SALA VIOLANTE/GINEVRA

MEDICINA D'URGENZA: INDICATORI E AREA CRITICA

Moderatori: **Francesco Franceschi – Marcello Pastorelli**

Alessio Bertini

Gli indicatori

XII congresso nazionale
SIMEU
RICCIONE 13-15 MAGGIO 2022

Indicatori

Alessio Bertini

Medicina d'Urgenza e Pronto Soccorso

Ospedale Maggiore

Bologna

Performance

Performance aziendale *(Kaplan e Norton '92-2000)*

Risultato aziendale valutato attraverso indicatori elaborati tenendo conto di:

1. ***prospettiva del cliente***
2. ***prospettiva dei processi interni***
3. ***prospettiva economico – finanziaria***
4. ***prospettiva dell'innovazione e dell'apprendimento***

Caratteristiche di un buon indicatore

M*isurabile*	Rilevabile in modo riproducibile
I*mportante*	Pertinente ad un problema frequente o con notevoli conseguenze sui pazienti o sui costi
S*emplice*	Facile da capire e da calcolare
U*tilizzabile*	possibilità di essere impiegato nella pratica corrente
R*isolvibile*	Relativo ad un problema per cui si può fare qualcosa con le risorse disponibili
A*ccettabile*	Da chi deve rilevarlo ed applicarlo

Sistema di monitoraggio regionale

Il sistema di monitoraggio, ad oggi, attraverso un sistema di indicatori di processo ed esito, misura la qualità del servizio in ottica **quasi esclusivamente** di **efficienza** e solo attraverso indicatori "macro"

- **Tempi di attesa per codice colore**
- **Tempi di processo**
- **Filtro**
- **Abbandono**
- **Ricoveri in Chirurgia con DRG chirurgico**
- **ecc**

Regione Toscana

Uso degli indicatori

Perché gli indicatori siano utili per gestire meglio i pazienti, valutare i cambiamenti nel tempo e contribuire al cambiamento, è necessario:

- Che siano coerenti con le attività prevalenti
- Cercare l'utilità e non la perfezione nelle misure
- Usare un insieme equilibrato di indicatori di processo, esito, di struttura
- Sfruttare il desiderio dei professionisti di migliorare le prestazioni e sfruttare anche la loro curiosità circa l'esito dei loro interventi
- Cominciare da dati semplici e di facile rilevazione
- Rilevare i dati su popolazione o su campioni rappresentativi
- Ottenere i dati come sottoprodotto del lavoro quotidiano
- Definire in modo operativo numeratore e denominatore
- Avere chiari standard di riferimento (intermedi, di eccellenza)
- Rappresentare graficamente i risultati
- Collegare la rilevazione dei dati a progetti di miglioramento
- Comprendere gli indicatori obbligatori

(Bisoffi)

