

# How to implement an infection prevention quality improvement plan

Middle East Patient Safety Congress,  
Dubai, UAE  
24-26 October, 2019

# OBEJCTIVES

- 1. Some facts on HAIs
- 2. HAIs as a major international concern
- 3. HAIs as a components of International Patient Safety Goals
- 4. How to implement a Quality Improvement Plan

# PCI FACTS

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- Of every 100 hospitalized patients at any given time, 7 in developed and 10 in developing countries will acquire at least one HAIs.
- The endemic burden of HAIs is also **significantly** higher in low- & middle-income than in high-income countries, in particular in patients admitted to ICUs & in neonates.

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- In high-income countries, **approximately 30% of patients** in intensive care units (ICU) are affected by at least one HAIs.
- In low- and middle-income countries the frequency of ICU-acquired infection is **at least X23 higher than in high-income countries;**

# PCI FACTS

- Newborns are at higher risk of acquiring HAIs in developing countries, with infection rates X3 to X20 times higher than in high-income countries.

# Healthcare Associated Infections: An American Perspective (CDC)

- 1.7-2 million patients with HAIs annually
- 99,000 HAI-associated deaths annually
- HAIs prevention via Quality Improvement Plans saves **\$28.0 to \$45 billion.**

# CDC REPORT OF 2014

- In one year, **75,000 people** die as a result HAIs in the US.

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- Care Quality Commission (CQC) has drafted a bill in 2015 to further control the HAIs in the UK



HOUSE OF COMMONS

**Raising Standards of Infection  
Prevention & Control in the NHS  
May 2018**

# ARE HOSPITALS ARE SAFE?

- **Deaths/ 100 Million Hours**
- Being pregnant 1
- Traveling by train 5
- Working at home 8
- Working in agriculture 10
- Being in traffic 50
- Working in construction 67
- Commercial flying 100
- **Being hospitalised 2000**

# INTERNATIONAL PATIENT SAFETY GOALS (IPSGs)

- **IPSG.1** Identify Patients Correctly
- **IPSG.2** Improve Effective Communication
- **IPSG.3** Improve the Safety of High-Alert Medications
- **IPSG.4** Ensure Correct-Site, Correct-Procedure, Correct-Patient Surgery
- **IPSG.5** Reduce the Risk of Health Care–Associated Infections
- **IPSG.6** Reduce the Risk of Patient Harm Resulting from Falls

# Prevention & Control of Infection

## QI Plan

- A systematic approach for **reducing HAIs & improvement of** efficiency, reliability, and performance of PCI Teams via Prevention & Control projects.

# Prerequisites for Implementation of QI Programmes

- **1. Strong and Empowered Leadership**
- Facility leadership supportive (NOT LIP SERVICE).



# FIVE DOMAINS OF CLCF (CLINICAL LEADERSHIP COMPETENCY FRAMEWORK (CLCF))

- To improve the quality and safety of health and care services, it is essential **that clinicians are competent in each of the five leadership domains.**

# Clinical Leadership Competency Framework (CLCF)





# RISK AREAS IN ACCREDITATION

- 1. Leadership Process & Accountability
- 2. Competent & Capable Workforce
- 3. Safe Environment for Staff & Patients
- 4. Clinical Care of Patients
- 5. Improvement of Quality & Safety

