CPHQ Exam Prep Workshop

Performance & Process Improvement

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Key Topics

- Evolution of Healthcare Quality
- Structure for Performance and Process Improvement
- Types and Approaches to Quality Monitoring
- Performance Improvement Tools
- Project Management and Team Leadership for Performance Improvement
- Aligning Goals to Advance Quality

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Evolution of Healthcare Quality

W. Edwards Deming
(1900-1993)
Statistical Process Control

Joseph Juran
(1904-2008)
Relationship between quality and cost containment

Kaoru Ishikawa
(1915-1989)
Total Quality Control
Fishbone Diagram

Walter Shewhart
(1891-1967)
PDCA

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The First Era

1863
- Florence Nightingale calls for systematic review of patient care

1910
- Ernest Codman proposes hospital standardization and standards for teaching and research in medicine.

1918
- American College of Surgeons develops standards for hospitals and has their first survey.

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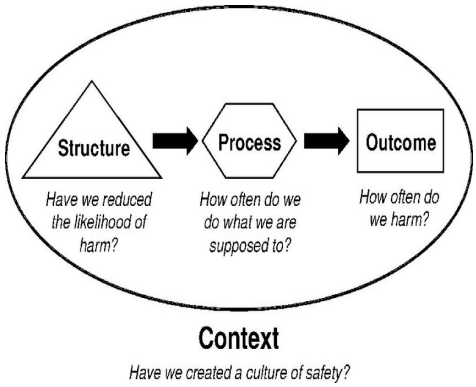
The Second Era

1950
- Donabedian's "*structure* + *process* = *outcomes*" framework

1951
- Joint Commission founded and introduced *quality assurance standards*.



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The Third Era

1980
- Don Berwick, Paul Batalden, and Brent James bring QI to healthcare

1999
- To Err is Human: Building a Safer Health System is published

2000
- Six Sigma, Lean, rapid cycle improvements begin to appear

2011
- National Quality Strategy: Better Care, Health People/Communities, Affordable Care

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The Fourth Era: Patients at the Center

- 2020 • Attention to diversity, equity and inclusion in healthcare
- 2020 • Healthcare expands priority focus to mental health of patients and staff.
- 2021 • Patient Voices Elevated
- 2022 • CMS Quality Strategy adopts patient-centered approach.

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Approaches to Quality Monitoring

- RETROSPECTIVE CHART AUDITS
- QUALITY ASSURANCE AUDITS
- MEASURE-VENTION
- PROCESS AUDITS

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DMAIC Process for Improvement

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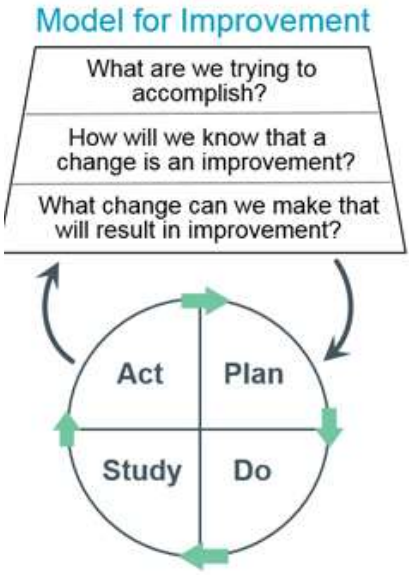
The Model for Improvement & The PDSA Cycle



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The Model for Improvement

The ***Model for Improvement***, developed by the Associates in Process Improvement is a process used by both health care and non-health care organizations to achieve rapid cycle improvement.

The Model asks three key questions to drive improvement efforts:

1. What are we trying to accomplish?
2. How will we know that a change is an improvement?
3. What changes can we make that will result in improvement?

The answers to these questions will inform and populate the ***PDSA cycle*** (Plan-Do-Study-Act) that guides implementation and assessment of necessary changes.

