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Implementing a Systems-Level Change Model to Increase Capacity of Home Care and Telehealth Extended Care Services in a VHA Spinal Cord Injury Center

Christine M. Nicholas, DNP, MSN, RN, LSSBB

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Co-Authors

Seth D. Chandler, DO, FAAPMR

Nancy Cuevas-Soto, DNP, RN, NPD-BC, NEA-BC

Frank Puga, PhD

Team Members

Rick Reusch, MBA, RN, CRRN

Maybelyn Bautista, MSN, RN, CRRN

Sandra Linscott, BSN, RN, CRRN

Patrice King, BSN, RN, CRRN

Louis Njowo, RN

Sandra Gardner, ADN, RN

Conflicts of Interest

I have no conflicts of interest related to this presentation or the conference

Sponsorship

I did not receive any sponsorship or commercial support related to this project

Employment

I am currently self-employed as a coach/mentor for graduate nursing students

Learning Objectives

1. **List** methods to identify improvement opportunity
2. **List** components of the Systems-Level Change Model
3. **Describe** benefits of the Systems-Level Change Model
4. **Apply** the Systems-Level Change Model for improvement in your organization
5. **Discuss** implications for use of the Systems-Level Change Model

Overview

- Opportunity for improvement & project purpose
- Increasing capacity via the Systems-Level Change Model
- Conclusions
- Sustainment
- Lessons Learned
- Implications

U. S. Population of Interest

Disability Prevalence

- 56.7 million disabled
- > 28 million severe

(NSCISC, 2015; U. S. Census Bureau, 2012)

Spinal Cord Injury (SCI)

- >276,000
- >15,000 treated in VA system each year

(NSCISC, 2015; U. S. Department of Veterans Affairs)

Barriers to Care

U.S. General Population (non-veteran)

- 18% - affordability barriers
- 21% - non-financial barriers

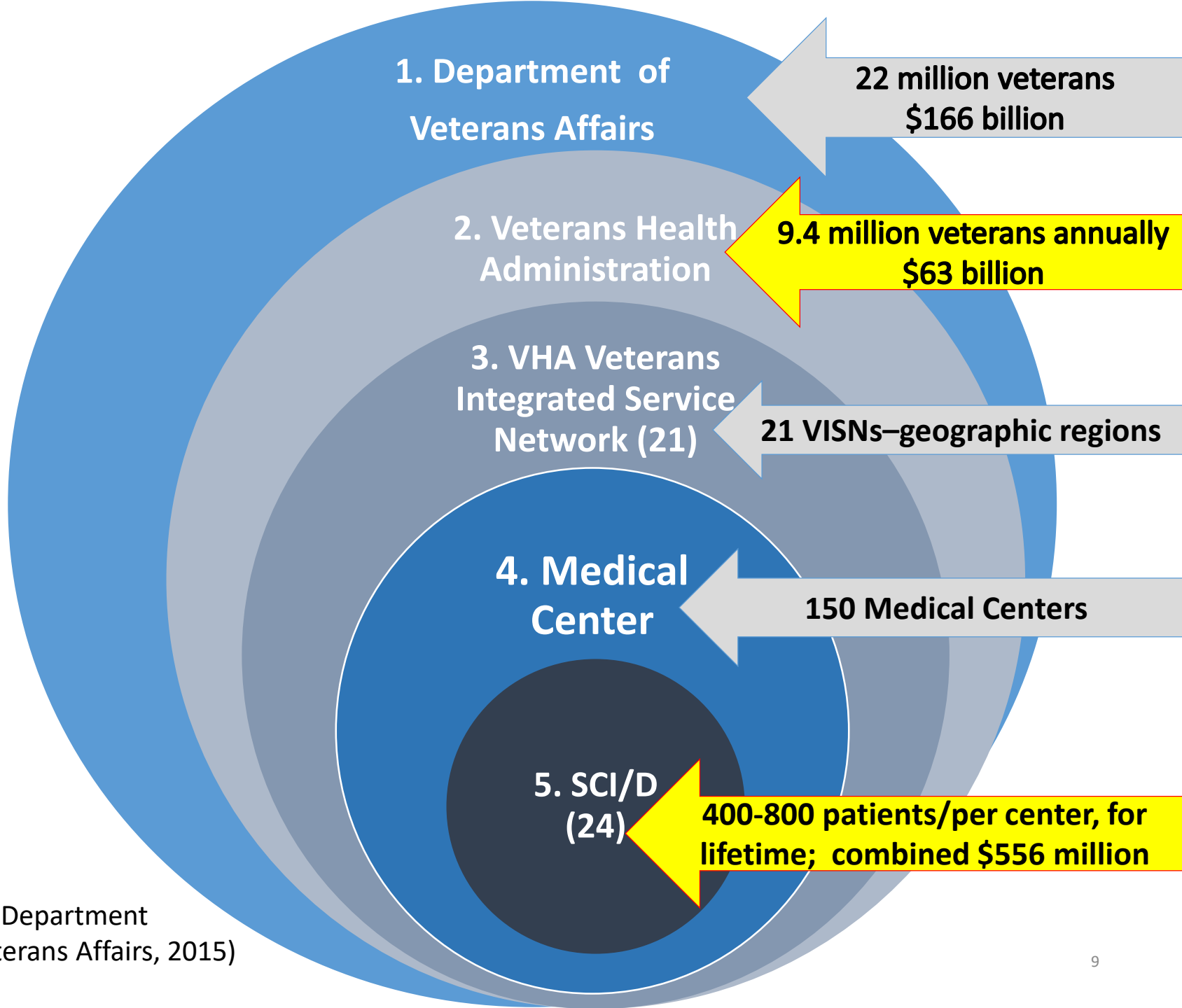
U.S. SCI Veterans

- Experience same barriers

(Kullgren, McLaughlin, Mitra, & Armstrong, 2012; PENCHANSKY & THOMAS, 1981)

(S. M. Kehle, N. Greer, I. Rutks, & T. Wilt, 2011; S. M. Kehle, N. Greer, I. Rutks, & T. J. Wilt, 2011; Vogt et al., 2006; Washington, Bean-Mayberry, Riopelle, & Yano, 2011)

Complex Organization



(U. S. Department of Veterans Affairs, 2015)

Current State of Extended Care Services 2015

Total Enrollment
429

Home Care
Max capacity = 30
FY 2015 = 55

Telehealth
Max capacity = 32
FY 2015 = 147

Annual Staffing Cost
\$200,000 est.

