IISE Global Performance Excellence Webinar Series:

A Systems Approach to Transformational Change Leadership in Healthcare—with a Case Study

Dale Shattenkirk
Partner and Head of Healthcare and HealthSciences
The Poirier Group

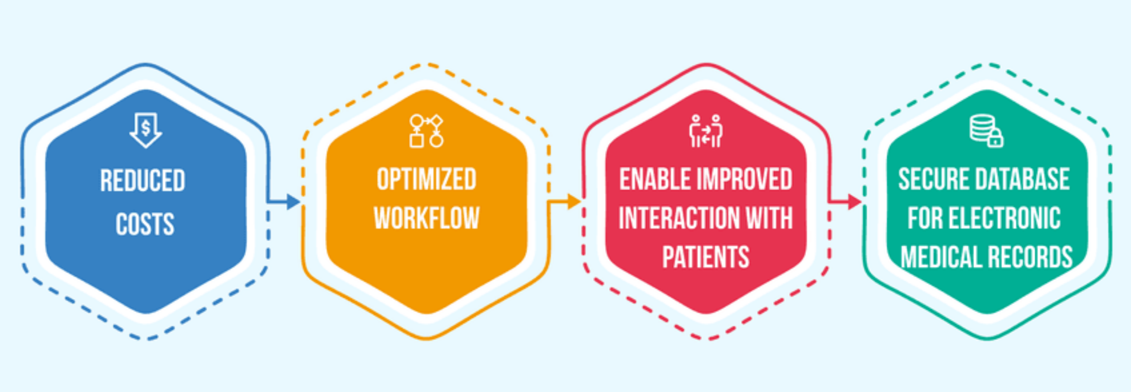
David Poirier
CEO, The Poirier Group
Past President, IISE

MODERATOR
D. Scott Sink, Ph.D., P.E.

IISE Performance Excellence and Op Analytics Volunteer Lead, IISE

Facilitator/Member, CISE

Senior Advisor, TPG



REDUCED COSTS → OPTIMIZED WORKFLOW → ENABLE IMPROVED INTERACTION WITH PATIENTS → SECURE DATABASE FOR ELECTRONIC MEDICAL RECORDS

INSTITUTE OF
INDUSTRIAL
& SYSTEMS
ENGINEERS

13 May 2024

Council on
INDUSTRIAL & SYSTEMS
ENGINEERING

Housekeeping

INSTITUTE OF INDUSTRIAL & SYSTEMS ENGINEERS
Solving complex & critical problems of the world.

① • Thank you for joining us!

② • We'll share how to get access to the recording, presentation, you will receive a post webinar e-mail that will have access links

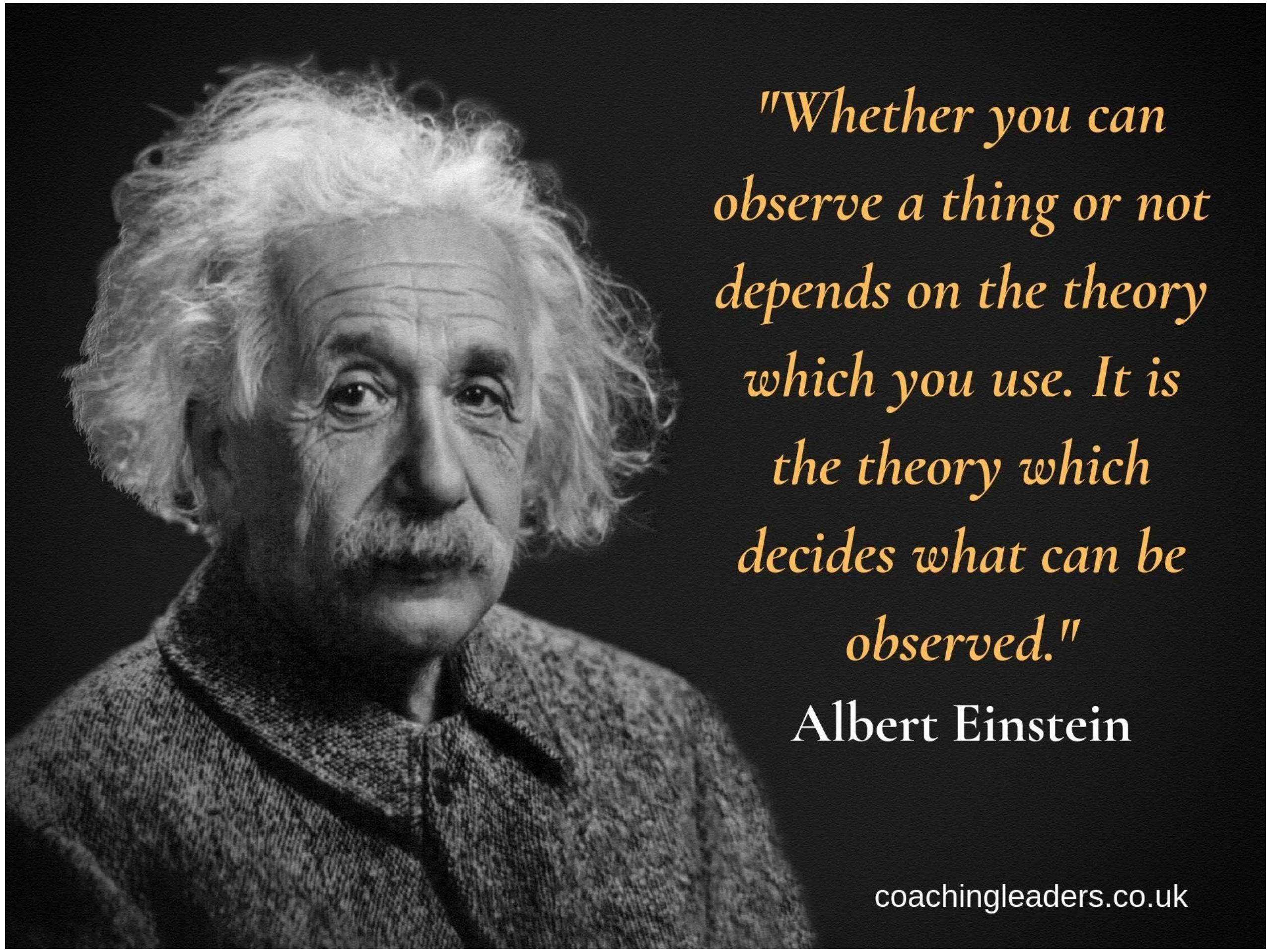
③ • If you have feedback, observations or questions, feel free to share—use the chat function.

PARTNERING for GROWTH

Council on INDUSTRIAL & SYSTEMS ENGINEERING

Agenda for 12 April

11:00	Scott ‘tee-up’ the session
11:07	Dale Sharing
11:45	Dialogue
11:55	Close-out



"Whether you can observe a thing or not depends on the theory which you use. It is the theory which decides what can be observed."

Albert Einstein

coachingleaders.co.uk

ISE Perspectives and Points of View on Transformational Change Leadership for Healthcare Performance Excellence

WEBINAR
SERIES

And more….

Purpose and Key Points of the Mini-Series:

1. This is an important ‘Domain’ of application/contribution for ISE;
2. It is one of the more challenging Integrated Systems Engineering (Strategy, People, Process, Technology) ‘problems’ today.
3. Healthcare ‘4.0’ has the potential for tremendous positive impact in our World.
4. ISE principles, body of knowledge/skills can make a big difference with rate of progress towards Healthcare Excellence.
5. our challenge was to pick the right topics….

12 April

Tee-up the Series
Frameworks
Failure Modes
Perspectives

26 April

Case Example, Ohio Health Portfolio Management & Systems Thinking

13 May

Healthcare 4.0, TPG Perspectives

19 May
IISE Performance Excellence Track
Montreal

- **Transformational Change Leadership**
- **AI Symposium**
- **Operational Analytics**
- **Integrated Systems Engineering**
- **Service Systems Engineering**

30 May

End2end Episodic Healthcare Value Stream Improvement

9 May

End2End
Hospital Flow
provement
se
amples

June

Best Practice Benchmarking (UHN, IHI, …)

ISE Capstone Article

IISE Global Performance Excellence Webinar Series:

Integrated Systems Engineering Views on Transformational Change Leadership to achieve Healthcare Performance Excellence

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Senior Advisor, TPG

Debbie Nightingale
Executive Transformation Specialist
Distinguished Professor and Research Affiliate, UCF and MIT

Thomas Davis
Director, Performance Services, Hospital Ops
Duke Healthcare

Bob Gold
Founder and Behaviorial Technologist
GoMo Health

Todd Schneider
Lean Leader
Ohio Health
Past President, SHS

INSTITUTE OF INDUSTRIAL & SYSTEMS ENGINEERS

75th ANNIVERSARY 1948-2023

12 April 2024

Council on INDUSTRIAL & SYSTEMS ENGINEERING

Key Points from our Initial Webinar

- Mini-Series is a continuation of our Transformational Change Leadership (ISE perspectives and points of view) with a focus on Healthcare Performance Excellence.
- Provided a multiple stakeholder perspective and dialogue on ‘how to achieve Healthcare Performance Excellence’
  - Patient/Caregiver/Advocate, BPI leaders in major Healthcare Systems (Duke & Ohio Health), and Behavioral Technologist.
- Healthcare System improvement requires ‘extended systems’ approaches, end2end value stream improvement with all key stakeholders engaged in the process.
- Integration of Strategy, Technology, Process and People super critical in this ‘Industry’.
- Balancing the ‘Core Technology’ Preventing and Treating ‘Diseases’ with improving ‘how we do that’ is challenging, the focal problem.
- Healthcare appears to be ‘behind’ other industries and lacks continuity of leadership and consistency of strategy and methods as it relates to Operational Excellence.

Solution Elements (Scott view)—Panel, what do you think, what would you add?

- More Benchmarking and ‘copying’ of best practices, less NIH, re-inventing the wheel
- **Put teeth in Voice of Patient, Advocate/Caregiver feedback and improve feedback mechanisms.**
- More Simulation and Systems Dynamics Modelling
- **Better BPI and Op Analytics program design and deployment, stronger BPI and Op Analytics Programs, not necessarily bigger but better, right leadership with ‘good strategy’.**
- Better positioning and utilization of ‘ISE’
- **Better use of key tools of ILSS (e.g. FMEA, Functional(Swim) lane flow mapping and analytics, Value Stream Analytics and Improvement, Visible Measurement Systems, ….)**
- Adoption and perfection of Tiered Huddles to include ‘2-second’ lean type methods.
- **Deployed, distributed ‘Change Agents/BPI specialists’ in all units that are enterprise coordinated**
- Improved Strategic Performance Improvement Planning

Integration of Strategy, Technology, Process and People

When you integrate:

1. Strategy and policy deployment (Hoshin Kanri type method)
2. Tiered Huddles (for level to level and cross functional communication and coordination)
3. Integrated LeanSigma and BPI/ISE
4. Visible Measurement/Management Systems
5. Flow/Value Stream Workshops

You get speed of trust and rates of improvement required in Healthcare today.

Looking forward to Todd's sharing how Ohio Health is doing this.

THE POIRIER GROUP

Transformational Change Leadership with a focus on Healthcare Systems

May 13, 2024

With You Today

Dale Schattenkirk
Healthcare Partner

- Healthcare Lead at The Poirier Group
- 19 years focused in Healthcare (CDN, US, UK)
- IPAC Lieutenant Governors Award for Health System Transformation
- Certified Human Resource Professional with a focus on Organizational Change
- Lean Six Sigma Master Black Belt

With You Today

David Poirier
CEO

- CEO and Founder of The Poirier Group
- 30 years as a Transformational Leader for Large-Scale Organizational Transformations
- Broad industry and ‘situation’ experience
- Brings a ‘visionary’ and ‘Generative Learning and Leadership’ perspective and point of view to transformational systems improvement work
- Emphasis on the Power of Vision and the Requirement for Solid Values and Operating Principles
- Industrial/Integrated Systems Engineering Foundational Knowledge and Skill base.

Tee-up for Dale

- David, before Dale jumps into his presentation, would you provide a brief Executive Overview of your Perspective and Points of View on Transformational Change Leadership in Healthcare and Life Sciences?

