In Collaboration with

Middle East Forum on Quality & Safety in Healthcare **2023**

16-19 March, Doha

Using the Dosing Approach to Build Capacity and Capability for Improvement

Saturday, 14th March (14:00 -15:00)

Healthcare Resilience in Extraordinary Times

Brought to you by:
Hamad Healthcare Quality Institute

IHI Faculty

Robert Lloyd, PhD
Vice President Improvement Science
Sr. Improvement Advisor

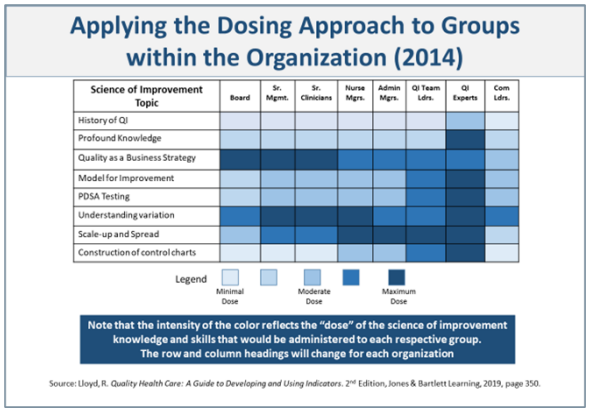
Conflict of Interest

The speaker for this session, Dr. Robert Lloyd, has no conflict of interest or disclosure in relation to this presentation.

Learning Objectives

At the end of this session, participants will be able to:

1. **Describe the Dosing Approach and related implementation tactics.**
2. **Understand how the Dosing Approach has been successfully applied in different types and sizes of organizations.**
3. **Begin building or refine your Dosing Approach.**



The Aim!

To build a renewable infrastructure that produces highly reliable quality results by (fill in the date).

How good?
By when?

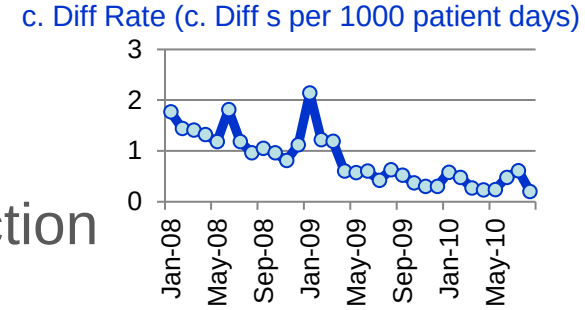

The Future?
How do you bridge the gap between these two conditions?
Where we want to be!
Where we are now!

Capacity versus Capability

Source: Lloyd, R. *Quality Health Care: A Guide to Developing and Using Indicators*. 2nd Edition, Jones & Bartlett Learning, 2019, page 346-347.

Capacity

- The ability to receive, hold or absorb
- The maximum or optimum amount of production
- The ability to learn or retain information.
- The power, ability, or possibility of doing something or performing
- A measure of volume; the maximum amount that can be held



Capability

- The power or ability to generate results
- The ability to execute a specified course of action
- The sum of experience and capacity
- Knowledge, skill, ability, or characteristic associated with desirable performance on a job, such as problem solving, analytical thinking, or leadership
- Capability frequently includes values, motivation and beliefs

"Developing Improvement Capability"

By Joy Furnival, PhD Health Foundation Blog, 06 Jan 2017

"Our ongoing research suggests that there are different conceptualizations of improvement capability."

- One perspective suggests improvement capability ***comprises the improvement skills and abilities of individuals within organizations***.
- This perspective implies that ***improvement capability is a set of technical skills*** which can be taught through training sessions with certification, 'belts', and even ISO accreditation.
- ***It suggests that the development and measurement of improvement capability is then relatively simple***; counting how many participants have been on a training course or have met the requirements for different levels of competency for a specific group of improvement approaches.
- It also ***facilitates individuals to make judgements of their own personal development needs*** based on their perceptions about their own improvement capability.

This viewpoint seems to us to take little or no account of the wider organizational context for improvement.

"Developing Improvement Capability"

By Joy Furnival, PhD Health Foundation Blog, 06 Jan 2017
(continued)

- ***An alternative perspective*** suggests that ***improvement capability consists of organizational-wide processes and practices of innovation***.

- That is, rather than being limited to individual skills and abilities, improvement ***capability is something that incorporates many aspects from across an organization, including dimensions such as leadership, employee engagement, patient perspectives and other contextual factors as well as individual skills for improvement approaches***.

- This means that organizations may develop improvement capability through their operating procedures, rituals, culture and behaviours and that ***the presence of improvement capability is less dependent on specific individuals within organizations***.

- This type of perspective, informed by the wider research literature of organizational performance, suggests that ***improvement capability may take time and investment to develop and may also decay or atrophy over time if it is not continuously exercised and updated.***

"Developing Improvement Capability"

By Joy Furnival, PhD Health Foundation Blog, 06 Jan 2017
(continued)

- In conclusion, to support the development of improvement capability, ***we need to be clear about what it means and why it is important for improvement capability to be developed.***
- Further, given the diversity in the perceptions of improvement capability, it is also important to think through ***whether there is a shared understanding of improvement capability across an organization or health system, and with stakeholders including patients.***

What do *you* mean by improvement capability at your organization?

5 Key Questions for Building Capacity and Capability

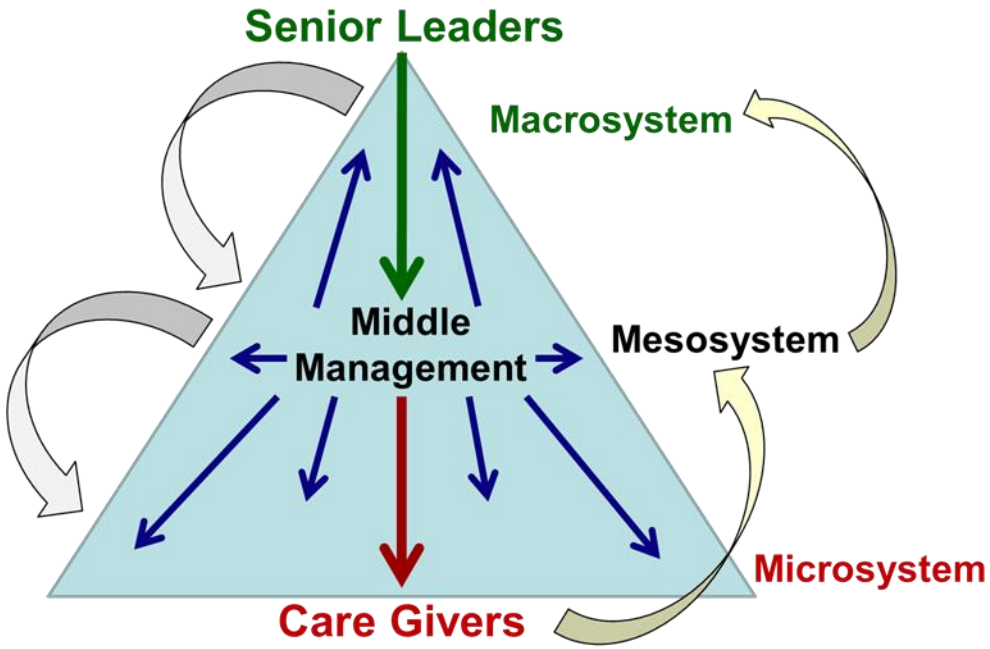
1. Will you involve everyone or just a few targeted groups?
2. Who needs to know what? (the dosing approach)
3. What methods do you plan to use to build capacity and capability?
4. Do you have a model or framework to guide your journey?
5. How will you make sure the capacity and capability system can be sustained?

Adapted and expanded from a conversation with Dr Tom Nolan, Associates in Process Improvement on material he presented at the IHI Strategic Partners Roundtable, April 17-18, 2006.

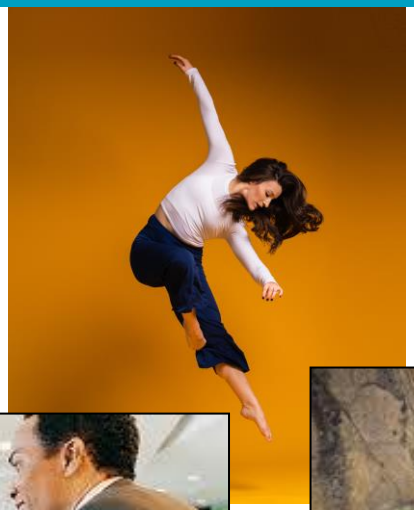
Question #1

Will you involve everyone or just a few targeted groups?

Different levels of knowledge and skill in the Science of Improvement (SOI) are required at *all* levels of the organization.



Question #2
Who needs to know what? (the Dosing Approach)



organizations that have been successful at building capacity and capability recognize that people have different abilities, skills, interests and talents.

They have figured out who has what knowledge and skills and work from there.
Therefore, …

One size doesn't fit all.

Especially when it comes to building capacity and capability for QI

Soooo…

Who needs to know what about the SOI?

What dose of the SOI does an individual need?

What is the most appropriate way to deliver the dose?

What is the lasting impact of the dose?

Can the dose have any unexpected side-effects?

Have you discussed these questions?

What strategies and tactics have you developed to address each question?

How many quality experts do we need?

Two suggestions for determining this number:

$$\sqrt{\text{Number of employees}}$$

Or…consider that ***no employee should be more than 2 steps (individuals) away from a QI expert.***

1.4 million full-time equivalent staff working in NHS Trusts and clinical commissioning groups in England.
"So, how many QI experts do we need?"

$$\sum_{i=1}^{\left[\frac{n}{2}\right]} \binom{x_{i,i+1}^{i^2}}{\left[\frac{i+3}{3}\right]} \frac{\sqrt{\mu(i)^{\frac{3}{2}}(i^2-1)}}{\sqrt[3]{\rho(i)-2}+\sqrt[3]{\rho(i)-1}}$$

CAUTION!

Dosing is *NOT* based on a mathematical formula!

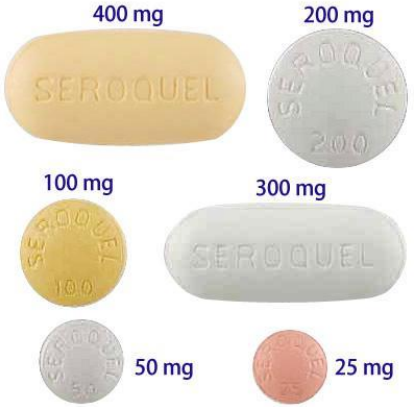
It will NOT tell you the precise number of people who need to be "trained" or how many need what dose of the Science of Improvement.

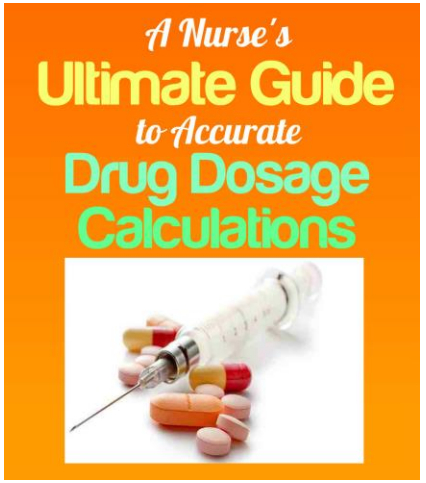
Dosing is an approach that needs to be customized for each organization depending on where they currently are in their Quality Journey.

It requires thinking not calculating!

Weight	Motrin Milligram Dosage	Motrin Infant drops 50mg/1.25ml	Motrin Children's liquid 100mg/5ml	Motrin Chewables 50mg each	Motrin Junior 100mg each
12 – 17 lbs	50 mg	1 dropper (1.25 ml)	½ tsp (2.5 ml)	N/A	N/A
18 – 23 lbs	75 mg	1 ½ dropper (1.875 ml)	3/4 tsp (3.75 ml)	N/A	N/A
24 – 35 lbs	100 mg	2 droppers (2.5 ml)	1 tsp (5 ml)	2 tablets	1 tablet
36 – 47 lbs	150 mg	3 droppers (3.75 ml)	1 ½ tsp (7.5 ml)	3 tablets	1 ½ tablet
48 – 59 lbs	200 mg	N/A	2 tsp (10 ml)	4 tablets	2 tablets
60 – 71 lbs	250 mg	N/A	2 ½ tsp (12.5 ml)	5 tablets	2 ½ tablets
72 – 95 lbs	300 mg	N/A	3 tsp (15 ml)	6 tablets	3 tablets

Let's think about how we dose medications!





Expanded Anesthesia Dosing Chart

SEE NOTES ON REVERSE PAGE

Weight		Xylazine ml 100 mg/ml				Butorphanol ml 10 mg/ml		Diazepam or Midazolam 5 mg/ml			Ketamine ml 100 mg/ml				
		Horse/Donkey		Mule		Horse/Donkey Mule		Horse		Donkey	Horse/Donkey			Mule	
		1.1-2.2 mg/kg		1.6 mg/kg		0.02-0.04 mg/kg		0.03 mg/kg		0.02 mg/kg	2.2 mg/kg	2.75 mg/kg	3.55 mg/kg	3.55 mg/kg	4.66 mg/kg
lbs.	kgs.	Standard	↑dose	Standard	↑dose	Low dose	↑ dose	Low dose lateral recumbence	↑ dose dorsal recumbence	** SEE NOTES	Low dose	Thorough bred/ Donkey dose	↑dose	Standard	↑dose
100	45	0.5	1	0.75	1.5	0.1	0.2	0.3	0.5	0.2	1.0	1.3	1.6	1.6	2.1
200	90	1	2	1.5	3	0.2	0.4	0.4	1	0.4	2.0	2.5	3	3	4
300	135	1.5	3	2.2	4.4	0.3	0.6	0.5	1.5	0.6	3.0	3.7	4.4	4.4	5.9
400	180	2	4	3	6	0.4	0.8	1	2	0.8	4.0	5	6	6	8
500	225	2.5	5	3.7	7.4	0.5	1	1	2.5	1.0	5.0	6.2	7.5	7.5	10
600	270	3	6	4.5	9	0.5	1	1.5	3	1.2	6.0	7.5	9	9	12
700	315	3.5	7	5.25	11	0.5	1	2	3.5	1.4	7.0	8.5	10	10	13.3
800	360	4	8	6	12	0.5	1	2	4	1.6	8.0	10	12	12	16
900	405	4.5	9	6.75	13.5	0.5	1	2	4.5	1.8	9.0	11	13	13	17.3
1000	450	5	10	7.5	15	0.5	1	2.5	5	2.0	10.0	13	16	16	21.3
1100	500	5.5	11	8.25	16.5	0.5	1	2.5	5.5	2.2	11.0	14	17	17	22.6
1200	540	6	12	9	18	0.5	1	3	6	2.4	12.0	15	18	18	24

Dosing the SOI (2012)

This Exercise is designed to create a dialogue on appropriately "dosing" the Science of Improvement (SOI) throughout an organization. That is, which groups of individuals within the organization need to have what levels of knowledge and skill to successfully build a sustainable infrastructure that produces highly reliable QI results?

The worksheet on the next page provides a list of *Skills & Knowledge* (the rows) associated with the Science of Improvement. For each of the listed *Skills & Knowledge* items, indicate the level or "dose" of *Skill & Knowledge* you think each group (the columns) needs using the following response scale:

1 = They need to know the basic terms, concepts and methods when they hear them

2 = They need to be able to explain the terms, concepts and methods to others

3 = They need to be able to teach the terms, concepts and methods to others

4 = They need to be seen as an organizational lead and champion for the terms, concepts and methods.

