Time-Tested Approaches to DNP Scholarly Projects

DNP
DOCTOR IN ...

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Case Western

Collaborators

Yale	Duke	Johns Hopkins	NYU	Ohio State
Rutgers	Rush	UAB	UC Denver	Pitt
UIC	Iowa	Maryland	Michigan	Minnesota
MUSC	North Carolina	Vanderbilt	Virginia	Washington

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COLLABORATE

work jointly on an activity, especially to produce or create something

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The Problem

Cronenwett L(1), Dracup K, Grey M, McCauley L, Meleis A, Salmon M.

It has been said that the DNP …….

- Will be bad for our profession

- Will reduce the number of scientists

- Will be the bud light of doctoral education

- Lacks consistency

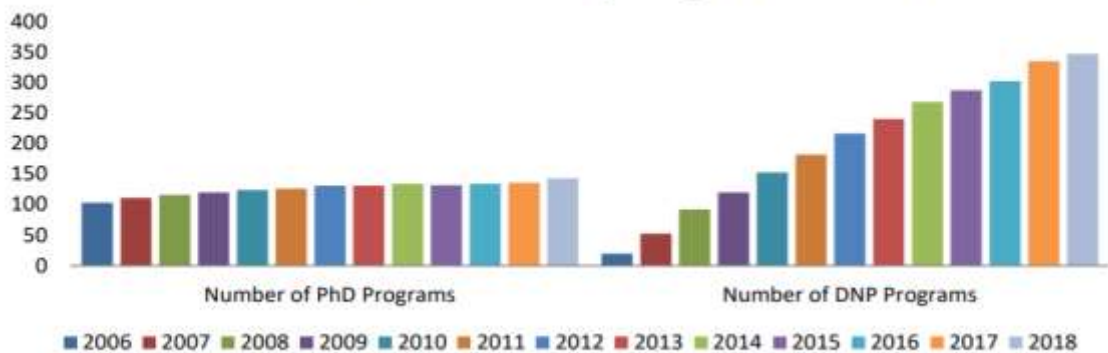Cronenwett, Dracup, Grey, McCauley & Meleis (2011)

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The Problem

More recently it has been said …….

- It is a great way to raise revenue

- It has been taken to scale at the expense of quality

- Pressure to produce prevents application of new

  competencies

And yet

AACN (2019)

Background

- 14 years
- 348 programs
- 50 states
- 7,039 graduates
- 32,678 students enrolled
- 7,039 projects
- Marked innovation in education & evaluation
- Highly variable approaches
- Inconsistent expectations

Questions

1. What can be learned from the experiences of established DNP programs that might benefit all DNP programs?

2. What is the nature of the scholarly projects being conducted?

Purpose

To describe the scholarly projects accepted in partial fulfillment of requirements for graduation from DNP programs across the United States:

– Nature of the work

– Outcomes achieved

– Challenges encountered

– Lessons learned

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Bigger Plan

Phase I
2014
Initial Study

Tool Development
1 Program

Phase II
2019
Expanded Study

Feasibility & Refinement
22 Schools

Phase III
2020
Inclusive Study & RCPI

All Welcome

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Methods

- Convenience sample
- 22 established DNP programs
- 25 projects randomly selected from each participating program (graduated 2018 - 2019)
- 2 faculty from each program review every project using tool to describe work

Deemed exempt by CWRU IRB

Framework

Uncertainty, Pace & Complexity Model (Shenhar & Dvir, (2007)