- Dale, take the next 20-25 minutes and share you perspectives, points of view, and case study overview…

Agenda

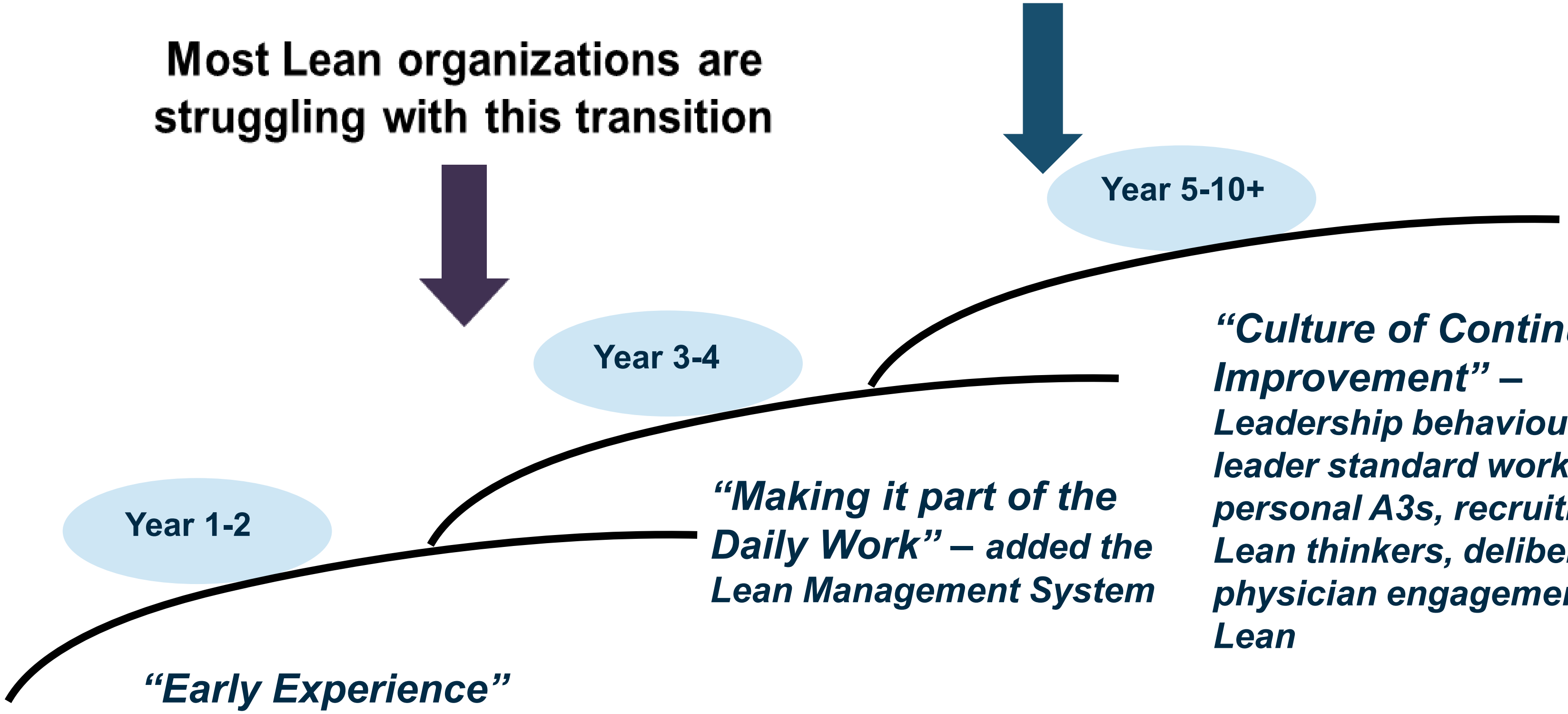
1. What is a health system transformation timeline
2. What are leader’s responsibilities in a transformation journey
3. Tool for transformation
4. A case study in transformation
5. Open dialogue

CHANGE
is good
you go first
FLEX
ZONE
OPEN
OPEN

Don’t mistake a clear view with a short distance

Paul Saffo

The Typical Journey



Operational Excellence

Most Lean organizations are struggling with this transition

Year 5-10+

Year 3-4

Year 1-2

"Culture of Continuous Improvement" – Leadership behaviours, leader standard work, personal A3s, recruiting Lean thinkers, deliberate physician engagement with Lean

"Making it part of the Daily Work" – added the Lean Management System

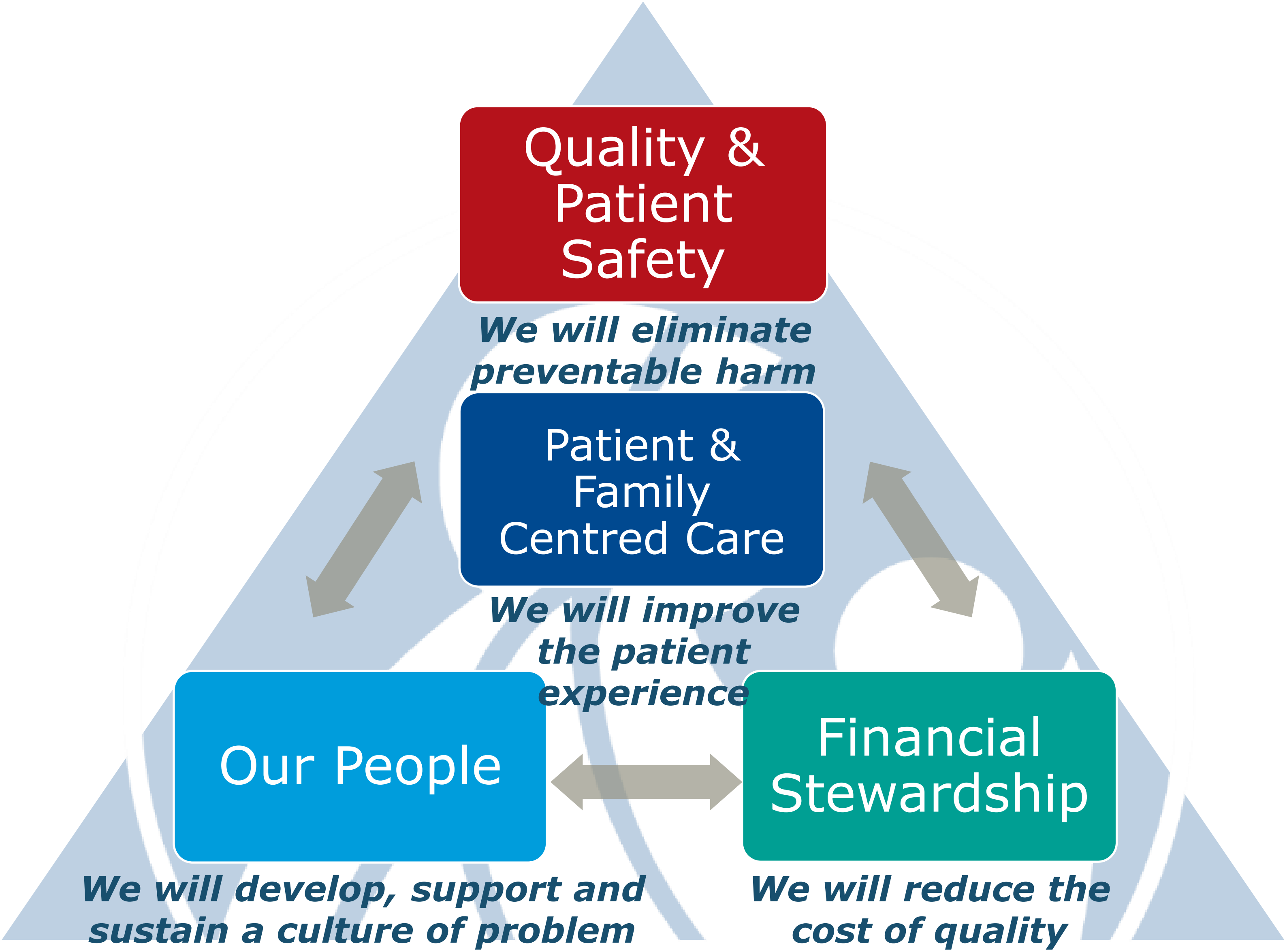
"Early Experience"

Huddles and Pockets of Improvement Events

True North

Vision

We will be the safest and most effective hospital characterized by innovation, compassion and respect.



Quality & Patient Safety

We will eliminate preventable harm

Patient & Family Centred Care

We will improve the patient experience

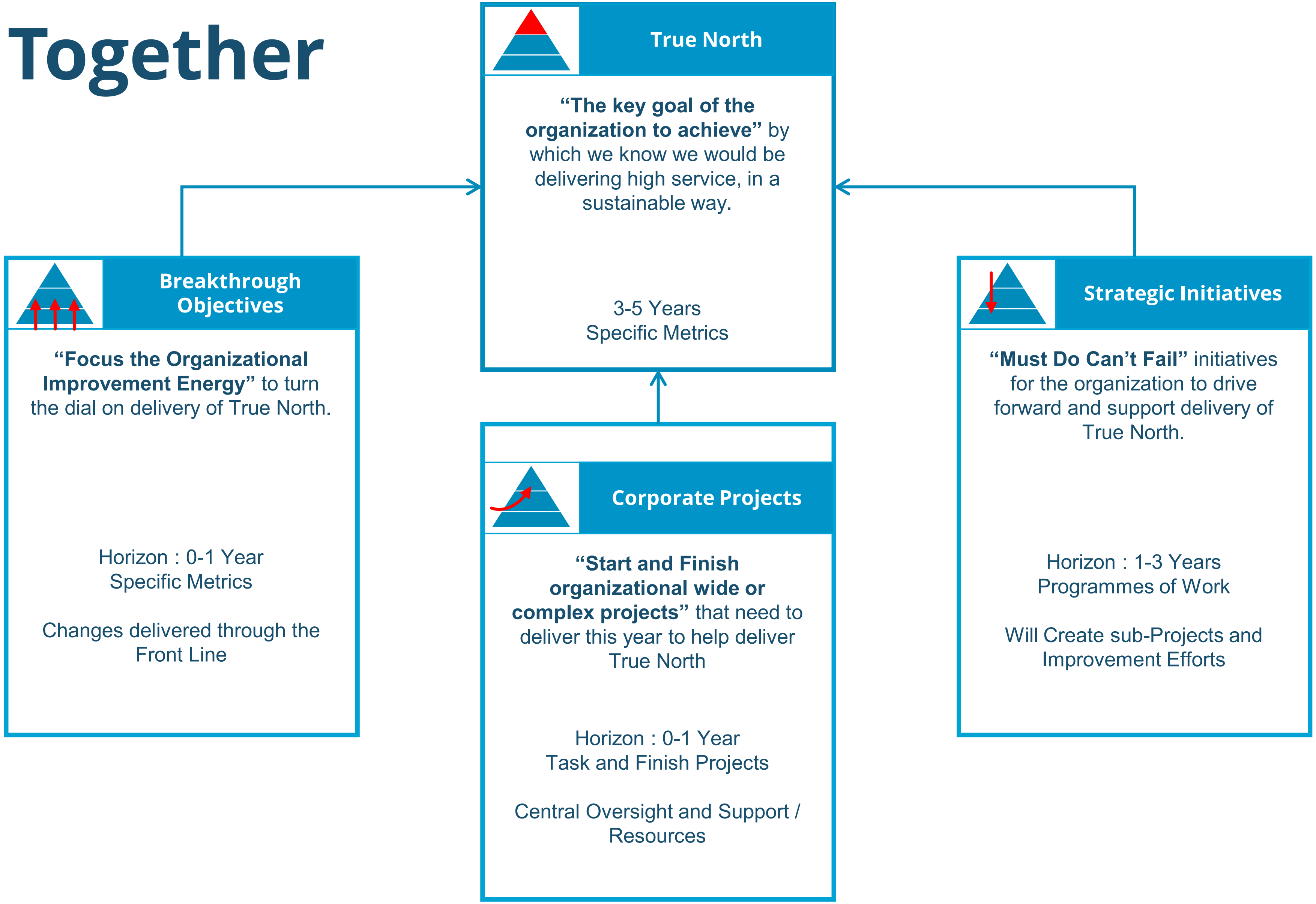
Our People

We will develop, support and sustain a culture of problem solvers.

Financial Stewardship

We will reduce the cost of quality healthcare

Tie It All Together



True North

“The key goal of the organization to achieve” by which we know we would be delivering high service, in a sustainable way.

3-5 Years
Specific Metrics

Breakthrough Objectives

“Focus the Organizational Improvement Energy” to turn the dial on delivery of True North.

Horizon : 0-1 Year
Specific Metrics

Changes delivered through the Front Line

Corporate Projects

“Start and Finish organizational wide or complex projects” that need to deliver this year to help deliver True North

Horizon : 0-1 Year
Task and Finish Projects

Central Oversight and Support / Resources

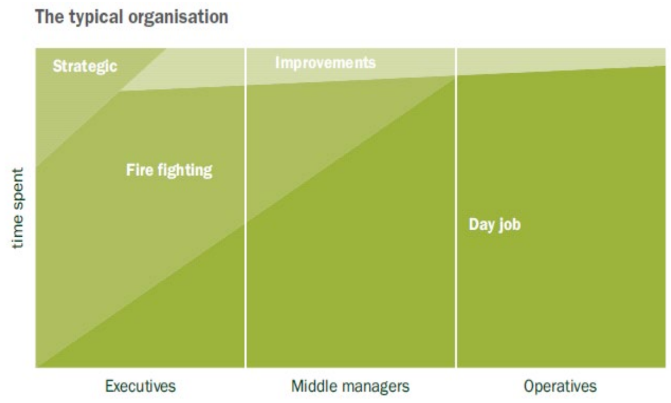
Strategic Initiatives

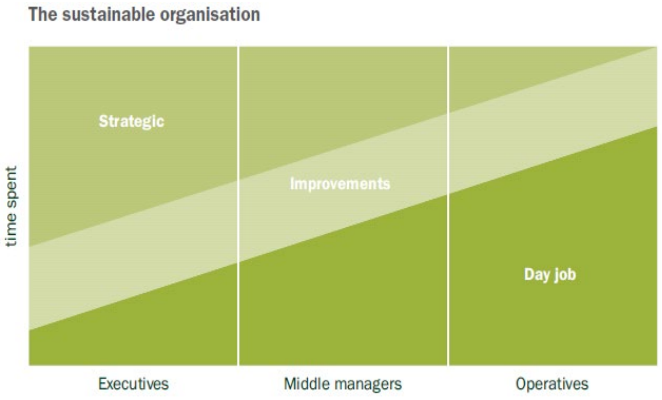
“Must Do Can’t Fail” initiatives for the organization to drive forward and support delivery of True North.