Dosing the SOI (2012)

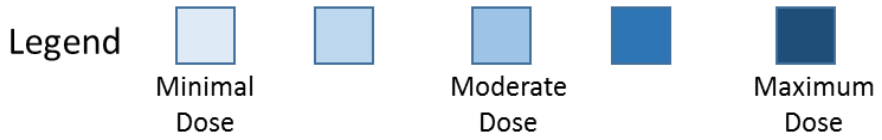
Source: Lloyd, R. *Quality Health Care: A Guide to Developing and Using Indicators*. 2nd Edition, Jones & Bartlett Learning, 2019.

Science of Improvement Skills & Knowledge*	Hospital Governance, Non-Execs, Board of Directors*	Senior Management (corporate)	Clinical Leadership (physicians and nursing)	Middle Management, Directors & Supervisors	Frontline Staff	QI Experts (IAs)
Models for QI (theory & concepts)						
Leadership for improvement & cultural transformation						
Teamwork and Facilitation						
Gathering information						
Analyzing and interpreting data						
Presentation skills						
Understanding variation						
SPC charts						
Change management						
QI tools and methods						

*NOTE: The row and column headings will change for each organization.

Applying the Dosing Approach to Groups within the organization (2014)

Science of Improvement Topic	Board	Sr. Mgmt.	Sr. Clinicians	Nurse Mgrs.	Admin Mgrs.	QI Team Ldrs.	QI Experts	Com Ldrs.
History of QI								
Profound Knowledge								
Quality as a Business Strategy								
Model for Improvement								
PDSA Testing								
Understanding variation								
Scale-up and Spread								
Construction of control charts								



Note that the intensity of the color reflects the "dose" of the science of improvement knowledge and skills that would be administered to each respective group. The row and column headings will change for each organization

Source: Lloyd, R. *Quality Health Care: A Guide to Developing and Using Indicators*. 2nd Edition, Jones & Bartlett Learning, 2019, page 350.

Dosing the SOI at _____

Source: Lloyd, R. *Quality Health Care: A Guide to Developing and Using Indicators*. 2nd Edition, Jones & Bartlett Learning, 2019.

Science of Improvement Skills & Knowledge*	Hospital Governance, Non-Execs, Board of Directors*	Senior Management (corporate)	Clinical Leadership (physicians and nursing)	Middle Management, Directors & Supervisors	Frontline Staff	QI Experts (IAs)
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Gathering information						
Analyzing and interpreting data						
Presentation skills						
Understanding variation						
SPC charts						
Change management						
QI tools and methods						

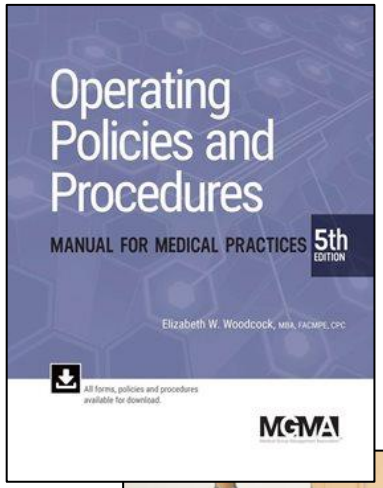
Use these letters for your response: **A** **B** **C** **D** **E**

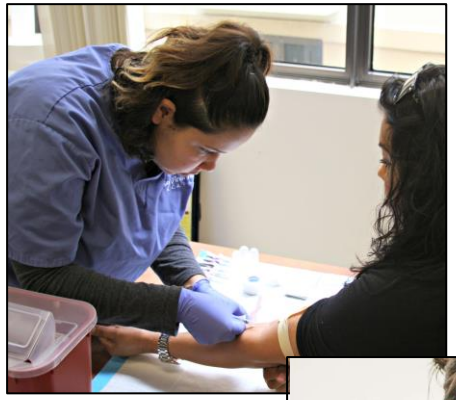
*NOTE: The row and column headings will change as you proceed with your actual dosing strategy.

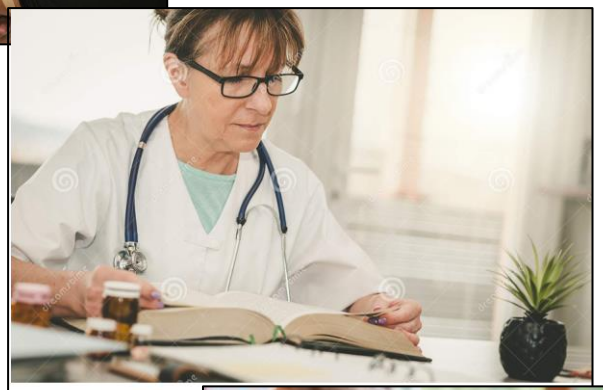
Question #3
What methods do you plan to use to build capacity and capability?

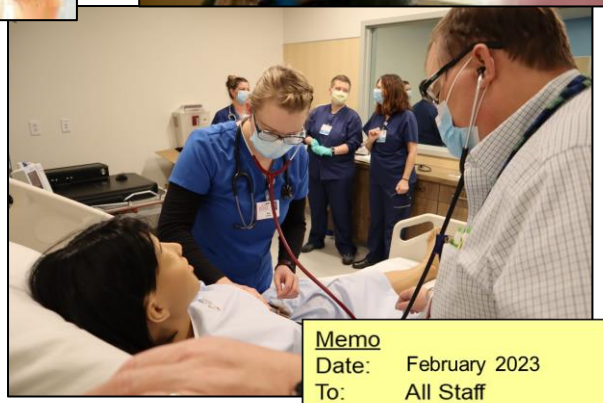
https://www.evolutionculture.co.uk/adult-learning-principles-2021/

The Traditional Approaches to Adult Learning in Healthcare Settings









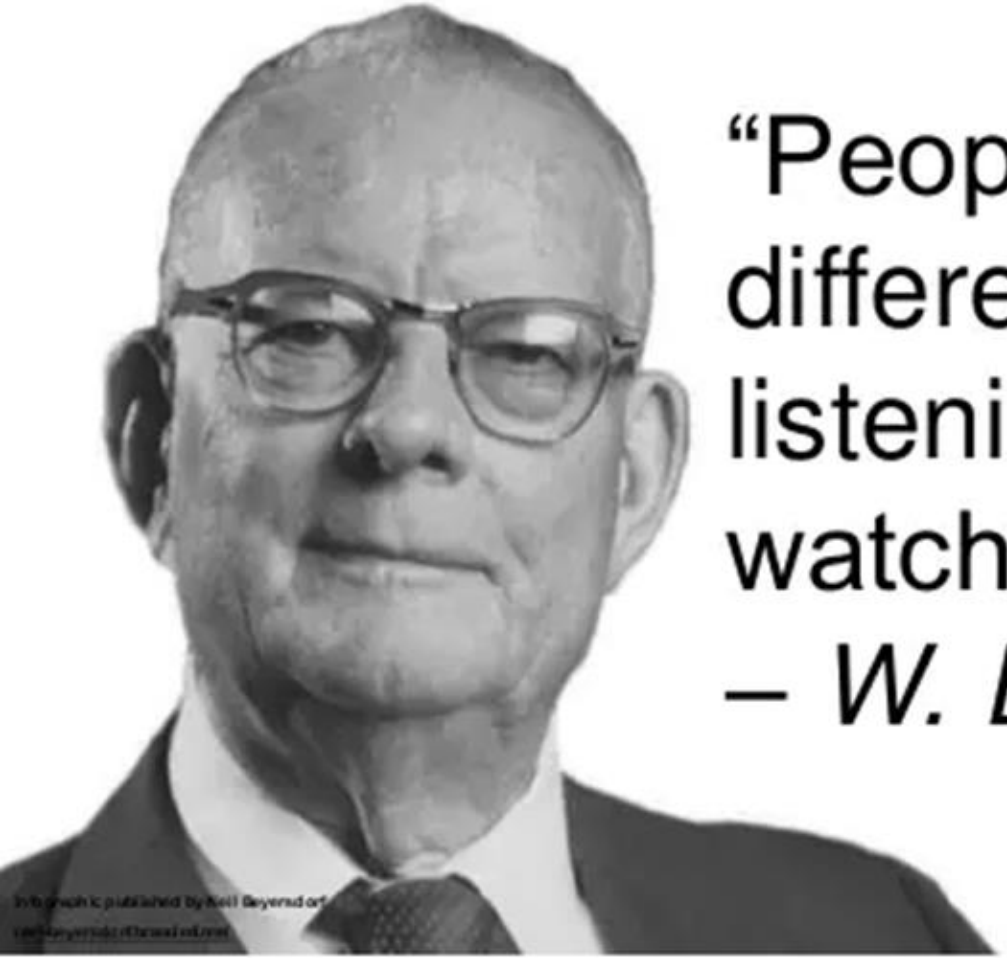
Memo
Date: February 2023
To: All Staff
From: Management

We need to become a High Reliability Organization (HRO), so starting next week all staff will be required to attend a 2-day training program on HRO principles.

This has worked in other organizations so we will follow their lead.

Thank you for your cooperation.

Deming encouraged leaders to recognize the differences in learning styles.



"People learn in different ways: reading, listening, pictures, watching."

– *W. Edwards Deming*

What are you and your organization doing to provide opportunities that build on adult learning principles and provide different methods for learning and building capacity and capability?

You do have choices!

CORE ADULT LEARNING PRINCIPLES

Learner's Need to Know
- Need course goals/topics: answer why, what, & how
- Want engagement in collaborative planning process for own learning:provide options when possible

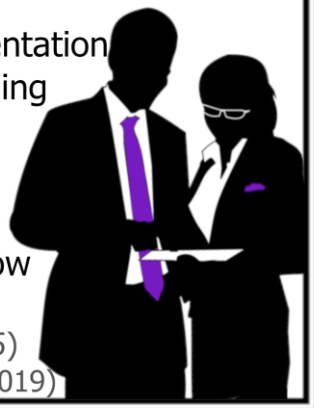
Self-Concept of the Learner
- General desire to be autonomous & self-directing
- Encourage life-long learning skills whenever possible

Prior Experience of the Learner
- Recognize and understand previous experience type & quality to use as a resource and to build upon

Readiness to Learn
- Need to see relevancy/usefulness to real life (now)
- May need changing levels of assistance/scaffolding

Orientation to Learning
- Prefer problem-solving learning orientation
- Prefer experiential (hands-on) learning

Motivation to Learn
- More intrinsic, internal satisfaction
- Importance of personal relevancy now



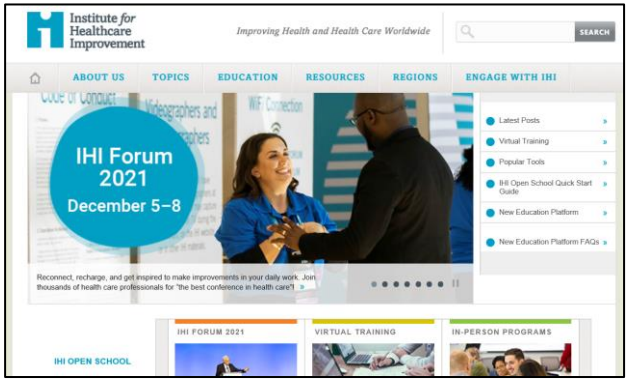
Dirived from (Knowles, Holton, & Swanson, 2005)
- incorporated with additional explaination (Anders, 2019)

Infographic from the book: ***The Army Learning Concept, Army Learning Model: A Guide to Understanding and Implementation***

There is a deep body of knowledge surrounding adult learning.

The six points in this graphic provide a good summary.

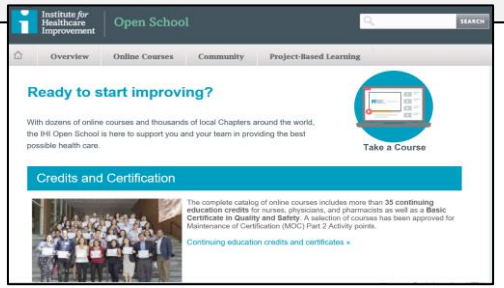
You will find other examples that list more or fewer principles, but these are common to most approaches.



At IHI we provide individual and organizational learning opportunities centered on adult learning principles and the application of the Science of Improvement to daily work. We do this through a variety of user-friendly formats:

- ✓ **An Interactive website.**
- ✓ Whitepapers, blogs, articles and books written by IHI staff and faculty.
- ✓ **Videos on the Science of Improvement including topics such as leadership, QI tools, safety, joy in work, equity, statistical methods and whole systems quality.**
- ✓ Forums and Conferences aimed at shared learning and building capacity and capability.
- ✓ **Establish opportunities to participate in Breakthrough Series Learning Collaboratives Sessions.**

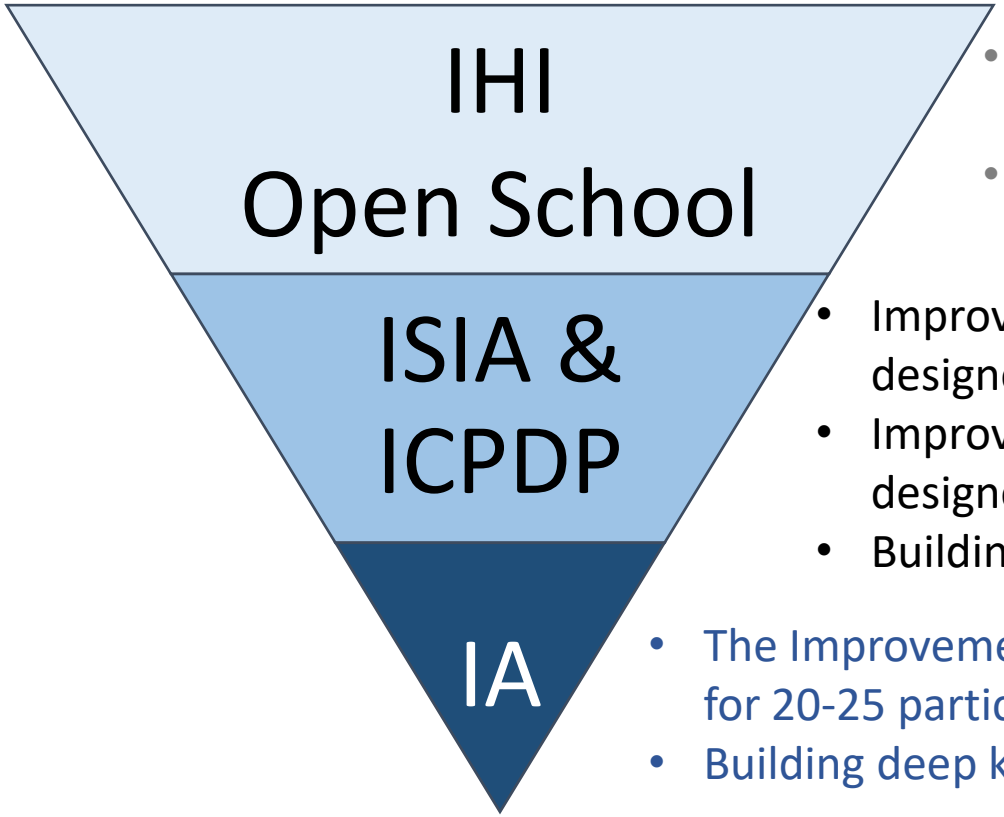
"All Teach, All Learn!"



Building Capacity and Capability at IHI: Dosing Delivery Methods

Light Dose

Heavy Dose



- Designed for the masses to build awareness (CBT based)
- Asynchronous learning at your own pace

- Improvement Science in Action (ISIA) designed for 100-200 (3 days)
- Improvement Coach Program (ICP) designed for 30-50 (~6 months)
- Building team and project-based skills

- The Improvement Advisor Program is designed for 20-25 participants (~10-12 months)
- Building deep knowledge in the SOI

Source: Lloyd, R. *Quality Health Care: A Guide to Developing and Using Indicators*. 2nd Edition, Jones & Bartlett Learning, 2019, page 355.