2 streams of work in any enterprise

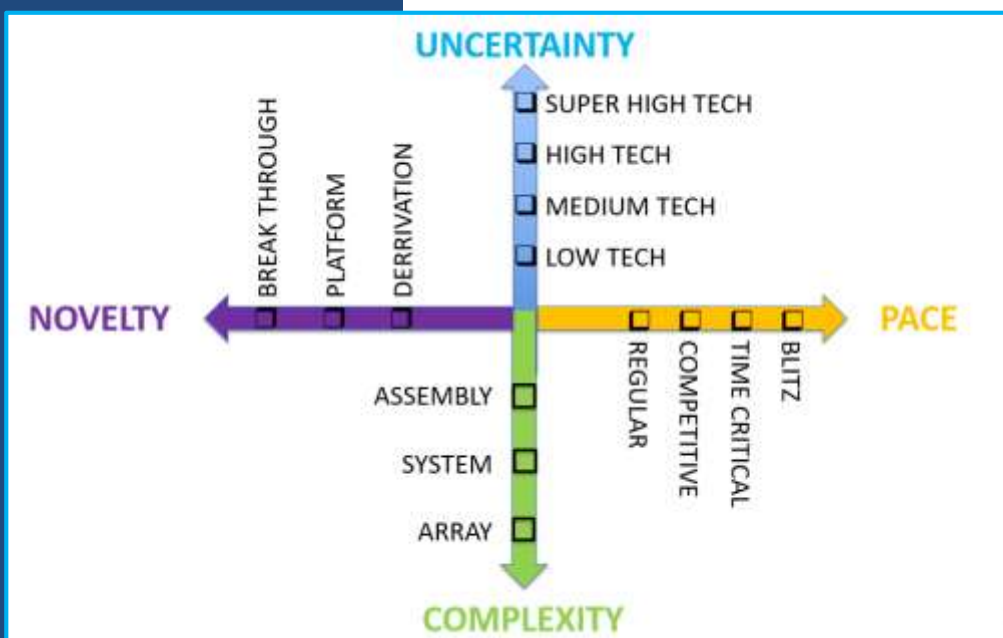1. Operation – capable management

2. Innovation – impactful projects

Research Questions Based on the Model

- How **uncertain** was the outcome?

- What was the **pace** of the change required to meet demand?

- How **complex** was the intervention? The context?

- What was the **scope of the work**?

- What **business goal** was targeted?

Framework

Research Questions of Interest to the Team

- What were the **aims** of the work?

- What **framework** guided the work?

- What **methods** were used?

- What was **the IRB decision**?

- What **analytics** were used?

- Was **statistical power** achieved (reported)?

- What **outcomes** were achieved?

Research Questions of Interest to the Team

- What were the **lessons learned** regarding organizational change?
- What were the **unintended consequences**?
- How has the work been **disseminated**?
- What **threats and challenges** were encountered?
- What was the **return on investment**?
- How will the work be **sustained**?

Research Questions of Interest to the Team

- How are we doing with regard to the 2015 White Paper recommendations?

- What can we learn about our projects?

- What can we learn about our curricula?

- What can we learn from each other?

Methods

- Descriptive

- Exploratory

Tool Development

- What did we want to learn from projects
- Value inclusion
- Value description above evaluation

  o **provide benchmark data**

  o **stimulate reflection**

  o **support PI in each school**

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Methods

- Tool development & revision

- Random selection of 25 projects per school over past 2 academic years

- 2 reviews

- Discussion, consensus, report

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Logic Model – Description of Projects from DNP Programs

INPUTS	THROUGHPUTS		OUTPUTS	
	Activities	Measurements	Short Term	Long Term
Top DNP programs rated by US News & World Report (n=22)	Train all faculty to use UPC instrument	Uncertainty	Description of DNP scholarship	Disseminate findings
		Pace		
25 final scholarly projects from each participating school AY 2017 - 2018 2018 – 2019 (n=550)	Conduct criterion referenced evaluation of all projects	Complexity	List of time-tested practices	Share resources across DNP programs
		Aims		
		Framework	List of methods	
	Summarize the scholarship produced in top programs	Design	Identify potential barriers	Repeat including interested DNP programs
		Innovation		
		Methods	Identify unintended consequences	
2 faculty members per school (n=44)	Report time-tested practices for consideration	Analytics		Drive program improvement
		Results	Share strategies	