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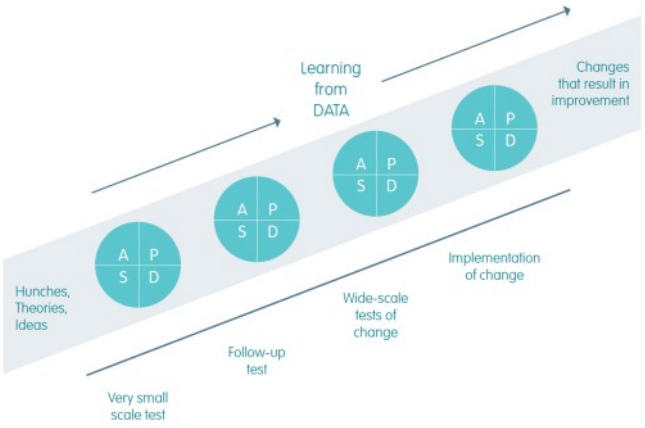
Plan-Do-Study-Act Cycle

- Small Tests of Change
- Real-time data collection through feedback.
- Make tweaks and do it again!
- Gradually expand to larger populations if successful
- Adapt, Adopt, Abandon



Source: Health Innovation of West England: https://www.healthinnowest.net/toolkits-and-resources/quality-improvement-tools-2/model-for-improvement-pdsa/

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Lean v. Six Sigma

Differentiator	Lean	Six Sigma
Primary Interest	Remove Waste	Reduce Variation
The way they look at the world	Flow/Waste	Problem/Defect
Primary Effects	Reduce waste and smooth flow	Reduce variation to reduce defects
Secondary Effects	Less inventory, fast throughput, better performance, more uniform output, less variation, improved quality	Improved quality, better performance, reduced waste, less inventory, faster throughput, uniform process output
Format	Typically Kaizen event format. Concentrated resources in short timeframe	Project format. Resources spread over months
Scope and Scale	Quick and initial gains, ongoing improvements. Suitable for everyone and every part of the business	Complex problems that require indepth analysis; Cross-functional. Specialists

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Key Components of Process Improvement

- Establish a team: Executive sponsor, leader, subject matter experts, front line staff
- Clearly articulate goals or aims: Goals are specific, measurable and achievable
- Perform gap analysis between current and ideal state. Develop action plan for ideal state with identified accountability fop action plans
- Perform small tests of change until ideal state is reached via PDSA/PDCA
- Spread the changes: Develop communication plan, use success stories and continue to monitor

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Who is on the Team?

- *Team Leader*
- *Front-Line Staff Leader*
- *Middle Management Leader*
- *Quality Improvement Expert*
- *Clinical or Ancillary Services Leader*
- *Physician Champion*
- *Executive Sponsor*
- *Patient or Family Representative*

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Tuckman's Stages of Team Development

- **Forming -** *the team are polite and avoid conflict. They wonder what is expected of them. They need roles and responsibilities and clear objectives.*
- **Storming** - *Interpersonal conflict arises, with arguments about roles and responsibilities or differing views or standards. Team needs ground-rules and to listen to each other.*
- **Norming** - *successfully resolved conflict build trust and team members begin to co-operate.*
- **Performing -** *the team is productive and adapts quickly to compensate for strengths and weaknesses.*
- **Mourning / Adjourning –** *the team assesses progress and determines need to meet no longer exists*

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Brainstorming

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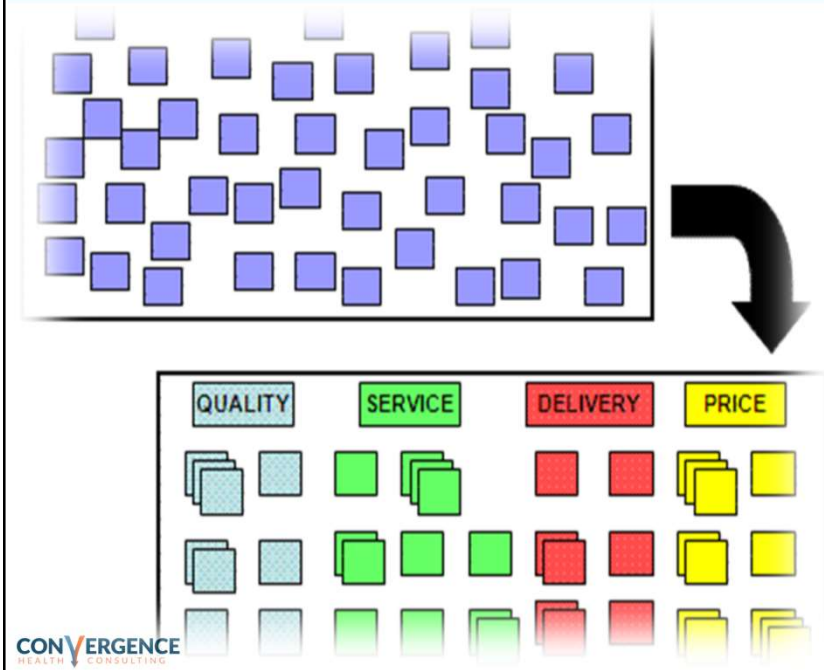

