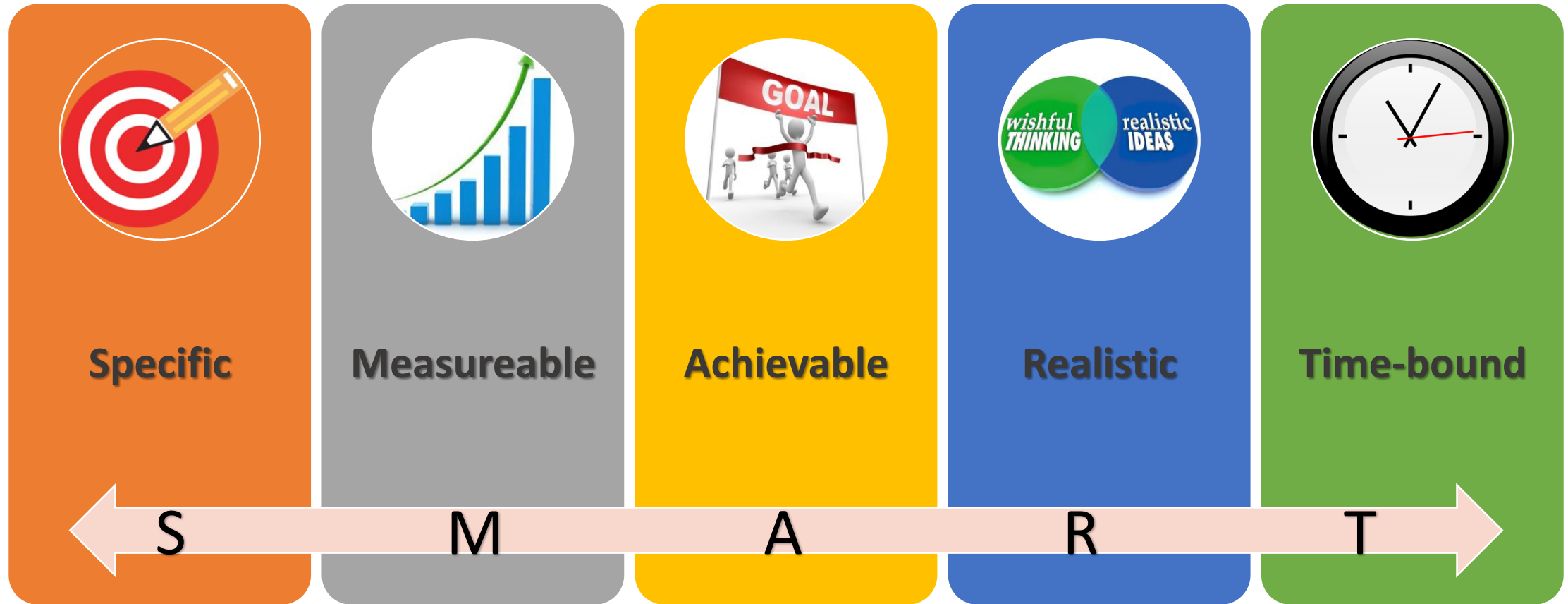
- Statements of desired, specific, realistic and measurable results

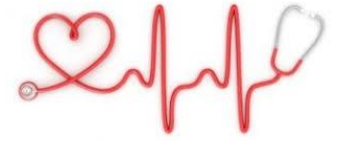
GOALS	OBJECTIVES
<ul style="list-style-type: none">• General• Intangible• Broad• Abstract• Strategic	<ul style="list-style-type: none">• Specific• Measureable• Narrow• Concrete• Tactical





WRITING SMART OBJECTIVES

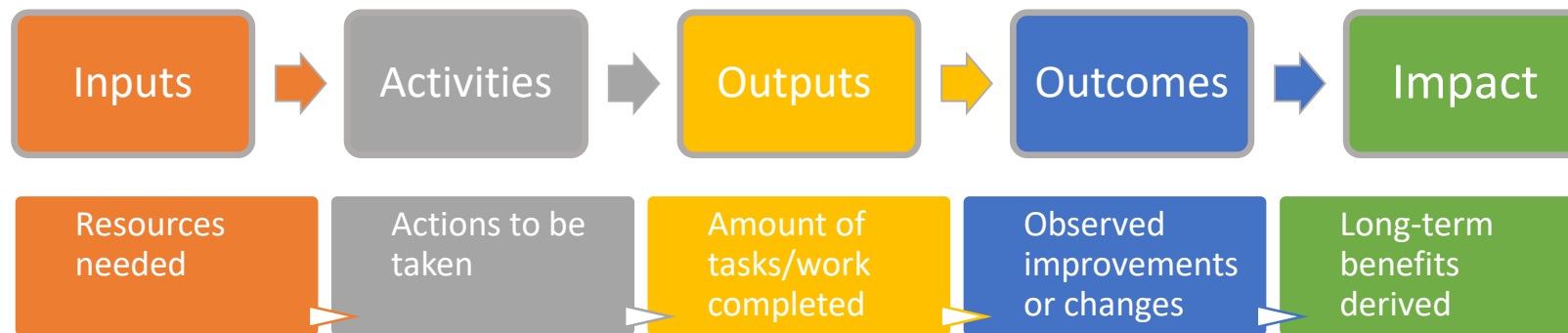
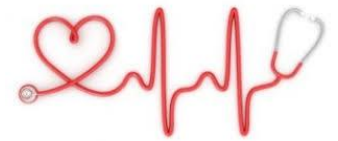




WHICH IS A SMART OBJECTIVE?