Language

UNCERTAINTY	THE TECHNOLOGIC INNOVATION INTRODUCED IN THE PROJECT
Low-tech	No new tech introduced
Medium-tech	Some new tech introduced
High-tech	A good deal of new tech introduced
Super high-tech	Tech introduced that was non-existent at the start of the project
PACE	THE SPEED AT WHICH THE PROJECT OR INNOVATION NEEDED TO BE IMPLEMENTED
Regular	Delays were not critical
Fast/Competitive	Time to market was a competitive advantage
Time-Critical	There is a window for success. Time is critical.
Blitz	Crisis situation
COMPLEXITY	EXTENT TO WHICH A PROJECT PENETRATES THROUGH THE ORGANIZATION OR SYSTEM
Assembly	Project involves a sub-system that performs a single function
System	Project involves a collection of sub-systems that perform multiple functions
Array	Project impacts a system of systems

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NOVELTY	THE NEWNESS & INNOVATION OF THE PROJECT
Process Improvement	Adjustments were made to the current system
Derivative	Significant improvements made
Platform	A new generation of an existing service or product-line
Breakthrough	New-to-the-world product or service
BUSINESS GOAL	THE CONNECTION BETWEEN THE PROJECT & THE MISSION
Operational	Extends existing business
Strategic	Creates new business
CUSTOMER	THE CUSTOMER TO BE IMPACTED BY THE PROJECT
Internal	Customers you already have. Those internal to the organization.
External	Customers new to the organization. Those inside the organization.
STRATEGIC GOAL	THE PRIMARY INTENT OF THE PROJECT
Extension	Improve or upgrade an existing product or service
Strategic	Create strategic position through new products or markets
Problem Solving	Develop new capability
Maintenance	Routine maintenance. Fixing regular problems
Utility	Keep the lights on. Acquire & install new software or equipment
Research & Development	Explore new ideas

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Preliminary Findings

Characteristics of Participating Schools

Schools and Projects

- 12 Schools have completed analyses

- 292 projects
  - Year of project
    - 89 from 2017-2018
    - 203 from 2018-2019
  - Program Specialty Focus
    - 134 from Post Baccalaureate
    - 41 from Post Masters Specialty
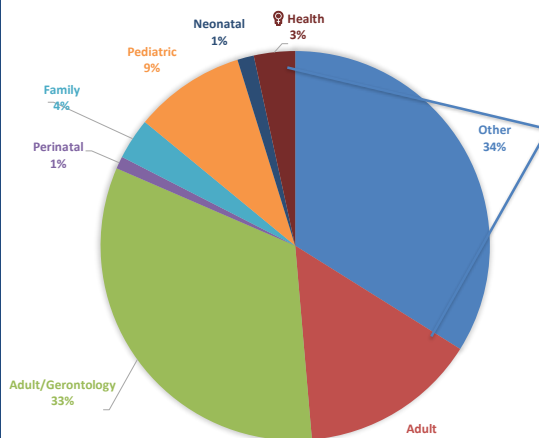   - 115 from Post Masters Generalist

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The Work of the Projects

Slide 29

Project Specialty Focus

WHO
was the project intended to benefit?

Slide 30

Project Specialty Focus

Pie chart of Project Specialty Focus:
- Health 3%
- Neonatal 1%
- Pediatric 9%
- Family 4%
- Perinatal 1%
- Adult/Gerontology 33%
- Adult 15%
- Other 34%

Includes
- Nurses
- Other Healthcare Providers
- Students
- Men's Health
- Combinations

Project Site

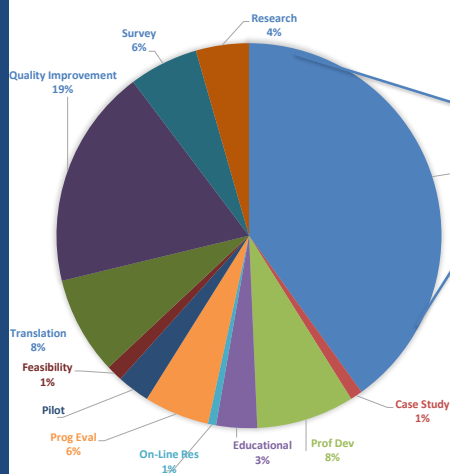WHERE

was the project conducted?