Horizon : 1-3 Years
Programmes of Work

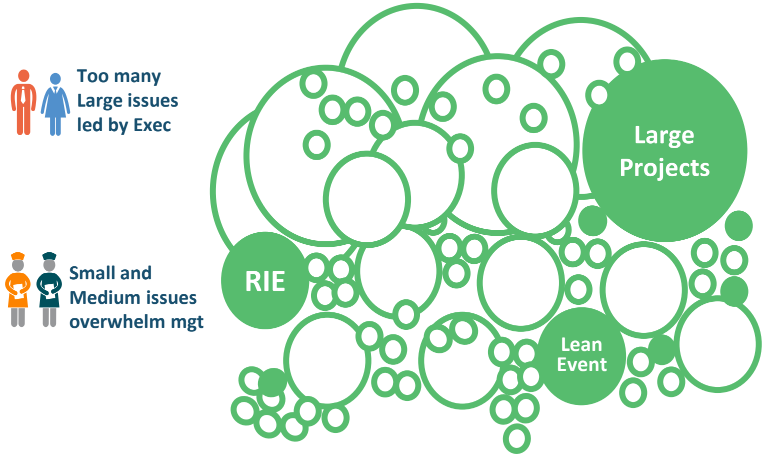
Will Create sub-Projects and Improvement Efforts

Driving the Ownership of Improvement





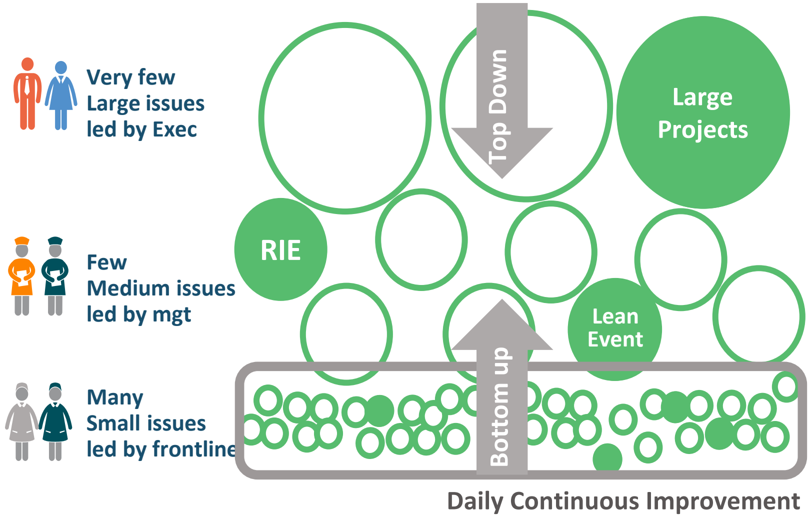
Through leadership coaching, we seek to equip leaders to align direction, goals and objectives whilst empowering and enabling the frontline teams to own and drive improvement 'bottom up' to allow leaders and managers to coordinate larger changes.



Too many
Large issues
led by Exec

Small and
Medium issues
overwhelm mgt

Large Projects
RIE
Lean Event



Very few
Large issues
led by Exec

Few
Medium issues
led by mgt

Many
Small issues
led by frontline

Top Down
Large Projects
RIE
Lean Event
Bottom up

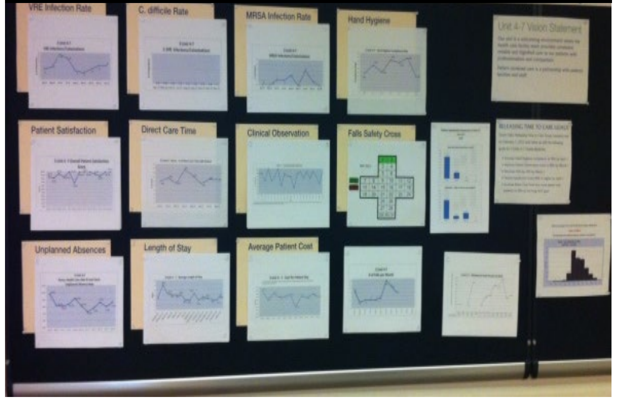
Daily Continuous Improvement

Adapted from: "The Toyota" Way Fieldbook, Liker and Meier

Knowing How We're Doing

"What gets measured gets done. What gets measured and fed back gets done well. What gets rewarded gets repeated."

Quality Board


VRE Infection Rate
C. difficile Rate
MRSA Infection Rate
Hand Hygiene
Unit 4-7 Vision Statement
Patient Satisfaction
Direct Care Time
Clinical Observation
Falls Safety Cross
Unplanned Absences
Length of Stay
Average Patient Cost

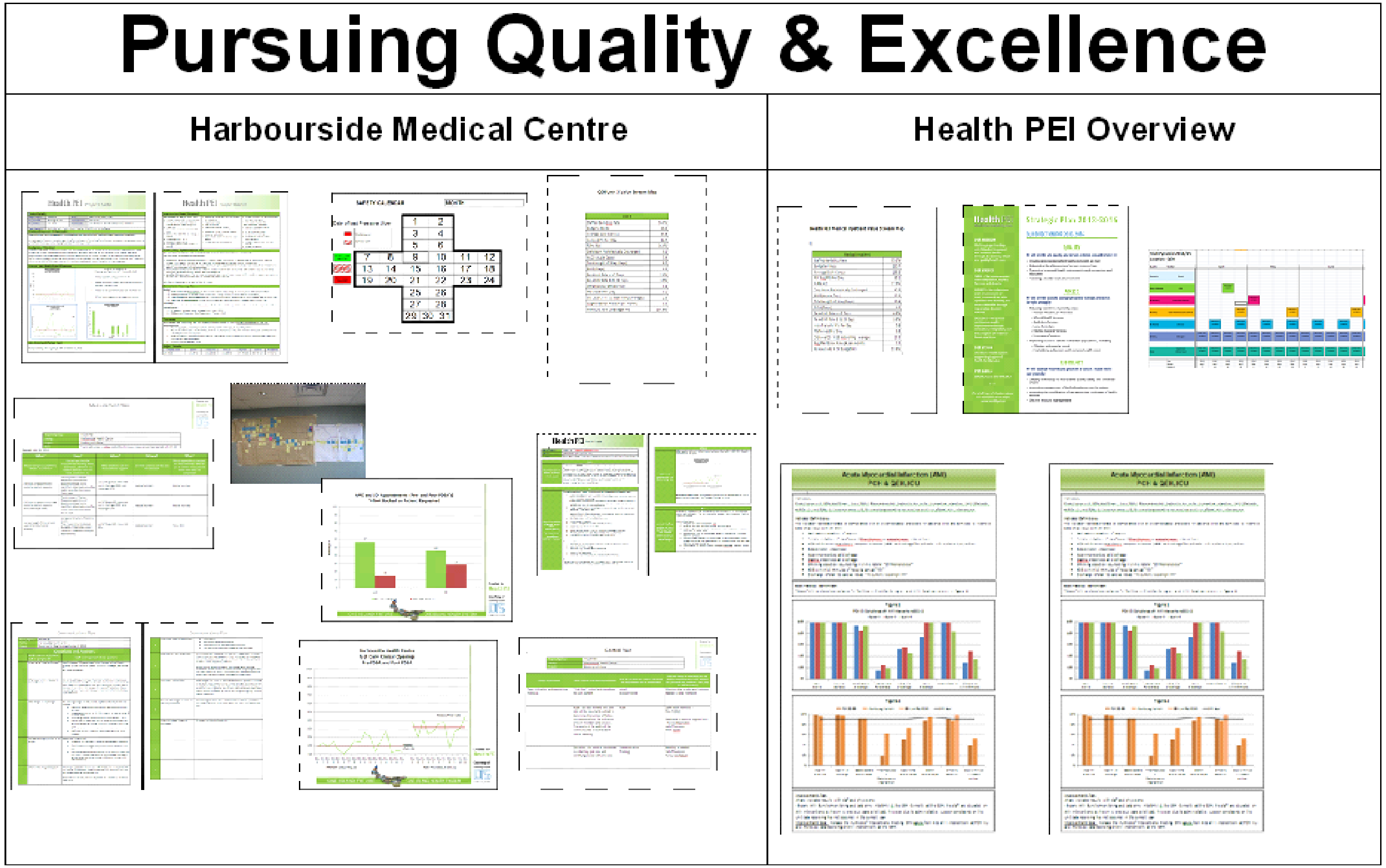
Quality Board Huddle

Lean Site Visit

"Not everything that counts can be counted, and not everything that can be counted counts."

Quality Board

Standard work document available to support Quality Board set up and maintenance

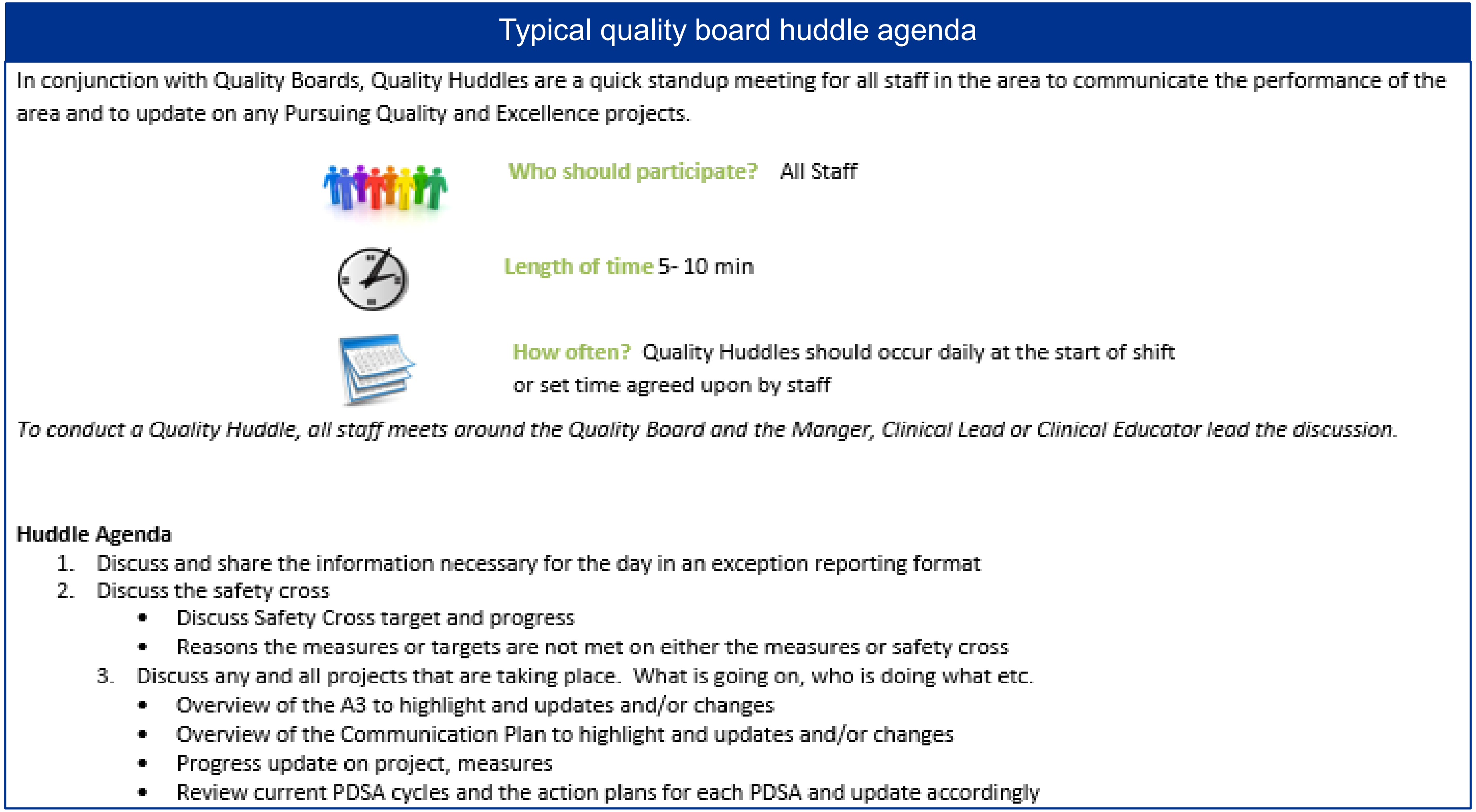


Pursuing Quality & Excellence

Harbourside Medical Centre

Health PEI Overview

Quality Board Huddle Standard Work



Typical quality board huddle agenda

In conjunction with Quality Boards, Quality Huddles are a quick standup meeting for all staff in the area to communicate the performance of the area and to update on any Pursuing Quality and Excellence projects.