# RISK AREAS OF ACCREDITATION

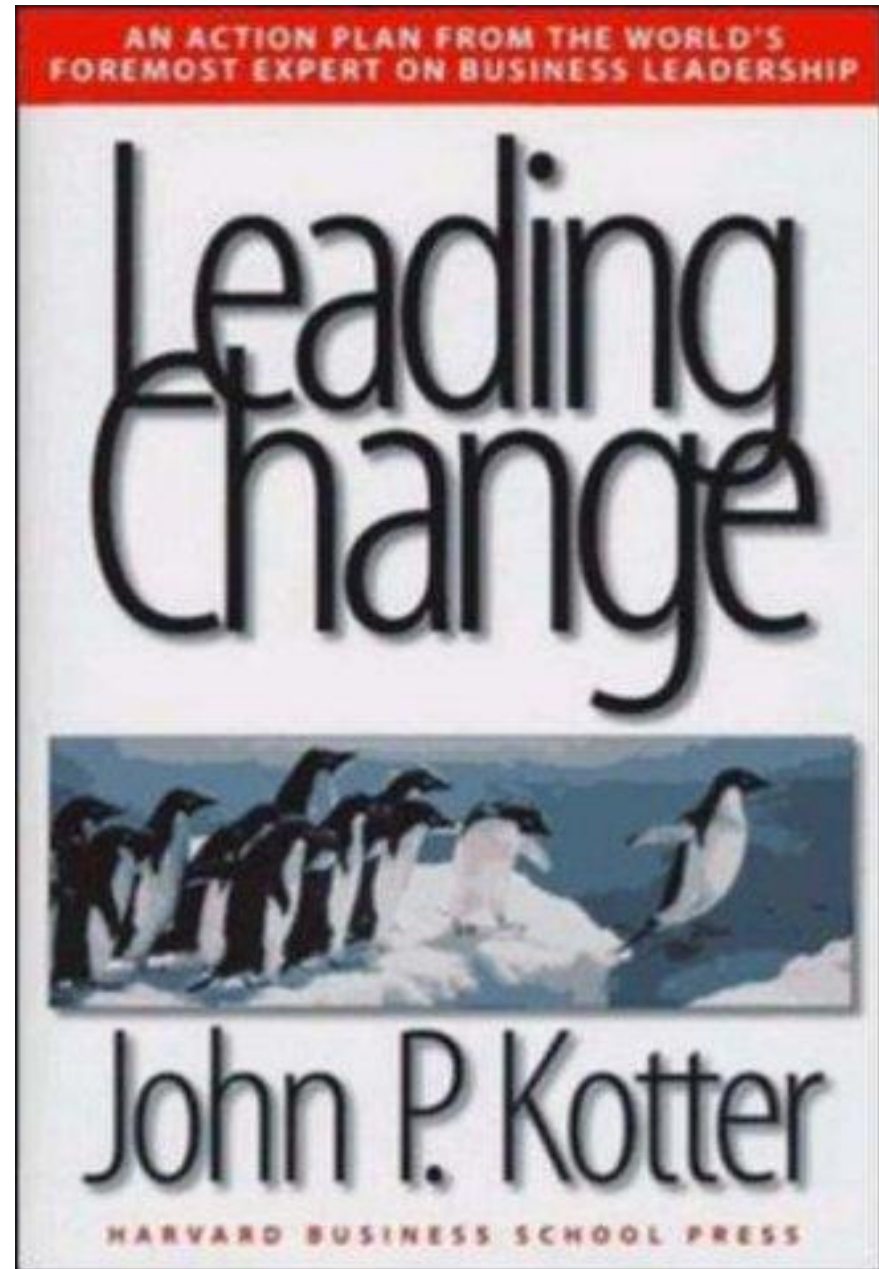
- INTERNATIONAL ESSENTIALS OF HEALTHCARE QUALITY & PATIENT SAFETY (JCI, 2008)

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**PROFESSOR JOHN  
KOTTER OF HARVARD  
UNIVERSITY**



# JOHN KOTTER'S VIEWS OF SUCCESS & FAILURE (KOTTER'S MODEL)

- **EIGHT REASONS WHY MANY CHANGE PROCESSES DO NOT SUCCEED**
- Allowing too much complacency.
- Failing to build a substantial coalition.
- Not understanding the need for a clear vision.
- Failing to clearly communicate the vision.
- **5. Permitting roadblocks against the vision.**
- Not planning for short term results and not realizing them.
- Declaring victory too soon.

# Prerequisites for Implementation of QI Programmes

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- Administration empowers a dedicated team to identify & remove barriers to implementation.
- Strong implementation champion(s) are identified & benefited from



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# Prerequisites for Implementation of QI Programmes

- **2. Embed QI in the existing health system**
- Avoid a piecemeal approach (sustainability)



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- Focus on sustainability with broader health system in mind rather than isolated QI projects
- Identify sustainable financing
- Focus on training HCW to perform QI as part of daily work (**not an extra burden**)

# Prerequisites for Implementation of QI Programmes

- **3. Pick simple interventions and outcome measures**
- Begin with one or two interventions
- Have a plan to scale up a successful intervention