- A. Providers will understand the importance of effectively measuring glycosylated hemoglobin.
- B. Reduce hospital acquired infections.
- C. By December 31, 2018, the number of women enrolling in prenatal care during the first trimester will increase by 20%.
- D. Increase completed referrals to mental health care.

LOGIC MODEL



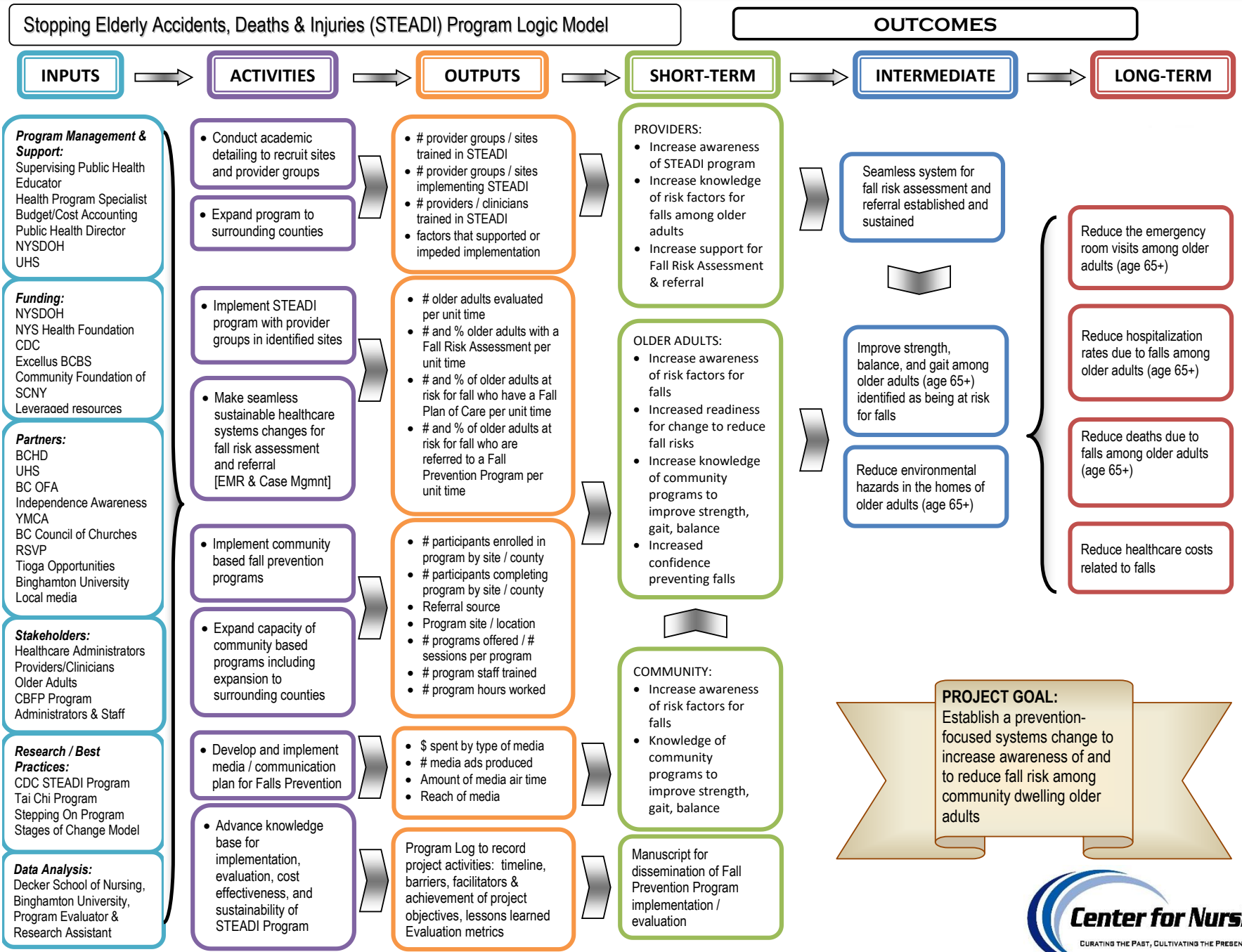
Create a "logic model"



- ✓ Visual depiction of what a project does and what changes are expected
- ✓ Important first step for project design and evaluation planning