Altri livelli di monitoraggio

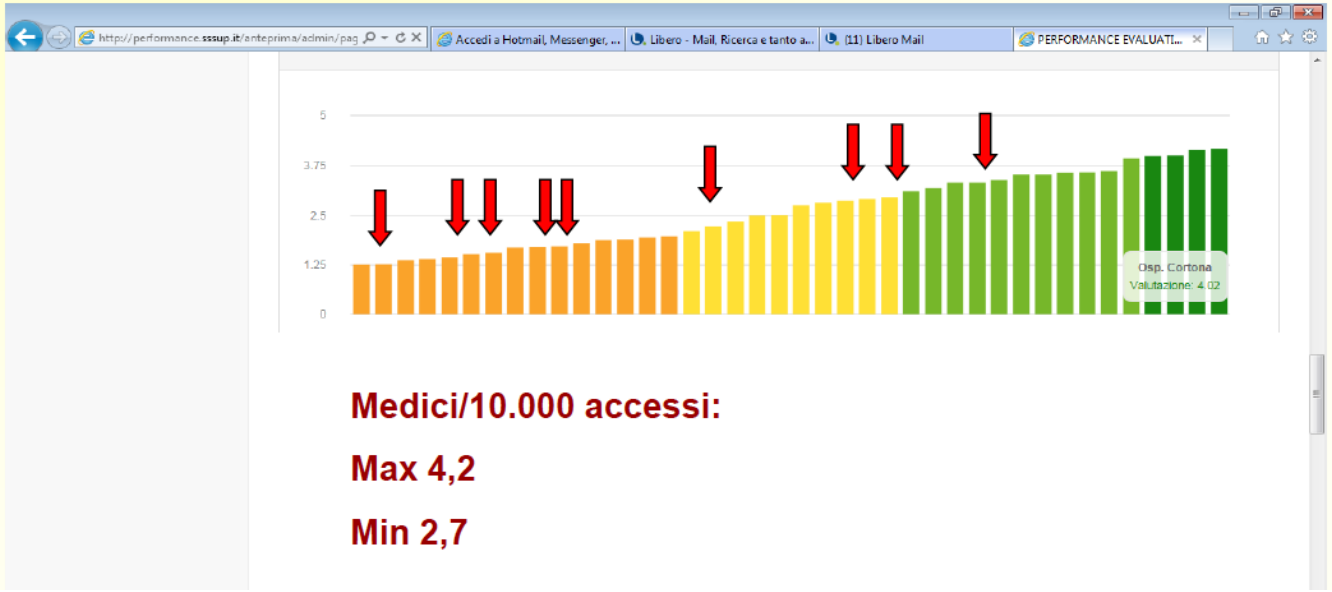
Di Azienda

Di UO/Area/Dipartimento

Cruscotto

Di Azienda/Dipartimento

Confronto fra le performances dei diversi presidi dotati di PS operanti nella della stessa Azienda



Medici/10.000 accessi:

Max 4,2

Min 2,7

Regione Toscana

The Royal College of Emergency Medicine

Position Statement

6 March 2019

Improving Quality Indicators and System Metrics for Emergency Departments in England

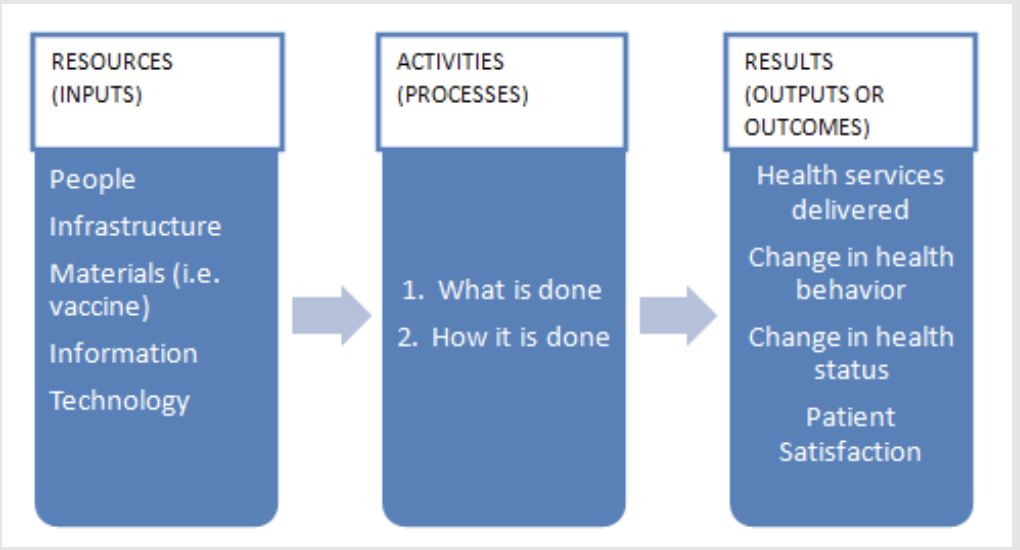
There are two overlapping domains that we need to consider:

1. Systems Metrics
2. Quality Indicators.

U. S. Department of Health and Human Services

Health Resources and Services Administration

April 2011



Come verificare la qualità del lavoro in PS

Quali gli indicatori necessari

Alessio Bertini
Azienda USL Toscana nord ovest – P.O. Livorno

Tabella 1. Dimensioni fondamentali della qualità delle cure

Sicurezza	Non genera danno al paziente
Efficacia	Le cure somministrate sono di documentata (EBM) efficacia clinica e vengono applicate solo a coloro che ne possono beneficiare
Centrata sul paziente	Il trattamento proposto è rispettoso dei bisogni e delle preferenze e dei valori di ogni singolo paziente
Tempestiva	Volta a ridurre al minimo le attese e ritardi che possono risultare dannosi per il paziente
Efficiente	evita tutto ciò che è inutile o superfluo (in termini di risorse, di indagini, di spesa, etc.)
Equa	garantisce identici livelli di cura a tutti i cittadini