Who should participate? All Staff

Length of time 5- 10 min

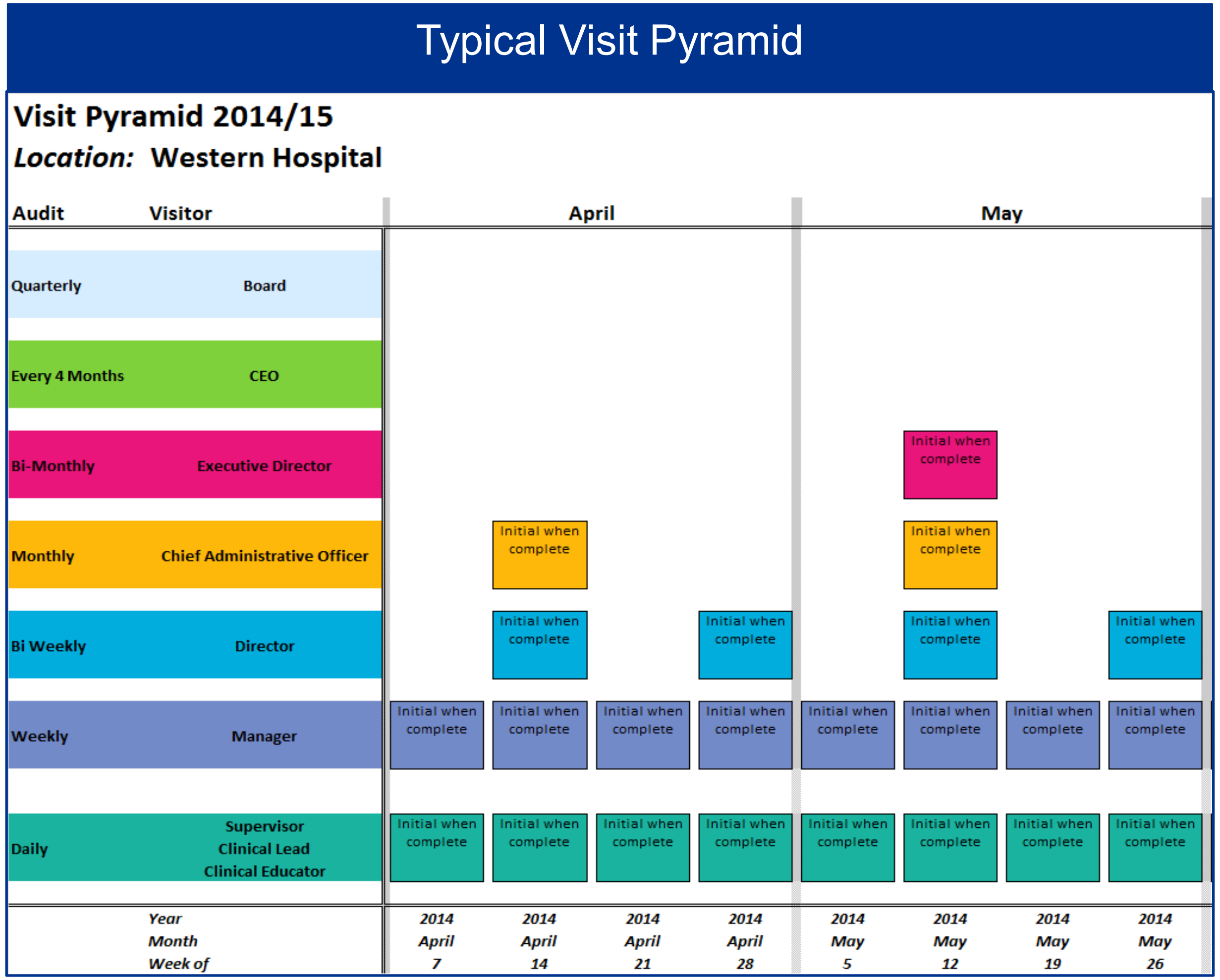
How often? Quality Huddles should occur daily at the start of shift or set time agreed upon by staff

To conduct a Quality Huddle, all staff meets around the Quality Board and the Manger, Clinical Lead or Clinical Educator lead the discussion.

Huddle Agenda

1. Discuss and share the information necessary for the day in an exception reporting format
2. Discuss the safety cross
    - Discuss Safety Cross target and progress
    - Reasons the measures or targets are not met on either the measures or safety cross
3. Discuss any and all projects that are taking place. What is going on, who is doing what etc.
    - Overview of the A3 to highlight and updates and/or changes
    - Overview of the Communication Plan to highlight and updates and/or changes
    - Progress update on project, measures
    - Review current PDSA cycles and the action plans for each PDSA and update accordingly

The Visit Pyramid



Typical Visit Pyramid

Visit Pyramid 2014/15

Location: **Western Hospital**

Audit	Visitor	April				May			
Quarterly	Board								
Every 4 Months	CEO								
Bi-Monthly	Executive Director						Initial when complete		
Monthly	Chief Administrative Officer		Initial when complete				Initial when complete		
Bi Weekly	Director		Initial when complete		Initial when complete		Initial when complete		Initial when complete
Weekly	Manager	Initial when complete	Initial when complete	Initial when complete	Initial when complete	Initial when complete	Initial when complete	Initial when complete	Initial when complete
Daily	Supervisor Clinical Lead Clinical Educator	Initial when complete	Initial when complete	Initial when complete	Initial when complete	Initial when complete	Initial when complete	Initial when complete	Initial when complete
	Year	*2014*	*2014*	*2014*	*2014*	*2014*	*2014*	*2014*	*2014*
	Month	*April*	*April*	*April*	*April*	*May*	*May*	*May*	*May*
	Week of	*7*	*14*	*21*	*28*	*5*	*12*	*19*	*26*

- ✓ The Visit Pyramid is a communication tool which illustrates which leaders will be visiting the unit/site/department during the month.
- ✓ This provides staff with an idea as to when leaders will be onsite.

When the leader is on site, they are there to take part in the regularly scheduled huddle. It creates an opportunity for all staff to have a conversation about HPEI’s direction and how we as a team can achieve the provincial goals for a stronger health system.

Components of a Lean Transformation

Creating a Compelling Story

For an organization to transform it needs a reason

Set Goals

True North metrics must match the organizations strategy

Assess the Current State

Each Lean transformation is its own journey, identify your organizations strengths and weaknesses

Lean Six Sigma Infrastructure

All the tools, templates, quality boards, procedures to support the transformation

Training

In house or external training to build Lean knowledge and capacity

Program Structure

Flowing from the strategy, True North, and current state assessment design a program map

Candidate Selection

As with any training program having a structure selection process is important to identify the most appropriate candidates

Mentorship Structure

Any new trainee must have a mentor ship support system to support appropriate learning of their new skills

Components of a Lean Transformation

Network Structure

Learning from others is important, creating a network support system to facilitate sharing

Sensei

Whether it is internal or external the organization should have support from someone that "has been there done that"

Savings

As part of the infrastructure a consistent way to measure savings to the system is important

Centre of Excellence

An independent department that has the organization overall needs in mind

Project Selection

A standard method to identify the appropriate projects to work on

Project Tracking

An extension of Lean infrastructure and project selection a consistent way to track projects

Reporting

There should be a standard and schedule means of reporting Lean progress.

Evaluation Framework

As a program develops and grows it should be evaluated against the original plan to ensure it is achieving the desired outcomes.

Components of a Lean Transformation

Communication & Engagement

Within the organization a strategy must be in place to ensure information is widely spread and all staff engaged

Leadership Training

Leading a Lean transformation requires knowledge. The leadership group should be trained in how to transform an organization

Leadership Standard Work

As part of the Leadership training standard work must be developed to lead the organization to achieve its goals

Naming

The program should have a name, an identity for the organization (not just "Lean")

Leadership Sessions at a Glance

	Leaders will be trained and coached on:	By the next touch point, leaders are expected to have:	And demonstrating leadership behaviours
Visual Management	• How to run efficient and timely huddles using visual and exception management	• Their team running efficient huddles run by the department head • List of issues to be addressed	Engaging Staff
Measure	• Tools for what to measure and how to measure • Measures tie to one of the key organizational measures	• List of measures being reported on • List of opportunities	Improving Transparency
Prioritize	• Tools to triage, prioritize and categorize opportunities • Approach to prioritize while ensuring that engagement and enthusiasm is maintained	• Opportunities prioritised and categorized during huddles	Improving Trust
Realization	• Empowering staff to realize improvement prioritized opportunities • Removing obstacles to realization	• Demonstrate the ability to drive realization real-time during huddles • Improvement opportunities being realized	Empowering Staff and Improving Accountability
Expand	• Expanding the LMS to cover all five key organizational measures	• Team running at high level with a full set of Key Performance Indicators driving continuous improvement	Challenging Staff
Sustain	• Leading coaching and support LMS on their own • Building out LMS across the college	• LMS and Continuous improvement becomes imbedded into the culture of the department • Begin to expand into other departments	Creating a Culture of Continuous Improvement

Case Study

Health PEI Overview

180,000 Population of PEI

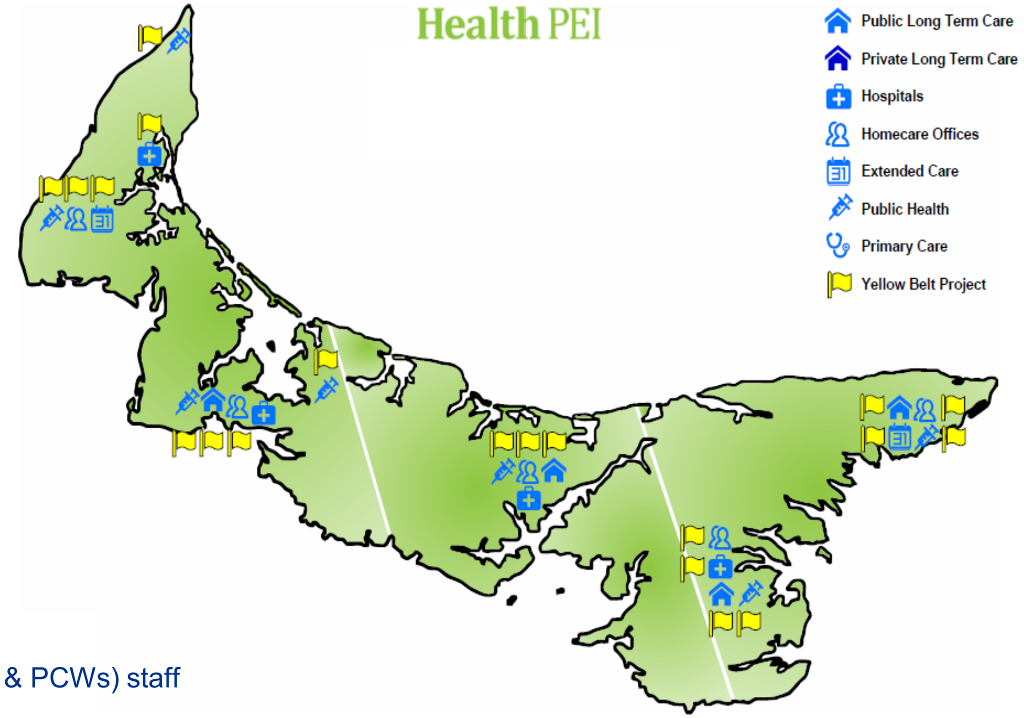
9 Long-term care public facilities

598 Long-term care beds

120 Family Physicians

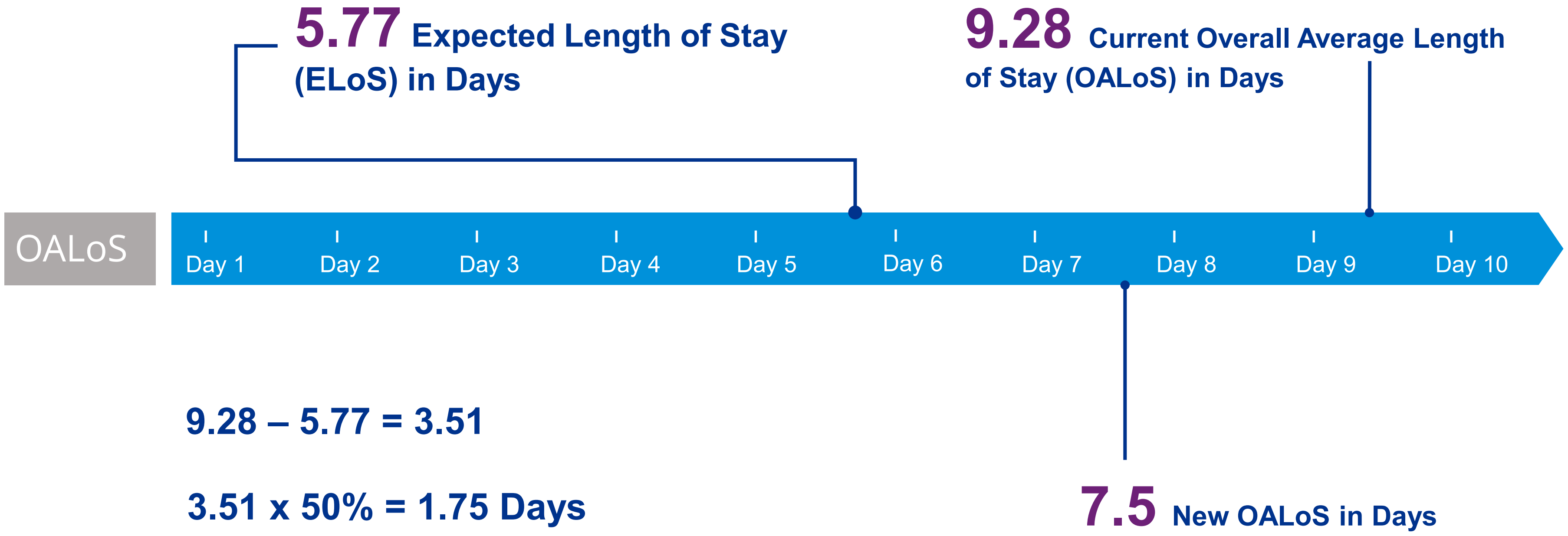
104 Specialists

1,725 Nursing (NPs, RNs, LPNs, RCWs & PCWs) staff


Health PEI
Public Long Term Care
Private Long Term Care
Hospitals
Homecare Offices
Extended Care
Public Health
Primary Care
Yellow Belt Project