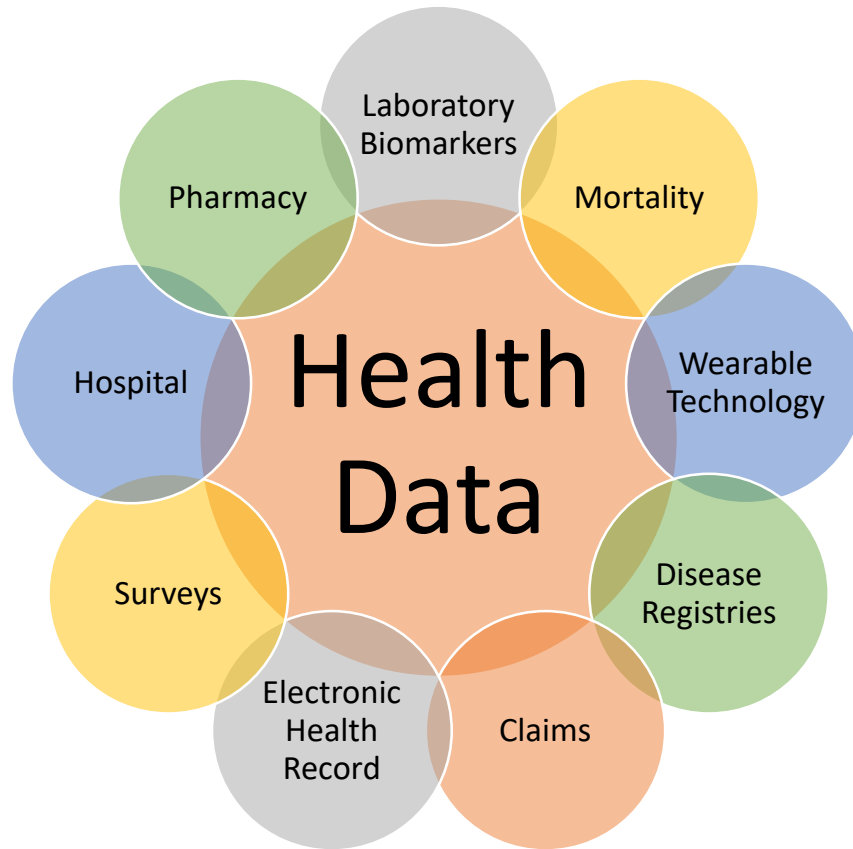
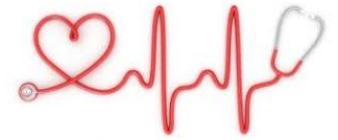


SAMPLE LOGIC MODEL





DATA SOURCES



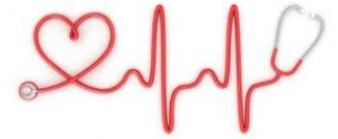
Those are good numbers.
Don't just throw them away.



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INTERNAL DATA SOURCES

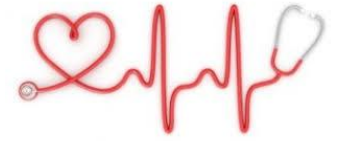


Quality Management	Risk Management	Finance	Clinical Systems	Operational Systems	EMR / IT	Benchmarking Data
<ul style="list-style-type: none">• Hospital quality• Nursing quality• Patient satisfaction• Regulatory / Accreditation	<ul style="list-style-type: none">• Incident reporting• Medication errors• Sentinel events• Patient complaints	<ul style="list-style-type: none">• Admission, transfer, discharge• Billing & coding• Capital & operational budgets• Medicare severity diagnosis-related groups• Cost & ROI	<ul style="list-style-type: none">• Monitoring devices & equipment	<ul style="list-style-type: none">• Patient tracking & flow• Staffing & scheduling	<ul style="list-style-type: none">• Patient history• Patient assessment• Diagnostic test results• Medication regime• Plan of care	<ul style="list-style-type: none">• National Database of Nursing• Quality indicators• Centers for Medicare & Medicaid Services• Patient satisfaction survey organizations

Fineout-Overholt, E., Williamson, K. M., Gallagher-Ford, L., Melnyk, B. M., & Stillwell, S. B. (2011). Evidence-based practice, step by step. Following the evidence: Planning for sustainable change. *AJN The American Journal of Nursing*, 111(1), 54-60.
doi:10.1097/1001.NAJ.0000393062.0000383761.c0000393060



DATA COLLECTION METHODS



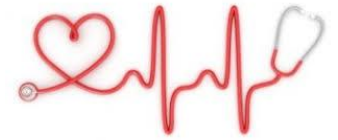
Will we have access to our data?

Of course you will. Just submit a formal request and provide us with an ample budget and time to respond.



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TYPES OF OUTCOMES

Implementation

- Feasibility
- Fidelity
- Penetration
- Acceptability
- Sustainability
- Uptake
- Costs

Service

- Efficiency
- Effectiveness
- Equity
- Safety
- Patient centeredness
- Timeliness

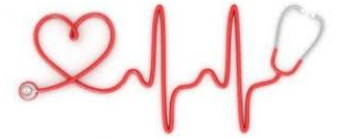
Patient

- Satisfaction
- Function
- Health status
- Symptoms

Proctor, E. K., Landsverk, J., Aarons, G., Chambers, D., Glisson, C., & Mittman, B. (2009). Implementation research in mental health services: An emerging science with conceptual, methodological, and training challenges. *Administration and Policy in Mental Health and Mental Health Services Research*, 36(1), 24-34.