Essential Quality Improvement Tools

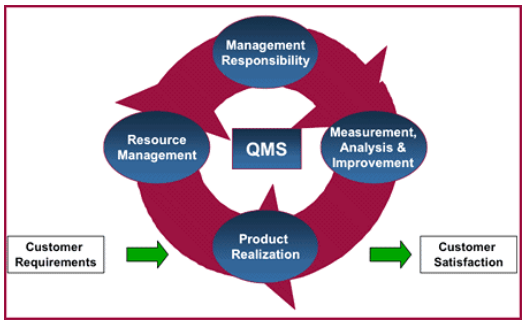
Tool	Activity			
	Viewing Systems & Processes	Gathering Data & Information	Organizing Data & Information	Understanding Variation & Relationships
Data Collection Methods		X	X	
Surveys		X		
Creativity Methods		X		
Driver Diagram	X			
Flowchart	X			
Cause & Effect Diagram	X		X	
Pareto Diagram			X	X
Force Field Analysis		X	X	
Frequency Plot (Histogram)				X
Run Chart	X			X
Shewhart (control) Chart	X			X
Scatter Plot				X

Question #4

Do you have a model or framework to guide your journey?

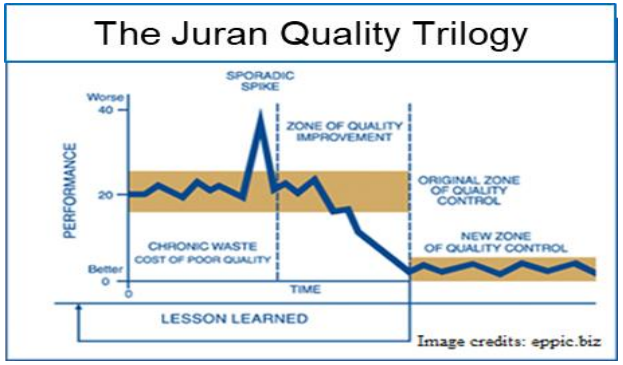
There are many models and frameworks to choose from!

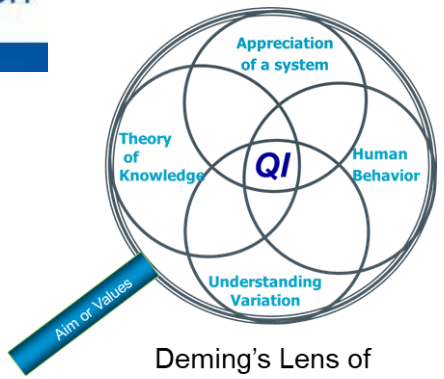
Six Sigma (DMAIC)



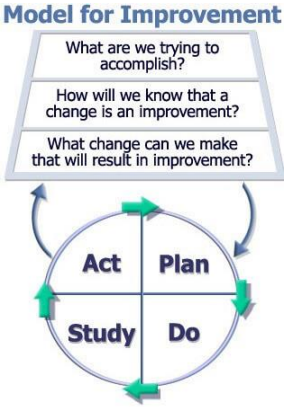
Total Quality Management

Baldrige Criteria



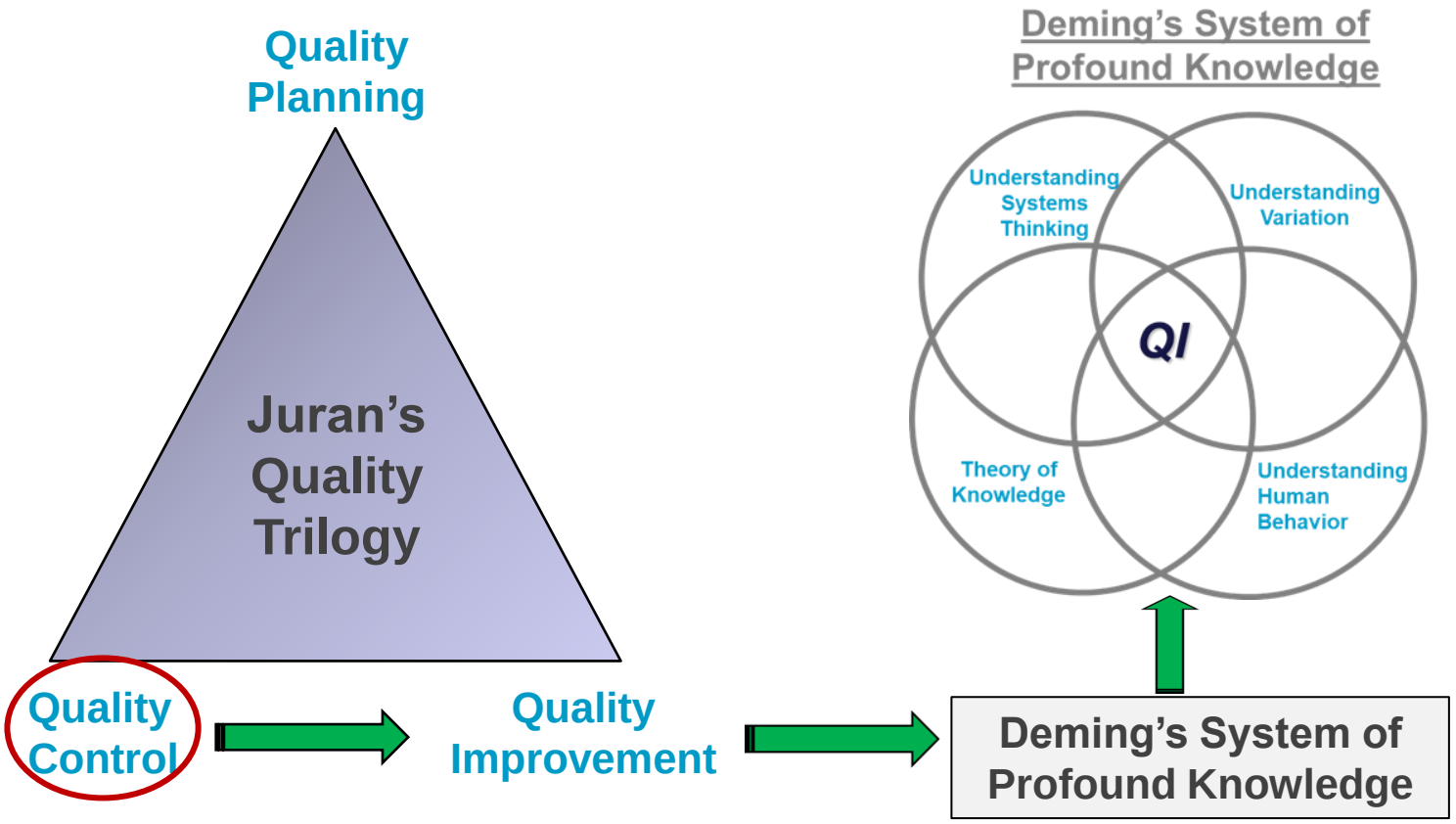


Deming's Lens of Profound Knowledge



IHI's Quality Foundation

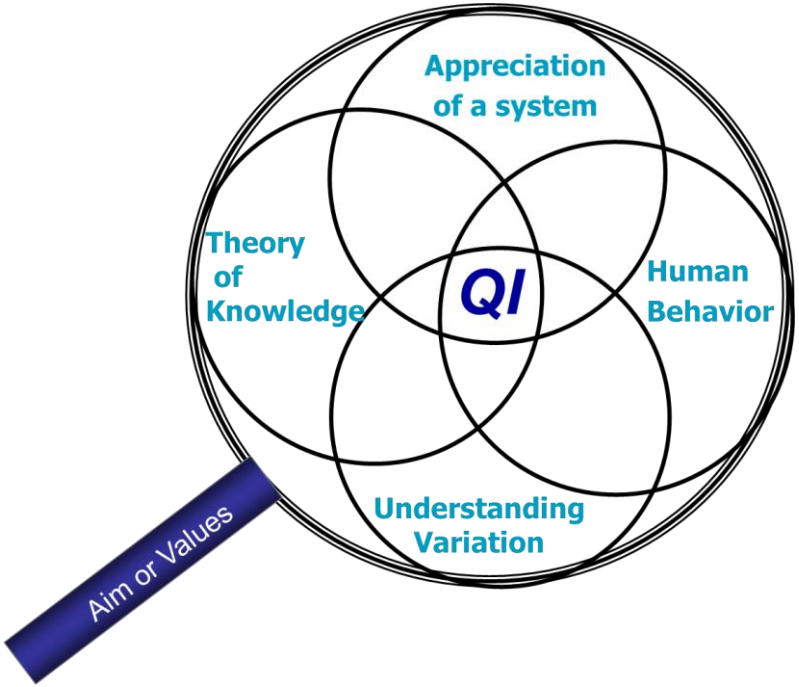
(Blending Juran's and Deming's approaches)



Source: Robert Lloyd, Ph.D.

"Organizations can increase quality and simultaneously reduce costs (by reducing waste, rework, staff attrition, and litigation while increasing customer loyalty)."

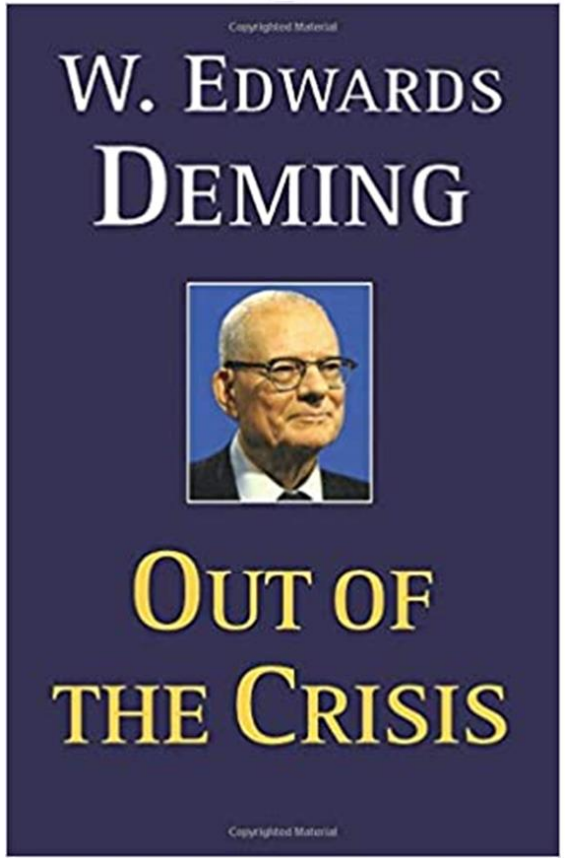
W. E. Deming



API's Model for Improvement*

*Associates in Process Improvement

The point to remember is that all the models or approaches have merit and have been shown to work if the organization's leaders have constancy of purpose!



Create constancy of purpose toward improvement of product and service, with the aim to become competitive, to stay in business and to provide jobs.

W. EDWARDS DEMING

Source: The W. Edwards Deming Institute

Question #5
Will How will you make sure the learning system can be sustained?

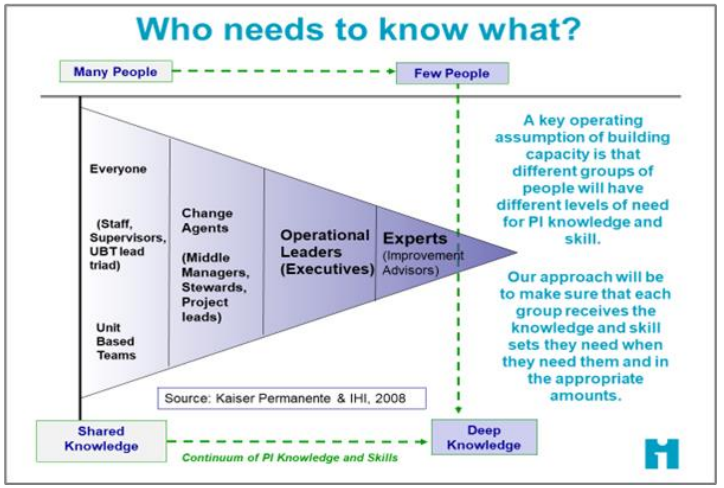
Cincinnati Children's
changing the outcome together

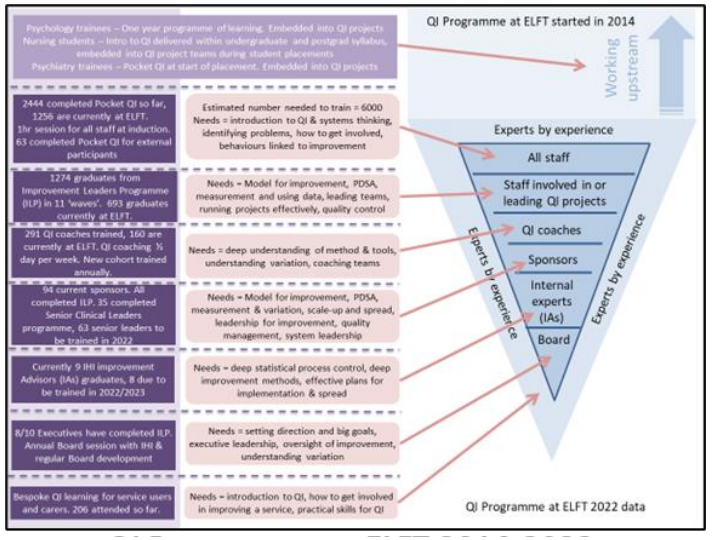
2002

Saskatchewan 2006
Health Quality Council

Who	What	Why
Point of Service Teams	Model for Improvement Basics	To realize improvement can happen
Team leaders	How to support teams	To help teams use new tools
QI Experts	Theory of Profound Knowledge	To reveal system barriers to improvement
Senior Execs, Governance	How to set and monitor system aims	To drive improvement and learn

Kaiser Permanente 2007





2014 QI Strategy at ELFT

2013
Hamad Medical Corporation
مؤسسة حمد الطبية
HEALTH • EDUCATION • RESEARCH
صحة • تعليم • بحوث

BRITISH COLUMBIA
SSC SPECIALIST SERVICES COMMITTEE
2014

2017 NHS
Royal Free London
NHS Foundation Trust

2018 NHS
Barts Health
NHS Trust

Building Improvement Capability

Dr Uma Kotagal, MBBS, MSc

Senior Executive Leader, Population & Community Health

Senior Fellow, Cincinnati Children's Hospital Medical Center

Senior Fellow, IHI

2002

Cincinnati Children's™

changing the outcome together

IMPROVEMENT CAPABILITY & CAPACITY

CONTEXT-Cincinnati Children's

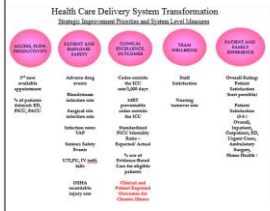
- **Nonprofit pediatric academic medical center, established in 1883**
- World leader in pediatric healthcare.
- **Top ranked pediatric hospital (#2 USNWR)**
- World class research institution
- **628 registered beds**
- 14000+ employees
- **Broad reach, serve patients from 50 states & 94 countries**
- Major Teaching Institution

THEORY-Improvement Capability Building

- **Building capacity & capability for improvement is necessary to transform Systems and sustain results**
- The capacity and capability has to be multidisciplinary, multi modal, multisector
- **Context should inform models for capacity building**
- Scale should be considered from the beginning

Cincinnati Children's™
changing the outcome together

PHASE 1 (2002)



Build a Coalition

Cincinnati Children's

Phase 2 (2004)