Affinity Diagram

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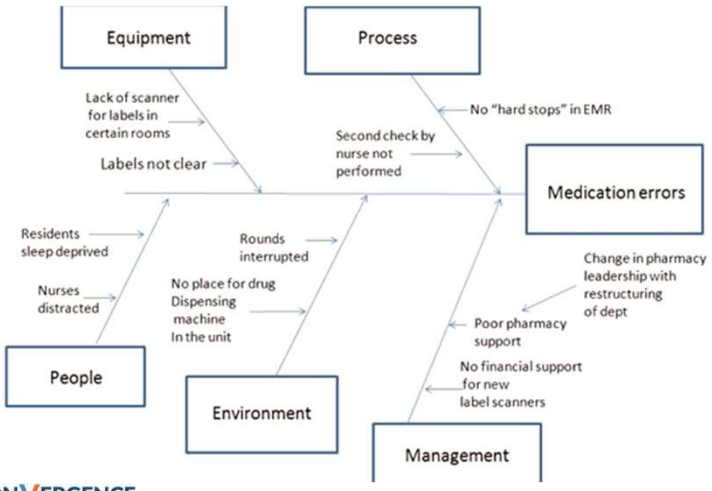
Fishbone (Ishikawa) Diagram



The fishbone diagram identifies many possible causes for an effect or problem. It can be used to structure a brainstorming session. It immediately sorts ideas into useful categories.

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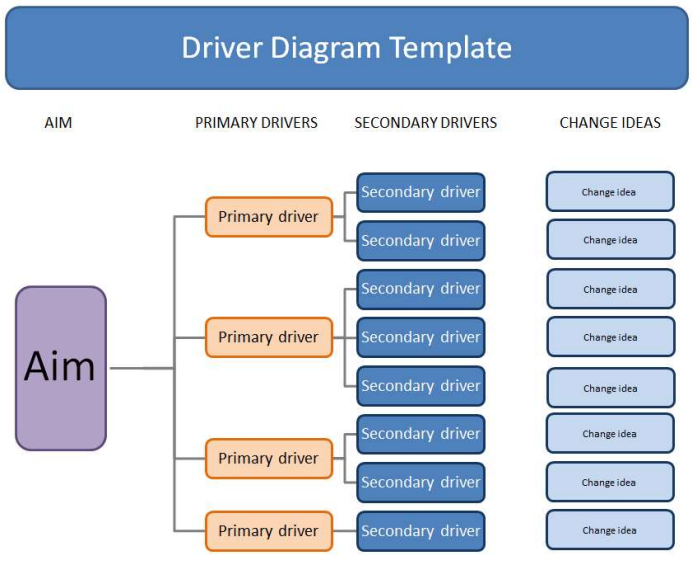
Driver Diagram



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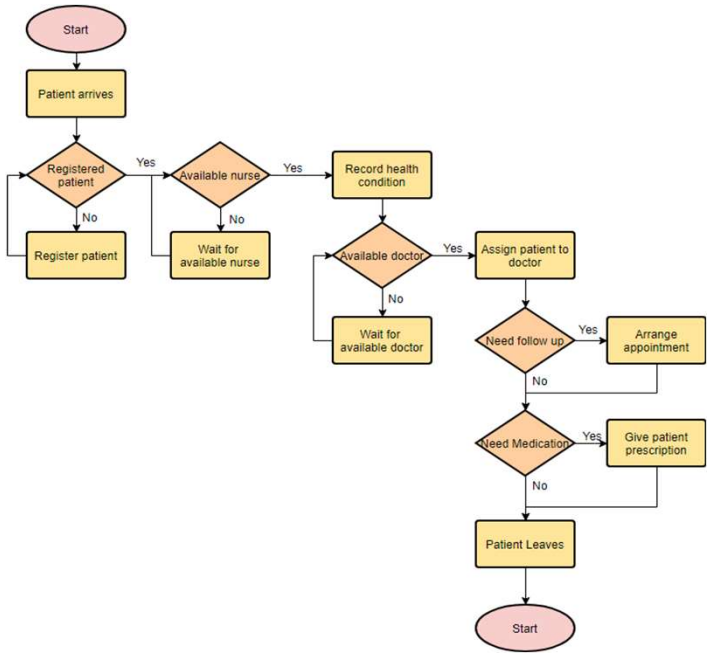
Flow Charting