What Health PEI is Trying to Achieve

The goal is to **reduce** Overall Average Length of Stay (OALoS) by **50%**



5.77 Expected Length of Stay (ELoS) in Days

9.28 Current Overall Average Length of Stay (OALoS) in Days

OALoS
Day 1
Day 2
Day 3
Day 4
Day 5
Day 6
Day 7
Day 8
Day 9
Day 10

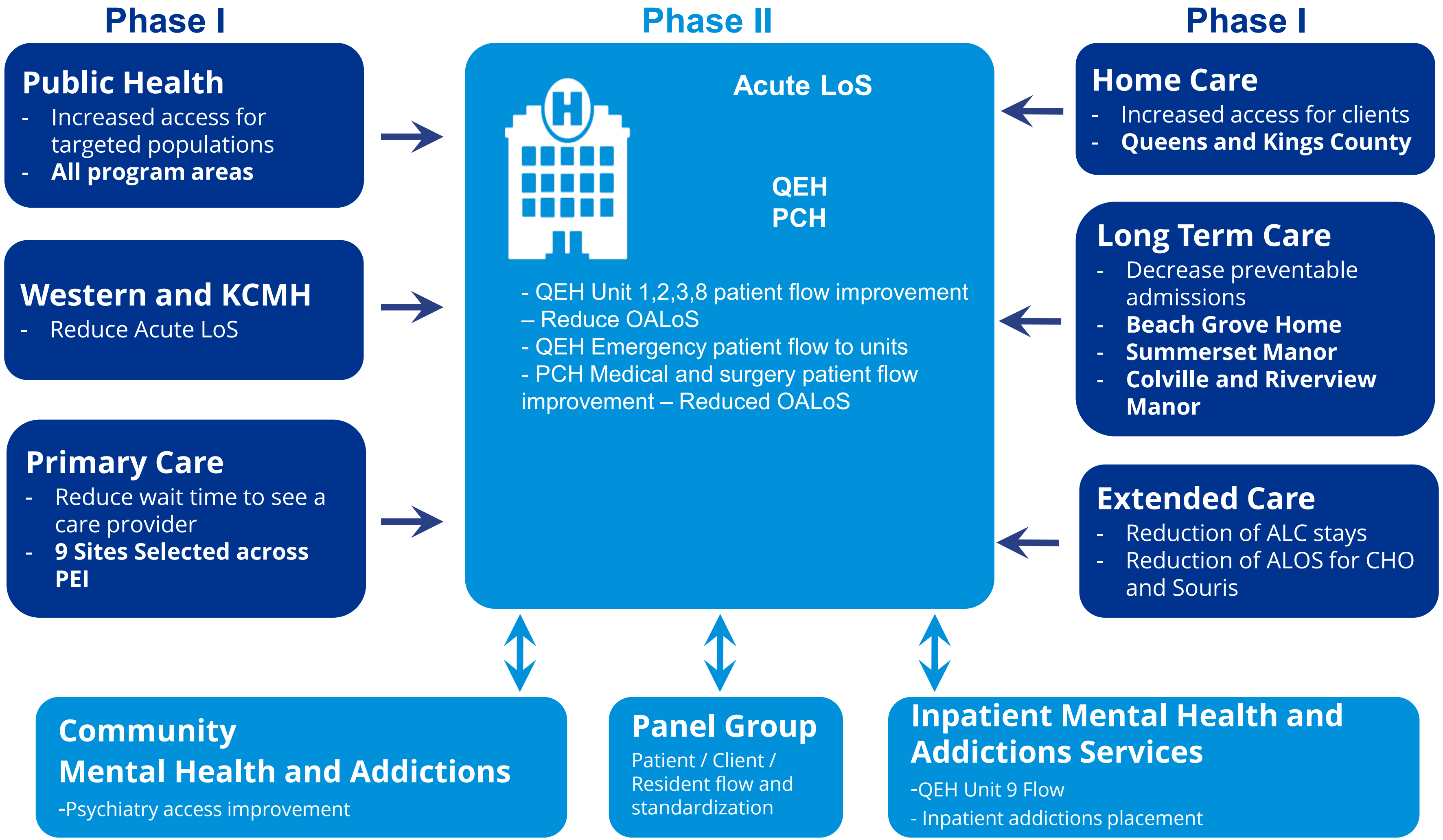
7.5 New OALoS in Days

9.28 – 5.77 = 3.51

3.51 x 50% = 1.75 Days

New OALoS is 7.5 Days

Overview of Approach



Phase I

Public Health
- Increased access for targeted populations
- **All program areas**

Western and KCMH
- Reduce Acute LoS

Primary Care
- Reduce wait time to see a care provider
- **9 Sites Selected across PEI**

Phase II

Acute LoS

QEH
PCH

- QEH Unit 1,2,3,8 patient flow improvement – Reduce OALoS
- QEH Emergency patient flow to units
- PCH Medical and surgery patient flow improvement – Reduced OALoS

Phase I

Home Care
- Increased access for clients
- **Queens and Kings County**

Long Term Care
- Decrease preventable admissions
- **Beach Grove Home**
- **Summerset Manor**
- **Colville and Riverview Manor**

Extended Care
- Reduction of ALC stays
- Reduction of ALOS for CHO and Souris

Community Mental Health and Addictions

-Psychiatry access improvement

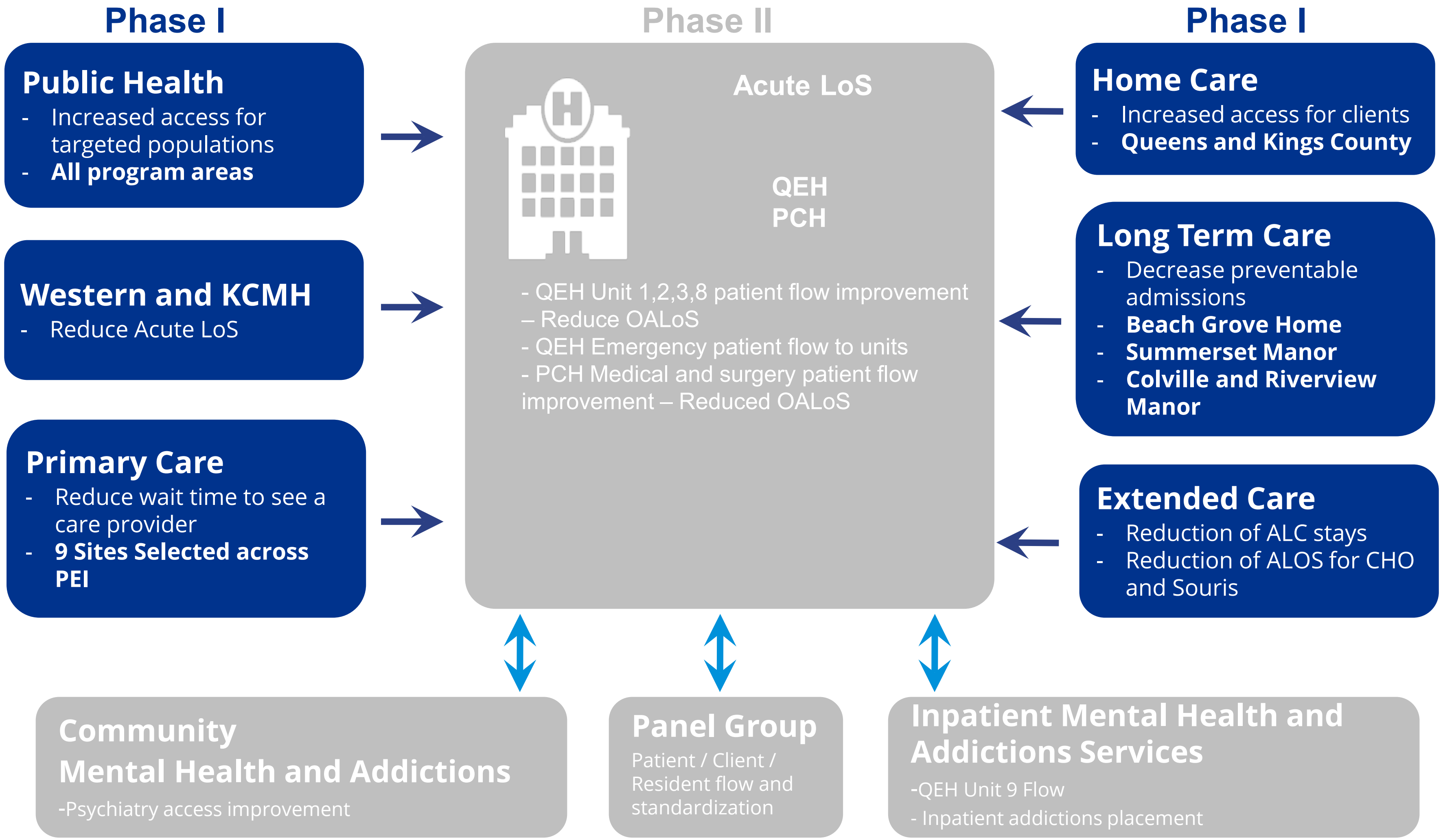
Panel Group

Patient / Client / Resident flow and standardization

Inpatient Mental Health and Addictions Services

-QEH Unit 9 Flow
- Inpatient addictions placement

Phase I



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-QEH Unit 9 Flow
- Inpatient addictions placement

- Approach

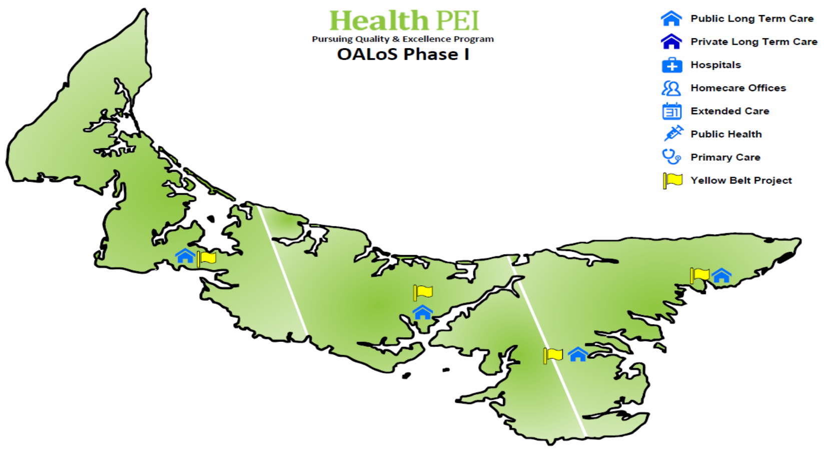
Long Term Care

Phase 1

- **Long Term Care**
- Western and KCMH
- Extended Care
- Primary Care
- Home Care
- Public Health
- Acute LoS

Phase 2

- Panel Group
- Community Mental Heal and Addiction
- Inpatient Mental Health and Addiction

Primary Goal	Identify root causes of preventable hospital admissions and implement actions to eliminate the causes. (this will typically be actions that also reduce staffing workloads)
Additional Outcome	Engage private homes in improvements
Long Term Care Overview	First Homes: • Beach Grove Home • Summerset Manor • Colville and Riverview Manor Private homes will be invited to have participants on the first home teams
Locations	

Health PEI
Pursuing Quality & Excellence Program
OALoS Phase I
Public Long Term Care
Private Long Term Care
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Yellow Belt Project

- Approach

Extended Care

Phase 1

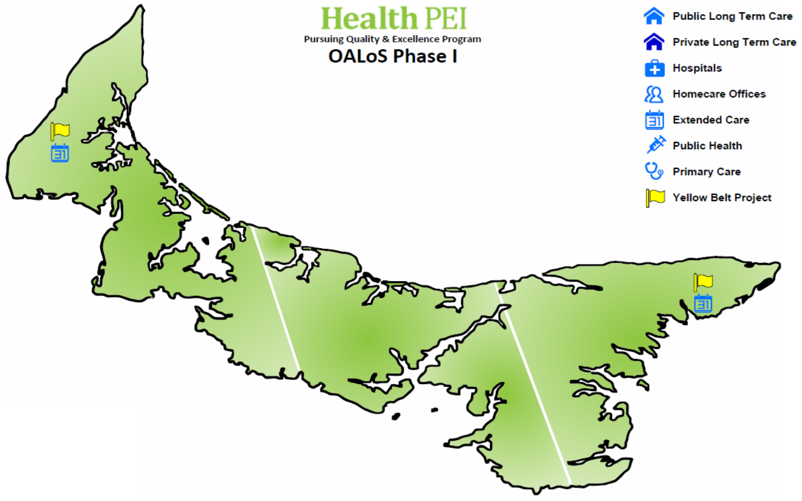
- Long Term Care
- Western and KCMH
- **Extended Care**
- Primary Care
- Home Care
- Public Health
- Acute LoS

Phase 2

- Panel Group
- Community Mental Heal and Addiction
- Inpatient Mental Health and Addiction

Primary Goal	Implement Expected Date of Discharge (EDD) upon admission.
Additional Outcome	Reduce workload on nursing staff and support staff i.e. admission paperwork / actions.
Overview	**These two facilities will have a different focus of care, the Yellow Belts will work with the facilities to design clear efficient and effective processes.** **Primary Focus** Patient discharge is delayed due to a lack of access to internal services and external processes for services throughout the week, weekends and holidays. There is a lack of understanding and collaboration between the patient, family and staff regarding preparation and planning for discharge home.

