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# Achieving health and care improvement with innovative technology

Marco Aurelio

Rachel Dicker

Leticia Nani Silva

The International Forum on  
Quality and Safety in  
Healthcare, April 2024

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# Presenters



Marco Aurelio BA, MA, MSc, PGDip  
Associate Director for Quality Improvement  
East London NHS Foundation Trust



Rachel Dicker  
Product Management Associate Director  
Wolters Kluwer



Leticia Nani Silva  
Academic Faculty and Ovid Synthesis Consultant for UK&I  
Wolters Kluwer

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# Session Highlights

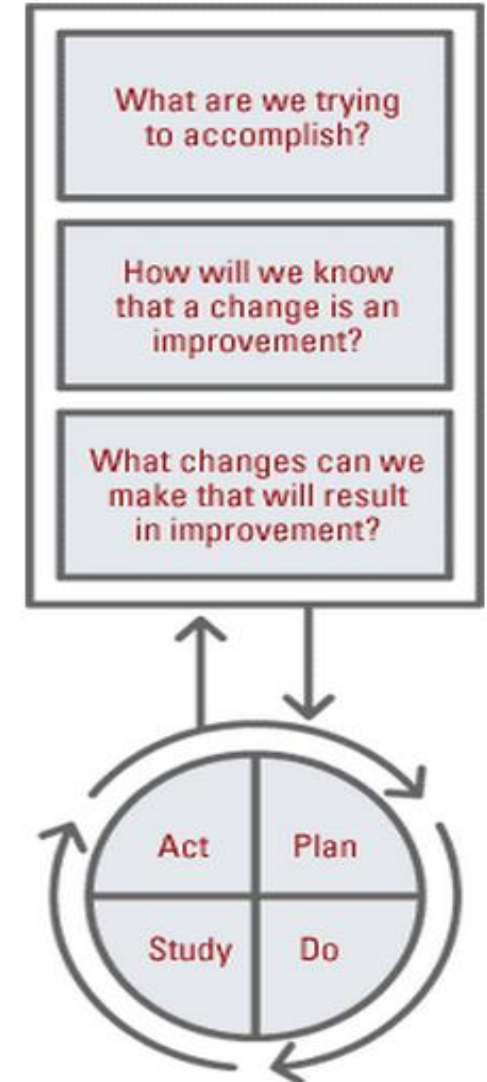
- Current Environment: QI in Healthcare
- About Wolters Kluwer
- Best practices for systemization
  - Rigorous application of a method
  - Building the will and sharing learning
  - Building capability and capacity
  - Alignment and priorities
- Demonstration of Ovid Synthesis
- Q&A

# What is QI?

“Quality improvement (QI) is about giving the *people closest to issues* affecting care the *time, permission, skills* and resources they *need to solve them.*”

“It involves a systematic and coordinated approach to solving a problem using specific methods and tools with the aim of bringing about a measurable improvement.”

**Health Foundation (2021)**



**We care**  
**We respect**  
**We are inclusive**

Ask about the  
#ELFTPromise

# Challenges for the field....

Rigorous  
application of a  
method

Building the  
will and sharing  
learning

Building  
capability and  
capacity

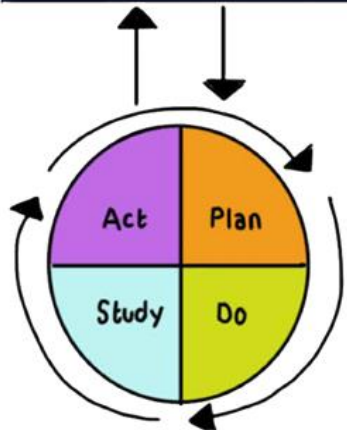
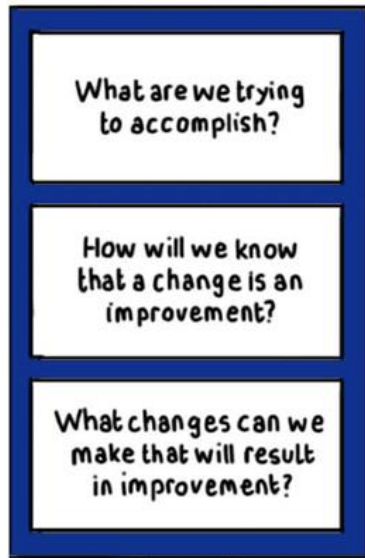
Alignment and  
Priorities



**We care**  
**We respect**  
**We are inclusive**

# Rigorous application of a method...

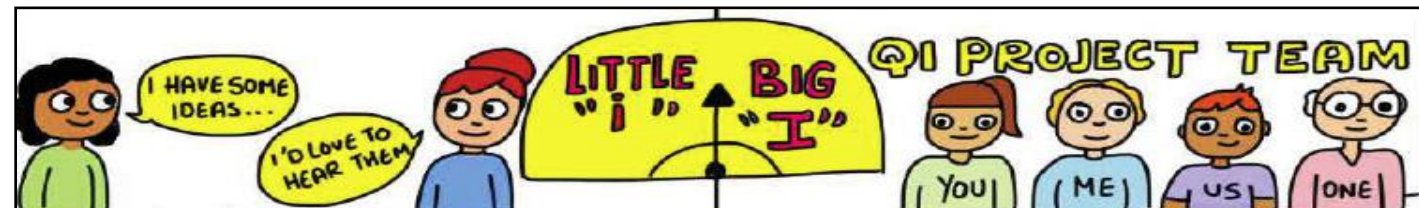
## Model for Improvement



## Sequence of Improvement



## Local Teams of Staff and Service Users



*‘..few improvement efforts that succeed locally end up being spread and sustained more widely’*