Tabella 2. *Indicatori di qualità (Struttura, Processo, Esito) delle cure erogate*

Qualità	Struttura	Processo	Esito
Adeguatezza delle strutture	Numero di box attrezzati per i codici rossi Aree dedicate per pazienti fragili (bambini, disabili, anziani disorientati, etc.) P.E.I.M.A.F	Checklist di ispezione e verifica periodica della dotazione strumentale Verifica Periodica del PEIMAF	Esperienza del paziente Incidenza di aggressioni allo staff
Adeguatezza e preparazione dello staff	Rispetto dei requisiti minimi di personale e di competenza Livelli di turnover dello staff Percentuali di malattia Numero di pazienti per unità di staff per unità di tempo Numero di pazienti in attesa di trattamento per ciascun codice colore	Tempo di attesa per la visita Tempo di permanenza nel dipartimento di emergenza (dall'arrivo alla dimissione) Percentuale di abbandoni (colore che abbandonano prima di essere visitati)	Reclami e eventi sentinella
Presenza di cultura della qualità	Presenza di Direzioni coinvolte e motivate nel controllo della qualità Commissione per la qualità e la sicurezza all'interno della struttura amministrativa C'è considerazione per la qualità in Pronto Soccorso		Esperienza dei pazienti Periodico controllo delle misure di qualità
Adeguato supporto informatico	E' in essere un sistema informatico che consenta il monitoraggio continuo delle misure descritte in questa tavola	Report periodici a supporto del controllo di qualità nel Dipartimento Mantenimento e sviluppo continuo dei sistemi informatici a supporto dei bisogni del DEA	
Presenza di misure di processo		Tempo trascorso tra l'arrivo e la collocazione nel box Tempo alla visita medica Tempo alla somministrazione di analgesico Percentuale di abbandoni	Esperienza del paziente %sopravvivenza/esito funzionale per i percorsi tempo dipendenti (Stroke, MI, Sepsi) Reingressi a 48-72 ore
Presenza di Blocco in Accesso ai ricoveri	Tempo trascorso in barella	Percentuale di pazienti in barella che superano la soglia di attesa prevista per il ricovero Tempo trascorso tra la decisione di ricovero e il ricovero Tempo medio di permanenza Abbandoni	Sopravvivenza per i percorsi tempo dipendente Incidenza di infezioni acquisite in ospedale Reingressi in DEA a 7 gg

Aaronson et al. International Journal of Emergency Medicine (2015) 8:39
DOI 10.1186/s12245-015-0088-x

International Journal of Emergency Medicine
a SpringerOpen Journal

ORIGINAL RESEARCH Open Access

Emergency department quality and safety indicators in resource-limited settings: an environmental survey

Table 1 The Institute of Medicine framework of healthcare quality

Safety	Avoiding injuries to patients from the care that is intended to help them
Effective	Providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit
Patient-centered	Providing care that is respectful and responsive to individual patient preferences, needs, and values
Timely	Reducing waits and sometimes harmful delays for both those who receive and those who give care
Efficient	Avoiding waste, including waste of equipment, supplies, ideas, and energy
Equitable	Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status

Table 2 Donabedian framework of health care

Structure	The human, physical, and financial resources available to provide health care
Process	The care or health service provided to the patient
Outcome	The resulting effect on the health of the patient or population

Aaronson et al. International Journal of Emergency Medicine (2015) 8:39
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Table 4 Frequency of indicators extracted from non-WHO/IATSIC studies, classified by Donabedian and Institute of Medicine domains

	Structure	Process	Outcome	Total
	n (% of total)	*n* (% of total)	*n* (% of total)	*n* (% of total)
Effective	39 (22 %)	48 (27 %)	7 (4 %)	94 (52 %)
Patient-centered	4 (2 %)	3 (2 %)	13 (7 %)	20 (11 %)
Timely	4 (2 %)	40 (22 %)	7 (4 %)	51 (28 %)
Safe	1 (1 %)	5 (3 %)	2 (1 %)	8 (4 %)
Efficient	0 (0 %)	5 (3 %)	0 (0 %)	5 (3 %)
Equitable	1 (1 %)	1 (1 %)	0 (0 %)	2 (1 %)
Total	49 (27 %)	102 (57 %)	29 (16 %)	180 (100 %)

Conclusions: The published quality metrics in emergency care in resource-limited settings primarily focus on the effectiveness and timeliness of care. As global emergency care is built and strengthened, outcome-based measures and those focused on the safety, efficiency, and equitability of care need to be developed and studied to improve quality of care and resource utilization.