Integrating Research

AIM- Advanced Improvement Methods

- Course for Faculty- MD, PhD
- Intended to build ability to research and report on " what works and why"
- National Course for all Pediatric Institutions
- Factorial Design models and multivariate factor impact
- Publication required

Cincinnati Children's

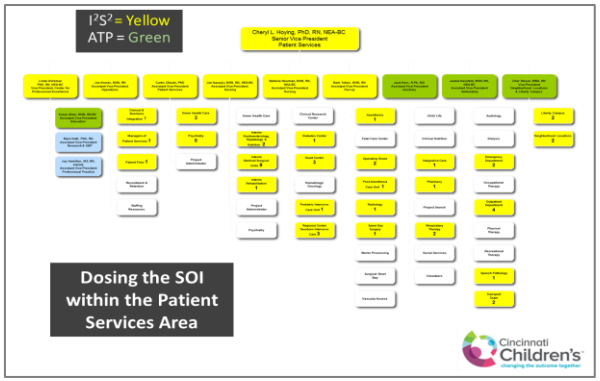
PHASE 3 (2006) Began Internal QI Training

When we had results

Theory

- Train broad and deep
- Build capacity at senior leadership
- Make it competitive
- Set very high standards
- Value all disciplines
- Action oriented
- Transparency of learning
- Make it special
- Attraction for generosity and optimism

Cincinnati Children's



Dosing the SOI within the Patient Services Area

Cincinnati Children's

Phase 4 (2007)

Learning

Creating a *Transformative* Learning Network

1. Focus on outcome
2. Build community
3. Use data effectively
4. Employ multiple learning systems-clinical research, qualitative methods, QI science

Learning Networks

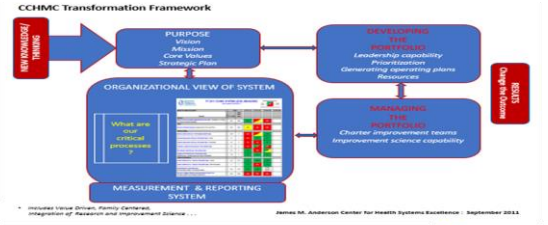
Network organizational model that allow communities of patients, families, clinicians, scientists and health system leaders to work together and use data to improve clinical outcomes, drive discovery and spawn innovation

CCHMC serves as coordinating center for 9 networks impacting millions of children - 286 health care organizations in the US, Canada and Europe; 538 clinical care delivery sites (e.g., clinics); $10M/year revenue from fees, grants (federal, foundation, industry), contracts; $60M in federal research funding over past 10 years

Cincinnati Children's

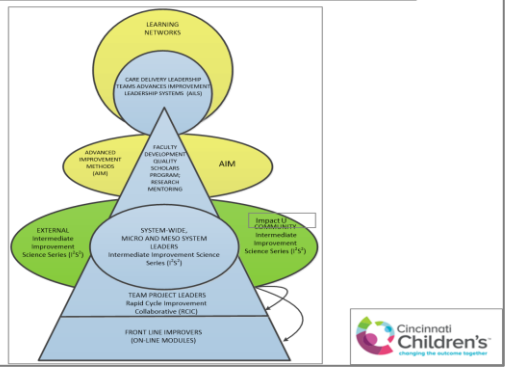
Phase 5 (2011)

AILS- ADVANCED IMPROVEMENT LEADERSHIP SYSTEM 2011



Cincinnati Children's

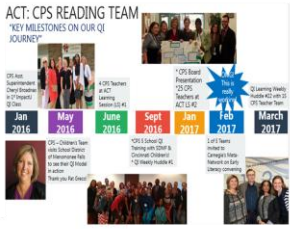
Improvement Science Education: Current Portfolio



Cincinnati Children's

PHASE 6 (2015) - Community Health

- ALL CHILDREN THRIVE LEARNING NETWORK



Cincinnati Children's

CCHMC Improvement Capability Timeline

2020 onward…

Cincinnati Children's

Who needs to Know What?

Saskatchewan Health Quality Council 2006

Who	What	Why
Point of Service Teams	Model for Improvement Basics	To realize improvement can happen
Team leaders	How to support teams	To help teams use new tools
QI Experts	Theory of Profound Knowledge	To reveal system barriers to improvement
Senior Execs, Governance	How to set and monitor system aims	To drive improvement and learn

Source: Mary Smillie, Senior QI Consultant, Saskatchewan Health Quality Council,

Results of KP Needs Assessment: Skills Needed (2007)

QI Content	Staff	Change Agents	Operational Leaders/Sponsors	QI Experts
Models for Improvement	70%	90%	94%	92%
Teamwork and Facilitation	90%	98%	98%	90%
Gathering information	60%	79%	76%	92%
Information analysis	54%	82%	91%	96%
Teaching Skills	53%	83%	63%	81%
Understanding variation	45%	67%	91%	94%
Leadership for improvement	36%	42%	97%	85%

=> 70 Green/40-69 Yellow/,<40 Red

NATIONAL Performance Improvement

KAISER PERMANENTE®

Results of KP Needs Assessment: Skills We Have (2007)

QI Content	Staff	Change Agents	Operational Leaders/Sponsors	Experts*
Models for Improvement	17%	42%	65%	19%
Teamwork and Facilitation	40%	59%	72%	14%
Gathering information	42%	58%	65%	23%
Information analysis	26%	47%	64%	19%
Teaching Skills	40%	52%	61%	8%
Understanding variation	19%	32%	52%	11%
Leadership for improvement	7%	29%	53%	5%

=> 70 Green/40-69 Yellow/,<40 Red

NATIONAL Performance Improvement

KAISER PERMANENTE®

2007

Kaiser Permanente Health Care Performance Improvement

Lynn Garofalo-Wright, DPPD, MHA, LSSBB
Managing Director, Performance Improvement

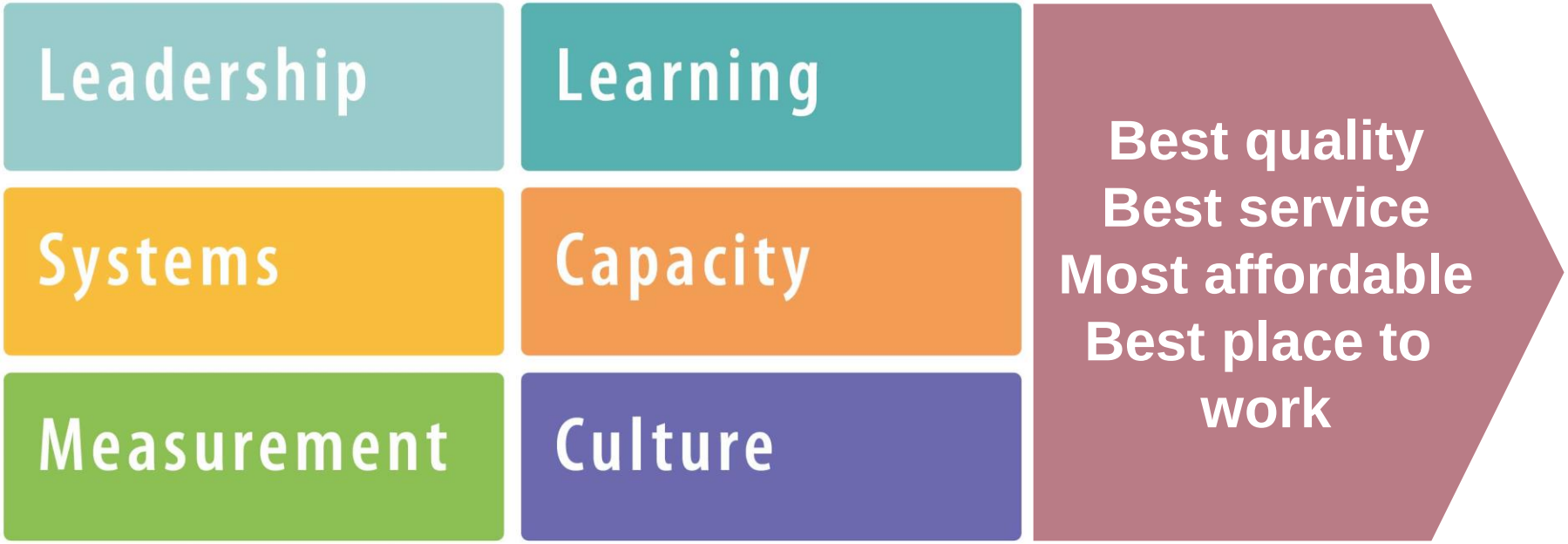
lynn.m.garofalo@kp.org

Linkedin.com/in/lynn-garofalo-wright-aaa417

KAISER PERMANENTE®

Our system is based on the attributes of high performing organizations

KP needs to build capability in these six areas in order to achieve breakthrough performance



KAISER PERMANENTE®

These tenets are key to building capacity at the local levels and aligning performance improvement initiatives

Leadership

- Leadership engaged and aligned
- Set clear priorities based on vital few breakthrough performance areas
- Shape organizational strategy by priority areas, focusing on clinical, financial, employee, and patient indicators
- Cascade systems to communicate from macro to micro levels

Systems

- Grow organizational leadership team capability to identify core business processes
- Establish local and national oversight infrastructure to manage improvement priorities and monitor progress
- Establish process map for those core areas and align improvement priorities with vital business needs

Measurement

- Build capacity to set outcomes and improvement process metrics for key areas
- Establish performance targets to achieve best in class at national level
- Use balanced scorecard system and time-trended metrics at front line departments to build visibility and accountability

Learning

- Surface best practices based on evident of performance
- Create sharing learning, spread systems, and capability to drive performance across enterprise
- Focus on top-down and bottom-up execution

Capacity

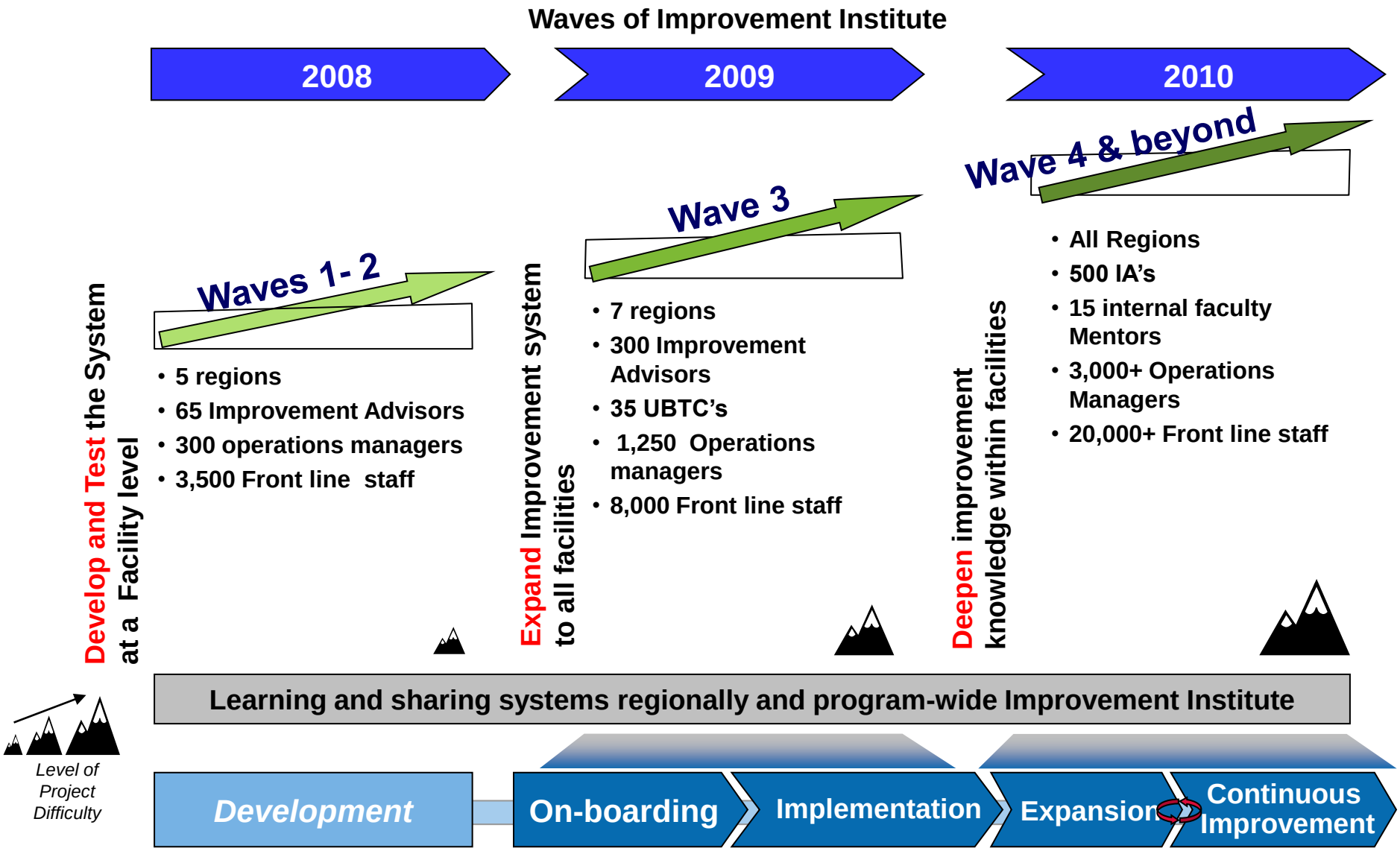
- Establish oversight system at macro and micro levels by creating improvement infrastructure and staff
- Develop ability to execute from testing through spread of practice at all levels
- Embrace unified internal improvement methodology, representing multiple methods
- Deploy internally designed improvement curriculum, focused at several levels of staff and physicians
- Apply improvement skills immediately to improvement priorities

Culture

- Engage staff in improvement to make change meaningful
- Use Fellowship model to teach organizational level leaders deeper improvement skills

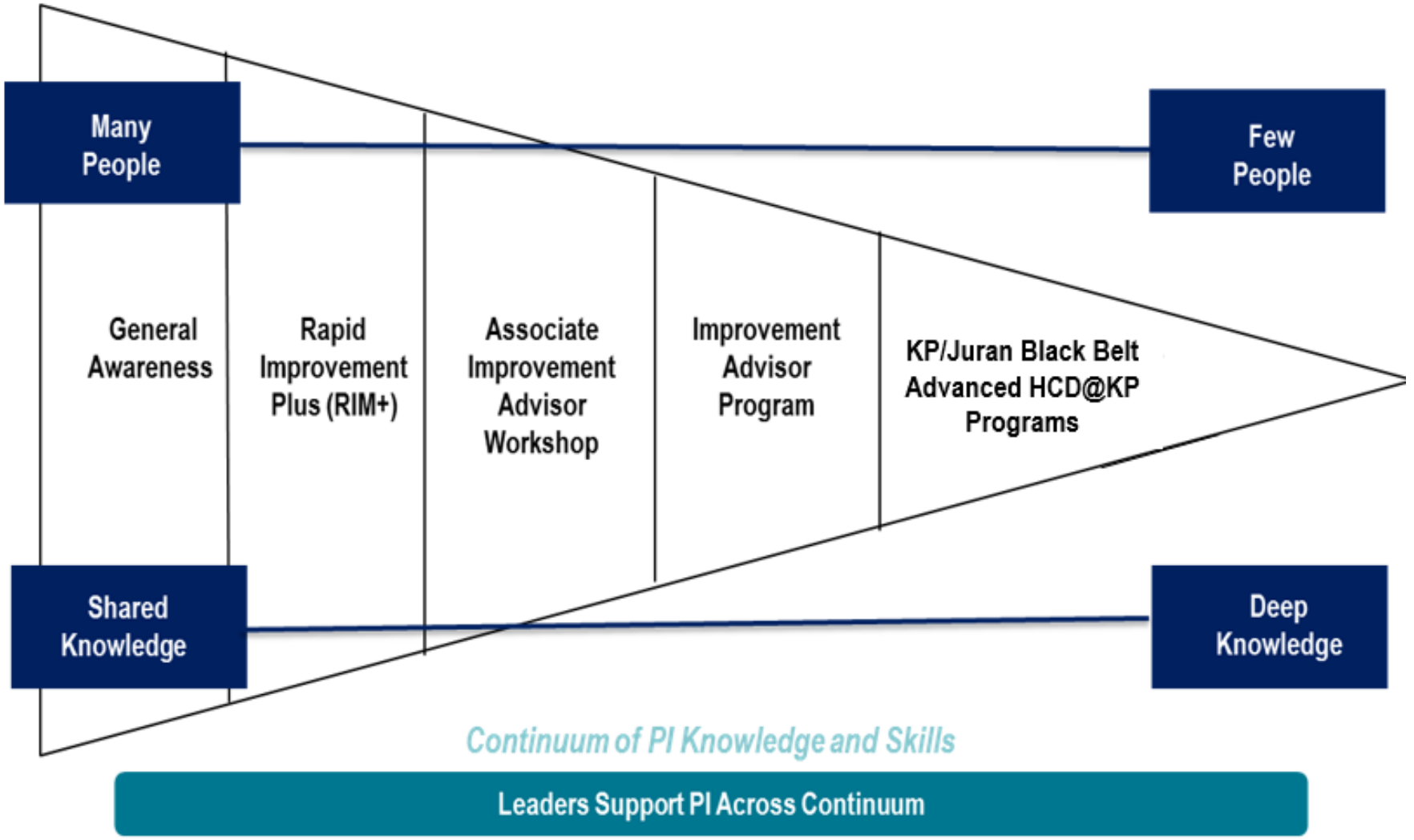
KAISER PERMANENTE®

A wave approach accelerated learning while we built organizational capacity



KAISER PERMANENTE®

We continue to expand our Improvement Institute offerings with more modularized offerings to provide the right capabilities at the right time!