Greenhalgh and Paptousi 2024

*‘a problem is the ongoing failure to cumulate and share learning from QI efforts. The NHS continually loses learning, and this is an urgent problem.’*

Greenhalgh and Martin 2016

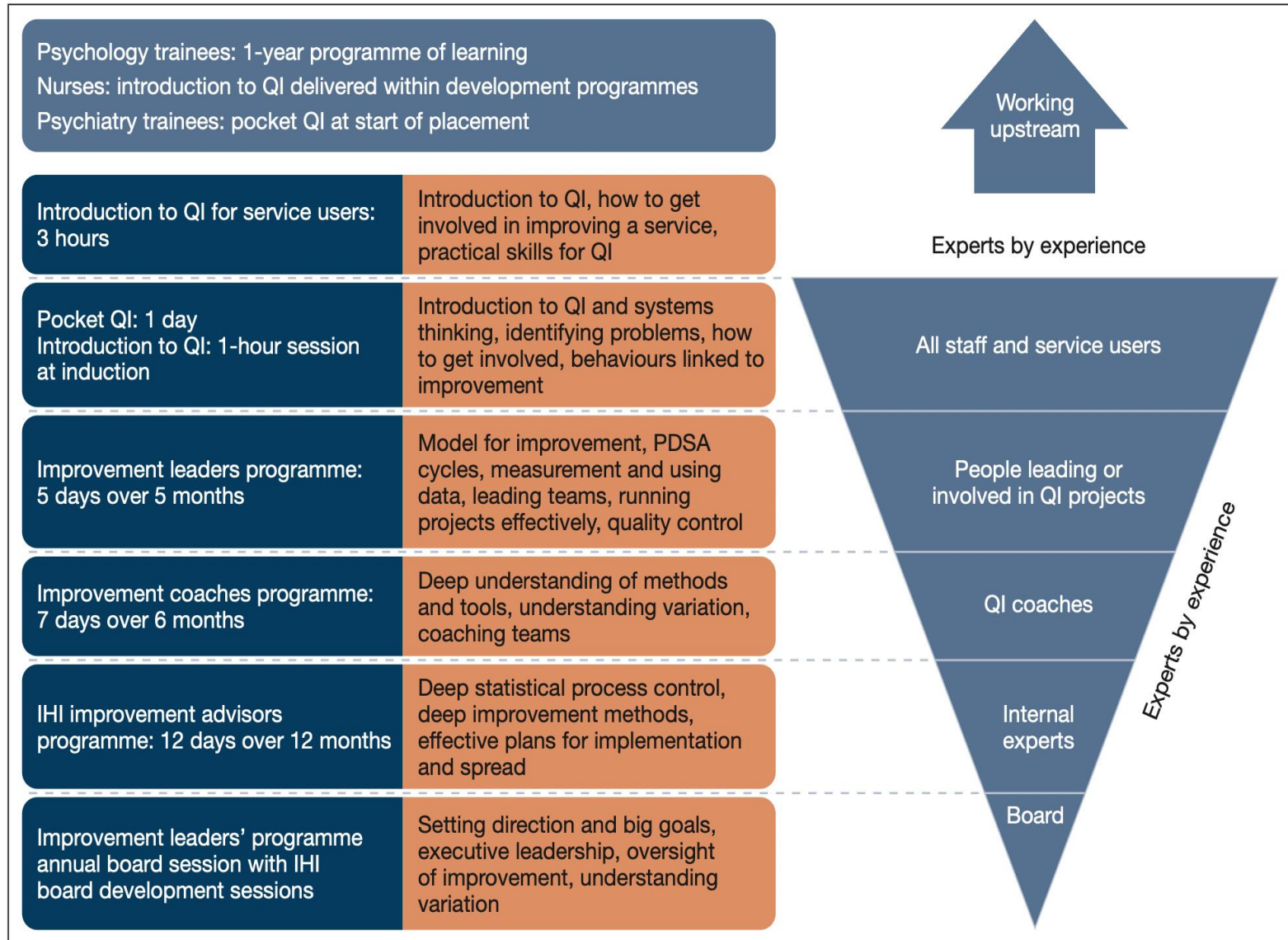


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# Building capacity and capability...