Measurement and improvement of emergency department performance through inspection and rating: an observational study of emergency departments in acute hospitals in England

Thomas Allen,[1] Kieran Walshe,[2] Nathan Proudlove,[2] Matt Sutton[3]

Allen T, *et al*. *Emerg Med J* 2019;**36**:326–332. doi:10.1136/emermed-2018-207941

Box 1 ED performance indicators.

1. Time to initial assessment: The median time (in minutes) between the patient's arrival and their initial assessment.
2. Time to treatment: The median time (in minutes) between the patient's arrival and the start of their treatment.
3. Total time spent in the emergency department: The median time (in minutes) between the patient's arrival and departure from the emergency department.
4. Left department before being seen for treatment: the percentage of attendances with a 'disposal-type' of Left Before Treatment.
5. Unplanned re-attendance: the percentage of attendances for which there was an unplanned re-attendance within 7 days.
6. Total time spent in the emergency department ≤4 hours: the percentage of patients for whom their total time spent in the emergency department is less than 4 hours.

ED, emergency department.

Table 1 Selected extracts from CQC inspection reports that refer to performance on the NHS England indicators

Hospital	Extract from report narrative
Trust rating: outstanding	► The department exceeded the target of 95% of all patients to be admitted, transferred or discharged within 4 hours of arrival to the ED every month. The trust had been meeting this target annually since February 2012 and was one of the top five performing trusts in the country ► The proportion of patients leaving before being seen was lower than the England average ► The unplanned re-attendance rate to the ED within 7 days of discharge ranged between 5% and 7%. This was consistently lower than the England average of above 7% but higher than the national standard of 5%
Trust rating: good	► Since July 2015, the department had met the national 4-hour waiting time target and most patients were discharged within 3 hours of attendance. The trust was performing better than the England average for a number of other performance measures relating to the flow of patients ► Between June 2015 and September 2015, the trust rate for unplanned re-attendance at A&E within 7 days was 0.3% (better than the England average) ► Only 3.2% of patients left the department before a clinician saw them. This was significantly better than the 5% standard set by the trust
Trust rating: requires improvement	► The trust performed mostly above the 95% standard for percentage of patients waiting to be seen within 4 hours since May 2014, with the exception of December 2014 and May 2015. This was an improvement in the previous years ► The latest available information showed that the unplanned re-attendance rate for September 2014 was 2.2%, while in August it was 2.5%, and 2.7% in July ► The number of patients leaving without being seen was higher than the national average. In March 2015, this was 2%, while in February, it was 1.8%, and in January, 2%. This was the latest available information
Trust rating: inadequate	► National standards of being admitted, transferred or discharged within 4 hours had not been met since October 2014. The processes put in place to trigger action to deal with poor flow through the EDwere delayed and slow, and patients frequently and consistently could not access the hospital in a timely way, experiencing unacceptable waits ► The rates of unplanned re-attendance for the trust were lower than the national average for most of 2013 to 2015 but were higher for February 2015. We asked what had been identified as the reason for the increase but the management of the ED could not offer any specific reason and the increase had not been investigated ► The percentage of patients leaving before being seen was higher than the national average for most of January 2013 to October 2015

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Using the NHS England indicators, we also found no evidence that, after inspection, EDs changed their performance. This is both when looking at the short-term (6 months) and long-term (>6 months) post-inspection effects. It may be that the perfor-