KAISER PERMANENTE®

- 10 years of building Capacity & Capability
- **Best Care Always Collaborative**
- SOI Knowledge Building Sessions
- **Majlis Learning Sessions**
- Improvement Advisor and Improvement Coach Programs
- **Leadership Development Programs**
- Faculty Development Strategy and Learning Plan
- **Creative Support Learning Strategy for HHQI**
- ME Forum Conferences (2014-present)
- **Strategic Partnership with IHI**
- Improvement Project Focus (e.g., flow, value added, age friendly)

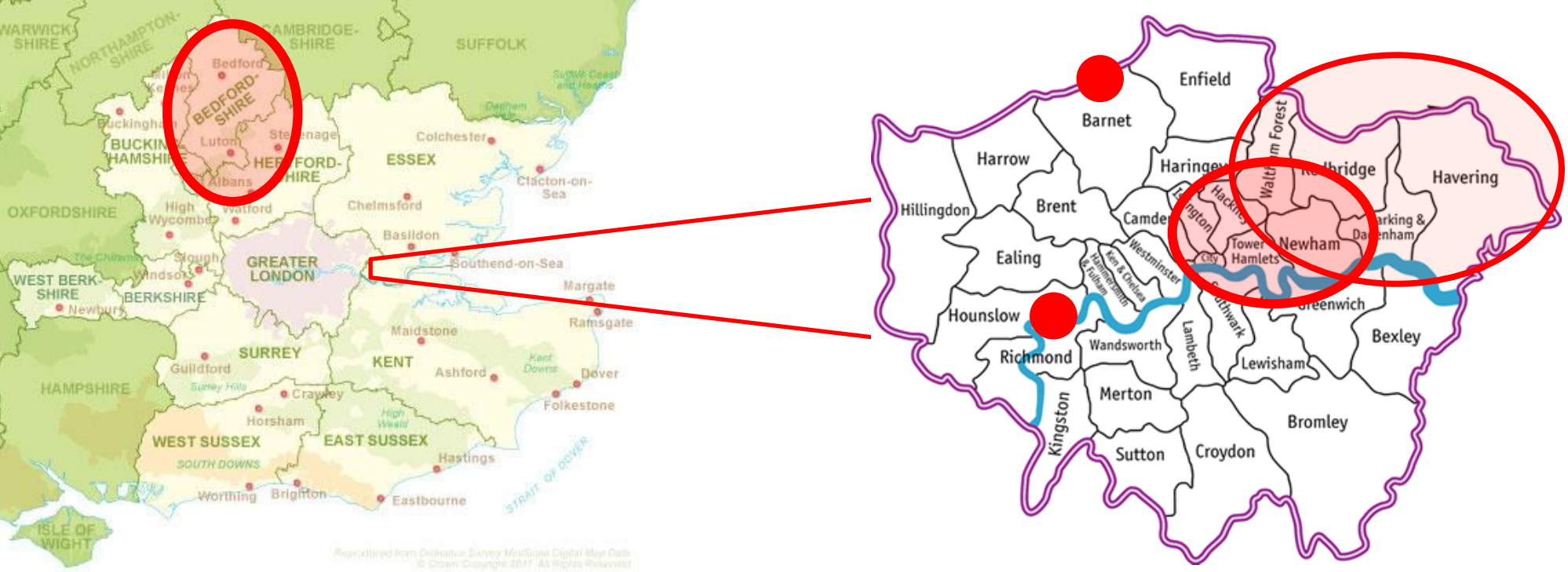
2014

Improvement Capability Building at East London NHS Foundation Trust

 @DrAmarShah

 qi.elft.nhs.uk

 amarshah@nhs.net



Mental Health Services
Newham, Tower Hamlets, City & Hackney, Luton & Bedfordshire

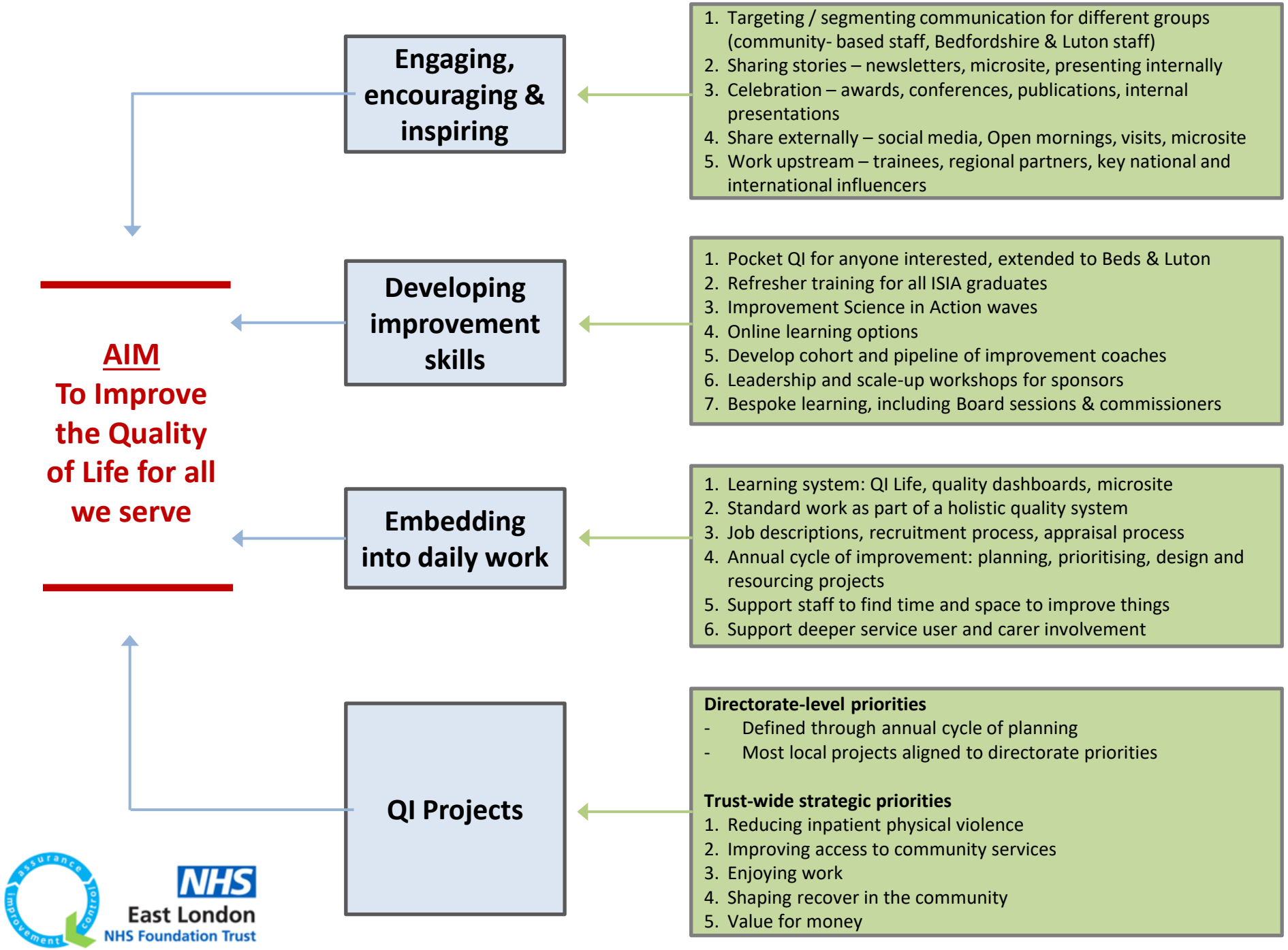
Forensic Services
All above & Waltham Forest, Redbridge, Barking, Dagenham, Havering

Child & Adolescent Services, including tier 4 inpatient service

Regional Mother & Baby Unit

Community Health Services
Newham, Tower Hamlets & Bedfordshire

IAPT
Newham, Richmond and Luton


Engaging, encouraging & inspiring
1. Targeting / segmenting communication for different groups (community- based staff, Bedfordshire & Luton staff)
2. Sharing stories – newsletters, microsite, presenting internally
3. Celebration – awards, conferences, publications, internal presentations
4. Share externally – social media, Open mornings, visits, microsite
5. Work upstream – trainees, regional partners, key national and international influencers
Developing improvement skills
1. Pocket QI for anyone interested, extended to Beds & Luton
2. Refresher training for all ISIA graduates
3. Improvement Science in Action waves
4. Online learning options
5. Develop cohort and pipeline of improvement coaches
6. Leadership and scale-up workshops for sponsors
7. Bespoke learning, including Board sessions & commissioners
AIM
To Improve the Quality of Life for all we serve
Embedding into daily work
1. Learning system: QI Life, quality dashboards, microsite
2. Standard work as part of a holistic quality system
3. Job descriptions, recruitment process, appraisal process
4. Annual cycle of improvement: planning, prioritising, design and resourcing projects
5. Support staff to find time and space to improve things
6. Support deeper service user and carer involvement
QI Projects
Directorate-level priorities
- Defined through annual cycle of planning
- Most local projects aligned to directorate priorities
Trust-wide strategic priorities
1. Reducing inpatient physical violence
2. Improving access to community services
3. Enjoying work
4. Shaping recover in the community
5. Value for money
assurance improvement control
NHS
East London
NHS Foundation Trust

Psychology trainees – One year programme of learning. Embedded into QI projects
Nursing students – Intro to QI delivered within undergraduate and postgrad syllabus, embedded into QI project teams during student placements
Psychiatry trainees – Pocket QI at start of placement. Embedded into QI projects

1044 completed Pocket QI so far. 1hr session for all staff at induction. New half-day induction course on improvement behaviours starting in Jan 2019

Estimated number needed to train = 6000
Needs = introduction to QI & systems thinking, identifying problems, how to get involved, behaviours linked to improvement

979 graduated from ILP in 8 waves. New Wave annually. Refresher training for grads.

Needs = Model for improvement, PDSA, measurement and using data, leading teams, running projects effectively, quality control

117 QI coaches trained so far. All QI coaches with ½ day per week. New cohort trained annually

Needs = deep understanding of method & tools, understanding variation, coaching teams

58 current sponsors. All completed ILP. 35 completed Senior Clinical Leaders programme

Needs = Model for improvement, PDSA, measurement & variation, scale-up and spread, leadership for improvement, quality management, system leadership

Currently have 10 Improvement Advisors (IAs), with 2 further IAs to be trained 2019

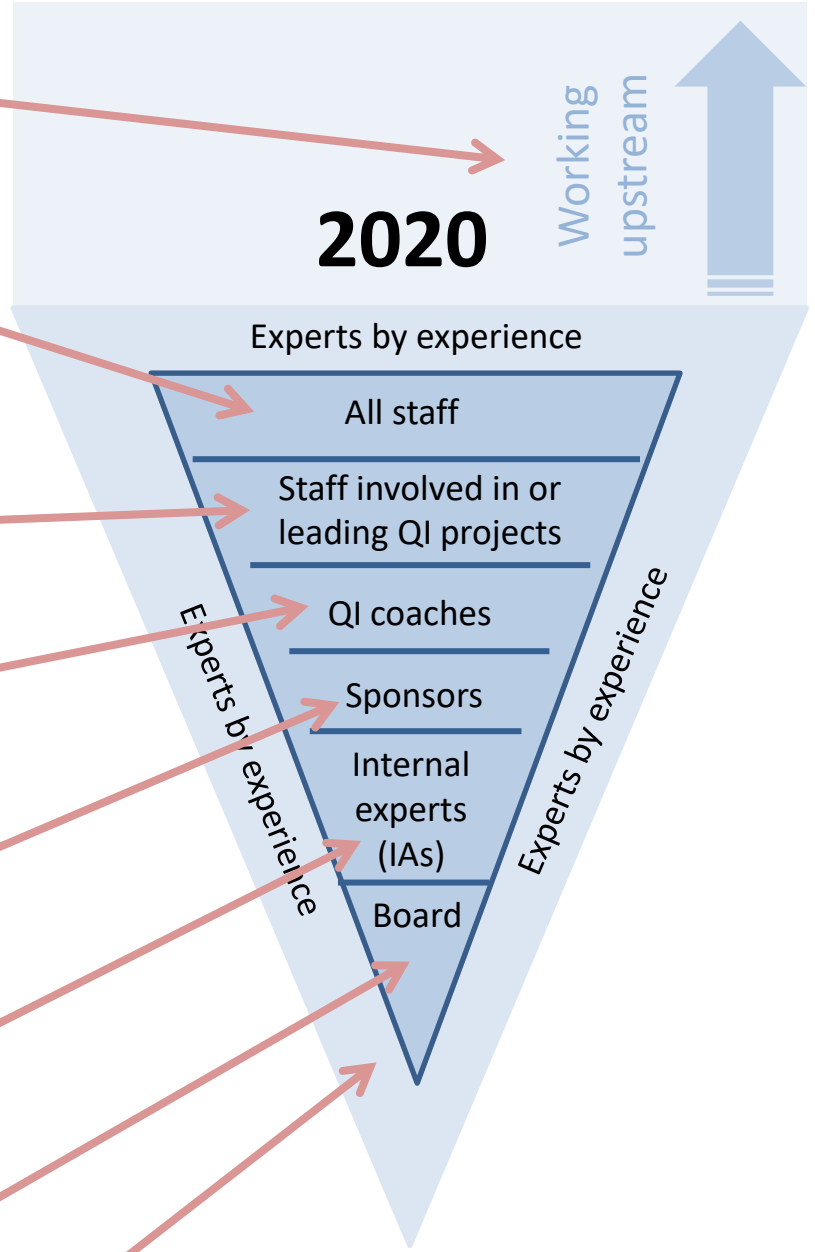
Needs = deep statistical process control, deep improvement methods, effective plans for implementation & spread

All Executives have completed ILP. Annual Board session with IHI & regular Board development

Needs = setting direction and big goals, executive leadership, oversight of improvement, understanding variation

Bespoke QI learning for service users and carers. 115 attended so far.