*Systematic approaches to building staff capacity and capability to lead change are frequently highlighted as important factors for successful quality improvement*

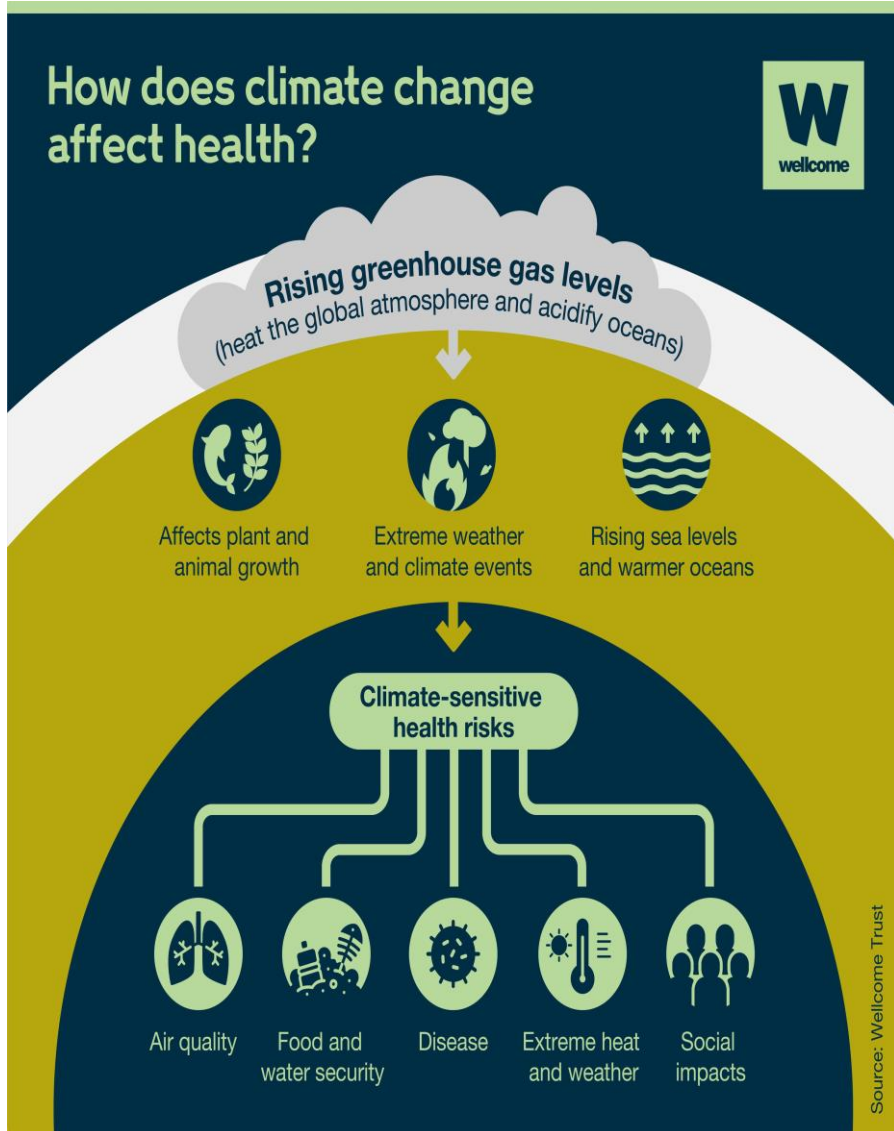
Babich LP, Charns MP, McIntosh N et al. Building systemwide improvement capability: does an organization's strategy for quality improvement matter? Qual Manag Health Care. 2016;25(2):92–101.



**We care**  
**We respect**  
**We are inclusive**



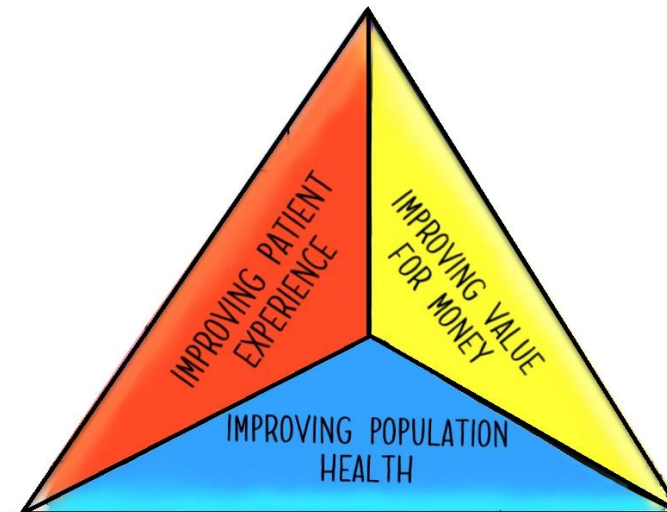
# Meeting different challenges....



Equal treatment

Equitable treatment

Removing the systemic barrier



# Global Reach in Healthcare



**Supporting**  
6.5 million  
clinicians  
  
190+  
Countries



**Informing**  
650+ million  
clinical topic views per year  
  
one-third  
of clinical decisions changed  
  
271 million  
Research inquiries per year

**Educating**  
  
1 million  
medical &  
nursing students  
  
96,000  
Instructors  
  
2 million  
practicing health  
professionals  
  
4,300  
medical/nursing  
schools



**Serving**  
  
38,800  
healthcare institutions  
and practices globally  
  
50,000  
retail pharmacies  
and payers



For all staff, Ovid®  
Synthesis provides the QI  
infrastructure that  
supports a culture of  
learning and improvement.