FOR GOOD MEASURE!

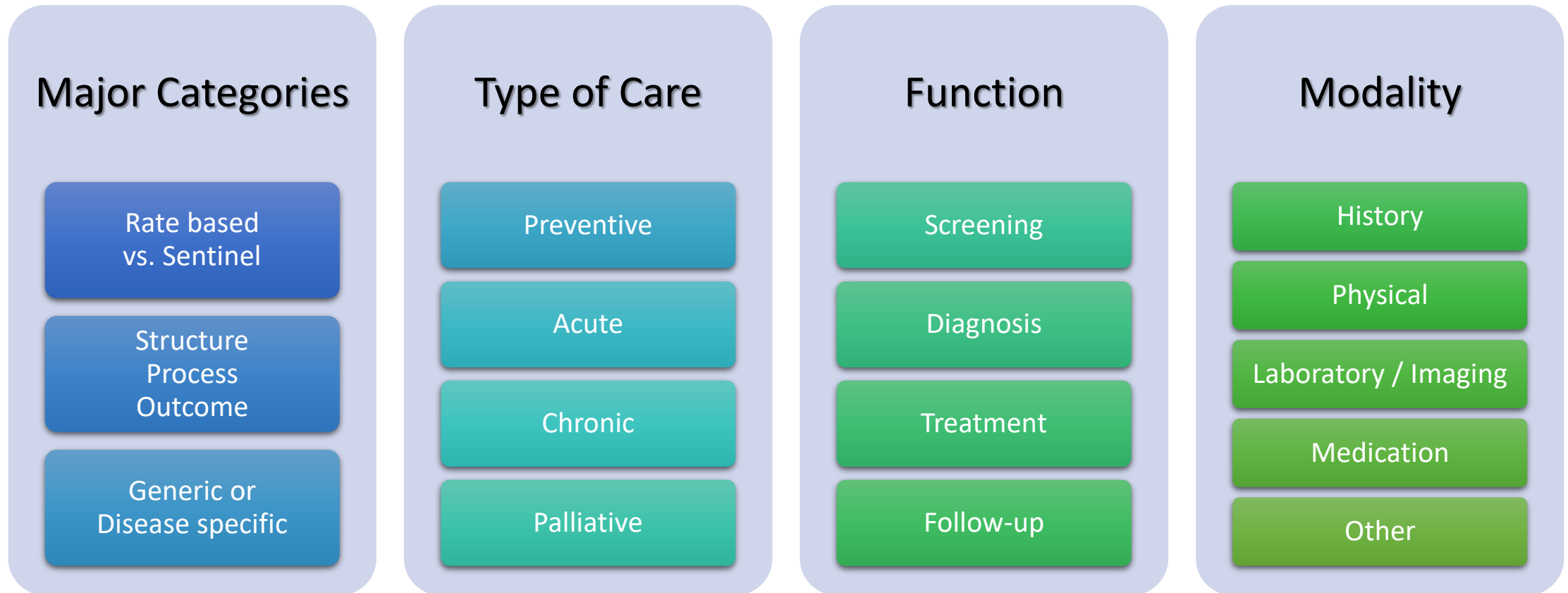
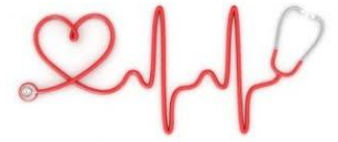


- Quantitative
- Easy to understand
- Encourages positive behavior
- Visible
- Mutually defined & understood
- Comprehensive
- Measures what's important
- Multi-dimensional
- Uses economies of effort
- Facilitates trust

COMMON MISTAKES

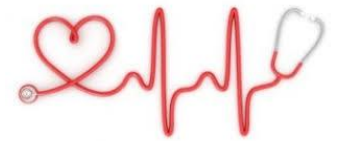
- Metrics for the sake of metrics (not useful)
- Too many metrics (no action)
- Metrics not driving intended action
- Lack of follow-up
- No record of methodology
- No benchmarks
- Underestimation of data extraction

CATEGORIES OF CLINICAL INDICATORS





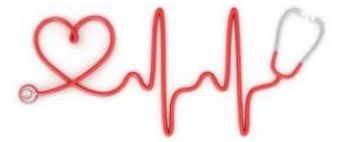
DEFINING INDICATORS



CHARACTERISTIC	EXAMPLE
Name	Fall-related hospitalization
Definition	Hospitalizations due to accidental falls with principal diagnosis of injury coded E880-E888 (excludes E887, fracture cause unspecified)
Type	Outcome
Level	Interval
Rationale	Comparisons of Fall-Related Events
Limitations	LIMITATIONS: Diagnostic coding issues, field matching, missing injury codes
Data Source	Archive (Jan 09 – Dec 12) Invision (Dec 12 – Jun 14) Soarian (Jun 14 – Oct 15)
Frequency	Baseline and Follow-up
Responsibility	C.A., Lead Organization



Source: V1shal.com



TYPES OF BENCHMARKS



Performance

- Comparison of performance outputs to identify gaps



Process

- Identification of practices & critical factors which lead to superior performance