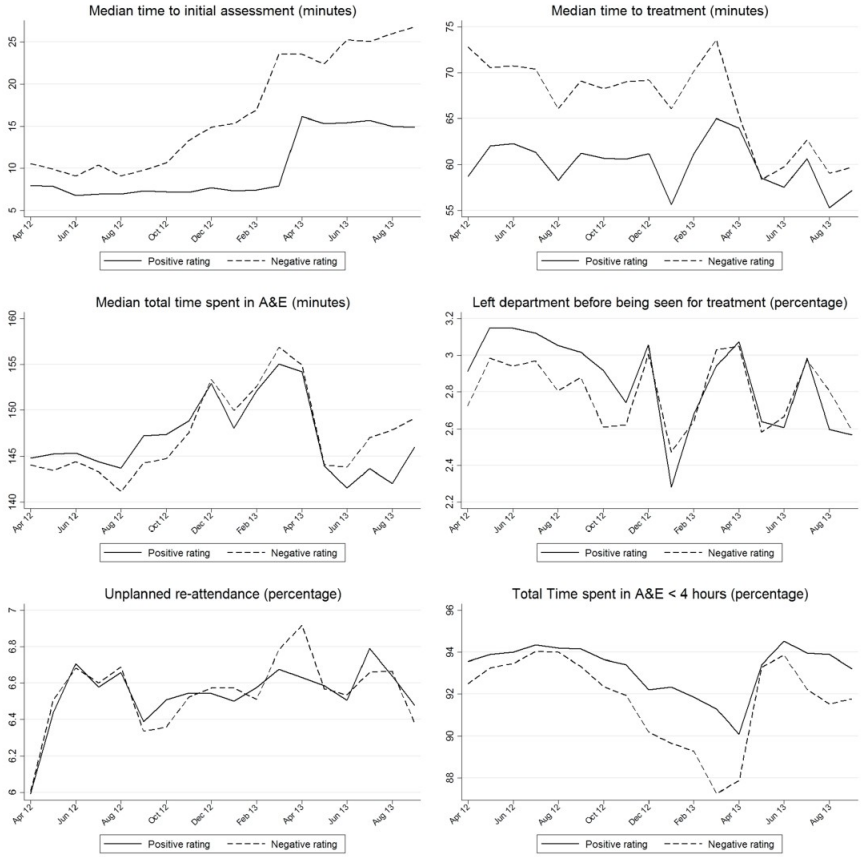


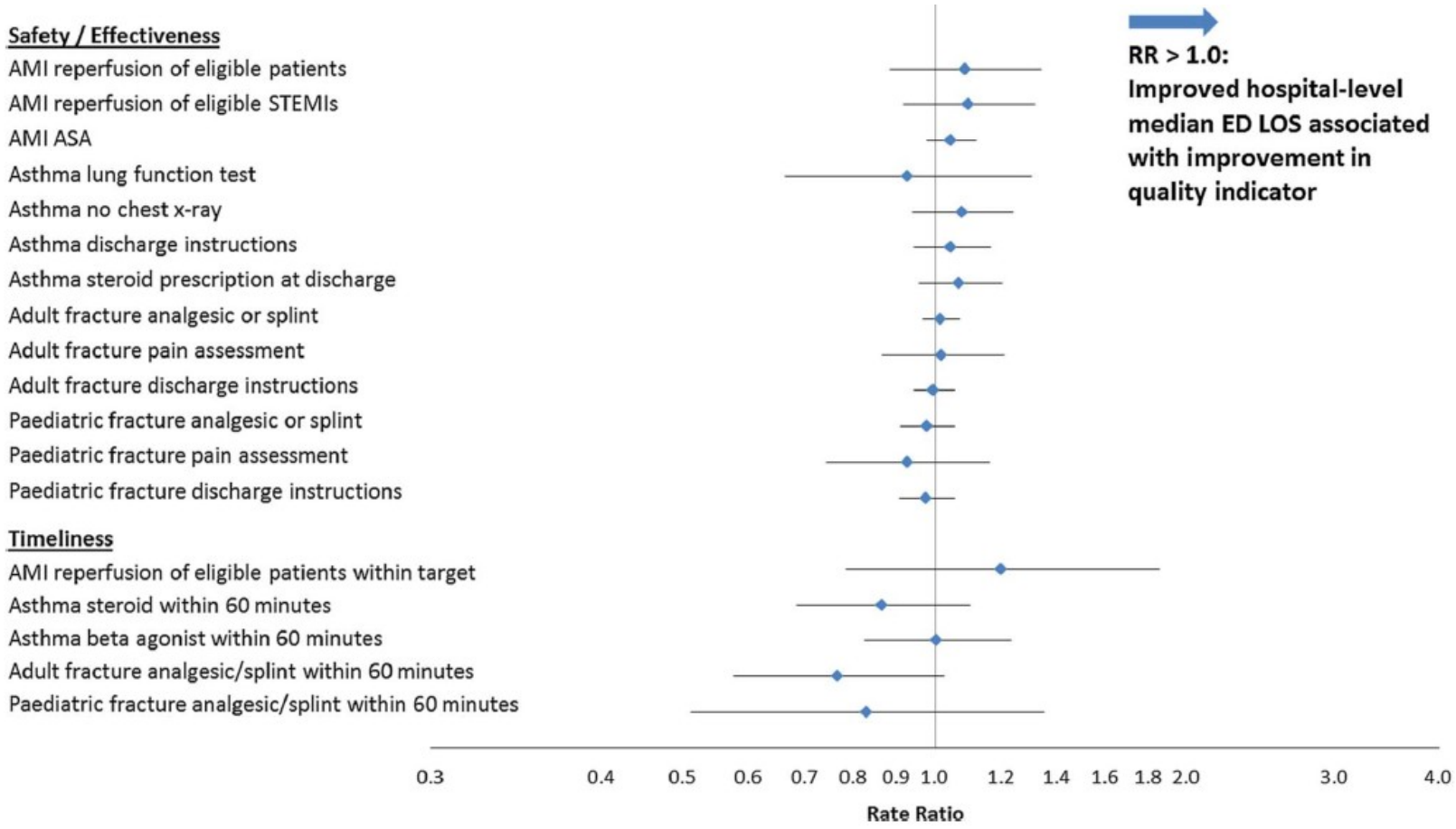
Figure 2 ED indicators for each rating score. ED, emergency department.