Project Site

Includes
- **School of Nursing**
- **Church**
- **Dentistry Clinic**
- **FQHC**
- **Critical Care/ICU**
- **Virtual/Online Survey**
- **Rehabilitation**
- **Indian Health Service**
- **Maternity**
- **Hospice**
- **Telehealth**

Pie chart labels: Outpatient 6%, Nursing Home 1%, SNF 1%, Other 35%, Acute 28%, Community 5%, Psychiatric MH 4%, Private Practice 1%, Urgent Care 0%, Emergency 5%, Primary Care 14%, Episodic 0%
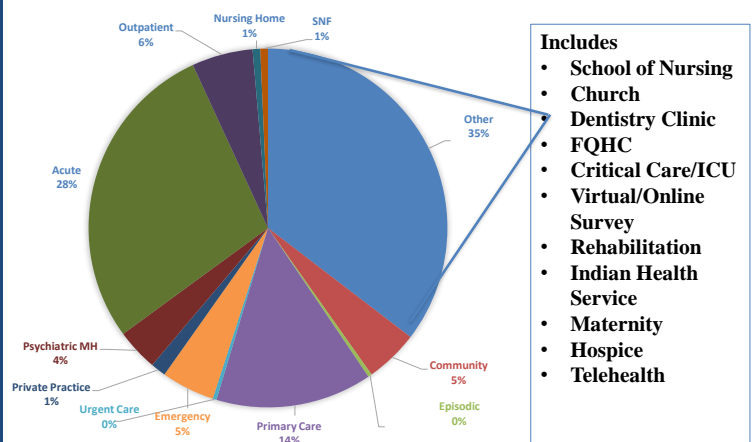
Description of Scholarly Work

HOW
was the improvement to be accomplished?

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Description of Scholarly Work

Research 4%

Survey 6%

Quality Improvement 19%

Other 40%

Includes
- **Academic**
- **Leadership**
- **Health Policy**
- **Administration**

Translation 8%

Feasibility 1%

Pilot

Prog Eval 6%

On-Line Res 1%

Educational 3%

Prof Dev 8%

Case Study 1%

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Evaluation

How the Results or Impact of the Project was Evaluated

Method Used to Evaluate Project Results	Percent
Other	43.2%
Pre-Test Post-Test Approach	24.7%
Descriptive Approach	18.8%
Mixed Methods (Qualitative & Quantitative)	2.7%
Qualitative Approach	2.1%
The Project was Considered to be a Pilot	2.1%
Results were not Reported	1.4%
Feasibility of an Intervention was Evaluated	0.7%
Time Series Approach	0.7%
Causal Comparative	0.3%

*The majority falling under "other" were combinations of the categories

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Theoretical Foundation

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Translational Framework

- 33% reported not using a translational framework
- 15% used Knowledge to Action Framework
- 13% used RCPI/PDSA
- Others included
  - PARiHs
  - IHI
  - Ottawa
  - Iowa
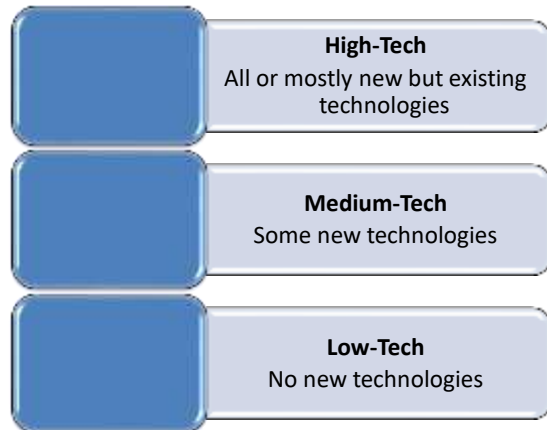 - Rogers Diffusion
  - Lean
  - Planned Adaptation Framework

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Uncertainty, Pace & Complexity

Uncertainty
Use of Technology

High-Tech
All or mostly new but existing technologies

Medium-Tech
Some new technologies

Low-Tech
No new technologies

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Uncertainty
Use of Technology