Efficiency



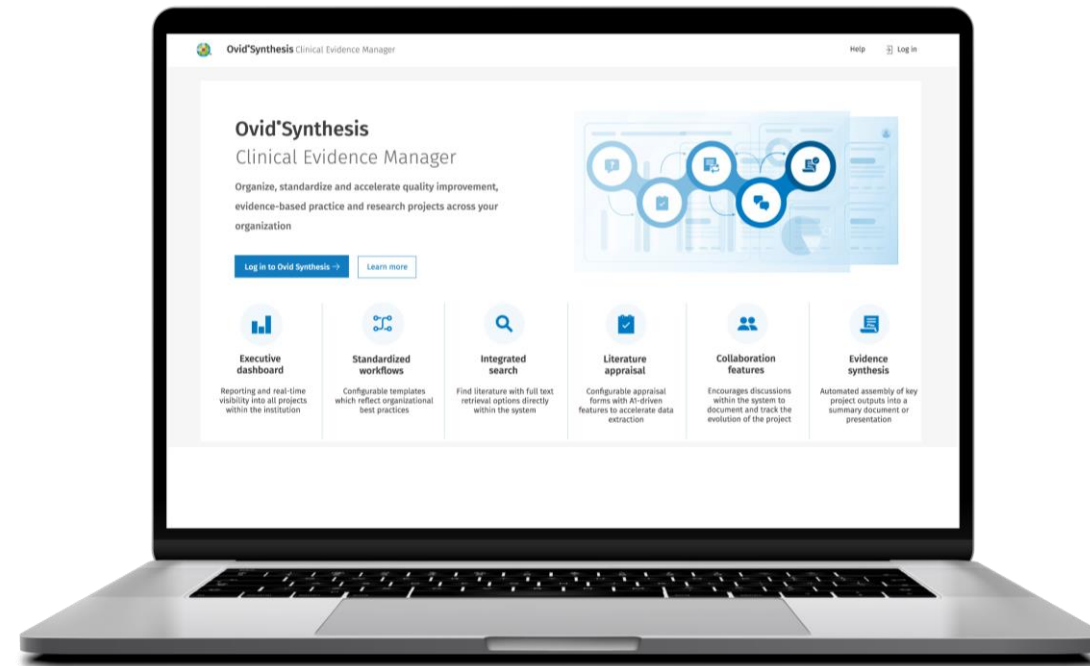
Quality



Standardization



Collaboration

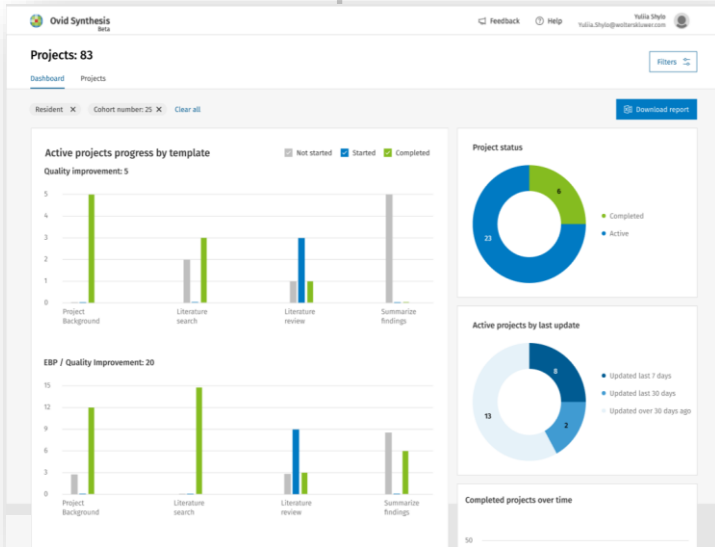


# Solve institution-wide challenges with Ovid Synthesis

Alignment and rigorous assessment

Building capacity and capability

Sharing learning



The grid contains eight project cards:

- Promoting Appropriate Use of Antimicrobials** (Evidence-based Practice, Adult ICUs, Pharmaceutical Services): Antibiotics are one of the most impactful advances in healthcare. However, when used incorrectly can be unsafe for patients due to...
- Improving antibiotic use in the ICUs: Reducing Clostridium...** (Quality Improvement, Adult ICUs, Pharmaceutical Services): Antimicrobial Stewardship shows promise in reducing HAIs such as Clostridium Difficile infection (CDI). By focusing on appropriate...
- Antimicrobial Stewardship** (Literature Review, Pharmacy Services, Pharmaceutical Services): Antibiotics are prescribed for patients who are hospitalized over 70% of the time. Antimicrobial Stewardship is key to patient...
- Fall Prevention in Medical Surgical Units** (Quality Improvement, Medical and Surgical Units, Acute Adult Services): Falls are the top adverse event in the hospital setting resulting in injuries. Falls are associated with increased morbidity an...
- Reducing Disruptive and Violent Behavior in Behavioral Health** (Quality Improvement, Adult and Adolescent Units, Behavioral Health Services): 75% of nearly 25,000 workplace assaults occur annually in healthcare settings, only 30% of nurses and 26% of emergency...
- CAUTI (Catheter Associated Urinary Tract Infections) Nurse...** (Literature Review, Adult ICUs, Critical Care Specialty): The infection rate for Foley catheter associated urinary track infections (CAUTI) inpatients, including ICUs, was 5% for July...
- Heart Failure Re-admission Reduction Medically Tailored...** (Evidence-based Practice, Cardiac Care 6C 6D and Clin..., Cardiovascular Services): The heart failure 30 day readmission rate is 21% across our cardiovascular program. Factors include severity of illness, co...
- CAUTI Reduction using CAUTI Bundle** (Quality Improvement, Adult ICU, Critical Care Services): According to the CDC, urinary tract infections are the most common type of healthcare-associated infection, accounting for more...