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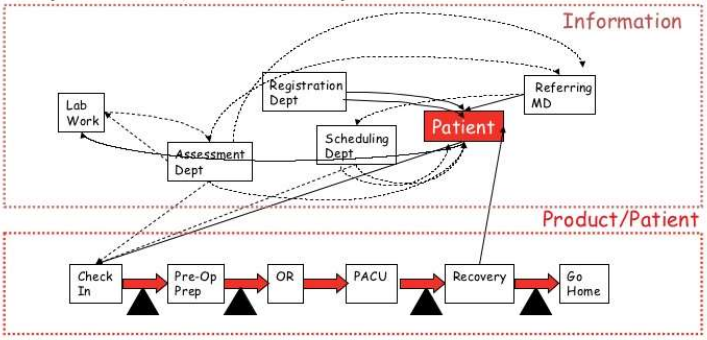
Value Stream Mapping

What is a Value Stream Map?

- A diagram of a process from beginning to end at a level that people can see interactions between departments, floors and processes.



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A3

An A3 Problem-Solving Template (Proposal Stage)

Title: The problem being addressed. **Owner:** **Date:**

Background
Why is the problem important?
Consequences (e.g., harm, frustration, waste):
For whom? Severity? Frequency?

Current Situation
What is actually happening?
Current level of performance? [If not in Background]
How is work done now (process), who is involved?

Problem Statement
What is the performance gap (actual vs. expected)?

Goal
What target condition or specific performance is desired? By when? [S.M.A.R.T. goal: Specific, Measurable, Achievable, Relevant and Timebound]

Analysis
What is contributing to the problem?
What are its root causes?
[How were root causes identified?]
Fishbone Diagram | Root Cause Tree Diagram | Pareto Chart

Countermeasures
What options/alternatives were considered?
Impact Effort Matrix | Criteria Matrix
What countermeasures or strategies are proposed?
[How directly are countermeasures linked to root causes?]

Action Plan
To pilot & implement the selected countermeasures:
What activities will be required?
Who will be responsible for each activity?
When will activities be performed?
Monitor implementation of action plan:
What will be monitored, by whom, when?

Follow-up Plan
Has desired goal(s) been achieved?
What will be checked/measured?
Who will perform the check/measurement?
When will it be performed?
Act/Adjust | Plan | Check | Do

Toyota originated the A3 tool. This template was modified from earlier versions used by Lean teachers David Verble, John Y. Shook, David LaHote, and John E. Billi

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https://qualitysafety.bmj.com/content/31/4/287

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Prioritization Matrix

How to Use
This tool is intended to be completed as a team, incorporating the expertise of all members.

1. Begin by listing potential areas for improvement in the left-hand column.
2. Determine criteria most important for your team in guiding decision making. Examples of criteria are listed below. Add the chosen criteria in the first row of the table. Ensure your team has a common understanding of the definition of the criteria you select.
3. Score each area/idea for improvement in the following columns based on a rating system of 1 to 5 as defined below:

1 = very low	2 = low	3 = medium	4 = high	5 = very high

Rating is subjective and is meant to be a guide and to stimulate discussion.
Add the scores across the row and tally in the final column. Potential improvement areas with a higher score indicates a higher priority.

Problem or opportunity to address	Criteria 1 (add definition)	Criteria 2 (add definition)	Criteria 3 (add definition)	Criteria 4 (add definition)	Criteria 5 (add definition)	Total
1						
2						
3						
4						
5						

4. Discuss the scores, and any other factors relevant to the decision, and identify the priority area(s) to address.

Strategic Alignment
Urgency
Risk
Prevalence
Cost
Impact
Actionable
Resources
Leadership Support
Community Readiness
Demand
Health Equity

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Other Practices

- Activity Network Diagram
- Checklists
- Planning Grid
- Delphi Method
- Failure Mode and Effects Analysis
- Force Field Analysis
- Human Centered Design
- Interrelationship Diagram
- Matrix Diagram
- Multivoting
- Nominal Group Technique
- Pareto Chart
- Spaghetti Diagram
- Three Box Solution
- Tree Diagram

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Aligning Goals to Advance Quality

- Strategic Alignment
- Stakeholder Engagement
- Data-Driven Decision Making
- Continuous Improvement

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Performance Improvement Curriculum

- Need for Improvement
- Common Terms
- Quality and Safety Goals
- Model for Improvement
- Roles & Responsibilities
- Tools and Techniques to Drive Improvement
- Implementation & Sustainability

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Population Health

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Photo by Leah Newhouse: https://www.pexels.com/photo/group-of-people-enjoying-music-concert-325521/

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What can we do?