Locations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Primary Care

Phase 1

- Long Term Care
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- Extended Care
- **Primary Care**
- Home Care
- Public Health
- Acute LoS

Phase 2

- Panel Group
- Community Mental Heal and Addiction
- Inpatient Mental Health and Addiction

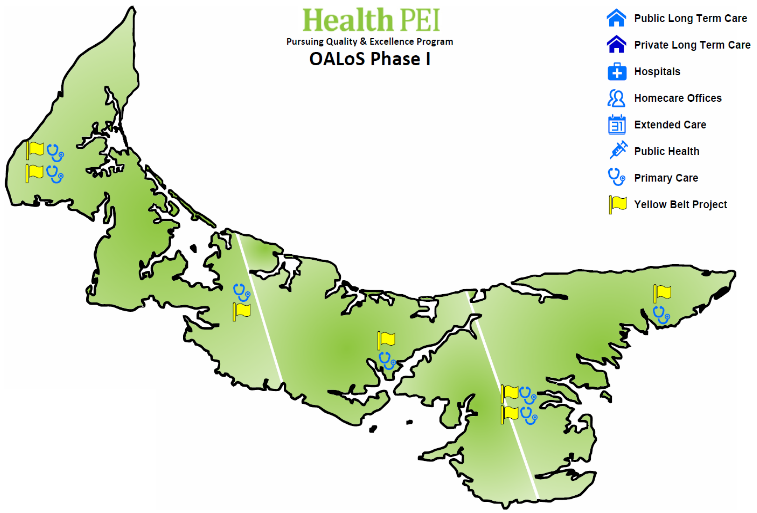
Primary Goal Focus will be identifying panel size and reducing patient wait times to 7days (one week max wait)

Additional Outcome Validated metrics accepted and maintained by physicians within the initiative.

Overview

Western	Central	Eastern
Dr. Dickieson	Dr. Coady	Dr. Macleod
Dr. MacKean	Dr. Curtis	Dr. Henbest
Dr. MacNeill	Dr. Morais	Dr. Johnston

Locations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Home Care

Phase 1

- Long Term Care
- Western and KCMH
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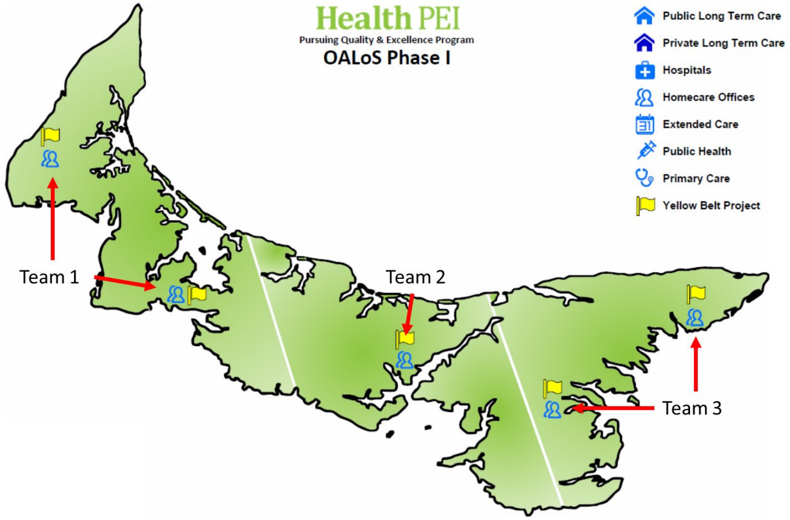
- Primary Care
- **Home Care**
- Public Health
- Acute LoS

Phase 2

- Panel Group
- Community Mental Heal and Addiction
- Inpatient Mental Health and Addiction

Primary Goal	Identify potential capacity in high volume areas LT maintenance and supportive services.
Additional Outcome	Help the department reduce disparity between counties and help the department with definitions of services. Develop better tracking of visits and hours to clients (without introducing administrative burden), create tools for Team Leaders/Managers to monitor travel and mileage claims.
Overview	Focus will be on opening capacity for homecare staff
Locations	


Health PEI
Pursuing Quality & Excellence Program
OALoS Phase I
Public Long Term Care
Private Long Term Care
Hospitals
Homecare Offices
Extended Care
Public Health
Primary Care
Yellow Belt Project
Team 1
Team 2
Team 3

Public Health

Phase 1

- Long Term Care
- Western and KCMH
- Extended Care
- Primary Care
- Home Care
- **Public Health**
- Acute LoS

Phase 2

- Panel Group
- Community Mental Heal and Addiction
- Inpatient Mental Health and Addiction

Primary Goal

Increase nursing capacity through reduction of duplicate activities and review of current policies

Additional Outcome

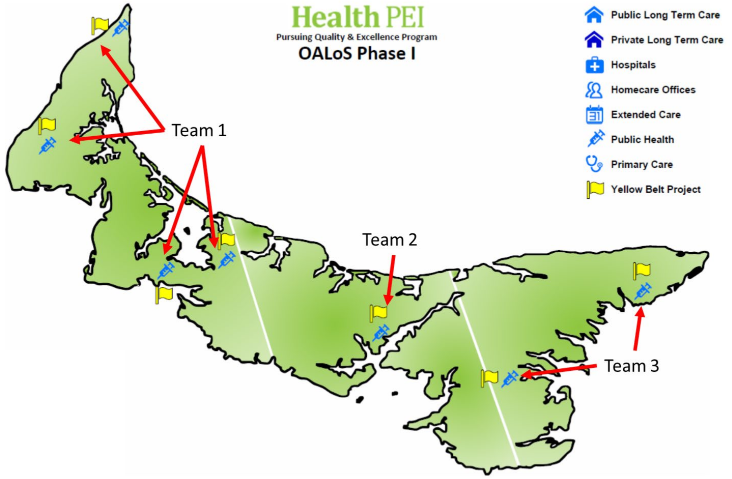
Increase high risk target population visits and immunizations. Increase primary care providers capacity through reduction of duplicate activities.

Overview

Focus will be on opening capacity for public health staff to increase population served

- Current high risk target population immunized is less than 50% (7,100 of 16,000 – identified by PH) this referred to seniors only in 2012/2013
- Duplicate visits with primary care provider and PH nurses for 2 – 18 month
- Review current home visit standards and identify improvements to properly utilize PHN staff i.e. define standards for repeat visits and offer weight recheck visits in the PHN office

Locations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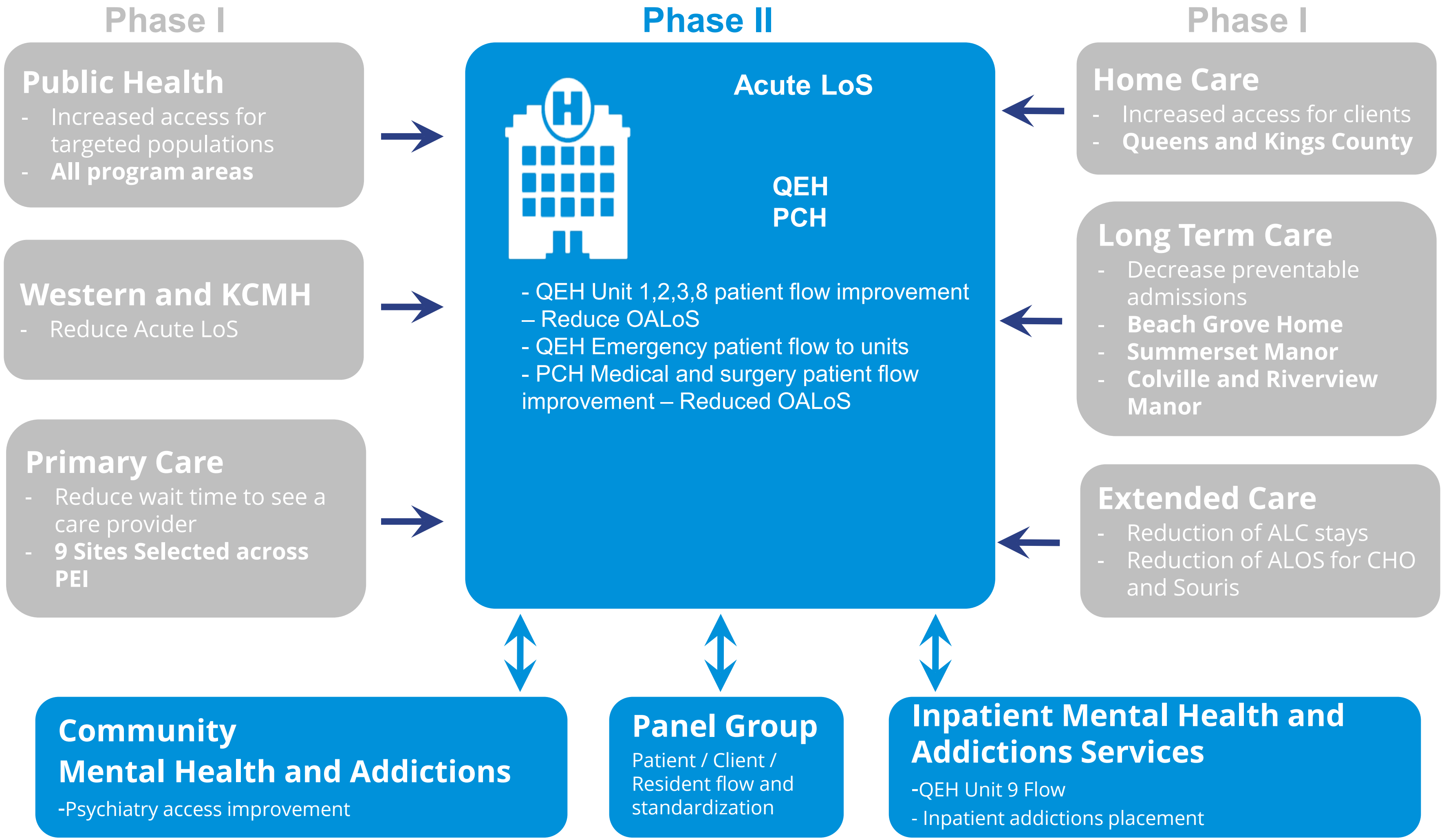
Phase II



Phase I

Public Health
- Increased access for targeted populations
- **All program areas**

Western and KCMH
- Reduce Acute LoS

Primary Care
- Reduce wait time to see a care provider
- **9 Sites Selected across PEI**

Phase II

Acute LoS

QEH
PCH

- QEH Unit 1,2,3,8 patient flow improvement – Reduce OALoS
- QEH Emergency patient flow to units
- PCH Medical and surgery patient flow improvement – Reduced OALoS

Phase I

Home Care
- Increased access for clients
- **Queens and Kings County**

Long Term Care
- Decrease preventable admissions
- **Beach Grove Home**
- **Summerset Manor**
- **Colville and Riverview Manor**

Extended Care
- Reduction of ALC stays
- Reduction of ALOS for CHO and Souris

Community Mental Health and Addictions

-Psychiatry access improvement

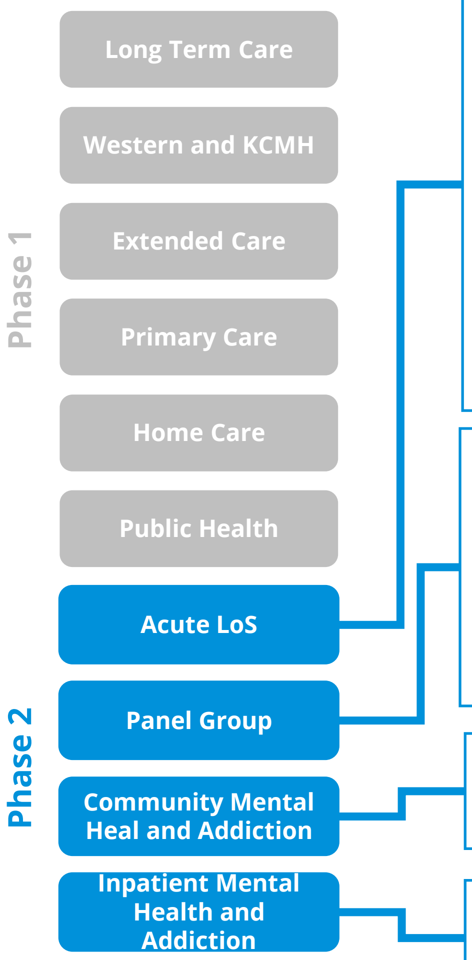
Panel Group

Patient / Client / Resident flow and standardization

Inpatient Mental Health and Addictions Services

-QEH Unit 9 Flow
- Inpatient addictions placement

Phase 2 Primary Goals



Phase 1

- Long Term Care
- Western and KCMH
- Extended Care
- Primary Care
- Home Care
- Public Health

Phase 2

- Acute LoS
- Panel Group
- Community Mental Heal and Addiction
- Inpatient Mental Health and Addiction

QUEEN ELIZABETH HOSPITAL
QEH
PRINCE EDWARD ISLAND

Primary Goal

Collaboratively work with units 1, 2,3 and 8 to reduce the patient OALoS by focusing on Emergency Department flow between the ED and inpatient units. This would reduce the burden on ED by lessening the ED hold workload.

PCH
PRINCE COUNTY HOSPITAL

Primary Goal

Working collaboratively with the Medical and Surgery units focus on EDD to reduce the OALoS.

Medical Inpatient	
Staffed Beds Occ Rate	87.9%
Budgeted Beds	200.6
Average Daily Census	182.7
ALC Avg Pts Per Day	72.1
% Pts ALC	39.8%
Daily Num Pts Medically Discharged	46.7
ALOS (Acute Days)	13.6
Total Length of Stay (Days)	26.6
ELOS (Days)	3.6
Re-Admit Rate <= 7 Days	2.7%
Re-Admit Rate 8 to 28 Days	13.3%
Intra Transfer Pts Per Day	4.2
Pts Moved Per Day	0.7

Phase II Metrics

Primary Goal

This group is the key to coordinated patient / client / resident flow between facilities and services on PEI and ensure a timely transition. The project focus would be to work with all facilities / departments / agencies to create standard predictable work flow for the people they serve.