Opportunity for Improvement Extended Care Services

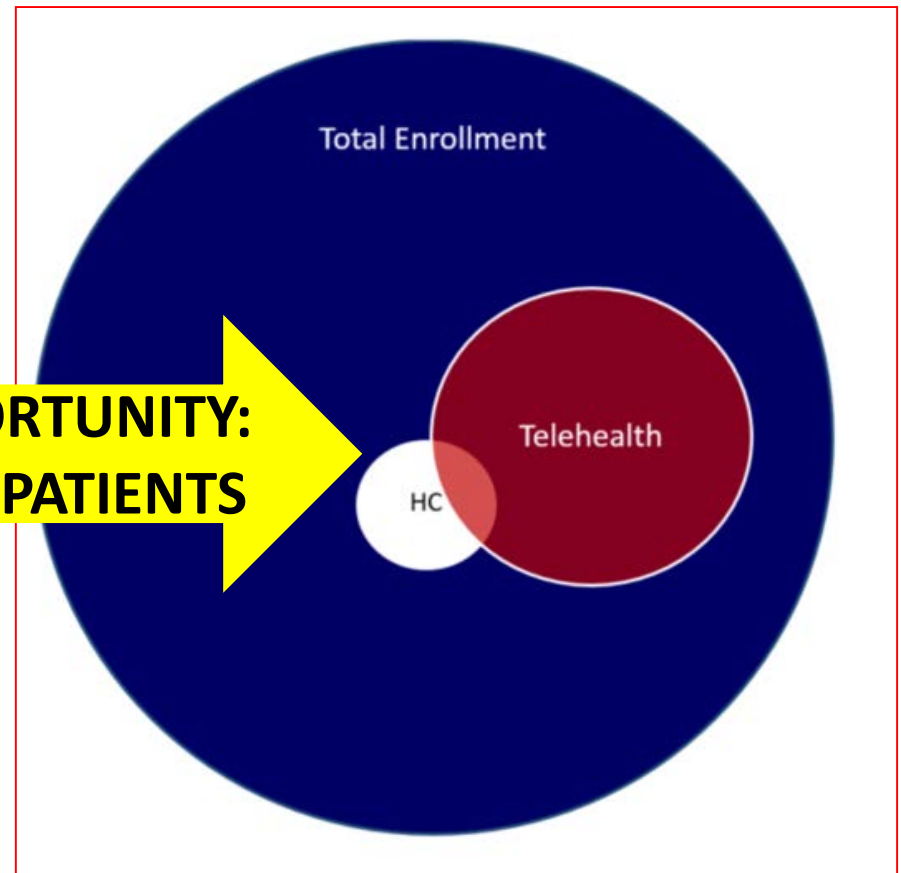
Total Enrollment
429

Home Care
Max capacity = 30
FY 2015 = 55

Telehealth
Max capacity = 32
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Annual Staffing Cost
\$200,000 est.

**OPPORTUNITY:
>200 PATIENTS**



Purpose

Increase Home Care and Telehealth

Extended Care Services Capacity

Project Approach

Highly Complex organization

1. multi-faceted evidence-based approach
2. multiple theories, frameworks and models

Secondary Purpose

Identify frameworks that would

- inform this project
- serve as a model for future projects



Outcome: Program Management Plan,
1st Step Toward Increased Access to Care

Organizational Learning: Multimethod
Assessment Process/Reflective Adaptive
Processes (Stroebe et al., 2005)

Organizational Behavior:
Behaviour Change Wheel (Michie, van Stralen,
& West, 2011)

System Processes:
Donabedian Conceptual Model
(Donabedian, 1980)

Organizational Context:
Consolidated Framework for
Implementation Research
(Damschroder et al., 2009)

Systems-Level Change Model

Level 1

organizational context



Context:

**Consolidated Framework for
Implementation Research**
(Damschroder et al., 2009)

Systems Change Model

Patient Needs Assessment

Each participant was asked:

1. Aware?
2. Past use?
3. Interest?
4. More information?

Patient Needs Assessment

N = 151

Program	# Aware (%)	# Past Use (%)	# Interest (%)	# More Info (%)	
Telehealth	Clinical Video Telehealth (CVT)	78.0 (51.6)	17 (11.3)	105 (69.5)	97 (64.2)
	Home Telehealth (Telephone)	63 (41.7)	26 (17.2)	81 (53.6)	62 (41.0)
	Secure Messaging	95 (62.9)	61 (40.4)	124 (82.1)	69 (45.7)
	Home Care	112 (74.1)	65 (43.0)	111 (73.5)	61 (40.4)

Organizational assessment results & findings – Part I. Culture

Internal Focus	Flexibility		External Focus
	Group (22.69)	Developmental (14.62)	
	Hierarchical (37.31)	Rational (25.85)	
	Stability		

Organization Emphasis by culture type

Group: values associated with affiliation, teamwork, and participation

Developmental: culture based on risk-taking innovation and change

Rational: emphasis on efficiency and achievement

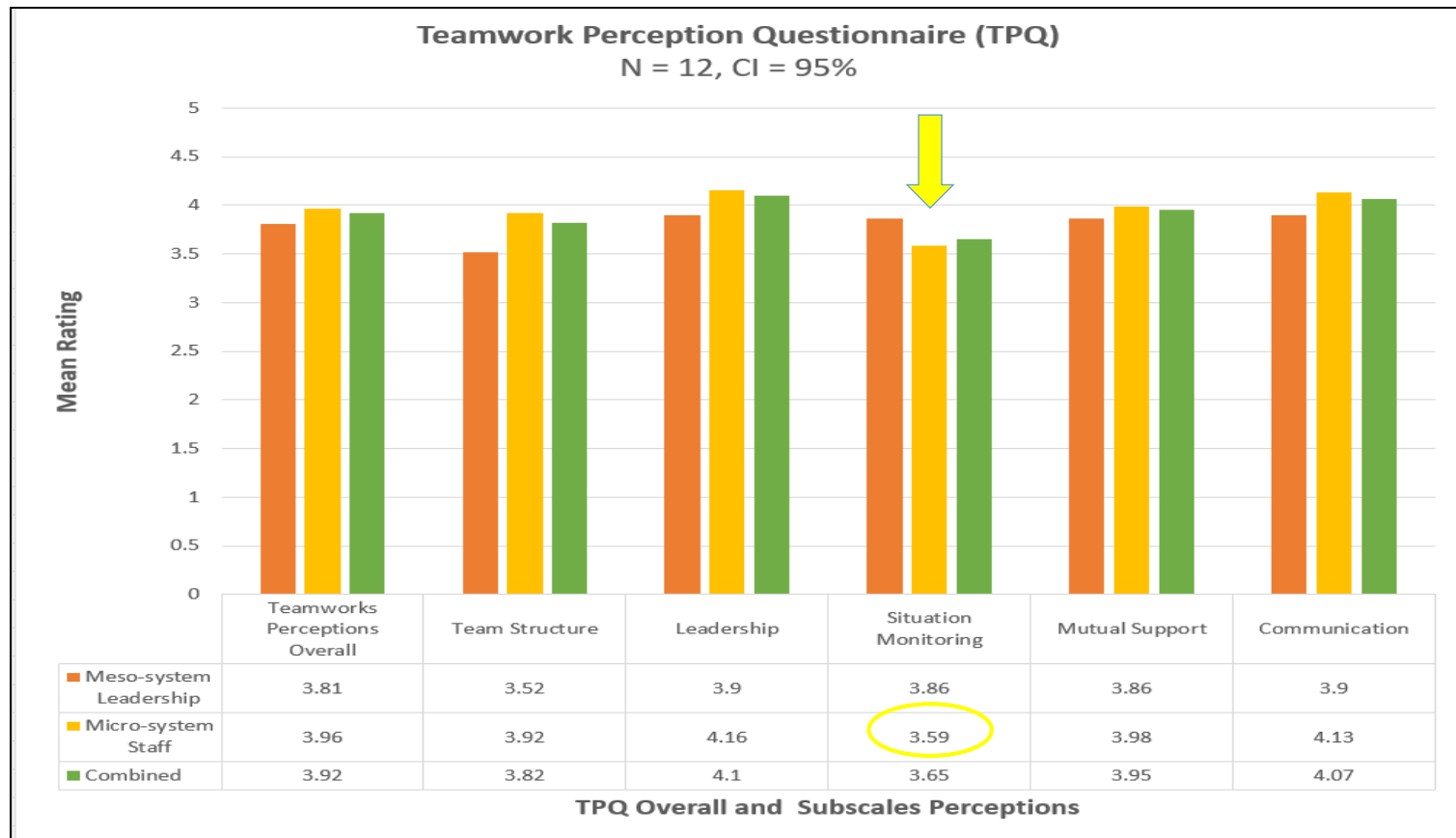
Hierarchical: values and norms associated with bureaucracy