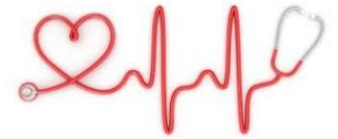
Patient Experience

- Focuses on meeting patient expectations





HOW BENCHMARKS ARE USED



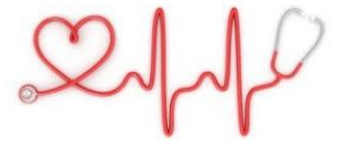
TYPE	DEFINITION
Competitive	How well individual/organizational is performing against direct competitors
Comparative	How similar functional activities are handled by different organizations
Collaborative	Sharing of knowledge about an activity with goal of organizational learning and process improvement
Clinical Practice	Structured comparison and sharing of best practices in clinical aspects of care
Essence of Care	Structured comparisons and sharing of qualitative good practice

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"After analyzing all your data, I think we can safely say that none of it is useful."



DATA COLLECTION QUESTIONS

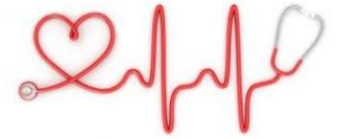
- How are the outcomes defined?
- What data will be used to measure the outcome?
- Who “owns” the data needed for this project?
- Who will (or already does) generate the data needed for the project?
- What special clearances are required to access the data?
- What are the restrictions for sharing these data?
- Who will be responsible for sharing these data?
- Who will be responsible for collecting these data?
- When will the data be collected?
- Where are the data located?
- How will the evidence-based practice (EBP) team access the data?
- How will the EBP team store the data?
- What program will the EBP team use to analyze the data?
- Who will help the EBP team with data analysis?
- How will the EBP team manage the data (data entry, cleaning, labeling)?



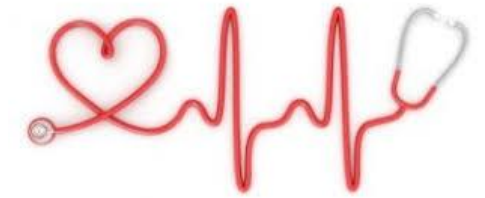
Fineout-Overholt, E., Williamson, K. M., Gallagher-Ford, L., Melnyk, B. M., & Stillwell, S. B. (2011). Evidence-based practice, step by step. Following the evidence: Planning for sustainable change. *AJN The American Journal of Nursing*, 111(1), 54-60.



SAMPLE EVALUATION MATRIX



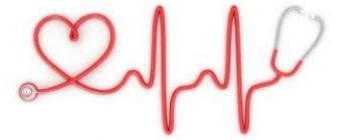
STAKEHOLDER	EVALUATION	PROCESS / OUTCOME MEASURES	DATA SOURCE	DATA COLLECTION
United Health Services	Implementation measures	# provider groups / sites trained in STEADI # provider groups / sites implementing STEADI # providers / clinicians trained in STEADI factors that supported or impeded implementation	Program Records Practice Log	Data Collection: Baseline & Monthly Report: Quarterly
	Screening Rate Referral Rate Proportion with Fall Plan of Care	# older adults evaluated per unit time # and % older adults with a Fall Risk Assessment per unit time # and % of older adults at risk for fall who have a Fall Plan of Care per unit time # and % of older adults at risk for fall who are referred to a Fall Prevention Program per unit time	Electronic Medical Record	Data Collection: Baseline & Monthly Report: Quarterly
	Program costs	\$ spent to implement STEADI program – personnel & materials \$ saved – estimate based on reductions in ED visits and hospitalizations	Program Records Claims Data	Ongoing Report: Quarterly End of Project
	Outcome measures	# Deaths due to falls per unit time # Emergency room visits due to falls per unit time # Hospitalizations due to falls per unit time	NYSDOH SPARCS	Report: Annual



DEVELOPING A SUSTAINABILITY PLAN

YVONNE JOHNSTON, DRPH, MS, FNP

BONNIE LAUDER, MIS, RN, PMHNP, CPHQ



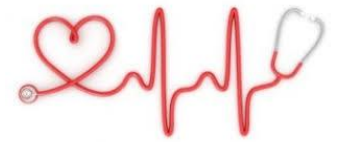
SUSTAINABILITY FACTORS



- Leadership
 - Project champion
 - Commitment
 - Role modeling
- Supportive context
 - Culture promotes learning, change, empowerment
 - Reward / incentive program
 - Financial resources & time
- Effective partnerships
 - Multi-departmental & multi-disciplinary involvement
 - Internal & external stakeholders
- Innovation
 - Relevance, observable outcomes
 - Alignment of values
- Capacity building
 - Resource & educational materials
 - QI coordinator & team
 - Mentoring
- Rigorous decision-making & planning
 - Clear goals & measureable objectives
 - Feedback-based process and outcome measurement system

Compas, C., Hopkins, K. A., & Townsley, E. (2008). Best practices in implementing and sustaining quality of care: A review of the quality improvement literature. *Research in Gerontological Nursing*, 1(3), 209-216.

Fleischer, A. R., Semenic, S. E., Ritchie, J. A., Richer, M.-C., & Denis, J. L. (2015). An organizational perspective on the long-term sustainability of a nursing best practice guidelines program: A case study. *BMC Health Services Research*, 15(1), 535.