Method of Transfer
Hospital to Hospital transfer
Transferred to Restorative Care
Emergency - non admitted
Emergency - Admitted straight forward cases
Emergency - Admitted complicated cases

Metrics Used by Panel Group

Primary Goal

Using the Advanced Access model; currently used in primary care, identify the physician champions to work with to reduce wait times for Psychiatry.

Primary Goal

Focusing on Mental Health inpatients in unit 9 reduce their LOS by focusing on EDD. Additionally identify the Mental Health and Addiction patients that are in other units and focus on the barriers to patient / client flow.

Lean Transformation Results

Success

- ✓ ACA being implemented independently
- ✓ Have created required capacity of YB/GB/BB
- ✓ 200 projects to date
- ✓ QBH's being completed by ELT
- ✓ Comprehensive project distribution
- ✓ Strong infrastructure
- ✓ Many people engaged from tip to tip
- ✓ Physician Engagement
- ✓ Value Stream map

Opportunities

- ✓ Leadership Huddles
- ✓ Senior Leadership mentoring of QBH's
- ✓ Quality Boards put up and used
- ✓ Spread / projects from Phase I
- ✓ Spread / projects from Phase II
- ✓ Ensure value is maintained for energy inputted

Investments

- ✓ 56 projects with average participants of 10
- ✓ Online training for 76 staff $
- ✓ Training days for Yellow Belts
- ✓ Leadership training
- ✓ Additional costs for venues and supplies
- ✓ Consulting contracts
- ✓ $1,200,000 invested

Thank You & Questions

THE POIRIER GROUP

Special Thanks to Dale and David

Thanks for taking time from a busy schedule to contribute, pay forward with your insights, experiences, perspectives, points of view and wisdom.

Dale Shattenkirk
Partner and Head of Healthcare and HealthSciences
The Poirier Group

David Poirier
CEO
The Poirier Group

Quick Closer Question:

What are the key takeaways you want our attendees to leave with today?

Membership has its Privileges….
Access to our great Magazine

July 2024
Transformational
Improvement in
Healthcare

March 2024
Leading
Transformational
Change

Leading, managing time and change in the 2020s

Creating ISE change masters begins with developing profound knowledge

By D. Scott Sink

IISE has been sponsoring a Global Performance Excellence Webinar Series (*iise.org/PExcellencewebinars*) for the past four years. Recently we have been doing miniseries focused on specific topics: Resilience in the '20s, Business Process Management, Integrated LeanSigma, Operational Analytics and most recently Artificial Intelligence (AI).

At the completion of each topical miniseries, we have provided a capstone article in *ISE*. This feature caps our most recent Change Leadership and Management miniseries started in December.

In 1979, William Morris wrote a book titled *Implementation Strategies for Industrial Engineers*. He was my Ph.D. adviser and his thoughts, research and work had a profound impact on me as I finished my doctorate at Ohio State. For the 40-plus years since, time and change have been more than key words in

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SCM 4.0
April 2023

ISE
INDUSTRIAL AND SYSTEMS ENGINEERING AT WORK
APRIL 2023 | Volume 55 | Number 4 | $24

Supply chains roll with the punches
Developing 'optionality' to face changes

What's Your Story?
Gino Lim

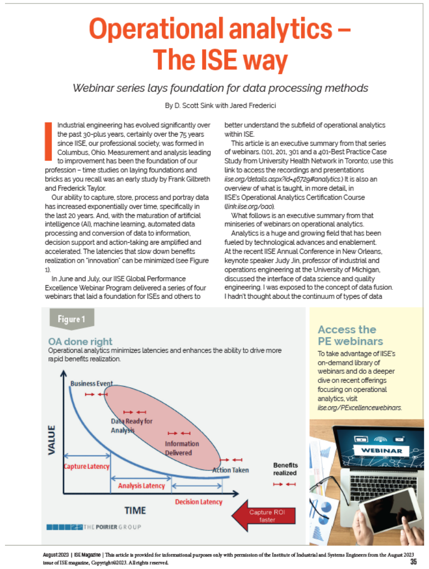
How reshoring can save manufacturing costs

Developing systems thinking through imagery

Sustainable engineering builds ethical culture

75th ANNIVERSARY

Aug 2023
Op Analytics



Operational analytics – The ISE way

Webinar series lays foundation for data processing methods

By D. Scott Sink with Jared Frederici

Industrial engineering has evolved significantly over the past 30-plus years, certainly over the 75 years since IISE, our professional society, was formed in Columbus, Ohio. Measurement and analysis leading to improvement has been the foundation of our profession – time studies on laying foundations and bricks as you recall was an early study by Frank Gilbreth and Frederick Taylor.

Our ability to capture, store, process and portray data has increased exponentially over time, specifically in the last 20 years. And, with the maturation of artificial intelligence (AI), machine learning, automated data processing and conversion of data to information, decision support and action-taking are amplified and accelerated. The latencies that slow down benefits realization on "innovation" can be minimized (see Figure 1).

In June and July, our IISE Global Performance Excellence Webinar Program delivered a series of four webinars that laid a foundation for ISEs and others to better understand the subfield of operational analytics within ISE.

This article is an executive summary from that series of webinars. (101, 201, 301 and a 401-Best Practice Case Study from University Health Network in Toronto; use this link to access the recordings and presentations *iise.org/details.aspx?id=46729#analytics*.) It is also an overview of what is taught, in more detail, in IISE's Operational Analytics Certification Course (*link.iise.org/oac*).

What follows is an executive summary from that miniseries of webinars on operational analytics.

Analytics is a huge and growing field that has been fueled by technological advances and enablement. At the recent IISE Annual Conference in New Orleans, keynote speaker Judy Jin, professor of industrial and operations engineering at the University of Michigan, discussed the interface of data science and quality engineering. I was exposed to the concept of data fusion. I hadn't thought about the continuum of types of data

Figure 1

OA done right

Operational analytics minimizes latencies and enhances the ability to drive more rapid benefits realization.

Access the PE webinars

To take advantage of IISE's on-demand library of webinars and do a deeper dive on recent offerings focusing on operational analytics, visit *iise.org/PExcellencewebinars*.

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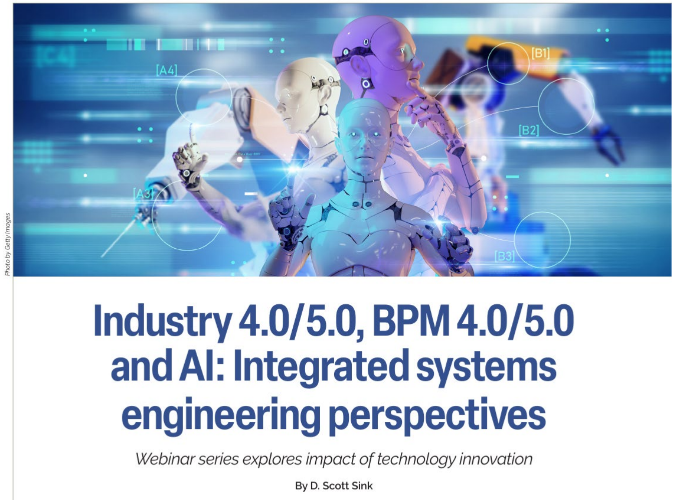


Photo by Getty Images

Industry 4.0/5.0, BPM 4.0/5.0 and AI: Integrated systems engineering perspectives

Webinar series explores impact of technology innovation

By D. Scott Sink

Dec 2023
ISE's Leveraging AI

ISE
INDUSTRIAL AND SYSTEMS ENGINEERING AT WORK
DECEMBER 2022 | Volume 54 | Number 12 | $24

What's Your Story?
Bill Franks

Resilience for the new Roaring '20s
How to ride the waves of disruptions

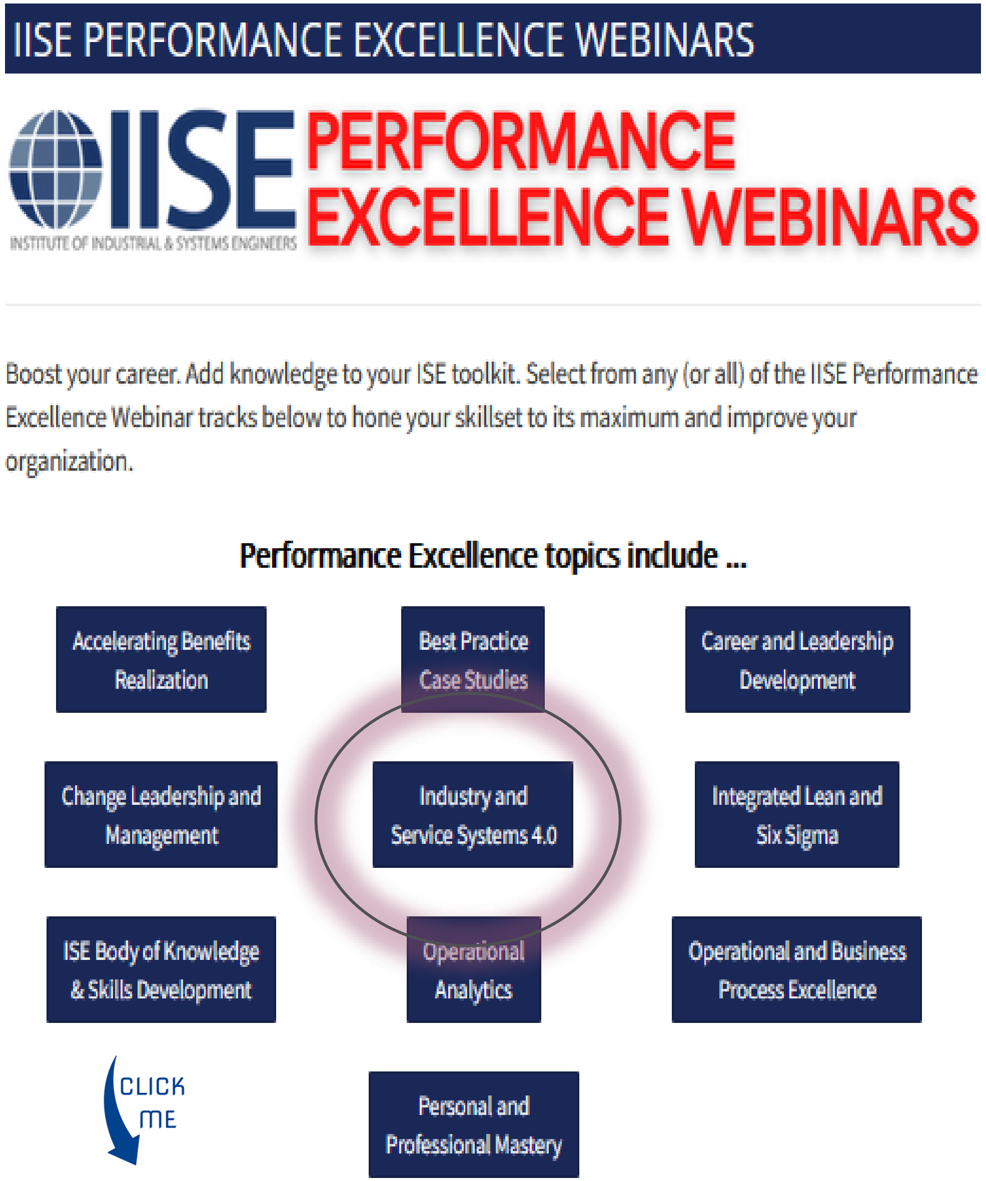
Growing leaders for the new world of work