Organizational assessment results & findings - Part II. Quality

Variable - Baldrige Factor Scale	Total Mean	Std Dev	Range
Leadership (LEAD)	4.07	0.51	3.33 - 4.83
Customer Satisfaction (CSAT)	3.88	0.72	3.25 - 5.00
Quality Management (QM)	4.40	0.36	3.75 - 5.00
Information and Analysis (INFO)	4.17	0.61	3.00 - 5.00
Quality Results (QR)	3.50	0.58	2.50 - 4.25
Employee Quality Training (HRU)	3.79	0.70	2.50 - 5.00
Employee Quality Planning Involvement	3.85	0.59	2.80 - 4.80

Likert Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree, and 9 = Don't Know

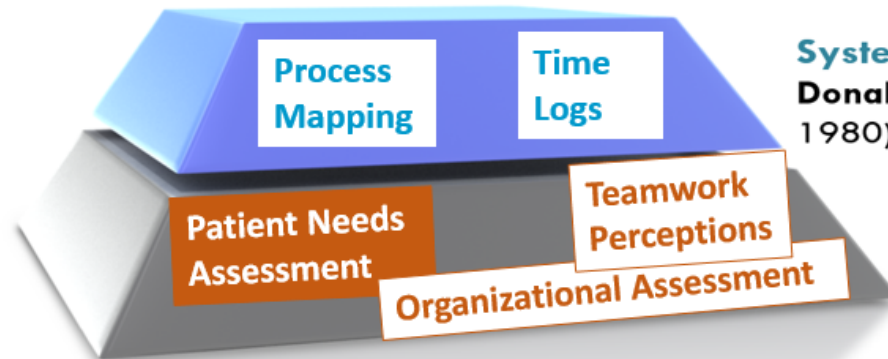
Teamwork Perception Questionnaire Results



Scale: 1= Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Level 2

systems processes



System Processes:

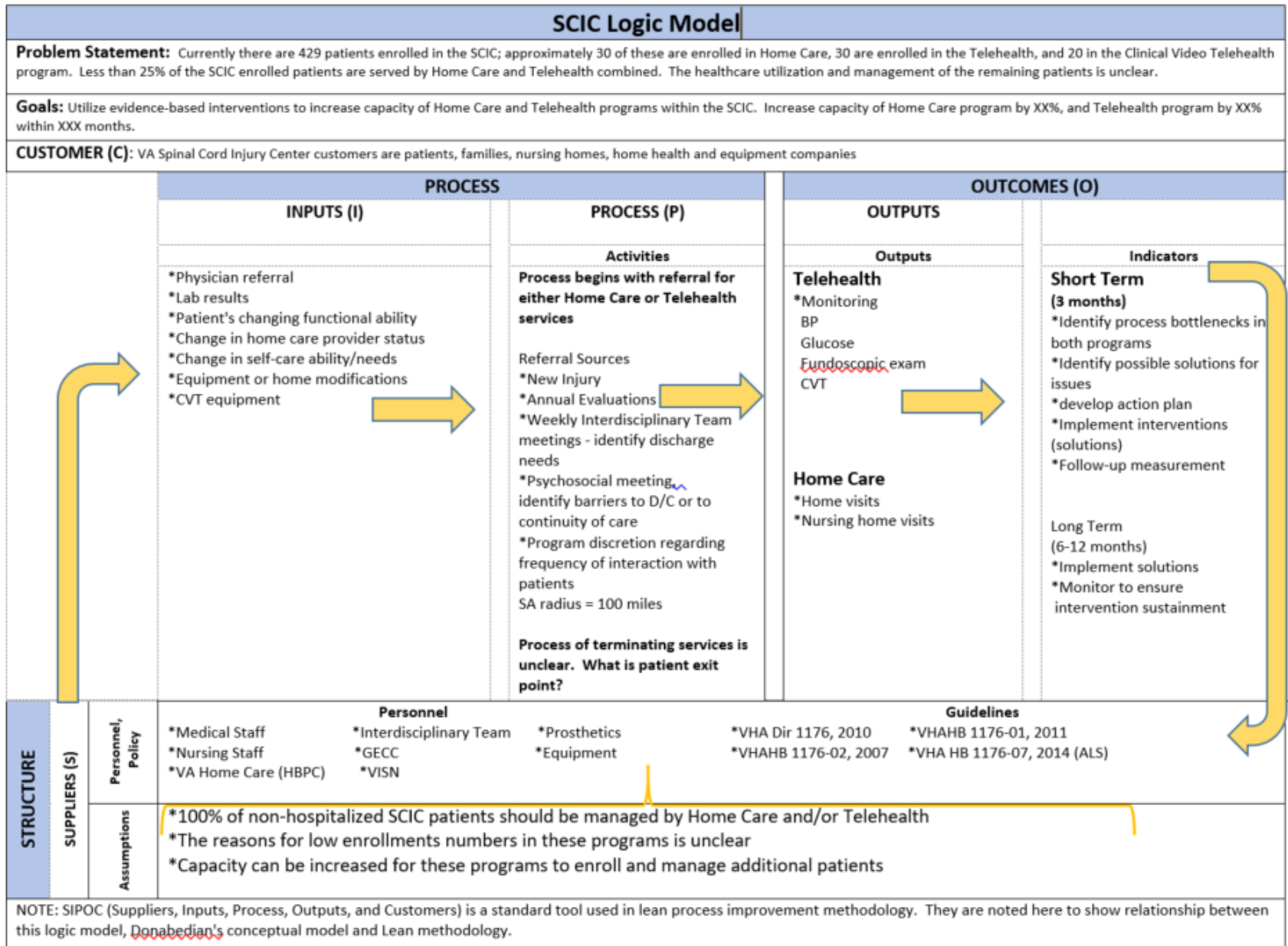
Donabedian Model (Donabedian, 1980)

Context:

Consolidated Framework for Implementation Research
(Damschroder et al., 2009)

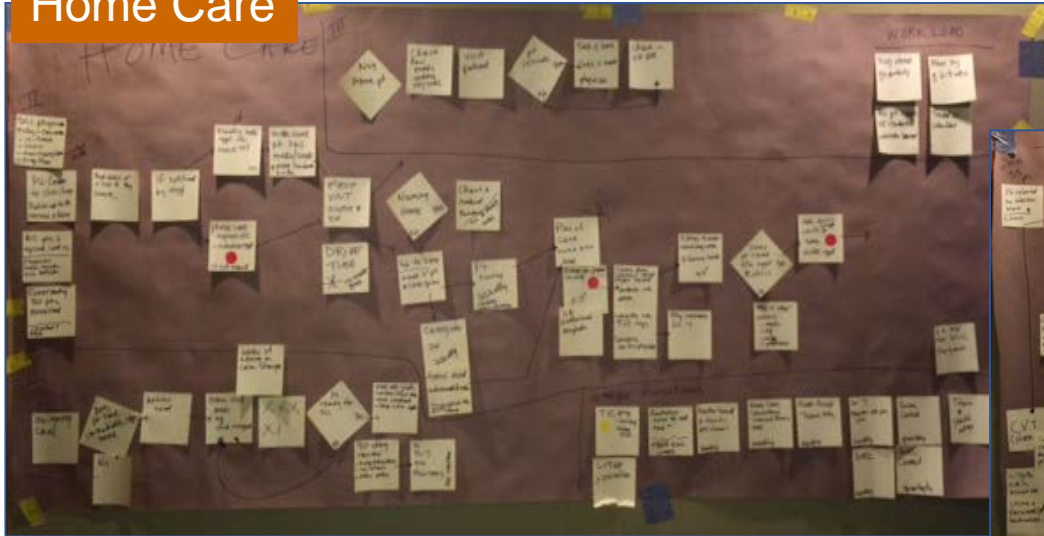
Systems Change Model

systems processes



Process Mapping

Home Care



Telehealth



Results	Home Care	Telehealth
# Steps	42	53
# Non-Value-Added Steps	3	18
% Non-Value-Added Steps	7%	34%