PLANNING FOR SUSTAINABILITY

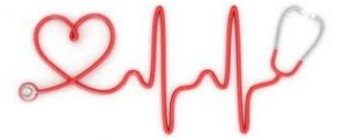
Planning	<ul style="list-style-type: none">• What to sustain – all or part?	Capacity Building	<ul style="list-style-type: none">• Is there a commitment to skill building?• Can change be institutionalized in setting?
Evidence	<ul style="list-style-type: none">• What is the problem?• What is the evidence for best solution?	Policy	<ul style="list-style-type: none">• Can crucial elements of change be incorporated into policies?
Commitment & Support	<ul style="list-style-type: none">• Is there support from management?• What plans/projects align with it?	Evaluation	<ul style="list-style-type: none">• What feedback should be collected?• What outcomes are important to measure?
Engagement	<ul style="list-style-type: none">• What alliances are need?• What resources can be shared?	Adaptation	<ul style="list-style-type: none">• Will systems be responsive to ongoing change?• What structure will allow for adaptation?
Champions	<ul style="list-style-type: none">• Who has strong leadership skills?• Who has a high profile identity?	Funding	<ul style="list-style-type: none">• Are budget resources adequate to fund at levels needed for assuring effectiveness?

ADAPTED FROM:

Whelan, J., Love, P., Pettman, T., Doyle, J., Booth, S., Smith, E., & Waters, E. (2014). Predicting sustainability of intervention effects in public health evidence: Identifying key elements to provide guidance. *Journal of Public Health*, 36(2), 347-351. doi: 10.193/pubmed/fdu027



KEY DRIVERS OF HIGH PERFORMANCE MANAGEMENT



Drive Quality Control

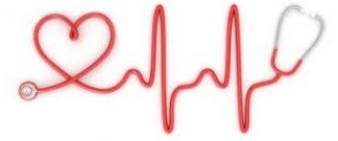
- Standardization
- Accountability
- Visual Management
- Problem Solving
- Escalation
- Integration

Manage Quality Improvement

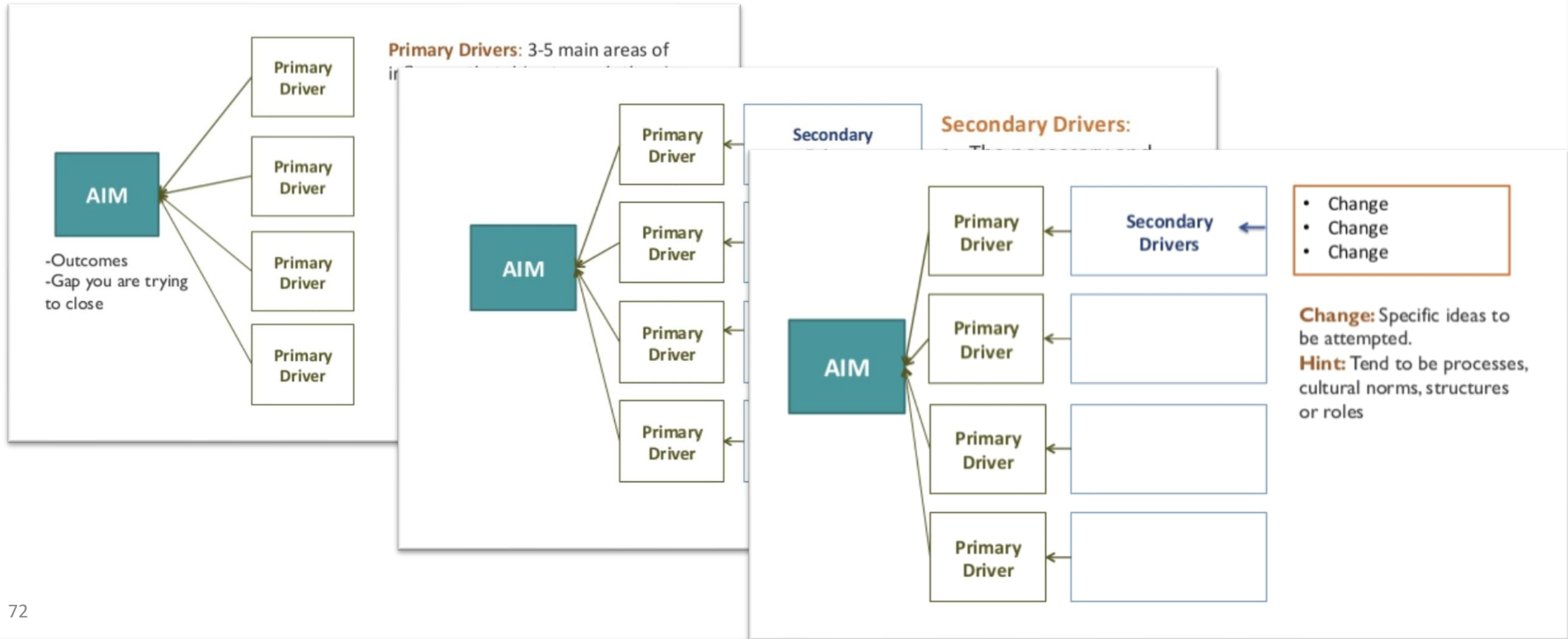
- Prioritization
- Assimilation
- Implementation