Needs = introduction to QI, how to get involved in improving a service, practical skills for QI



NHS East London NHS Foundation Trust

Lloyd

Two half-day modules covering the basics of QI – the Model for Improvement and tools.

Available to all staff, service users – whether involved on QI projects or just interested in learning.

2 half-day modules

An 8-month programme involving 7.5 days of face-to-face learning.
Experiential learning with all participants bringing a real project.
For project leads, project team members and anyone in a management role

The IHI's 6-month professional development programme for those who have designated time ring-fenced to take on an improvement coaching role, supporting other teams with their QI work. Involves 7 face-to-face days.

Intro to QI for Service Users & Carers

Interactive, half-day introduction to quality improvement for patients, service users and family members interested in joining QI projects, or already part of QI project teams

Half-day program

And now, we have real-time analytics available for each part of the organisation to see who has been trained at what level…

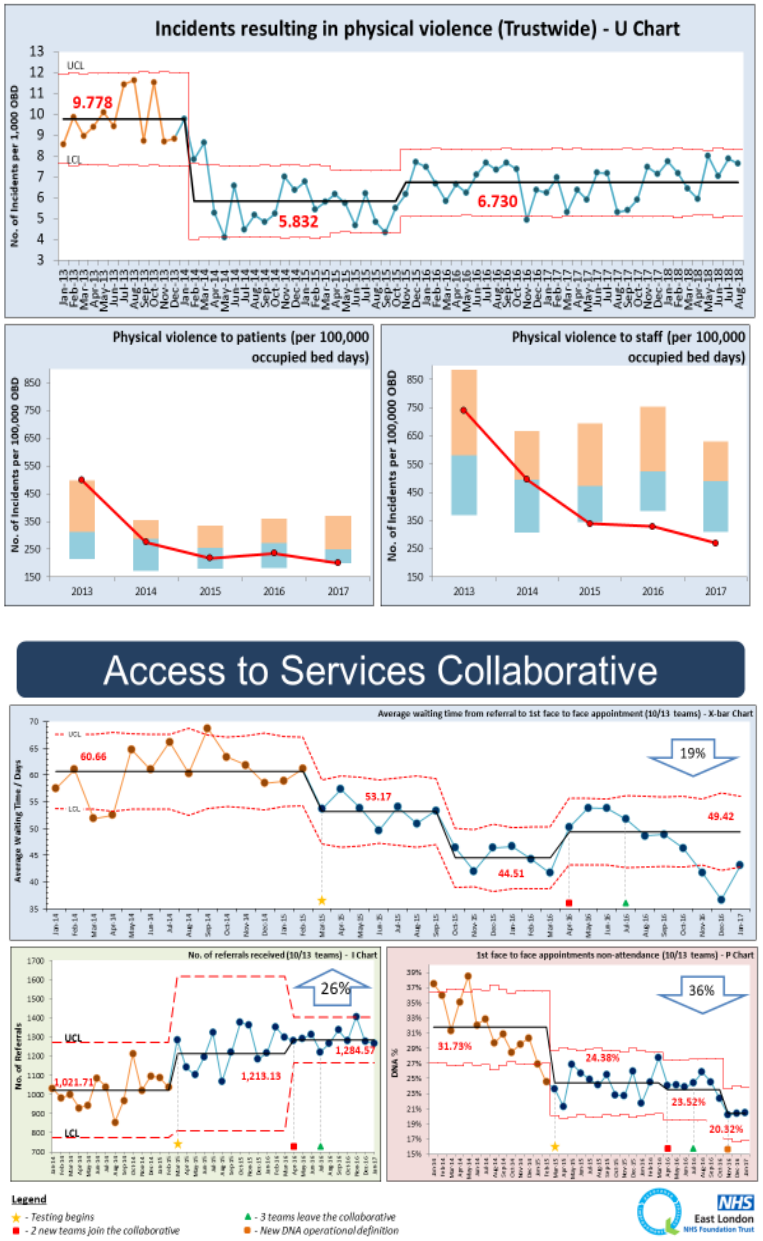
Take a look at qi.elft.nhs.uk/qi-training

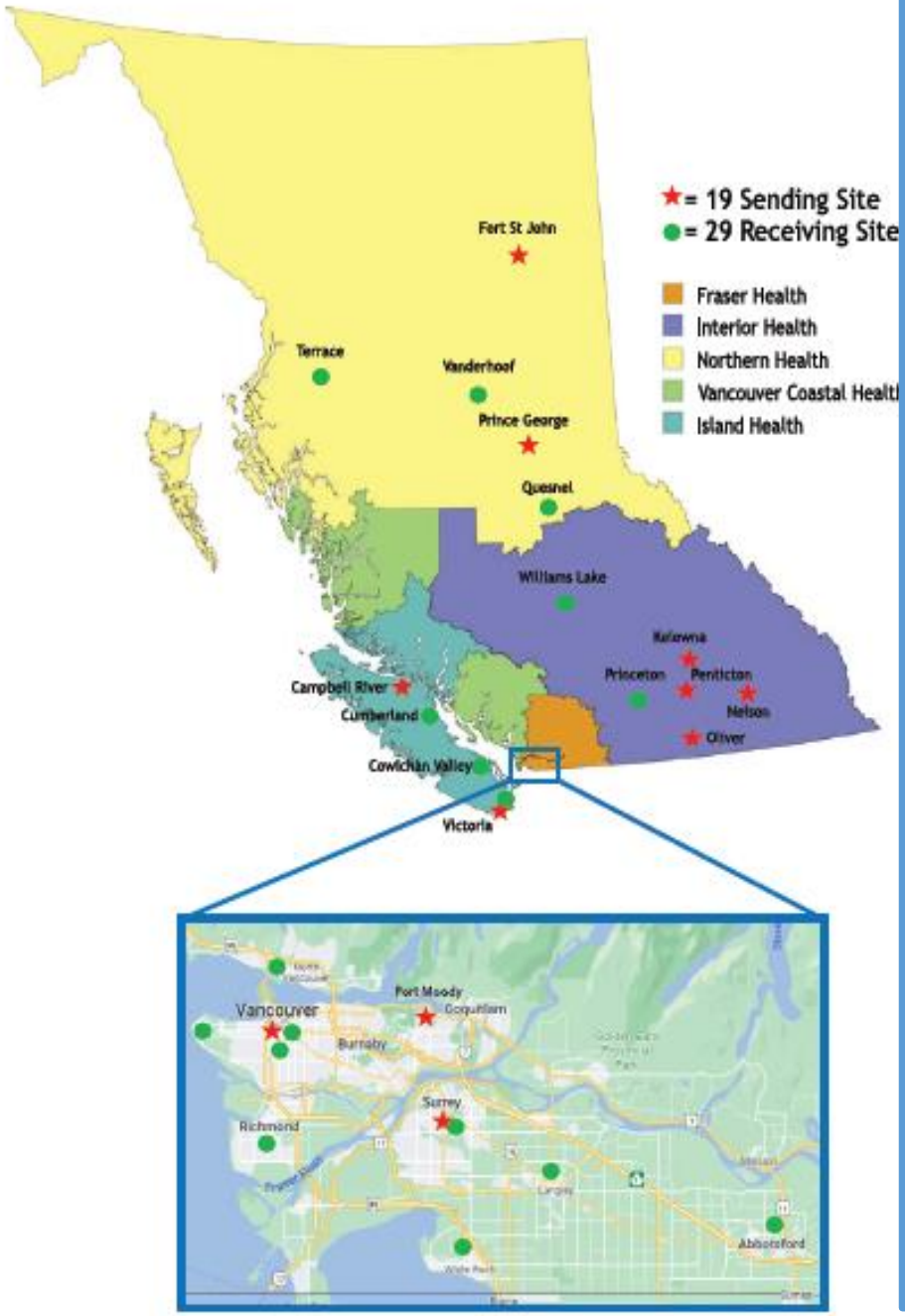
NHS East London NHS Foundation Trust

NHS East London NHS Foundation Trust

Is it making a difference?

Improvement is being observed on our key Outcome and Process measures.





British Columbia, Canada

Population-based, universally-funded healthcare delivery

Population 5.3 million

2014

Acute Care Hospitals: Fraser 12

Vancouver Coastal/Providence 4

Interior 22

Vancouver Island 12

Northern Health 18

PHSA 4

BC-wide Intentional QI Dosing Based on Physicians "What Matters to You"

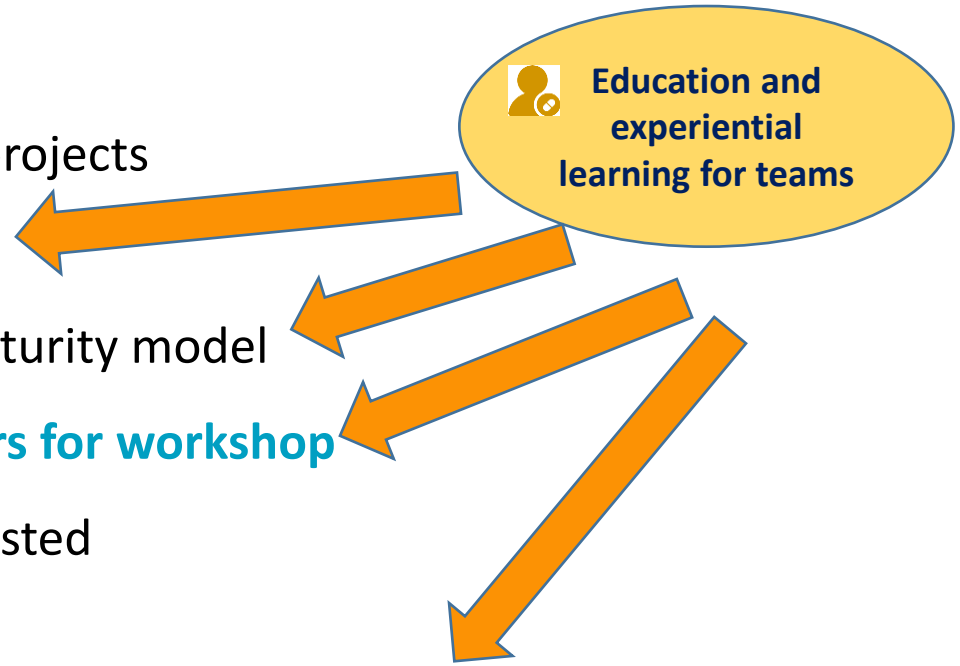
Level One	>>	IHI Online	**400**
Level Two	>>	One Day of QI Fundamentals	**1200**
Level Three	>>	Year Long, Learning Action Project (IA)	**580**

>> Experiential "just in time" science of improvement
PDSA learning for large allied health teams
= Knowledge and skills transferred by the
Physician Improvement Advisors

Dosing of Patient Engagement in Joy in Work

Sending site patient partners

- Looked for previous patient voices in JIW projects
- Identified the roles for patient partners
- Contributed to the change package and maturity model
- **Created slides on engaging patient partners for workshop**
- Mentor receiving patient partners as requested



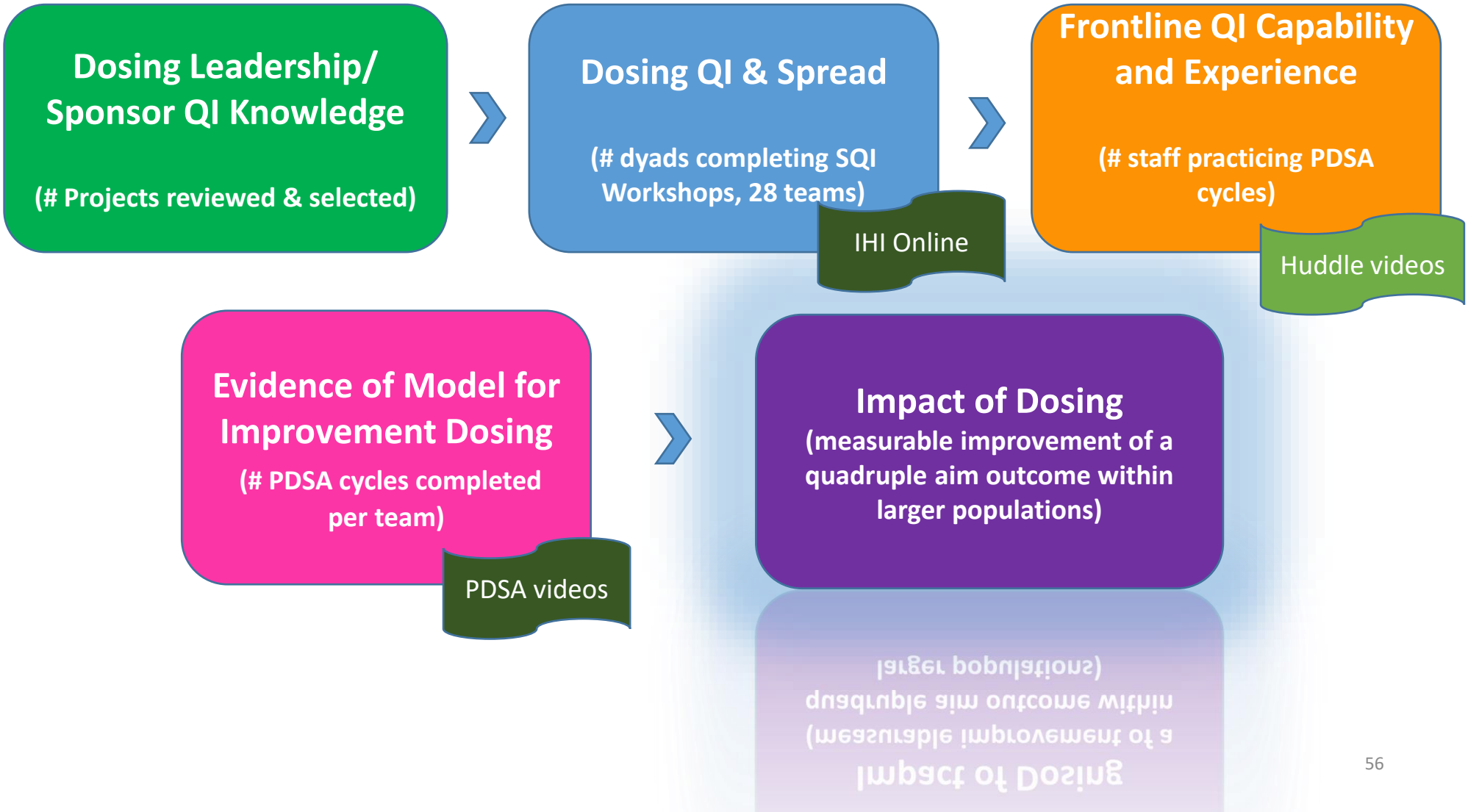
Receiving site patient partners

- Meet with their team to codesign the plan for patients/families/care providers contribution to JIW on the wards

Patients/families/care providers on the wards

- Carry out the plan and provide feedback

Physician-initiated QI & Spread to at least one other Facility: Outcomes of Dosing