Comprehensive assessment of patients' health conditions, treatments, behaviors, risks, support systems, values, and preferences.

Effective and patient-centered care planning and monitoring to meet patients' health-related needs.

Active engagement and involvement of patients and their families/caregivers in discussions and decisions about care.

Effective coordination and communication among all health professionals engaged in patients' care across the continuum.

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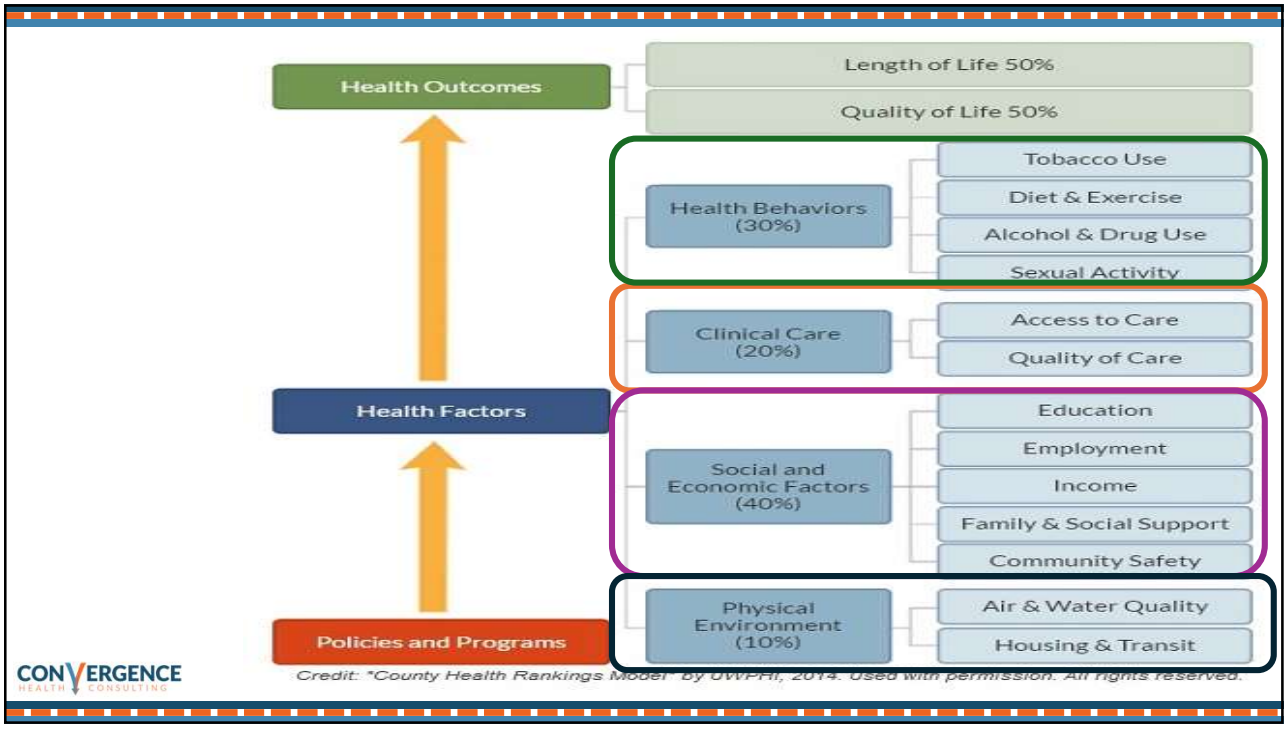

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Social Determinants of Health

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Social Determinants of Health
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Healthy People 2030

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SDOH Screening & Screen Positive

- food insecurity
- housing instability
- transportation needs
- utility difficulties
- interpersonal safety

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The Connection to Health Equity

Collecting and Analyzing Data	• Collect data on patient health outcomes and SDOHs. • Identify disparities and target areas for improvement.
Engaging Community Partners	• Collaborate with local organizations to address SDOHs.
Implementing Targeted Interventions	• Develop programs and initiatives that address the specific needs identified through data analysis.
Monitoring and Evaluating Outcomes	• Continuously track the impact of these interventions on health outcomes. • Refine and improve strategies over time