Findings

- Complex processes
- Duplication of effort
- Ineffective use of professional staff

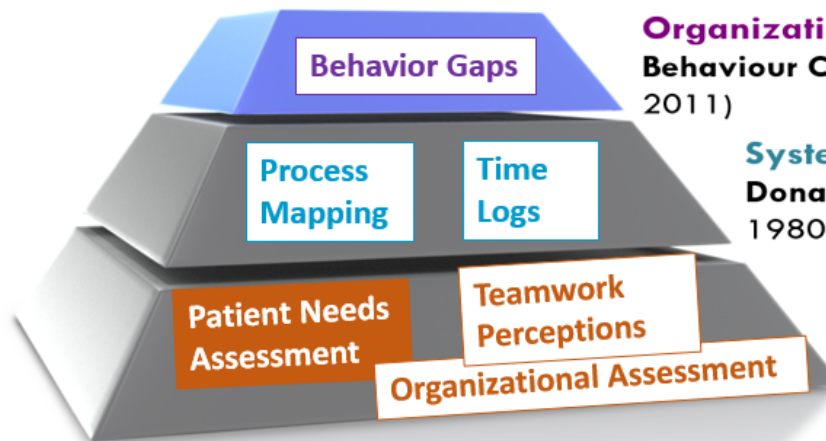
Time Logs

PROGRAM:			Time Logs											
NAME:														
WEEK	DAY	DATE	ACTIVITY (include patient's name)	TIME (In hrs.)	ACTIVITY (include distance)	TIME (In hrs.)	MILES	ACTIVITY (Specify which meeting)	TIME (In hrs.)	ACTIVITY Responding to phone messages	TIME (In hrs.)	ACTIVITY Medical Record Review	TIME (In hrs.)	
WEEK ONE	Monday	25-Jan												
	Tuesday	26-Jan												
	Wednesday	27-Jan												
	Thursday	28-Jan												
	Friday	29-Jan												

Activity	Home Care Hours Logged	Telehealth Hours Logged
Patient encounter	40.0	3.1
Meetings	22.7	22.3
Telephone	10.7	14.8
Patient Record Review	9.2	4.5
Accreditation Prep	1.5	6.6
Documentation	0	6.0

Level 3

organizational behavior



Organizational Behavior:

Behaviour Change (Michie, van Stralen, & West, 2011)

System Processes:

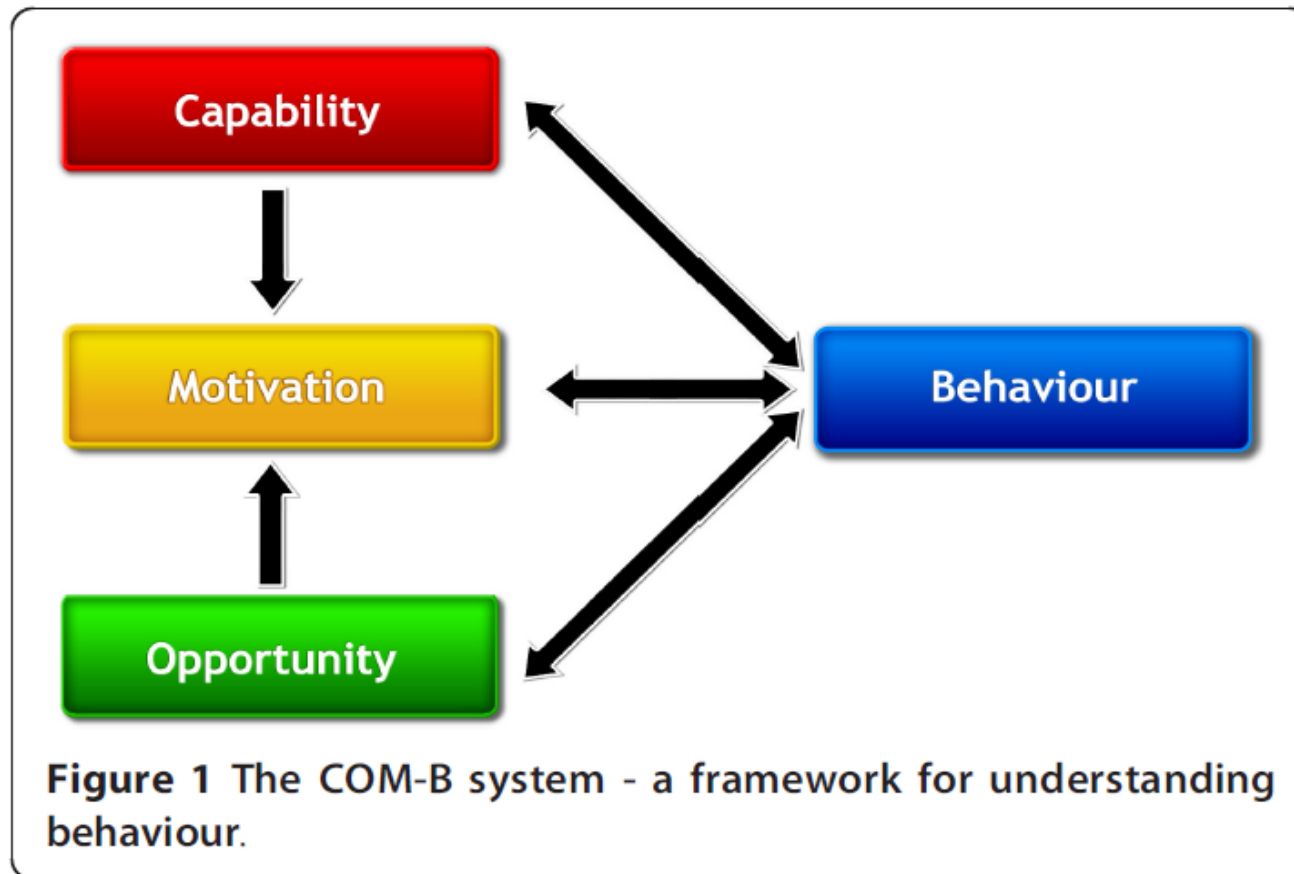
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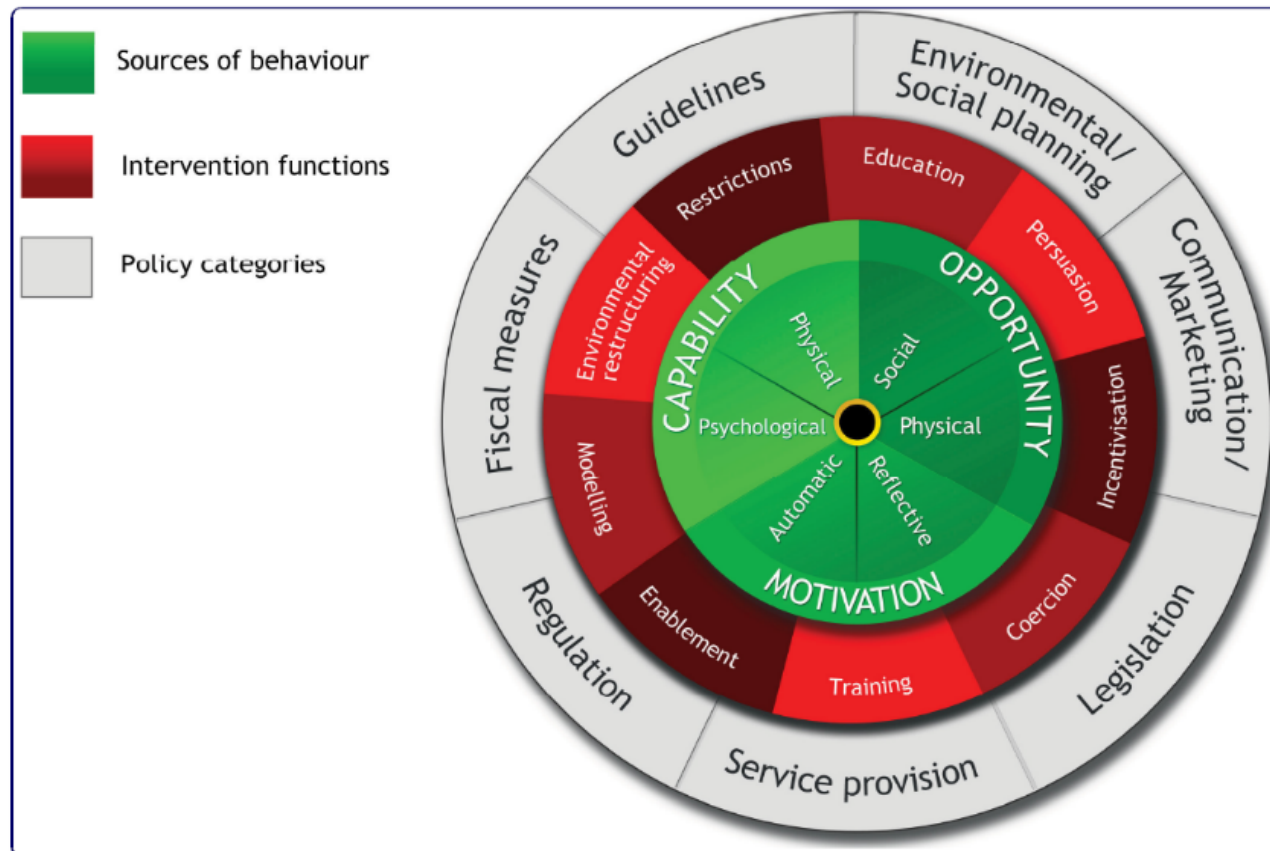
Systems Change Model