**Decreasing noise level on 5 South (6/20-11/20)**

**Project background**

**Problem description**  
Press Ganey scores for patient satisfaction related to noise on the unit are at the 20th percentile. QI project to understand sources of noise, examine EB practices that could be implemented to decrease noise, and implement the interventions with the goal of reaching at or above the 80th percentile for patient satisfaction with noise.

**BACKGROUND:** The QI committee has been tracking patient complaints and Press Ganey scores over the past year. Sleep and rest are important to healing and overall health. It was decided to prioritize this area of focus on our night shift. Nurses have observed that patients who should be sleeping are not and are wanting to improve this for our patients.

**Press Ganey quarterly data for IQ20**  
The way to read this is, the mean is the average score for the questions. The balancing point.

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**Blood Culture Contamination Rate Reduction**  
Maika Hirsch, Rachel Dicker, David Troy

**Background**  
False positive blood cultures caused by contaminated specimens impact patients negatively and our hospital. In the last year across 7 critical care departments 8377 blood cultures were drawn. Our average contamination rate is 3% which equates to 250 contaminated specimens. These contaminated specimens increase our CLABSIs, MRSA and C difficile rates. Costing the system well over \$850,000.00 annually.

**Results**  
1. Staff who have demonstrated skills in blood culture draw and have passed the competency and are signed off can complete the blood draw order for cultures.  
2. A Checklist was developed to standardize the process and procedure.  
3. Over the 3 month pilot contamination rate was reduced to 1.5% (from 3%)

**Conclusions**  
By mobilizing internal expertise and engaging across departments and roles, changes can be made that impact results today. The multidisciplinary team reviewed evidence based practices, the current process and policies and develop new recommendations to standardize work and improve outcomes for the patient and the hospital.

**Methods**  
A multidisciplinary across department approach was implemented to identify best practices and standardize process, policy, procedures, checklists and measurement.

**References**  
Dow, L., Griffin, A., & A. (2021). A study examining the impact of blood culture contamination on patient outcomes. *Journal of Clinical Microbiology*, 59(1), 1-10.  
Hirsch, M., Dicker, R., & Troy, D. (2020). Reducing blood culture contamination rates in a critical care unit. *Journal of Clinical Microbiology*, 58(1), 1-10.  
Society for Healthcare Epidemiology of America (SHEA) & Society for Infectious Diseases Epidemiology and Control (SIDEC). (2017). *Guidelines for the use of antimicrobials in the intensive care unit*. <https://www.cheerleadersociety.org/Portals/0/AMR%20Guidelines%20for%20the%20ICU.pdf>  
Wolters Kluwer Health | Lippincott Williams & Wilkins. (2019). *Antimicrobial stewardship: A practical approach*. Philadelphia, PA: Wolters Kluwer Health | Lippincott Williams & Wilkins.

# Questions and Connecting

## About Ovid Synthesis

Leticia Nani Silva

Academic Faculty and Ovid Synthesis  
Consultant, UK&I

Wolters Kluwer

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Rachel Dicker

Product Management Associate Director

Wolters Kluwer

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**Win an  
Apple® Watch**



**Ovid® Synthesis**

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Prize Drawing on  
Friday, April 12 at 10:30am

Booth #10

## Panelist

Marco Aurelio BA, MA, MSc, PGDip  
Associate Director for Quality  
Improvement

East London NHS Foundation Trust

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# Appendix

# All projects

Search all projects



Last Updated



Filters

6 projects

QUALITY IMPROVEMENT- PDSA

GREAT OAKS HEALTHCARE PUBLICATION

OTHER +9

### Heart Failure All Cause Readmission Reduction

This study will focus on all cause readmissions with a specific focus on the impact of the medical resident ro...

Admins: RE OT AG +3 | Team: MH Malka H | Status: Active

Created: 2024-04-02 Updated: 2024-04-05

QUALITY IMPROVEMENT- PDSA

PENDING REVIEW

NORTHERN SASKATOON OTHER +5

### Disruptive and Violent Behavior Reduction in Behavioral Health

75% of nearly 25,000 workplace assaults occur annually in healthcare settings, only 30% of nurses and 26%...

Admin: MH Malka H | Team: - | Status: Active

Created: 2024-04-03 Updated: 2024-04-03

QUALITY IMPROVEMENT- PDSA

PENDING REVIEW

NORTHERN SASKATOON OTHER +7

### Improving antibiotic use in the ICUs: Reducing Clostridium...

Antimicrobial Stewardship shows promise in reducing HAI's such as Clostridium Difficile infection (CDI). B...

Admin: MH Malka H | Team: - | Status: Active

Created: 2024-04-03 Updated: 2024-04-03

LITERATURE REVIEW

NORTHERN SASKATOON

ADVERSE DRUG EVENTS +9

### Antimicrobial Stewardship

Antibiotics are prescribed for patients who are hospitalized over 70% of the time. Antimicrobial Stewardship is key to patient...