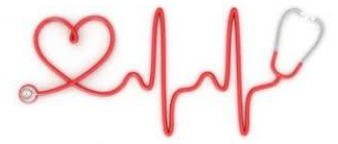
Establish HPM Culture

- Policy
- Feedback
- Transparency
- Trust



KEY DRIVER DIAGRAMS



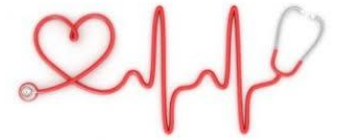


GANTT CHARTS - TIMELINES

	A	B	C	D	E	F	G	H	I	J	K																	
3	[Project Name]																											
4	[Company Name]				Today's Date: <u>2/24/2009</u> Tuesday																							
5	(vertical red line)																											
6	Project Lead: <u>John Doe</u>																											
7	Start Date: <u>1/5/2009</u> Monday																											
8	First Day of Week (Mon=2): 2																											
9	WBS	Tasks	Task Lead	Start	End	Duration (Days)	% Complete	Working Days	Days Complete	Days Remaining	05 - Jan - 09	12 - Jan - 09	19 - Jan - 09	26 - Jan - 09	02 - Feb - 09	09 - Feb - 09	16 - Feb - 09	23 - Feb - 09	02 - Mar - 09	09 - Mar - 09	16 - Mar - 09	23 - Mar - 09	30 - Mar - 09	06 - Apr - 09	13 - Apr - 09	20 - Apr - 09	27 - Apr - 09	04 - May - 09
10	1	Task Category 1	John	1/03/09	3/18/09	75	70%	53	52	23	[Gantt bars for Task Category 1]																	
11	1.1	Sub Tasklevel 2		1/03/09	1/20/09	18	100%	12	18	0	[Gantt bars for Sub Tasklevel 2]																	
12	1.2	Sub Tasklevel 2		1/21/09	2/19/09	30	95%	22	28	2	[Gantt bars for Sub Tasklevel 2]																	
13	1.2.1	Sub Tasklevel 3		1/22/09	1/31/09	10	20%	7	2	8	[Gantt bars for Sub Tasklevel 3]																	
14	1.2.2	Sub Tasklevel 3		1/23/09	2/01/09	10	20%	6	2	8	[Gantt bars for Sub Tasklevel 3]																	
15	1.3	Sub Tasklevel 2		1/22/09	2/09/09	19	95%	13	18	1	[Gantt bars for Sub Tasklevel 2]																	
16	1.4	Sub Tasklevel 2		2/10/09	3/18/09	37	50%	27	18	19	[Gantt bars for Sub Tasklevel 2]																	
17	2	Task Category 2	Jane	3/01/09	5/12/09	73	13%	52	9	64	[Gantt bars for Task Category 2]																	
18	2.1	Sub Tasklevel 2		3/01/09	3/17/09	17	50%	12	8	9	[Gantt bars for Sub Tasklevel 2]																	
19	2.2	Sub Tasklevel 2		3/01/09	3/17/09	17	30%	12	5	12	[Gantt bars for Sub Tasklevel 2]																	
20	2.3	Sub Tasklevel 2		3/18/09	4/25/09	39	0%	28	0	39	[Gantt bars for Sub Tasklevel 2]																	
21	2.4	Sub Tasklevel 2		4/15/09	5/12/09	28	0%	20	0	28	[Gantt bars for Sub Tasklevel 2]																	
22	3	Task Category 3	Bill	4/25/09	8/02/09	100	0%	70	0	100	[Gantt bars for Task Category 3]																	
23	3.1	Sub Tasklevel 2		4/25/09	5/11/09	17	0%	11	0	17	[Gantt bars for Sub Tasklevel 2]																	



EVALUATION OF SUSTAINABILITY



- Quality management indicators
- Persistence of outcomes (health benefits, cost savings)
- Measures of system integration, institutionalized in:
 - Policy & procedures
 - Infrastructure & budget
- Project specific evaluation tools

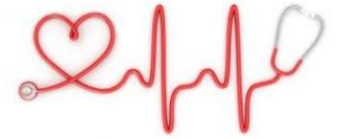
- What will be sustained, how much, by whom, by when



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RESOURCE EXPENDITURES



Direct Medical Costs

- Outpatient visits
- Procedures & diagnostics
- Drugs
- Medicinal substances
- Devices and Medical assistive equipment
- Hospital stays
- Rehabilitation
- Social services
- Other services

Direct Non-Medical Costs

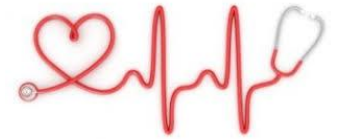
- Administration
- Equipment
- Investments
- Travel
- Patient time
- Informal care by care givers
- Training facilities

Indirect Costs

- Work productivity
- Incapacity for work
- Occupational disability
- Premature death