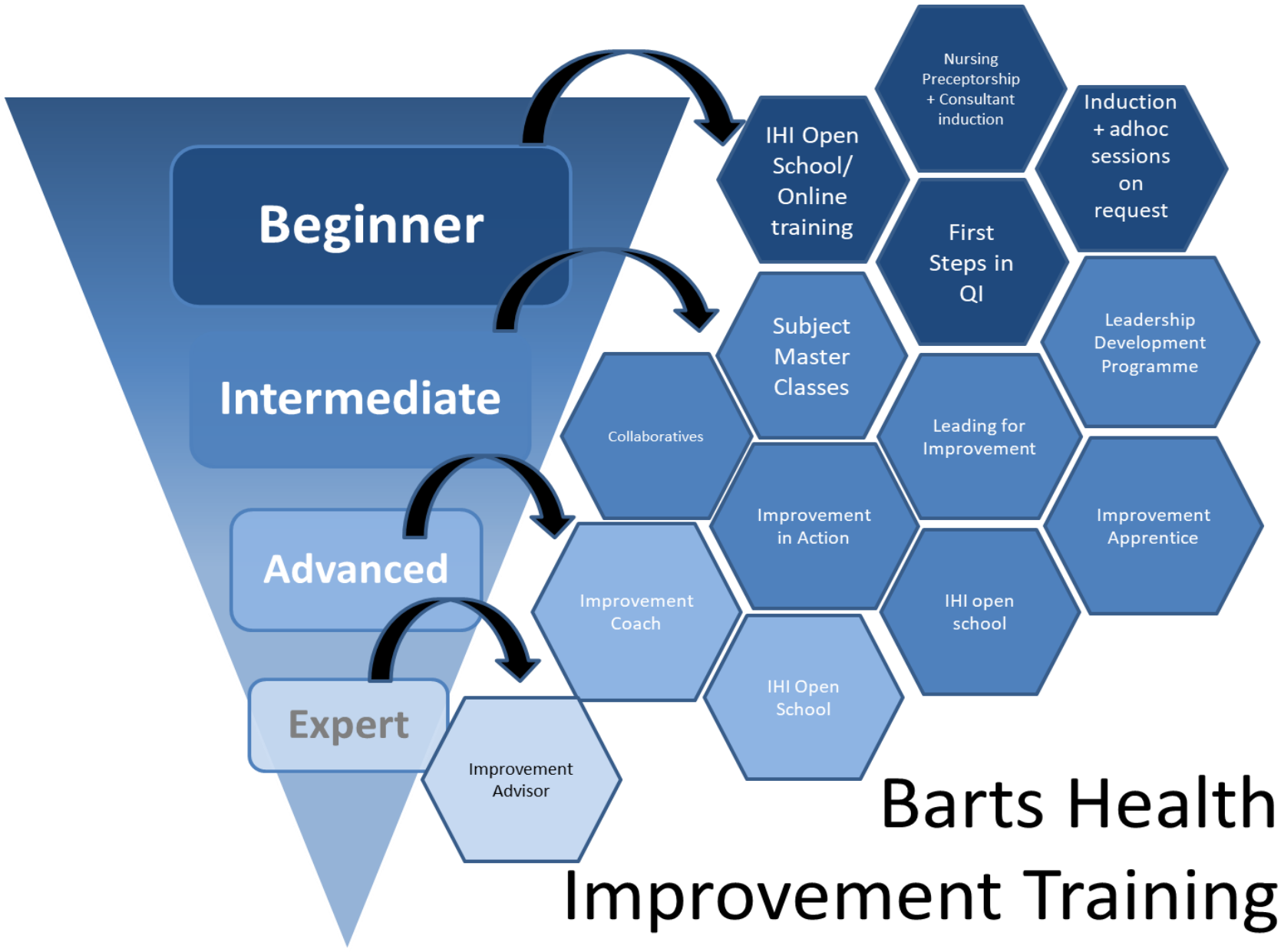


WeImprove
Excellence and innovation in safe and compassionate care

2018

NHS
Barts Health
NHS Trust

Applying the Dosing Approach to Building and Sustaining Quality Improvement Capacity and Capability at Barts Health NHS Foundation Trust



Barts Health Improvement Training

WeImprove
Excellence and innovation in safe and compassionate care

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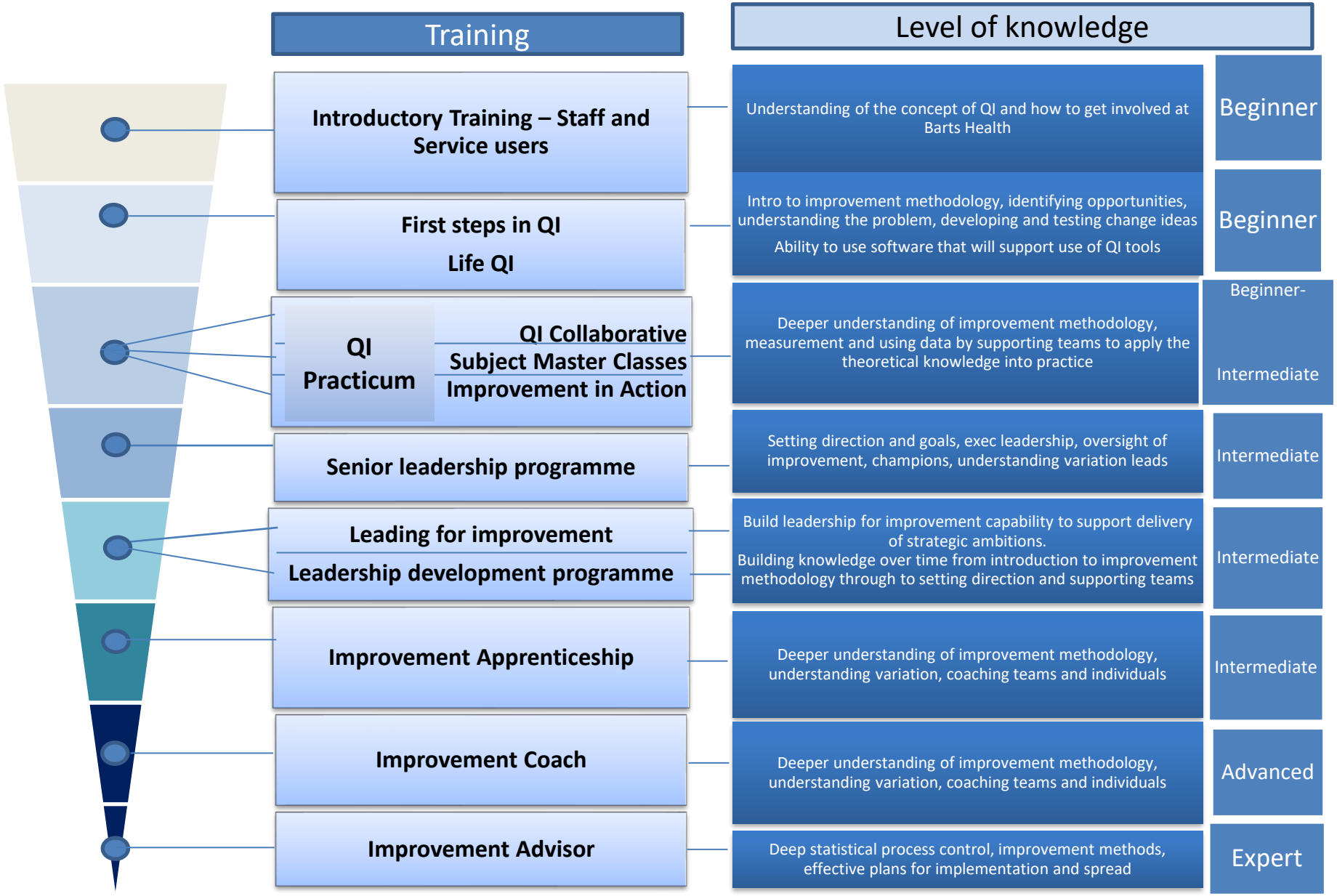
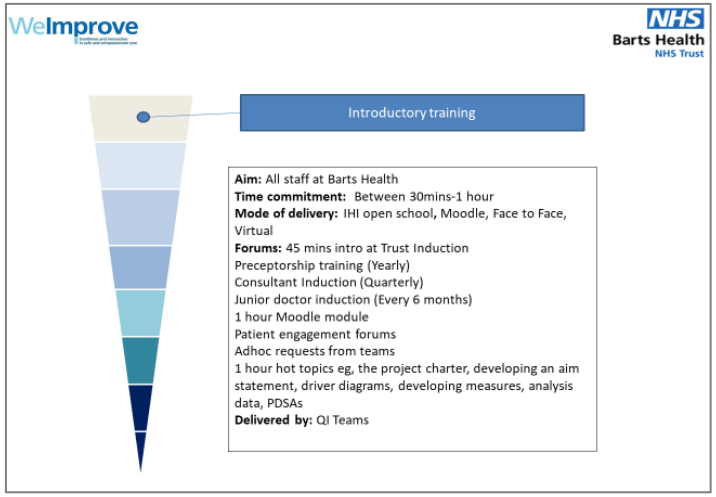
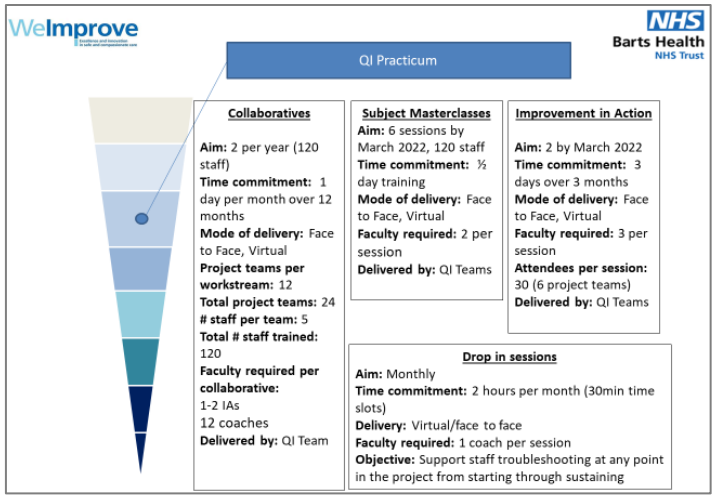
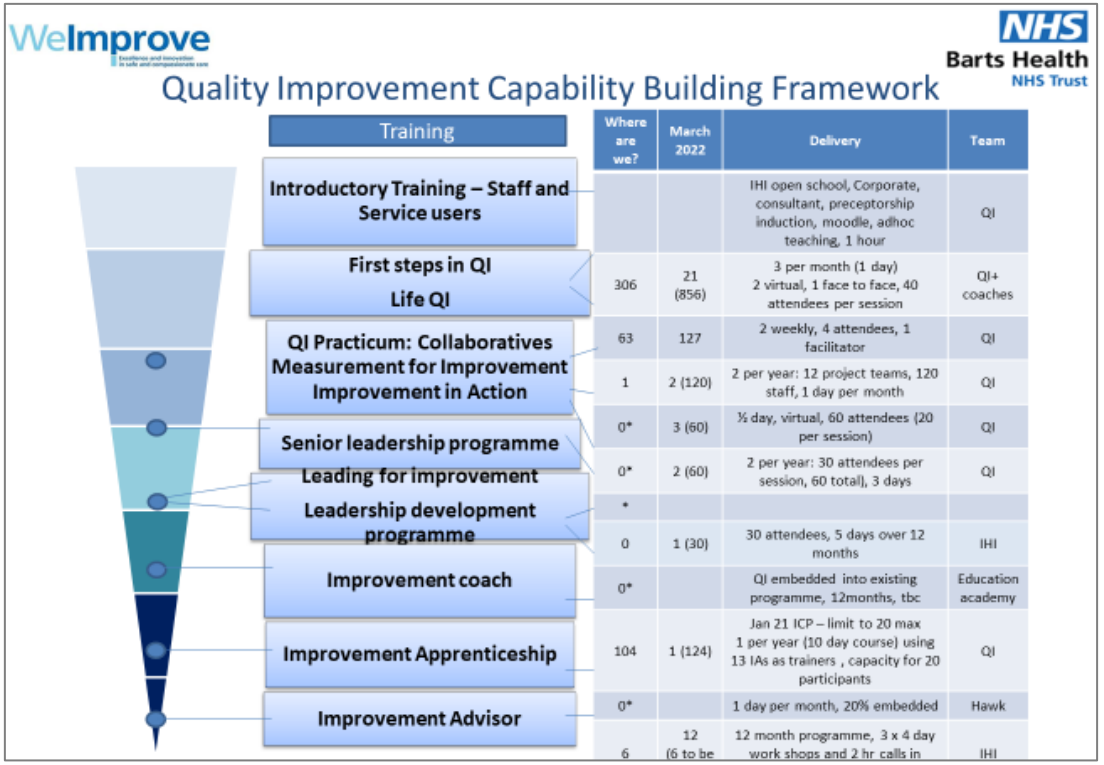
Quality Improvement Capability Building Framework



The Capacity & Capability Building Journey at Barts



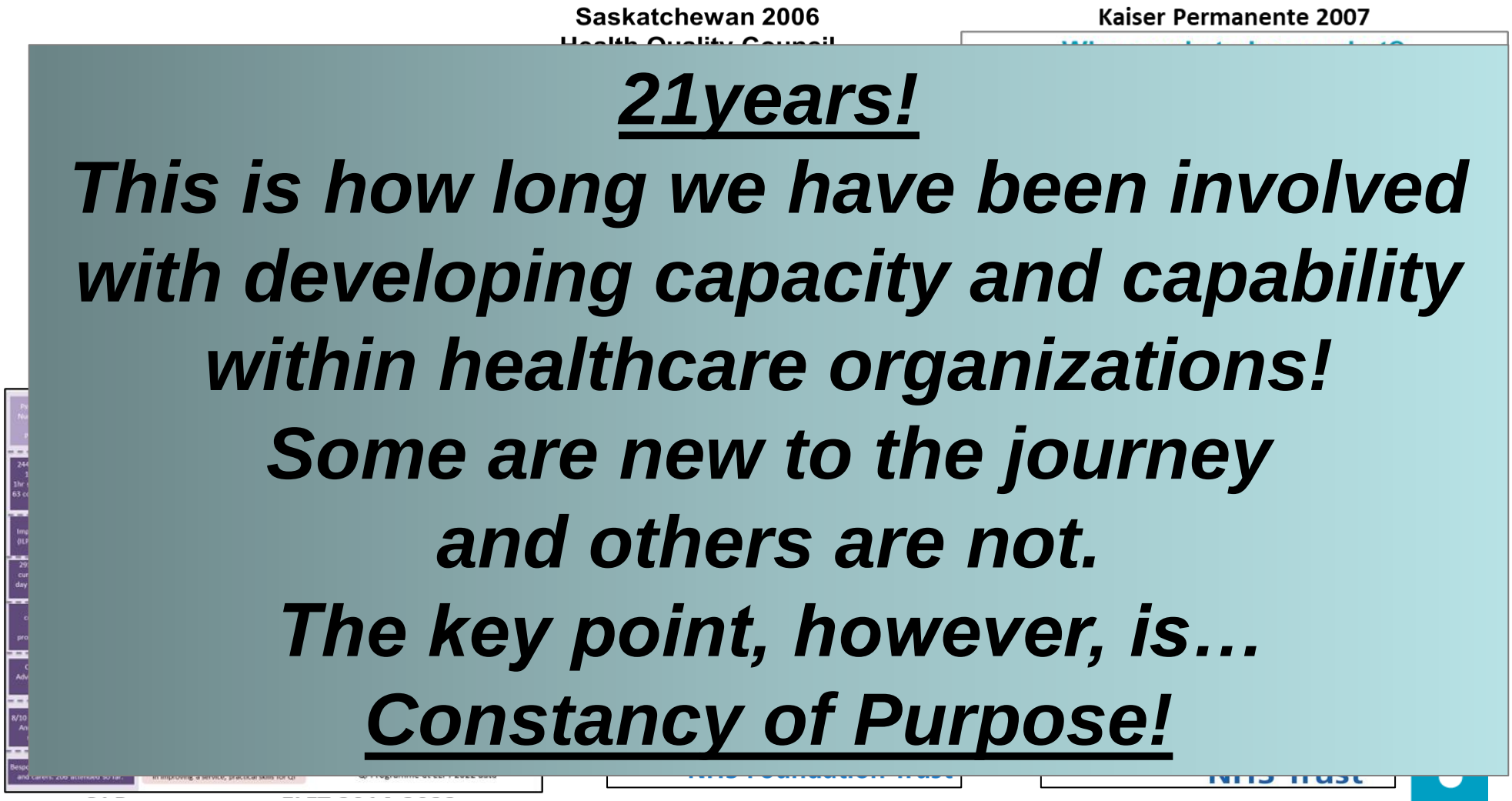




Question #5

Will How will you make sure the capacity and capability system can be sustained?