Admins: MI SE OT +1 | Team: - | Status: Active

Created: 2024-04-02 Updated: 2024-04-03

LITERATURE REVIEW

KATMAI HOSPITAL AND CLINICS

UNIT PRACTICE COUNCIL +7

### Health Equity and Social Determinants of Health Impacts i...

LITERATURE REVIEW

NORTHERN SASKATOON

UNIT PRACTICE COUNCIL +5

### Infant Sleep Safety: Standardization of practice and...





## My projects

Search my projects



Last Updated



Filters

Create project

1 project

QUALITY IMPROVEMENT- PDSA

GREAT OAKS HEALTHCARE

PUBLICATION

OTHER

+9

### Heart Failure All Cause Readmission Reduction

This study will focus on all cause readmissions with a specific focus on the impact of the medical resident ro...

Admins:

Team:

Status:

RC OT AG -3

MH Malka H

Active

Created: 2024-04-02

Updated: 2024-04-05

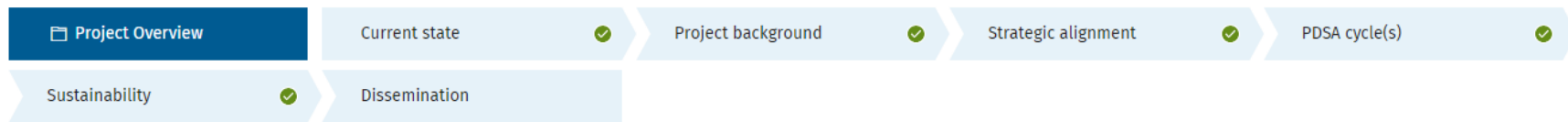






← Back to my projects

## Heart Failure All Cause Readmission Reduction



### Project Overview

#### Project details

Quality Improvement- PDSA

- GREAT OAKS HEALTHCARE PUBLICATION
- LOCAL/REGIONAL CONFERENCE OTHER
- DEPARTMENT NEWSLETTER UNIT LEADERSHIP EXEMPLAR
- QUALITY AND PATIENT SAFETY PATIENT SATISFACTION
- CARE DELIVERY EFFECTIVENESS FINANCIAL HEALTH
- CARDIAC STEP DOWN 5S

Created: 2024-04-02

Updated: 2024-04-05

Visibility: Preview

Site: Quality Improvement Demo

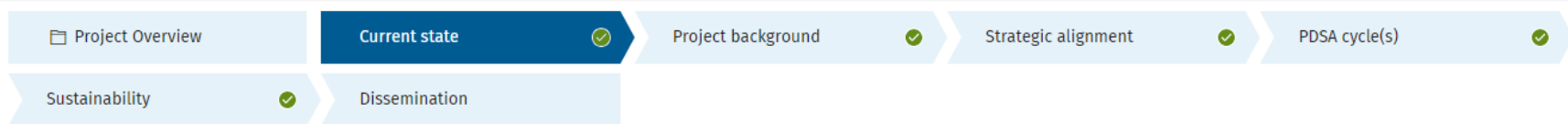
#### Description

#### Team [Add new teammate](#)

Name	Project role	
Joanie Donato Qldemo1@mailinator.com	Admin	⊖ <a href="#">Switch to Reviewer</a>
Rachel Dicker rachel.dicker@wolterskluwer.com	Admin	⊖ <a href="#">Contact</a>
David Troy david.troy@wolterskluwer.com	Admin	⊖ <a href="#">Contact</a>
Alfred Giacobbe Qldemo2@mailinator.com	Admin	⊖ <a href="#">Contact</a>
Sofia Cooper Qldemo3@mailinator.com	Admin	⊖ <a href="#">Contact</a>

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# Heart Failure All Cause Readmission Reduction



## Current state

The current state describes the problem and process you have right now. Begin by describing the problem in a written concise statement followed by a process map including each step and roles involved.

### Approval required

Approval is required to finalize this stage of the project. If there is a project reviewer, they will be notified when the box below is checked.

**APPROVED** by Malka Hirsch 2024-04-02

## Tips & Examples

### Define project

#### Problem you are solving

The heart failure 30 day readmission rate is 21% across our cardiovascular program. Factors include severity of illness, co-morbidities, age, prior hospital admissions, and social determinants of health. Despite optimal pharmacological interventions and post discharge home program, our readmission rate has increased 1% over the past over the past three years.

Cost of readmission for this population is \$15,879 per patient as of 2020 data.

#### Supporting documents (1)

Heart Failure Readmission Data.xlsx

Upload supporting documents

Save changes

Send stage for feedback

Next stage →

## Problem you are solving

### Comments

Malka Hirsch 4 April 2024 @ 13:18 EDT

@Joanie.Donato could you add some data to support your problem description?

Malka Hirsch 4 April 2024 @ 13:21 EDT

@Malka.Hirsch just added an attachment with aggregated heart failure readmissions data.