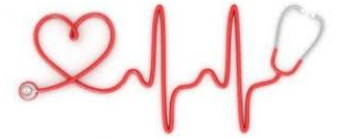
ECONOMIC EVALUATION



ANALYTIC METHOD	COMPARISON	HEALTH MEASURE	SUMMARY MEASUREMENT
Cost-consequences	Implementation strategies with disparate outcomes	Any measure	-
Cost-effectiveness	Implementation strategies with common outcomes	Process measures or health effects	Cost-effectiveness ratio
Cost-utility	Implementation strategies with morbidity/mortality outcomes	Final health outcomes [health status, patient preferences, utilities]	Cost per QALY, at patient or population level
Cost-benefit	Implementation strategies with different types of outcomes	Monetary units	Net health benefit or net monetary benefit, at patient or population level
Cost Analysis	Net cost of implementation strategies with equivalent outcomes	-	Net cost or cost of illness, at patient or population level



SPREADING THE INNOVATION



- Spread (speed & scale)
 - Taking a successful pilot implementation to other parts of an organization

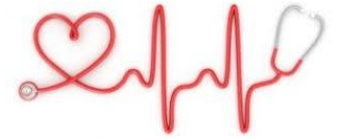
Make the case!

- Strategic
 - High impact, high risk, high cost
 - Alignment with organizational priorities
- Business
 - Return on investment
 - Incremental cost effectiveness

■ Methods

- Disseminate findings broadly
- Share results with key stakeholders
- Recognize contributions of team members
- Address financial and professional concerns
- Monitor performance: individual, unit/clinic, organizational
- Offer frequent feedback
- Provide targeted technical assistance
- Establish mechanism for sharing lessons learned
- Translate recommendations into policies
- Offer clinical ladder incentives

DISSEMINATION



- With whom should the findings be shared?
- What is the best way to reach your target audience?
- What is their availability in terms of time?
- How can you accommodate their levels of interest and understanding?
- Would people come to a seminar or meeting?
- Could you reach workers through an article or news item?
- Are there any organizations that could help your with dissemination?



Nice. Email sent.
Dissemination complete.



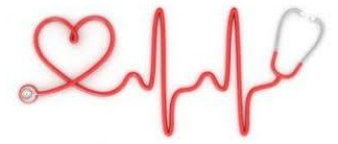
My spam folder
is out of control.



freshspectrum.com

Carpenter, D., Nieva, V., Albaghal, T., & Sorra, J. (2005). Development of a planning tool to guide dissemination of research results. *Advances in Patient Safety: From Research to Implementation*, 4. Rockville, MD: Agency for Healthcare and Research Quality. Available https://www.ncbi.nlm.nih.gov/books/NBK20584/pdf/Bookshelf_NBK20584.pdf

SHARING RESULTS – DATA VISUALIZATION



ORACLE Business Intelligence

Patient Satisfaction Dashboard

Average Length of Stay | Appendectomy

Procedure: Appendectomy

Lab Test Turnaround

Test	Target	Average	%	Past 30 Results
Amylase	24 h	31	-22.92%	██████████
ANK	108 h	100	-6.48%	██████████
pH	72 h	70	-2.78%	██████████
Basic Metabolic Panel	24 h	26	-7.69%	██████████
Complete Blood Count	24 h	28	-14.29%	██████████
Comprehensive Metabolic Panel	48 h	52	-7.69%	██████████
Electrolyte Panel	24 h	23	-4.35%	██████████
Sedimentation Rate	96 h	94	-2.13%	██████████

Patient Metrics

Arrival to Bed: Target 20 min, 25 min

Arrival to Physician: Target 60 min, 83 min

Arrival to Nurse: Target 40 min, 45 min

Arrival to Discharge: Target 100 min, 137 min

Customer Satisfaction

BUSINESS Infographics

LINE GRAPH SHOW THE NUMBERS

MODERN TIMELINE TELLS THE FACTS

OPTION ELEMENTS ICONS & BARS

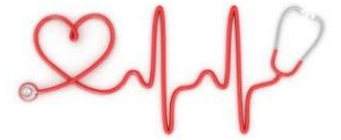
VECTOR ACCESSORIES

HUMAN ALWAYS INFOGRAPHICS USEFUL

Dashboards & Infographics



PLANNING & EVALUATION ROAD MAP



“One day Alice came to a fork in the road and saw a Cheshire cat in a tree.

‘Which road do I take?’ she asked.

‘Where do you want to go?’ was his response.

‘I don’t know,’ Alice answered.

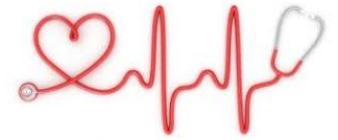
‘Then,’ said the cat, ‘it doesn’t matter.’”



~ Lewis Carroll from *Alice in Wonderland*



FINAL THOUGHTS ...



Planning ...

- **Is iterative**
If plan A, fails, there are 25 more letters
- **Requires teamwork**
*If you want to go fast, go alone
... if you want to go far, go together*
- **Is the key to success**
Most people don't plan to fail, they fail to plan
- **Is the first step to achieving a goal**
A goal without a plan is just a wish