3.8%	**High-Tech** All or mostly new but existing technologies
23.3%	**Medium-Tech** Some new technologies
72.6%	**Low-Tech** No new technologies

Pace
How Quickly the Project Needed to Proceed

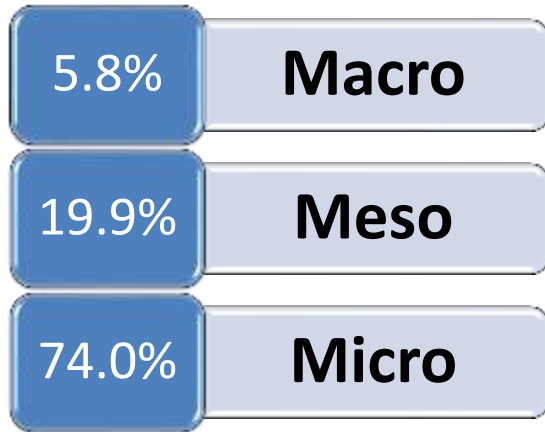|	
	Blitz Resolves or addresses a crisis
	Time Critical Time to implement is critical to success
	Fast/Competitive Time to implement is a competitive advantage
	Regular Delays not critical
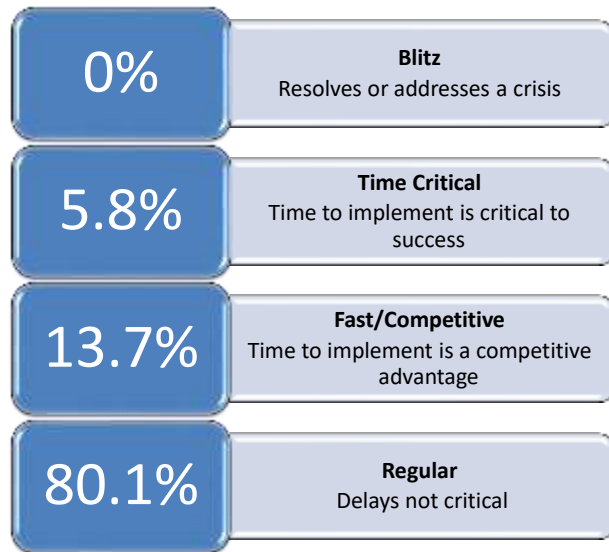
Pace
How Quickly the Project Needed to Proceed

0%	**Blitz** Resolves or addresses a crisis
5.8%	**Time Critical** Time to implement is critical to success
13.7%	**Fast/Competitive** Time to implement is a competitive advantage
80.1%	**Regular** Delays not critical

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System Level
Scale of the System Targeted by the Intervention

Macro

Meso

Micro

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System Level
Scale of the System Targeted by the Intervention

5.8%	**Macro**
19.9%	**Meso**
74.0%	**Micro**

Complexity

Array
Impacts a system of systems which are widely dispersed

System
Impacts a collection of subsystems performing multiple functions

Assembly
Effects subsystem performing a single function
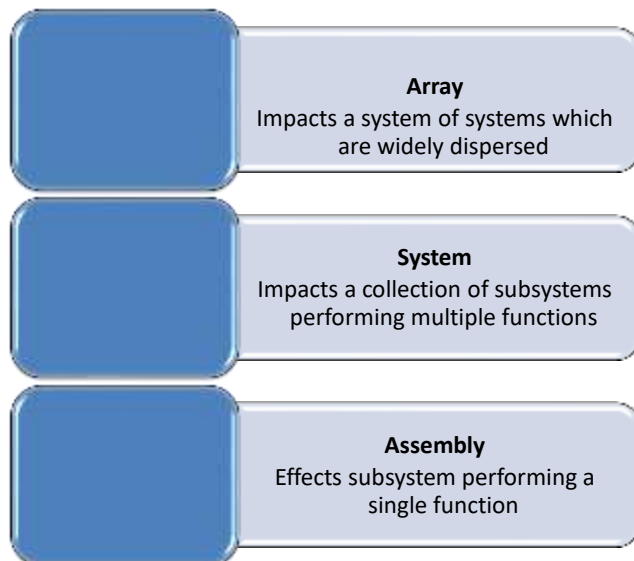
Complexity