Behavior Change Wheel Part 1 - COM-B system



Behavior Change Wheel

Part 2 – Linking the Three Layers



Gap Analysis

Leadership Behavior Gaps

Obtain access to appropriate data

Manage staff time utilization

Review patient outcomes

Clarify directive interpretation

Extend limited network reach

Assess patient needs

organizational behavior

Program Management Plan

Leadership Governance Accountability

Desired Behavior	Metrics	Frequency	Outcome	Impact
1. Monitor & manage time utilization	# patient encounters # patients in each acuity level (intensive, maintenance, preventive)	Weekly	Effective time utilization Appropriate level of care provided	Effective use of professional time Increased capacity

Gap Analysis

Clinical Staff Behaviors Gaps

Accurately manage & document time utilization

Document & communicate process issues to leadership

Extend limited network reach

Assess patient outcomes

organizational behavior

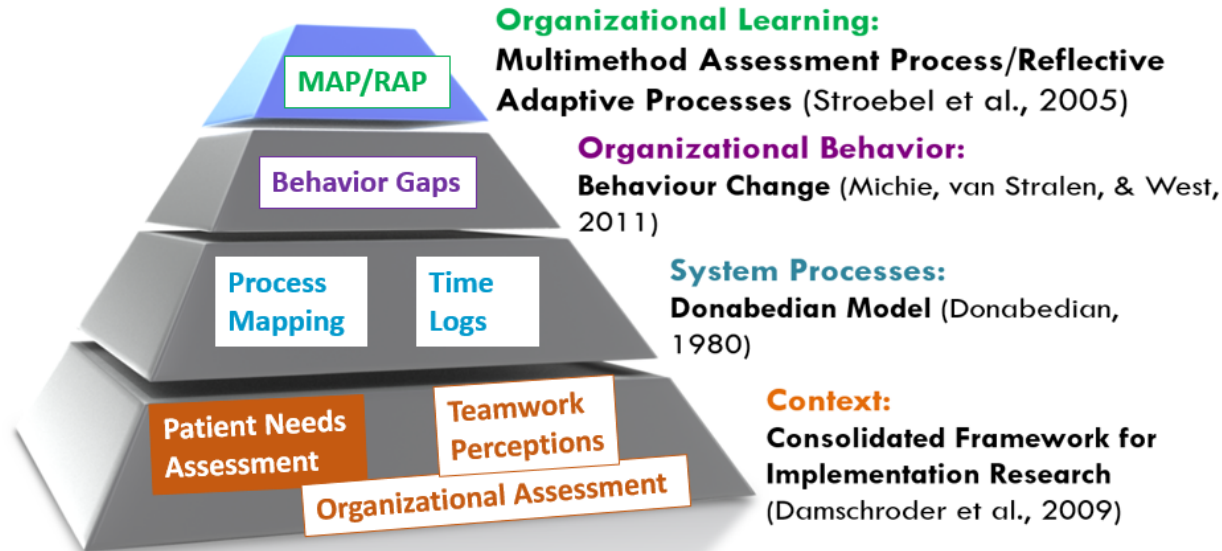
Program Management Plan

Extended Care Clinical Staff Accountability

Desired Behavior	Metrics	Frequency	Outcome	Impact
1. Monitor education effectiveness <ul style="list-style-type: none">• Patient• Family• Care taker• Agency staff	# of Events <ul style="list-style-type: none">• Bowel & bladder accidents• UTI• Falls• ED visits• New pressure ulcers	Collected <ul style="list-style-type: none">• every visit Reported <ul style="list-style-type: none">• Monthly• annually	<ul style="list-style-type: none">• Decreased events frequency• Knowledge about condition• Skills to manage condition	De-escalate frequency of ED visits, missed appointments, hospitalizations

Level 4

organizational learning



Systems Change Model

Multimethod Assessment Process (MAP)/ Reflective Adaptive Process (RAP)

Principles

- Shared vision, mission, shared values
- Time and space for learning & reflection
- Tension & discomfort are essential and normal
- Include stakeholders
- Actively involved leadership

Multimethod Assessment Process (MAP)/ Reflective Adaptive Process (RAP)