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Care Transitions

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Quality Professional's Role

- Alignment of policies and procedures
- Value-based population health approaches
- Performance Standards
- Facilitate data exchange with stakeholders
- Population health and case management EMR Integration
- Help develop and maintain engagement of patients and families

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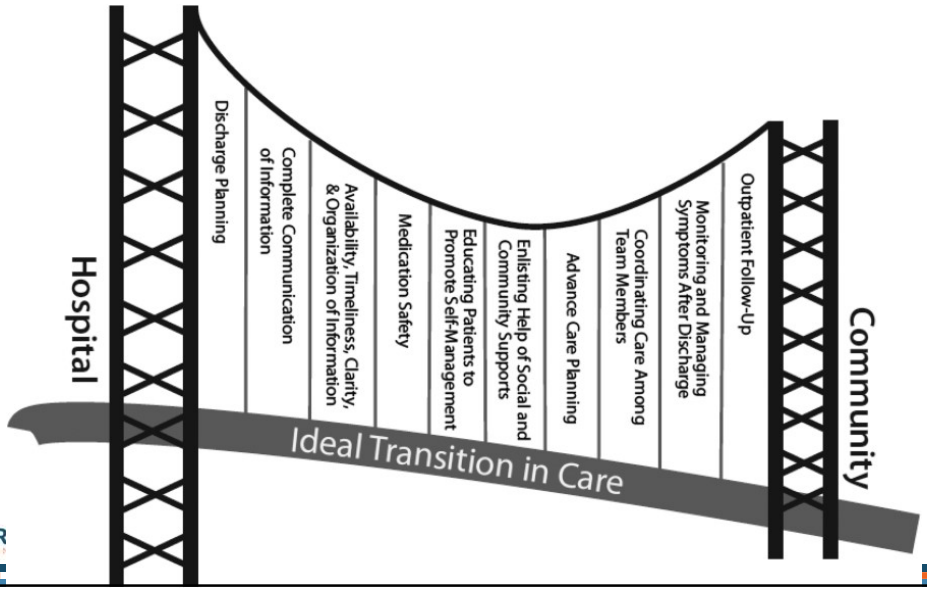
Care Transitions



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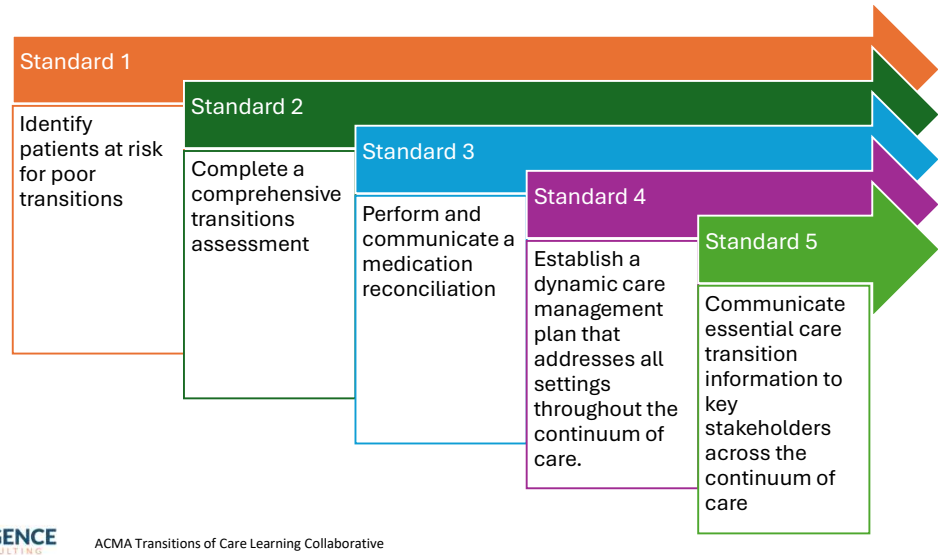
Transitions of Care Standards



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Case Management

- Client **identification** & selection
- **Assessment** and problem/opportunity identification
- Development of the case management **plan**
- **Implementation** and **coordination** of care activities
- **Evaluation** of the case management plan and **follow-up**
- **Communicating** post-transition

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Reach Out Any Time!

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Media & Resources

- Six Domains of Healthcare Quality
- National Patient Safety Goals – Joint Commission
- Prioritization Tool – Stratis Health
- Team Development as told by The Fellowship of the Ring
- Convergence Health Resources on SDOH
- Health People 2030 – Social Determinants of Health
- AHA Population Health Framework

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