- Any Quality Improvement Initiative needs **CHANGE MANAGEMENT** skills

# Prerequisites for Implementation of QI Programmes

- **4. Implement QI at health care facilities where staff is ready to adopt the interventions as useful or necessary. (+VE Dissatisfaction)**



# CHANGE EQUATION ELEMENTS

- 1. Dissatisfaction (D)
- 2. Vision (V)
- 3. First steps (F)
- 4. Resistance to Change (R)

# CHANGE EQUATION

- $D \times V \times F > R$



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- $D X V X F > R$

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$$0 \ X \ V \ X \ F = 0$$

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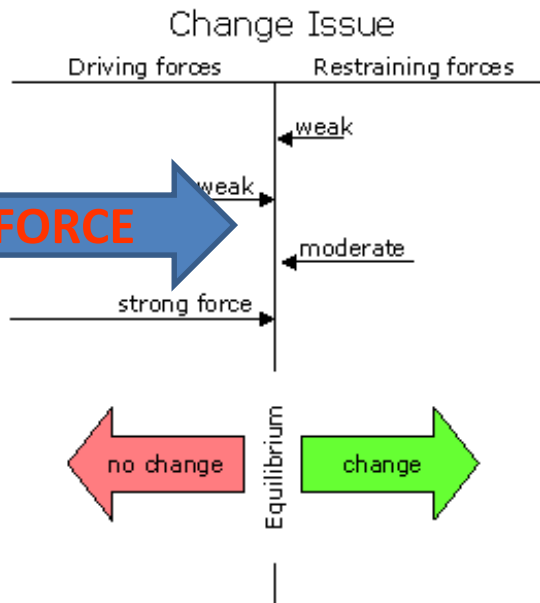
- $D = 0$

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$$0 < R$$

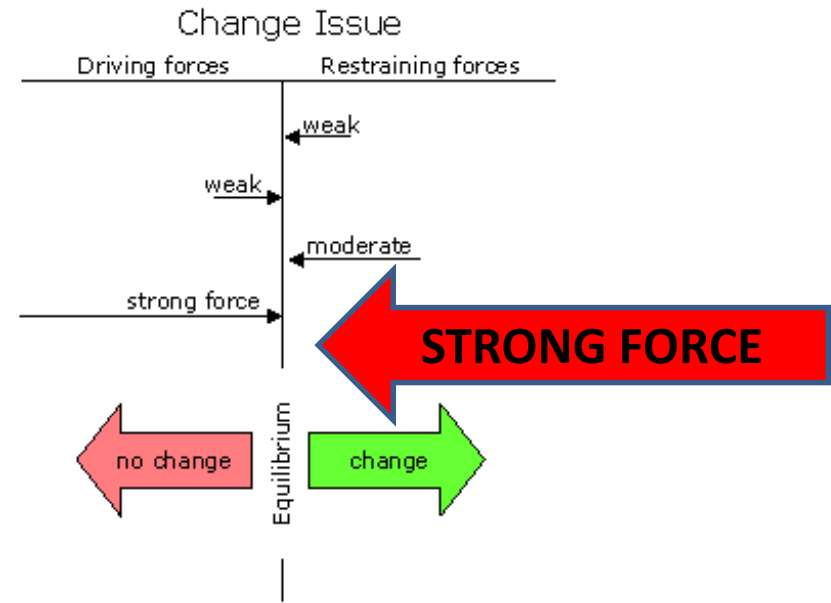
# Lewin's Field Force Diagram: **balanced by the interaction of two opposing sets of forces.**