Question #5
Will How will you make sure the learning system can be sustained?



2014 QI Strategy at ELFT

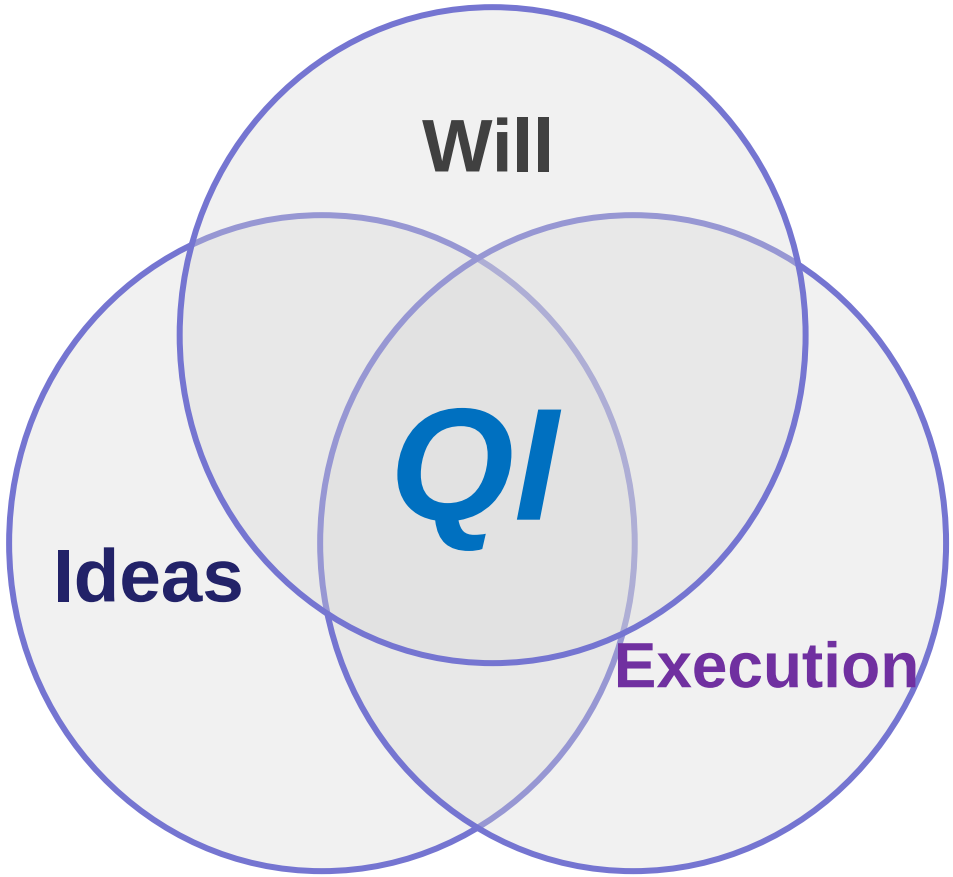
Senior Leadership's Attention to "Constancy of Purpose"

- Setting clear improvement goals, expectations, priorities, and accountability.
- Monitoring and supporting all improvement goals.
- Establishing a system for sharing the learning.
- Maintaining focus on the system of care and integrating improvement activities across the organization.

The Primary Drivers for Building Capacity & Capability

Having the *Will* (desire) to change the current state to one that is better

Developing *Ideas* that will contribute to making processes and outcome better

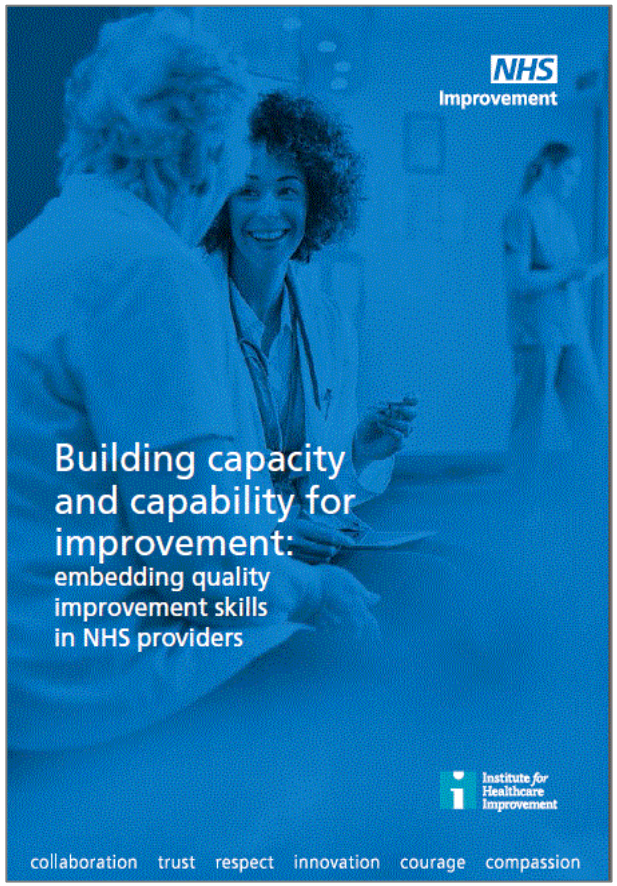


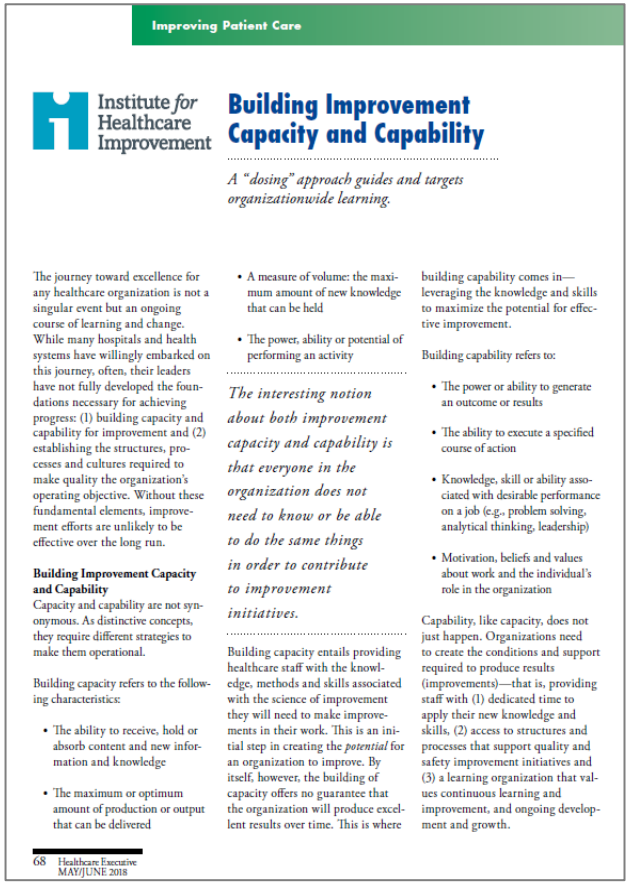
Having the capacity and capability to apply CQI theories, tools and techniques that enable the *Execution* of the ideas

Dialogue
How prepared is your organization?
(your team, your department or your organization?)

Key Components*	Self-Assessment
• Will (to change)	• Low Medium High
• Ideas	• Low Medium High
• Execution	• Low Medium High

*All three components MUST be viewed together. Focusing on one or even two of the components will guarantee sub optimized performance. Systems thinking lies at the heart of CQI!





Improving Patient Care

Institute for Healthcare Improvement

Building Improvement Capacity and Capability

A "dosing" approach guides and targets organizationwide learning.

The journey toward excellence for any healthcare organization is not a singular event but an ongoing course of learning and change. While many hospitals and health systems have willingly embarked on this journey, often, their leaders have not fully developed the foundations necessary for achieving progress: (1) building capacity and capability for improvement and (2) establishing the structures, processes and cultures required to make quality the organization's operating objective. Without these fundamental elements, improvement efforts are unlikely to be effective over the long run.

Building Improvement Capacity and Capability

Capacity and capability are not synonymous. As distinctive concepts, they require different strategies to make them operational.

Building capacity refers to the following characteristics:

- The ability to receive, hold or absorb content and new information and knowledge
- The maximum or optimum amount of production or output that can be delivered
- A measure of volume: the maximum amount of new knowledge that can be held
- The power, ability or potential of performing an activity

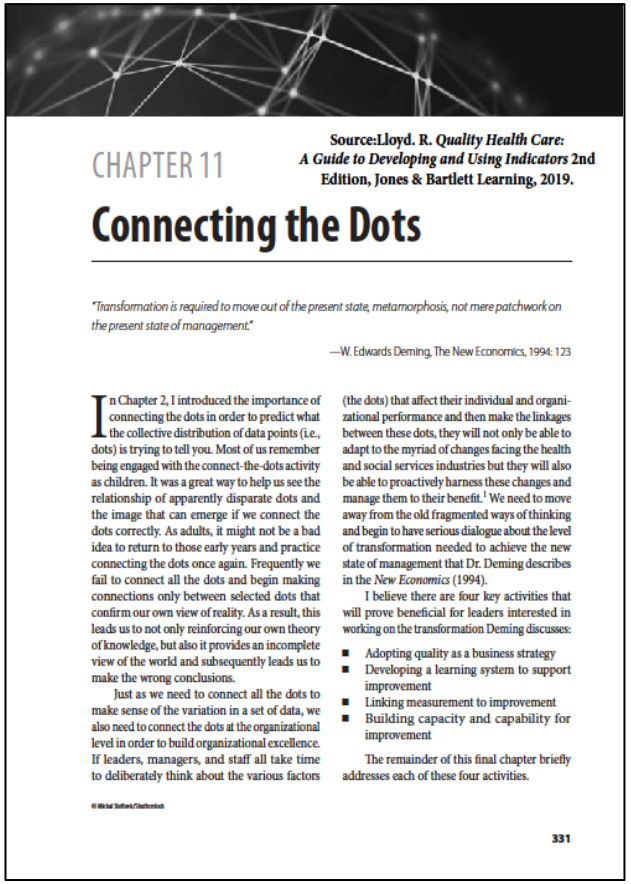
The interesting notion about both improvement capacity and capability is that everyone in the organization does not need to know or be able to do the same things in order to contribute to improvement initiatives.

Building capacity entails providing healthcare staff with the knowledge, methods and skills associated with the science of improvement they will need to make improvements in their work. This is an initial step in creating the *potential* for an organization to improve. By itself, however, the building of capacity offers no guarantee that the organization will produce excellent results over time. This is where building capability comes in—leveraging the knowledge and skills to maximize the potential for effective improvement.

Building capability refers to:

- The power or ability to generate an outcome or results
- The ability to execute a specified course of action
- Knowledge, skill or ability associated with desirable performance on a job (e.g., problem solving, analytical thinking, leadership)
- Motivation, beliefs and values about work and the individual's role in the organization

Capability, like capacity, does not just happen. Organizations need to create the conditions and support required to produce results (improvements)—that is, providing staff with (1) dedicated time to apply their new knowledge and skills, (2) access to structures and processes that support quality and safety improvement initiatives and (3) a learning organization that values continuous learning and improvement, and ongoing development and growth.



CHAPTER 11

Source:Lloyd. R. *Quality Health Care: A Guide to Developing and Using Indicators* 2nd Edition, Jones & Bartlett Learning, 2019.

Connecting the Dots

"Transformation is required to move out of the present state, metamorphosis, not mere patchwork on the present state of management."

—W. Edwards Deming, The New Economics, 1994: 123

In Chapter 2, I introduced the importance of connecting the dots in order to predict what the collective distribution of data points (i.e., dots) is trying to tell you. Most of us remember being engaged with the connect-the-dots activity as children. It was a great way to help us see the relationship of apparently disparate dots and the image that can emerge if we connect the dots correctly. As adults, it might not be a bad idea to return to those early years and practice connecting the dots once again. Frequently we fail to connect all the dots and begin making connections only between selected dots that confirm our own view of reality. As a result, this leads us to not only reinforcing our own theory of knowledge, but also it provides an incomplete view of the world and subsequently leads us to make the wrong conclusions.

Just as we need to connect all the dots to make sense of the variation in a set of data, we also need to connect the dots at the organizational level in order to build organizational excellence. If leaders, managers, and staff all take time to deliberately think about the various factors (the dots) that affect their individual and organizational performance and then make the linkages between these dots, they will not only be able to adapt to the myriad of changes facing the health and social services industries but they will also be able to proactively harness these changes and manage them to their benefit.[1] We need to move away from the old fragmented ways of thinking and begin to have serious dialogue about the level of transformation needed to achieve the new state of management that Dr. Deming describes in the *New Economics* (1994).

I believe there are four key activities that will prove beneficial for leaders interested in working on the transformation Deming discusses:

- Adopting quality as a business strategy
- Developing a learning system to support improvement
- Linking measurement to improvement
- Building capacity and capability for improvement

The remainder of this final chapter briefly addresses each of these four activities.

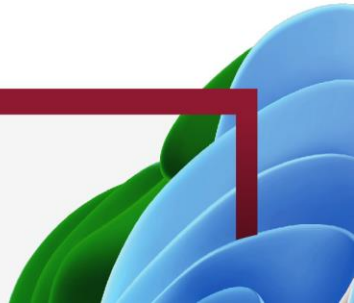
A few resources for you to reflect on.
These will be posted along with this presentation.

Thank you for joining me today.

Best wishes for a successful Dosing Journey!

Dr Bob

Healthcare Resilience in Extraordinary Times

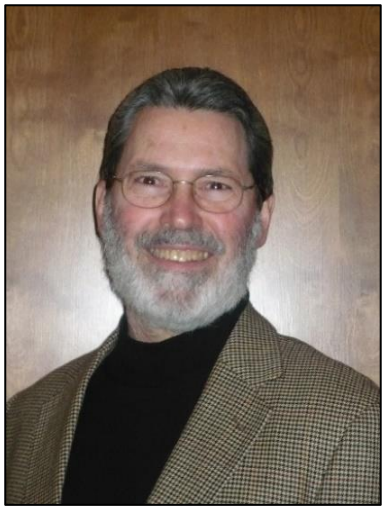


I believe that our very survival depends upon us becoming better systems thinkers.

Margaret J. Wheatley

Dr. Robert Lloyd Bio

Robert Lloyd, PhD, Vice President, Institute for Healthcare Improvement provides leadership in the areas of performance improvement strategies, statistical process control methods, development of strategic dashboards and capacity and capability building for quality improvement. He serves as primary faculty for the IHI Improvement Advisor (IA) Professional Development Program, the Improvement Science in Action (ISIA) Program, the Improvement Coach Program and various other IHI initiatives and demonstration projects. Dr. Lloyd works throughout the US, Canada, the UK, Sweden, Denmark, Africa, the Middle East, India, Malaysia, Australia and New Zealand. He is an internationally recognized speaker on quality improvement concepts, methods and tools.



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He also advises senior leadership teams and boards on how to create the structures, processes and cultures that will make quality thinking and behaviors part of daily work. He is the author of three leading books on measuring quality improvement in healthcare settings and numerous articles and book chapters on quality measurement and improvement.