4.5% — **Array** — Impacts a system of systems which are widely dispersed

31.8% — **System** — Impacts a collection of subsystems performing multiple functions

63.7% — **Assembly** — Effects subsystem performing a single function

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Novelty
Originality of the Project

Breakthrough — Implements a new-to-the-world product or process

Platform — Implements a new generation in an existing product line

Derivative — Targets broad or significant improvement

**Process Improvement** — Refines and improves an existing process

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Novelty
Originality of the Project

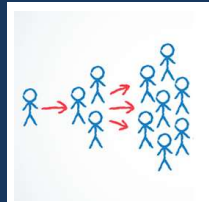|	
0.7%	**Breakthrough** Implements a new-to-the-world product or process
7.5%	**Platform** Implements a new generation in an existing product line
11.6%	**Derivative** Targets broad or significant improvement
79.5%	**Process Improvement** Refines and improves an existing process

Lessons Learned

CLOSING THOUGHTS
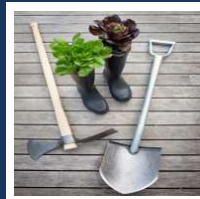
Tools

Challenges

Unintended Consequences

Outcomes

Impact

Dissemination

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TOOLS

- Home grown

- Psychometrics not regularly provided

- Great opportunity to improve

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TOOLS

- SBIRT
- STOP Bang
- ABCDE Bundle
- AGREE II
- aPCL PTSD Screening
- Caprini Assessment

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TOOLS

- Casey Fink Nurse Retention Survey
- HCAPs
- JHM Healthcare Solutions Patient Mobilization Attitudes & Beliefs Tool
- LACE
- Second Victim Experience and Support Tool

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CHALLENGES

- **Competing priorities**
- Data & technology issues
- Union rep didn't approve
- Short implementation time
- Changing leadership

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CHALLENGES

- IRB processes
- Turnover
- EHR issues
- Staff & MD buy in

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UNINTENDED CONSEQUENCES

- Less than anticipated

- Cost to implement

- Cost reduction led to budget cuts

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OUTCOMES

- Increased knowledge
- Improved communication
- Increased satisfaction
- Increased competence
- Reduced sequelae
- Decreased pain
- Decreased stiffness

OUTCOMES

- Reduced cost
- Reduced readmission
- Increased access to care
- Reduced delay to care
- Reduced utilization
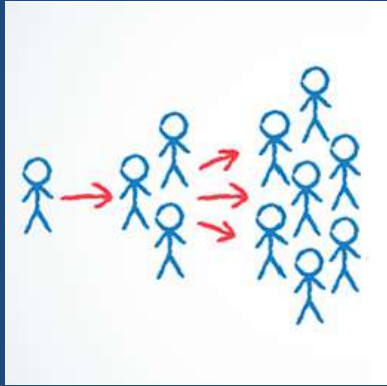- Multiple outcomes
- Improved documentation

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IMPACT

- EHR improvements
- Process improvements
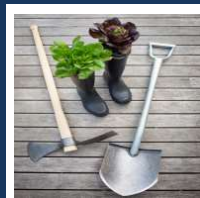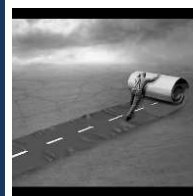- Work flow improvements
- Improved patient flow

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DISSEMINATION

- Presentations on campus
- Presentations on site
- Publications
- Posters
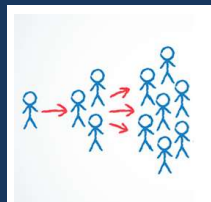- Local podium presentations

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CLOSING THOUGHTS

Tools

Challenges

Unintended Consequences

Outcomes

Impact

Dissemination

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Bigger Plan

Phase I
2014
Initial Study

Tool Development
1 Program

Phase II
2019
Expanded Study

Feasibility & Refinement
22 Schools

You!

Phase III
2020
Inclusive Study & RCPI

All Welcome

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Research Team

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Thank you

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