Use of multiple data collection methods

Qualitative

Quantitative

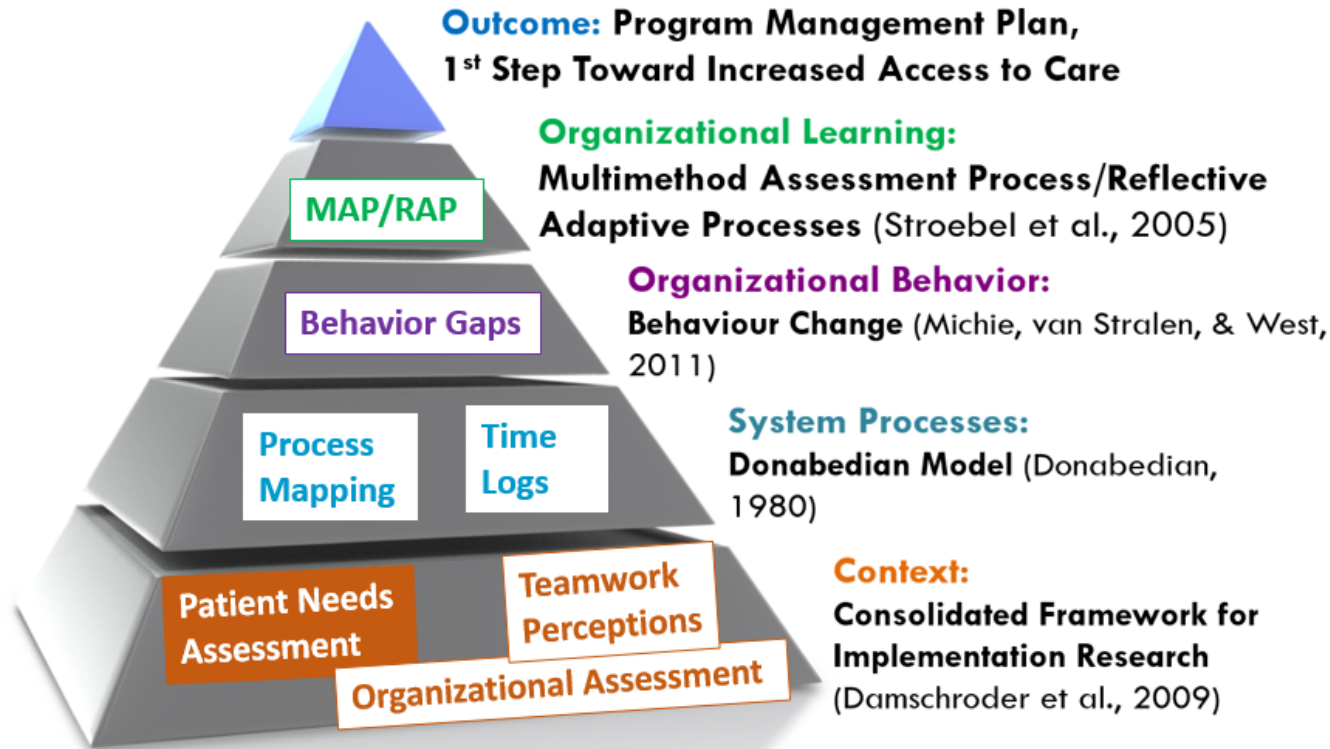
organizational learning

Multimethod Assessment Process (MAP)/
Reflective Adaptive Process (RAP)

Shift in thinking, from mechanistic
understanding to

- Facilitated change
- Tensions of change
- Qualitative & quantitative data
- Complex adaptive system

Beginning of transformation...



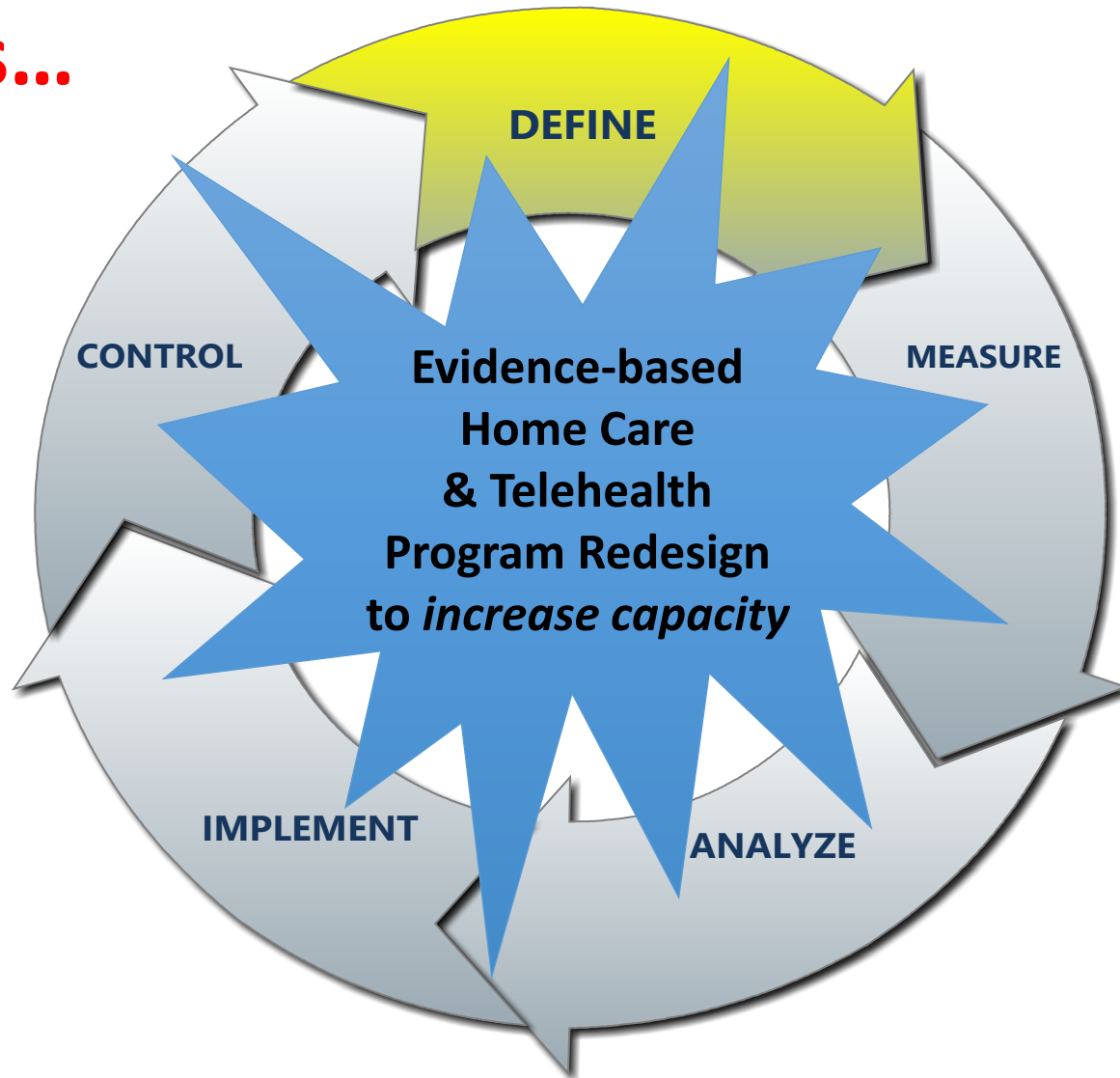
Systems Change Model

Recommendations

1. **Adapt MAP/RAP principles**
2. **Commit** to Program Management Plan
3. **Collect** meaningful data
4. **Incorporate** current evidence in reflection
5. **Reach out** to network partners
6. **Follow up** with periodic assessments

Iterative Change Method

Next Steps...



Initial Results


Leadership

- initiated meetings with Home Care nurse
- Monday – plan for the week
- Friday – accomplishments for the week