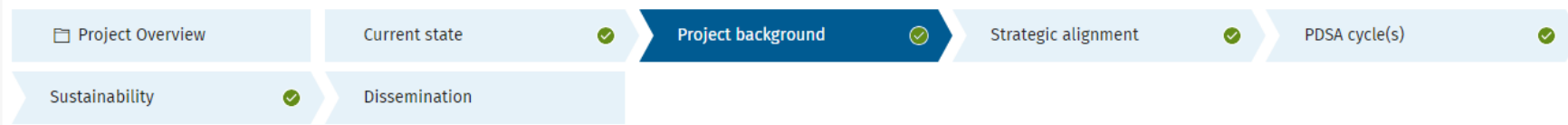
Malka Hirsch 4 April 2024 @ 13:21 EDT

@Joanie.Donato looks great, thank you!

Add a comment. You can use @ to mention project teammates.

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## Heart Failure All Cause Readmission Reduction



### Project background



The project background documents why this project was identified as an area of focus and how it aligns with the organization's strategic plan and goals.

#### Define project

##### Change question

Does Medical Resident involvement in HF patient transitions reduce readmissions?

Stakeholder	Role	Deliverable



Save changes

Stage complete

← Previous stage

Next stage →

### Expert guidance

#### Change question

Once you have finished your current state describe the exact problem and process you are going to improve on. A clear, concise description improves buy-in and assures you have identified the right stakeholders.

#### Identify stakeholders

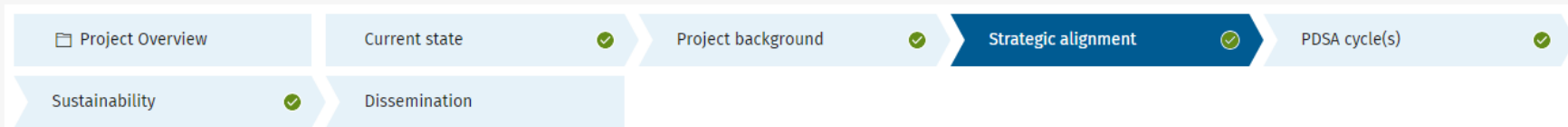
Every project has key stakeholders. Stakeholders are people in which you need their influence and support to make the necessary changes. Depending on the scope of your project stakeholders maybe peers, executive team members and patients If stakeholders are not informed, aligned and motivated to assure this project is completed the change needed from implementation will not happen. Stakeholders should have an incentive to help with this change. Examples of stakeholders and their incentives might be:

- Staff Nurses: Pride in using best available evidence in their practice and improved patient care; saving time; Improving patient and staff satisfaction.
- Nurse Manager: Improving patient and staff satisfaction; Building a culture of innovation.
- CNO: Building a culture of innovation; Magnet certification; Staff satisfaction and satisfaction



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## Heart Failure All Cause Readmission Reduction



### Strategic alignment 🗨

The strategic alignment section allows you to identify how this research project aligns with your organization's vision, mission, values, and strategic organizational and nursing goals.

#### Strategic alignment ^

##### Strategic initiative 🗨

- Quality and patient safety
- Patient satisfaction
- Staff satisfaction & engagement
- Care delivery effectiveness
- Partnerships
- Financial health
- Access

Save changes

Stage complete

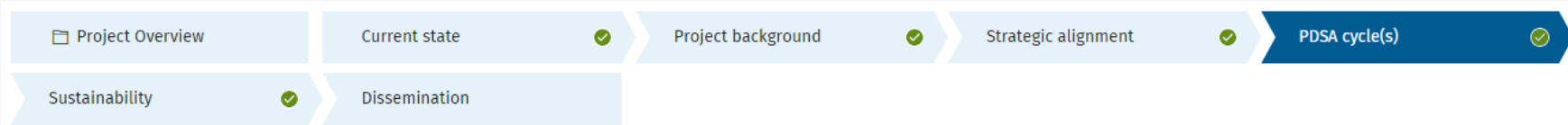
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[Next stage →](#)



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## Heart Failure All Cause Readmission Reduction



### PDSA cycle(s)

The PDSA Cycle provides a standardized and systematic guide for improvement by identifying interventions, identifying your measures, developing your action plan, deploying your pilot, measuring results, and sustaining your gains. This template is based on W. Edward Demings, PDSA methodology: Plan, Do, Study, Act.

[+ Create cycle](#)

Cycles	Interventions	Progress	Actions
1. Collaborative documentation, smoking cessation, and resident home visit bundle Start date: 2023-04-01    End date: 2024-04-02	Multidisciplinary Documentation Smoking Cessation Resident Home Visit		<b>ADOPTED</b> <a href="#">Edit cycle →</a> 

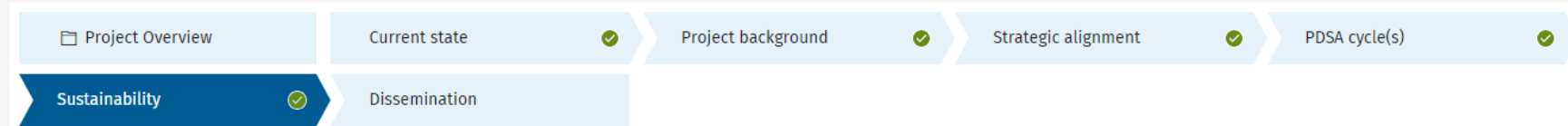
[Save changes](#)     Stage complete

[← Previous stage](#)    [Next stage →](#)



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## Heart Failure All Cause Readmission Reduction



### Sustainability 💬

Recognition of project completion is a fantastic way to bring closure to the work and recognize the individual and team accomplishments. Recognition can be accomplished in many ways and is important in creating the culture of continuous improvement. Handing off the responsibility of each intervention to a process owner or committee is key to assuring the changes are sustained. Once this is accomplished the team can leave the project knowing the work they did will carry forward and meet the goals of the project.