Force Field Diagram



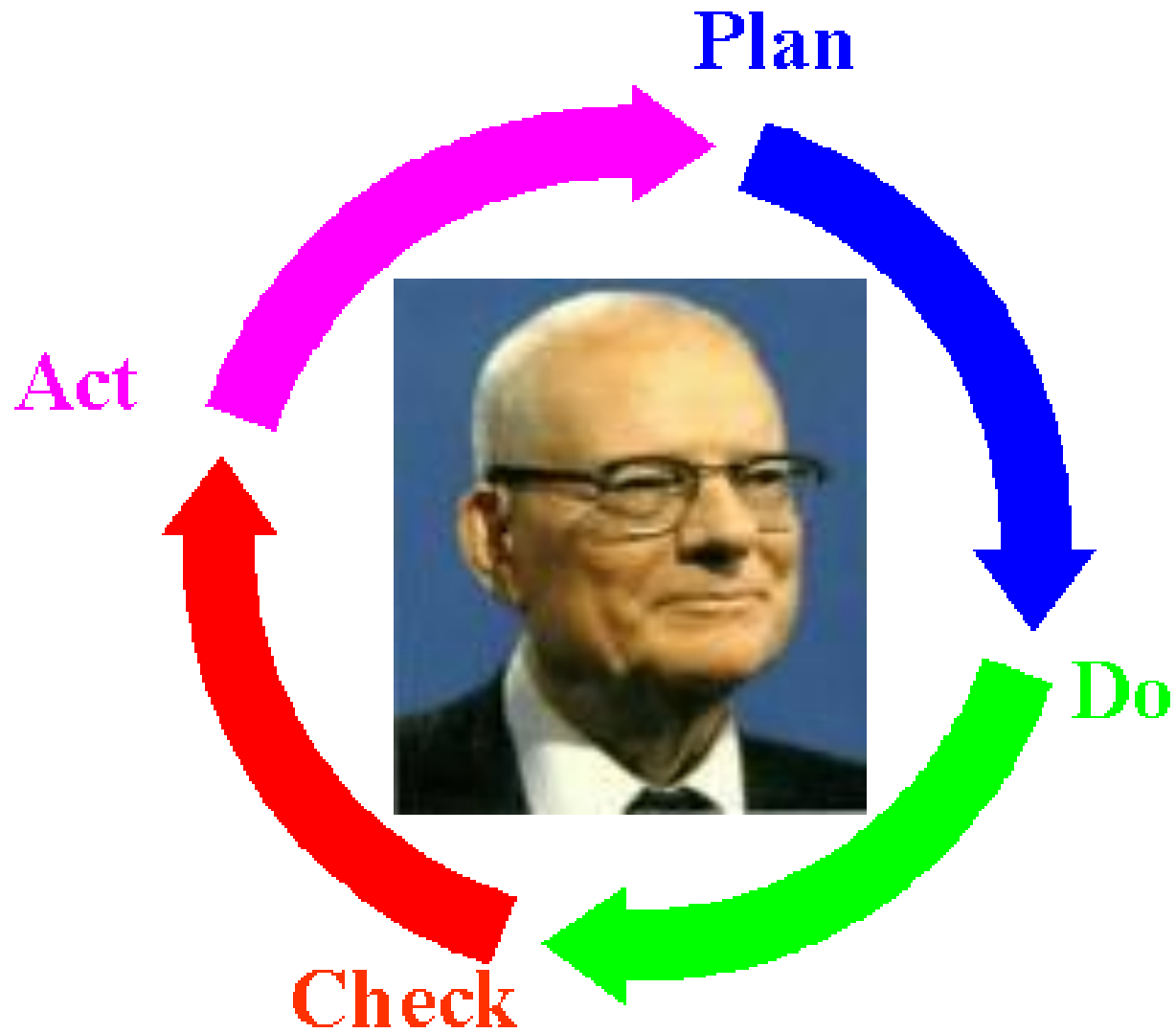
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Force Field Diagram



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# Deming Wheel



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- **Step 3: Study** –Analyze the data and compare the results to your predictions.



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- **Step 3: Study** –Analyze the data and compare the results to your predictions.
- **Step 4: Act** -Make changes based on what was learned.

# CONCLUSION

- Improvement of management of HAIs is a global focus
- Low-income and developing countries should consider it as a priority
- Situation are getting better but still long way to go
- Skilled Healthcare Leadership is a vital role-player to reduce HAIs

# CONCLUSION

- QI initiatives have to be seen within the framework of Change Management
- Involvement of Physicians in particular in Healthcare Leadership Training Projects is a must
- Cooperation of Physicians are vital in improvement of HAIs status

A photograph of a misty forest path. The path is a narrow, dirt trail that winds through a lush green forest. The trees are tall and thin, with a thick layer of mist or fog hanging between them. The ground is covered in ferns and other green plants. The overall atmosphere is serene and peaceful.

**THANK  
YOU**