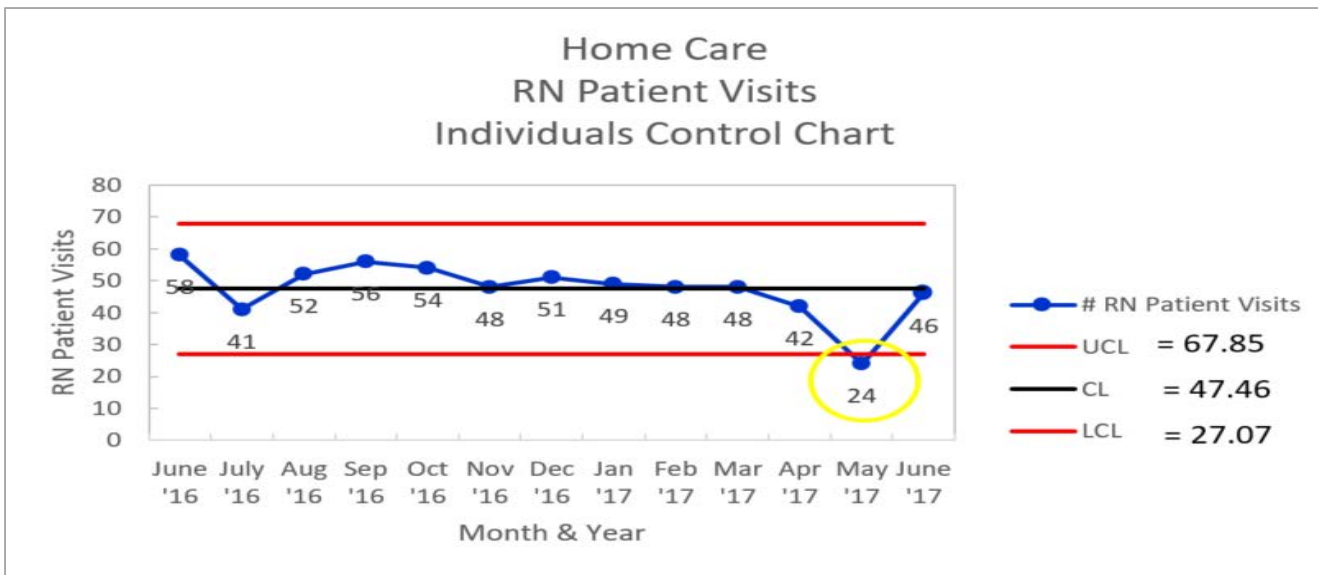
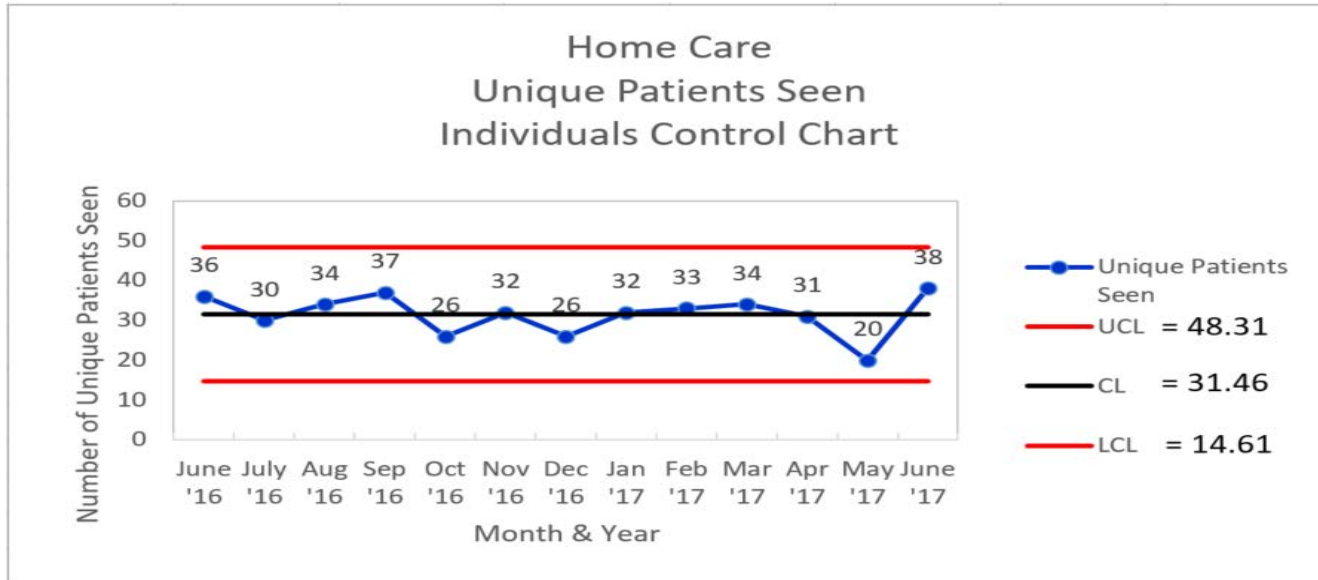
Results

- Home Care visits increased from 25 to >50-60/month
- Asking for laptop
- Increased staff morale

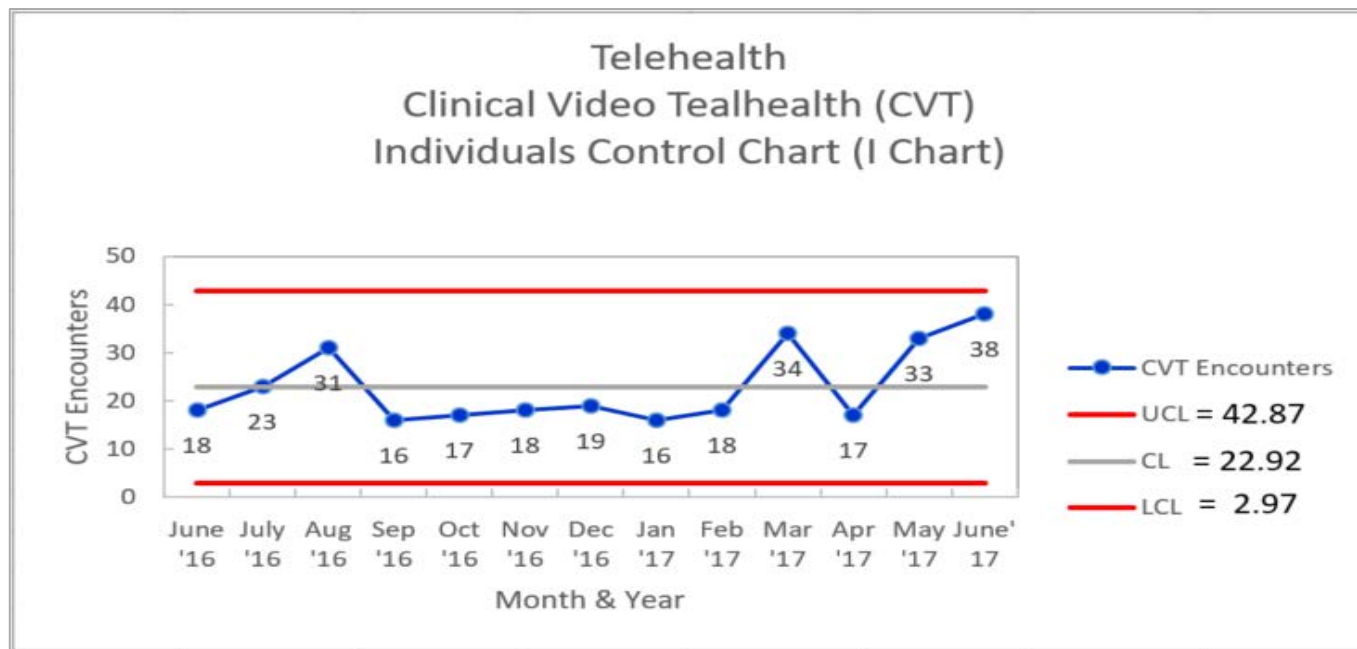
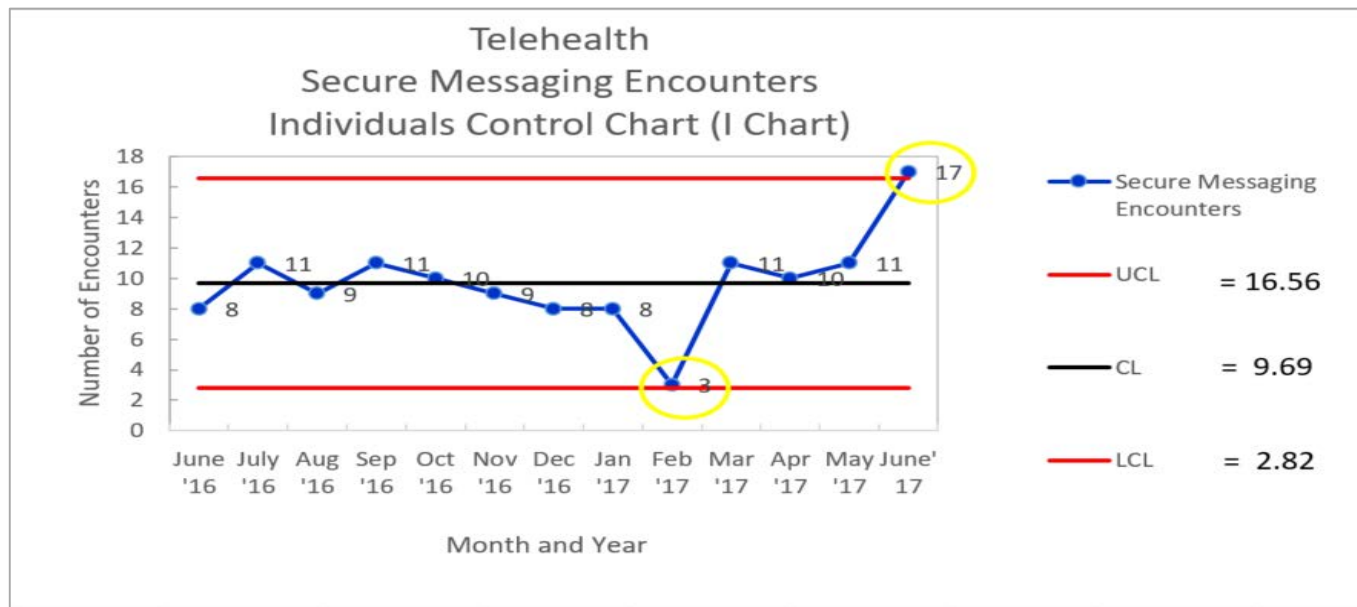
Conclusions