Top *Problem Solved* episodes of the last year

The right containers as a Lean solution

NASA cultivates crops for space travel

Managing
through VUCA
Dec 2022



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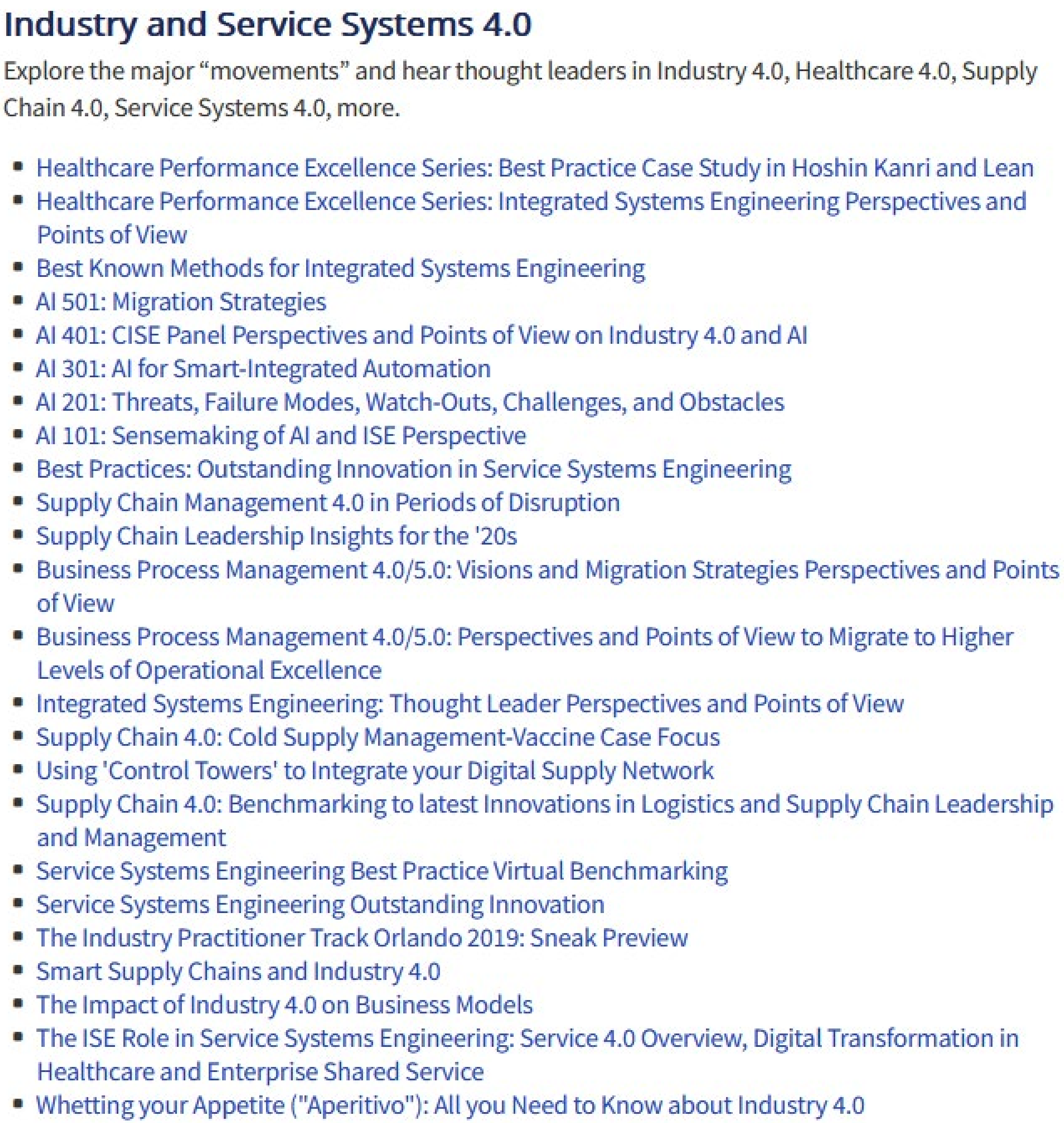

Industry and Service Systems 4.0

Explore the major “movements” and hear thought leaders in Industry 4.0, Healthcare 4.0, Supply Chain 4.0, Service Systems 4.0, more.

- Healthcare Performance Excellence Series: Best Practice Case Study in Hoshin Kanri and Lean
- Healthcare Performance Excellence Series: Integrated Systems Engineering Perspectives and Points of View
- Best Known Methods for Integrated Systems Engineering
- AI 501: Migration Strategies
- AI 401: CISE Panel Perspectives and Points of View on Industry 4.0 and AI
- AI 301: AI for Smart-Integrated Automation
- AI 201: Threats, Failure Modes, Watch-Outs, Challenges, and Obstacles
- AI 101: Sensemaking of AI and ISE Perspective
- Best Practices: Outstanding Innovation in Service Systems Engineering
- Supply Chain Management 4.0 in Periods of Disruption
- Supply Chain Leadership Insights for the '20s
- Business Process Management 4.0/5.0: Visions and Migration Strategies Perspectives and Points of View
- Business Process Management 4.0/5.0: Perspectives and Points of View to Migrate to Higher Levels of Operational Excellence
- Integrated Systems Engineering: Thought Leader Perspectives and Points of View
- Supply Chain 4.0: Cold Supply Management-Vaccine Case Focus
- Using 'Control Towers' to Integrate your Digital Supply Network
- Supply Chain 4.0: Benchmarking to latest Innovations in Logistics and Supply Chain Leadership and Management
- Service Systems Engineering Best Practice Virtual Benchmarking
- Service Systems Engineering Outstanding Innovation
- The Industry Practitioner Track Orlando 2019: Sneak Preview
- Smart Supply Chains and Industry 4.0
- The Impact of Industry 4.0 on Business Models
- The ISE Role in Service Systems Engineering: Service 4.0 Overview, Digital Transformation in Healthcare and Enterprise Shared Service
- Whetting your Appetite ("Aperitivo"): All you Need to Know about Industry 4.0

For the Change Industry and Service Systems 4.0 and Healthcare Performance Excellence webinars in our mini-series…

IISE Perf Excellence Webinars On-Demand Link

Upcoming Offerings for you.

NEW WAY
OLD WAY

Translating Strategy Into Action
Building Strategic Relationships
Leading Through Change
Transformational Leadership
Leveraging Your Emotional Intelligence
Developing Employee Capability
Leading Transformational Change
Breakthrough
Just Ahead

See you in Montreal?

18 May—AI Symposium [*REGISTER AI Symposium*]

19 May—CISE Performance Excellence Track/Workshops

[*REGISTER CISE Performance Excellence Track/Workshops*]

Webinars Resume end of May and early June (see next slide)

Upcoming Offerings for you.

NEW WAY
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Building Strategic Relationships
Translating Strategy Into Action
Leading Through Change
Transformational Leadership
Leveraging Your Emotional Intelligence
Developing Employee Capability
Leading Transformational Change
Breakthrough
Just Ahead

Upcoming not scheduled:

- *4-5 Focused Webinars in our Healthcare Performance Excellence Mini-Series*
  - *Creating improved Flow (end2end value stream improvement in Healthcare facilities)*
  - *End2End Value Stream Improvement for Episodic Health Care Events*

- *7-habits of highly effective Young Professionals (2024 version)*
- *The Spectrum of Performance/Process Improvement Strategies*
- *Foundations and Roadmaps for becoming an ISE Change Master*
- *Foundations and Methods for becoming Skilled at Operational Analytics*
- *Final Four Capstone Senior Design Project Webinar Presentations*

IISE Annual Conference—Montreal!!

REGISTER NOW & SAVE

iise.org/Annual/register

IISE ANNUAL CONFERENCE & EXPO 2024

May 18-21, 2024

Montréal Convention Centre

Montreal, Canada

- CISE Performance Excellence Track (Sunday)
    - Operational Analytics
    - Transformational Change Leadership & Management
    - Integrated Systems Engineering
    - Service Systems Engineering
    - Best of Best ISE Capstone Sr. Design Project Showcase and Competition
- ISE Capstone Showcase and Leadership and Student Mixer (5:00-5:30 Sunday)
    - We'll have the 'Sweet '16" in both categories for you to view, that's a lot of fun to meet all the students on the teams and understand their great work.
    - That Showcase will occur in the context of the larger leadership and student mixer, so it's networking at it's best.
- Best Practices in Service Systems Engineering Finalists (Sunday am)
- Final Four of the Capstone Competition (Monday am)
- IISE Honors and Awards Events (Sunday, Monday, Tues Keynotes)

- Get altitude on Life and your Career and your Job
- Grow your professional network
- Experience 'Old Montreal'
- Challenge yourself, personal and professional development
- Get up to speed on Op Analytics, Analytics
- Get charged up about Transformational Change Leadership
- And, much more

AI/Industry-Services 4.0 Symposium

A unique opportunity to engage in a one-day, pre-conference symposium and hear from leading experts in the diverse field of AI.

A chance to meet many of our Council on Industrial and Systems Engineering Leaders/Members.

Networking and Professional Development Opportunity.

Look for registration information on the IISE Website soon.

Artificial Intelligence Symposium
Saturday May 18, 2024
Proposed Schedule

9:00 AM – 10:15 AM: Opening & Keynotes from Dr. Joé T. Martineau & Dr. Foutse Khomh

- High "Altitude" Overview
- Definitions/Understanding
- Generative AI
- Active Q&A

10:30 AM – 12:00 PM: Panel Session (CISE members)

- Umbrella panel
- How does AI fit within a philosophical structure (e.g., Industry 4.0)?
- Relationship with smart automation
- "How is AI instrumental in delivering results?"

12:00 pm – 1:30 PM: Lunch

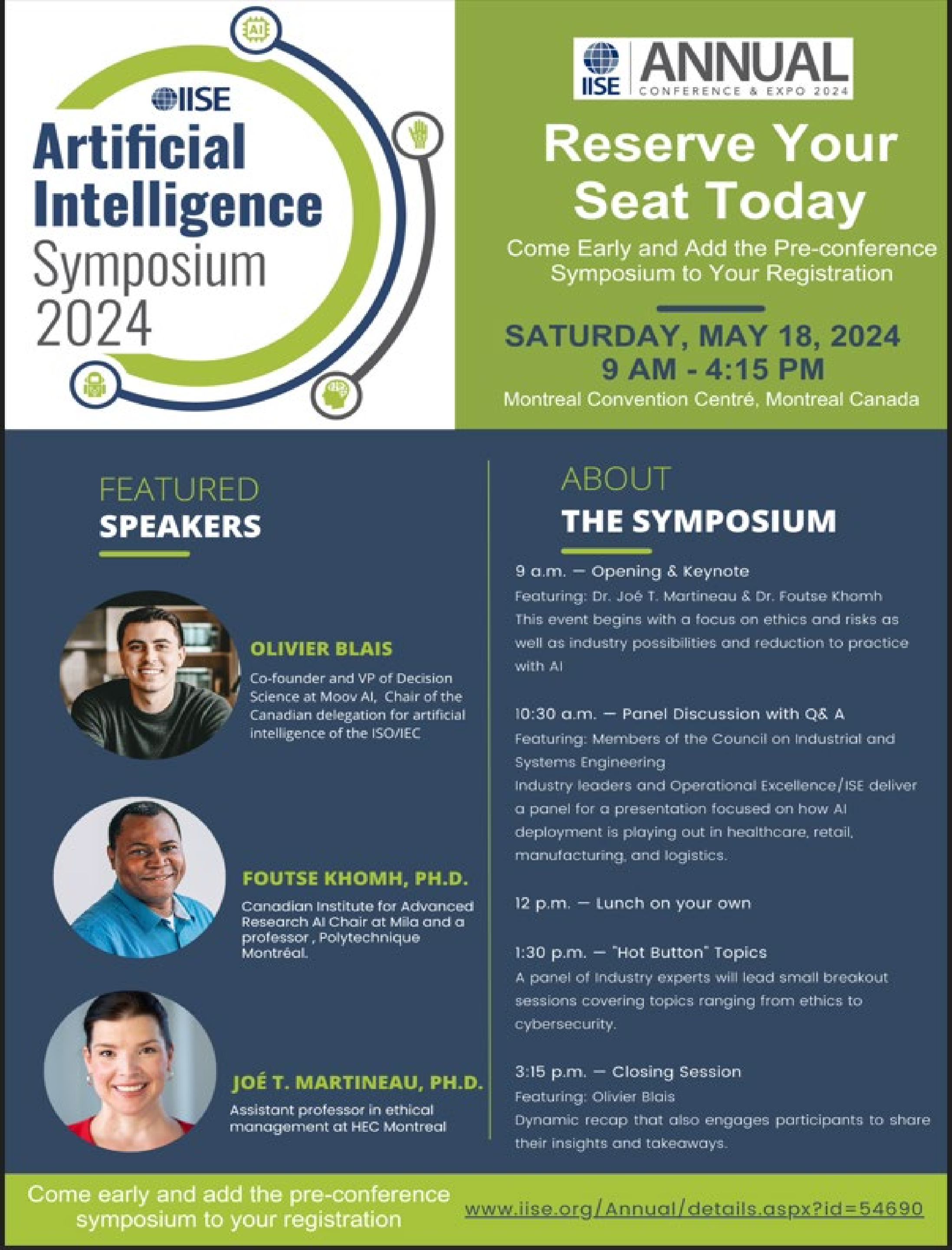
1:30 PM – 3:00 PM: "Hot Button" Topics

- AI Ethics/Legal? AI Ethics/Legal?
- Software Integration/Cybersecurity

3:15 PM – 4:15 PM: Closing Session

5:00 PM: Dinner on their own

Join other conference attendees or they can coordinate an AIS signup.



IISE
Artificial Intelligence Symposium 2024
IISE ANNUAL CONFERENCE & EXPO 2024

Reserve Your Seat Today

Come Early and Add the Pre-conference Symposium to Your Registration

SATURDAY, MAY 18, 2024
9 AM - 4:15 PM
Montreal Convention Centré, Montreal Canada

FEATURED SPEAKERS

OLIVIER BLAIS
Co-founder and VP of Decision Science at Moov AI, Chair of the Canadian delegation for artificial intelligence of the ISO/IEC

FOUTSE KHOMH, PH.D.
Canadian Institute for Advanced Research AI Chair at Mila and a professor , Polytechnique Montréal.

JOÉ T. MARTINEAU, PH.D.
Assistant professor in ethical management at HEC Montreal

ABOUT THE SYMPOSIUM

9 a.m. — Opening & Keynote
Featuring: Dr. Joé T. Martineau & Dr. Foutse Khomh
This event begins with a focus on ethics and risks as well as industry possibilities and reduction to practice with AI

10:30 a.m. — Panel Discussion with Q& A
Featuring: Members of the Council on Industrial and Systems Engineering
Industry leaders and Operational Excellence/ISE deliver a panel for a presentation focused on how AI deployment is playing out in healthcare, retail, manufacturing, and logistics.

12 p.m. — Lunch on your own

1:30 p.m. — "Hot Button" Topics
A panel of Industry experts will lead small breakout sessions covering topics ranging from ethics to cybersecurity.

3:15 p.m. — Closing Session
Featuring: Olivier Blais
Dynamic recap that also engages participants to share their insights and takeaways.

Come early and add the pre-conference symposium to your registration

www.iise.org/Annual/details.aspx?id=54690