#### Sustain ^

How will this be sustained? When should audit and feedback occur and how often? Ongoing? 💬

1. Daily rounding will include discharge reviews of patients within the last 7 days. Did they get a home visit? What issues were found during visit? What follow up is needed?
2. Monthly and Quarterly review in Cardiovascular Services department QI and Patient Safety Committee. To include readmission rates and review of those readmitted and root cause analysis findings.
3. Bi-annual review in Evergreen Hospital Quality and Patient Safety Committee. To include overall readmission metrics, findings from readmission root cause analysis trends and action plan.

Save changes

Stage complete

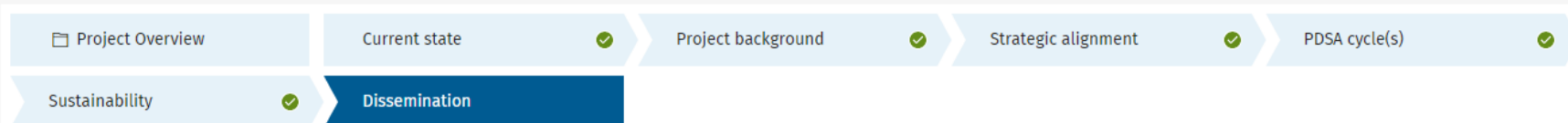
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Next stage →



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## Heart Failure All Cause Readmission Reduction



### Dissemination

Dissemination of results enables you to share your project and thus add to the body of evidence in healthcare. Looking at how to communicate internally and externally is important to supporting high quality patient outcomes and spreading best practices.

#### Abstract template

##### Background

Greater Oaks Healthcare has a culture of continuous improvement. The cardiovascular service line has a CQI approach to Heart Failure readmissions. Over the past year the readmission rate reached 21%. In addition to an excellent pharmacologic and home care program, readmission rates are on the increase.

##### Methods

[Save changes](#)

Stage complete

[← Previous stage](#)





Header

# Heart Failure All Cause Readmission Reduction







1

2

3

4

Project Team

- Rachel Dicker
- David Troy
- Malika Hirsch
- Alfred Giacobbe
- Sofia Cooper
- Joanie Donato
- Scott Beebe

# Heart Failure All Cause Readmission Reduction

Rachel Dicker, David Troy, Malika Hirsch, Alfred Giacobbe, Sofia Cooper, Joanie Donato, Scott Beebe

### Background

Greater Oaks Healthcare has a culture of continuous improvement. The cardiovascular service line has a CQI approach to Heart Failure readmissions. Over the past year the readmission rate reached 21%. In addition to an excellent pharmacologic and home care program, readmission rates are on the increase.

### Methods

A team was established to take a deep dive into the current program for HF care. It was determined to focus on a multidisciplinary care team approach that connects the inpatient discharge plan to follow up in the home. This included, having members of the inpatient care team participate in a home visit within seven days of discharge. This includes the discharging Medical Resident, RN, and CLSW.

### Results

- Care team surveys revealed an improved sense of collaboration, coordinated care planning and the appreciation of different perspectives that enhanced the care plan.
- Patients reported an increased sense of being heard by their care team and a continuity of information from hospital to home. They appreciated having a follow up visit from their inpatient RN and Medical Resident.

Care Team Survey Results  
HF Readmission

Survey Item	Before (%)	After (%)
Strongly Disagree	10	5
Disagree	15	10
Neutral	20	15
Agree	35	40
Strongly Agree	30	30

### Conclusions

Continuity of care from hospital to home enhanced patient trust and improved outcomes, including reductions in hospital readmissions.

### References

1. [Pappas A, Meyers M, Kuyama S, et al. Evaluation of a Transitional Care Program after Hospitalization for Heart Failure in an Integrated Health Care System. JAMA Network Open. 2020;3\(12\):e2020761. doi:10.1001/jamanetworkopen.2020.27410](#)
2. [Neil R, Lee H, Fraser S, Gurestsekeno D, Debar A, Pappas A, et al. Reducing 30-day Hospital Readmissions for Patients Presenting with Acute Heart Failure Exacerbation: A Quality Improvement Initiative. JGIM. 2020;35\(10\):e1703. doi:10.1136/ajcp.2019.030239](#)
3. [Culler J, Hinkley A, Park C, et al. Resident-Initiated Interventions to Improve Inpatient Heart-Failure Management. JGIM Quality & Safety. 2017;26\(2\):161-166. doi:10.1136/qims.2016.030039](#)
4. [Pappas A, Pappas DR, Pappas R, et al. Implementation of a Heart Failure Readmission Reduction Program: a Role for Medical Residents. JGIM Quality & Safety. 2017;26\(2\):167-174. doi:10.1136/qims.2016.030044](#)

NorthernSaskatoon