- VHA organization is not designed for micro-system accountability
- Created **awareness**
- Created environment for **learning**
- Established Program Management Plan
- Preparations for Program Redesign have been initiated
- Introduced concept of culture change 

SUSTAINMENT - Homecare



Sustainment - Telehealth



Lessons Learned

FACILITATORS

- Use of theories, models & frameworks
 - provided structure to project
 - facilitated depth of understanding
 - instilled confidence in intervention & recommendations
 - generated organizational learning

BARRIERS

- Unavailable patient outcomes data
- Unavailable productivity data
- Non-VA employee
 - Time limitations
 - Limited system access
- Leadership wanting quick solution

IMPLICATIONS

- Further use to test and validate model efficacy
- Dissemination of results

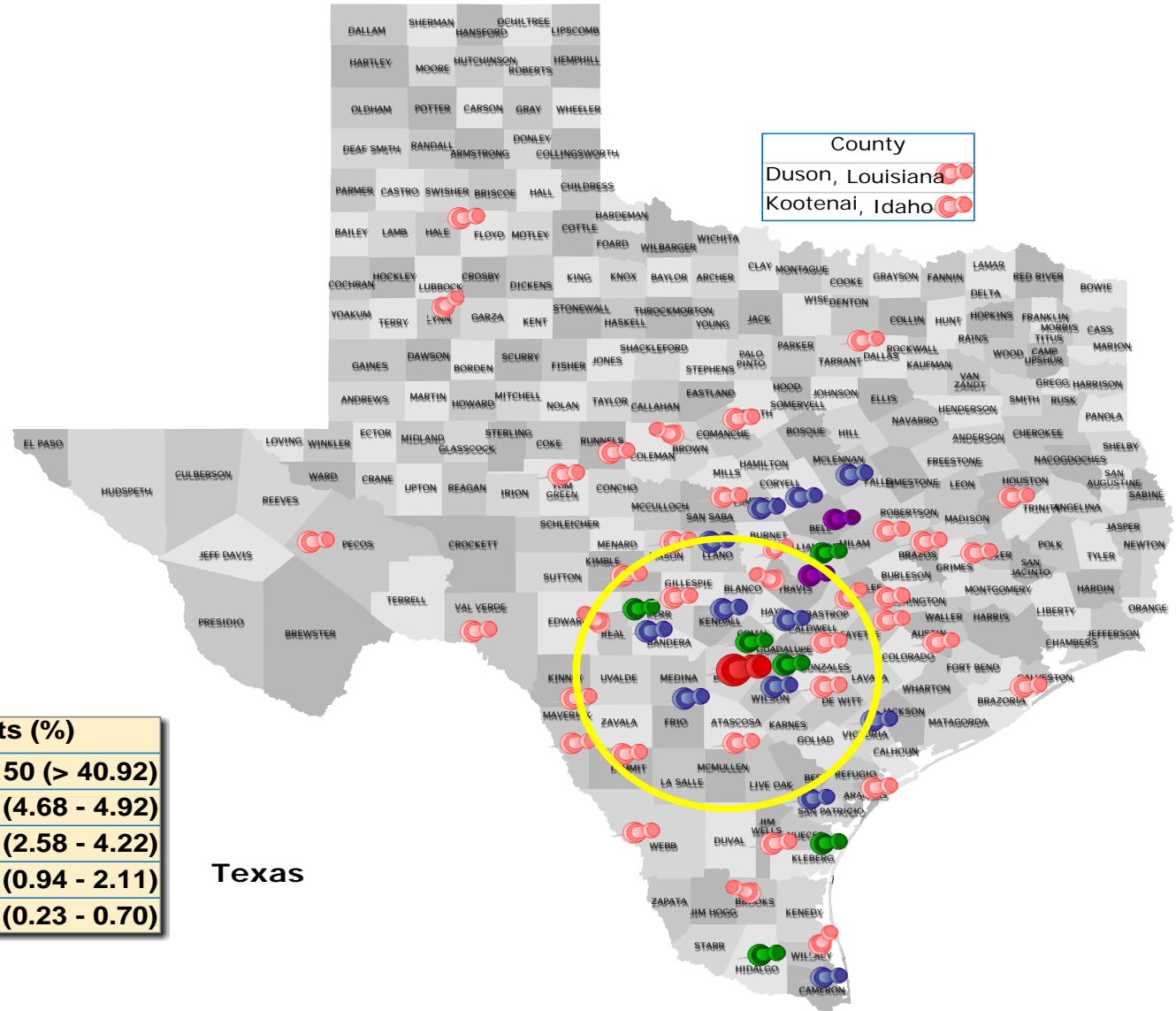
Questions?

Thank you!

Contact: Christine Nicholas | n2ncoach@gmail.com

Widespread Patient Distribution

60-85% within
100 mile radius



PowerPoint Presentations Recommendations

- **General Information**

- Your audience will be **multinational**. Be sure to explain/define any slang terms, acronyms, etc.
- Slides should **not have more than five lines** of information apiece.
- Be aware of time limitations.
- Space information evenly on the slides.
- Your speech should not be written but highlighted on the page.

- **Color/Font**

- Use the option for “Font TrueType”.
- Maintain consistent fonts throughout, using **no more than two fonts on one slide**.
- **Use traditional bullets (i.e., circles or squares)**, instead of ‘fun’ bullets. Depending on the version of PowerPoint used, some bullets may not transfer.
- Ensure that your **background and font colors are easy to read** at a distance.
- Fonts should be easy to read (**no smaller than 24-point**).
- Style **headers in the same font and point size throughout** the presentation.
- The **body of the slides should be in the same font and font size throughout** the presentation.

- **Animation**

- Limit animations.
- If you are using animation, be sure that it is **timed and that transitions do not occur on the click**.