Our study suggests that the effects of CQC's inspections and ratings are not measurable using the metrics widely used by NHS England and the Department of Health and Social Care in performance management. This could result from four possible scenarios: (1) the chosen indicators are valid measures of quality, but CQC inspection ratings are not; (2) the chosen indicators are not valid measures of quality, but the CQC inspection ratings are; (3) both are valid measures of quality but they measure different aspects or dimensions of quality; or (4) neither are valid measures of quality.

Are reductions in emergency department length of stay associated with improvements in quality of care? A difference-in-differences analysis

Marian J Vermeulen,[1] Astrid Guttmann,[1] Therese A Stukel,[1] Ashif Kachra,[1] Marco L A Sivilotti,[2] Brian H Rowe,[3] Jonathan Dreyer,[4] Robert Bell,[5] Michael Schull[1]

Vermeulen MJ, *et al*. *BMJ Qual Saf* 2015;**0**:1–10. doi:10.1136/bmjqs-2015-004189



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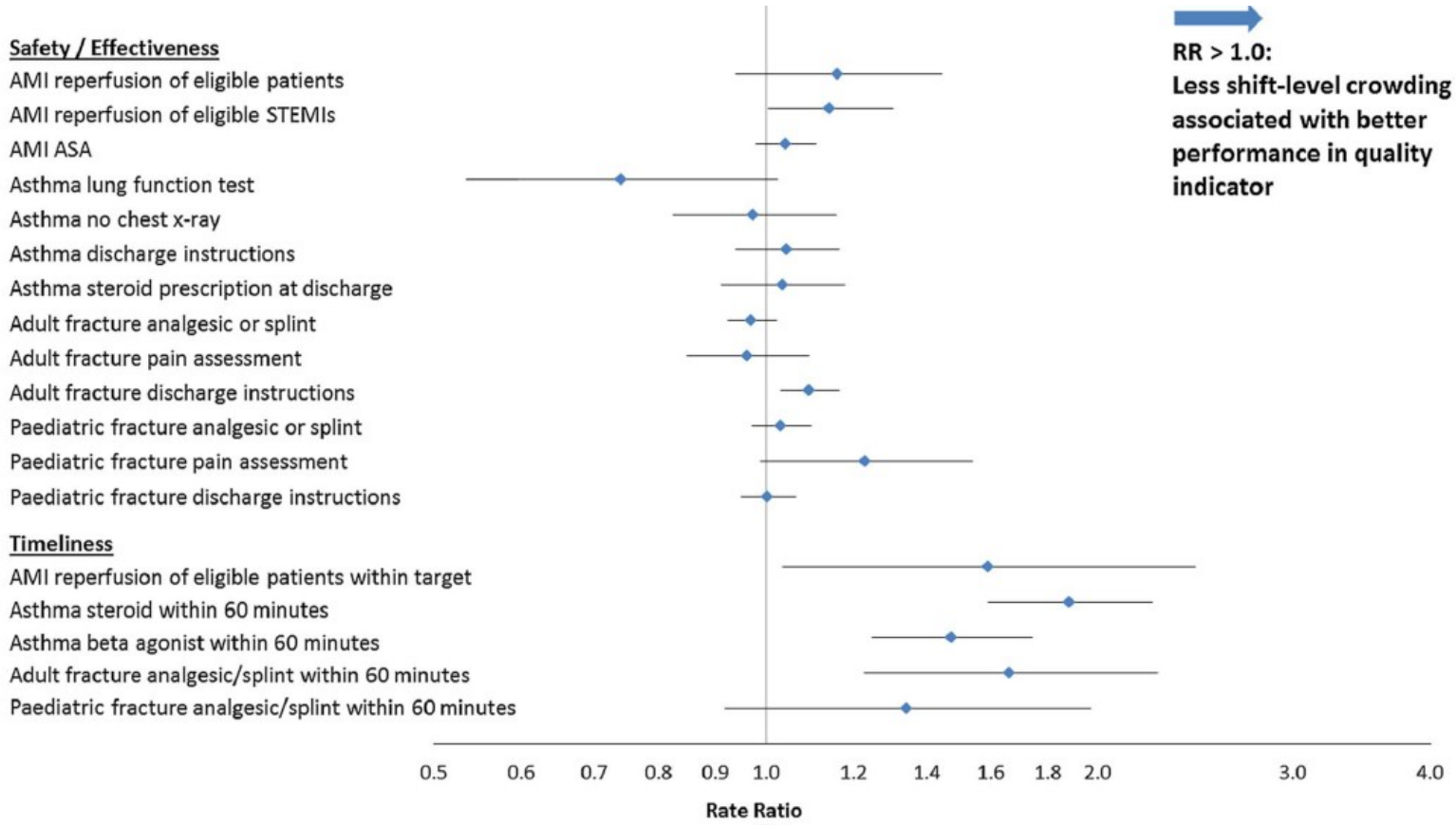
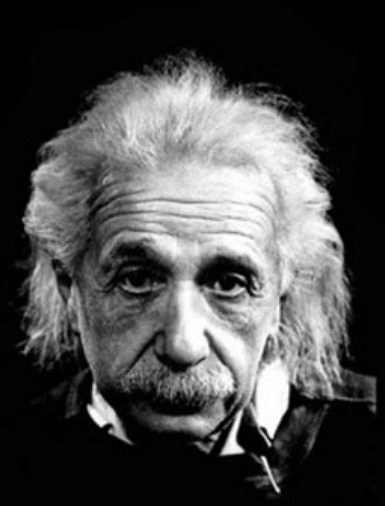


Don Berwick, President and founder of the Institute for Healthcare Improvement

«...every sistematic process is designed to produce the exact results it does produce. For example, if your patients have been waiting five hours, your system is designed to produce that result. If medical errors occur in 20% of your interventions, your system is set up to produce that error rate. If you have 10 admission per night sitting on gurneys in the ED hallways or occupying your critical-care beds, your system enables that kind of result.

If you want a different outcome, you have to change the system.»

"The Hospital Executive's Guide to Emergency Department Management". K.B. Jensen, MD, MBA, FACEP & D.G. Kirkpatrick, MHA, FACHE. HCPro Inc." 2010.



Insanity Is Doing the Same Thing Over & Over Again and Expecting a Different Result

- Albert Einstein

*During the initial few years, the **indicator** appeared to be successful and many benefits occurred, including improvements in the ED workforce, recognition of the need for better processes, and some improvement in hospital capacity.*

*There was immense pressure on hospital managers to comply with the **target**, **at almost any cost**.*

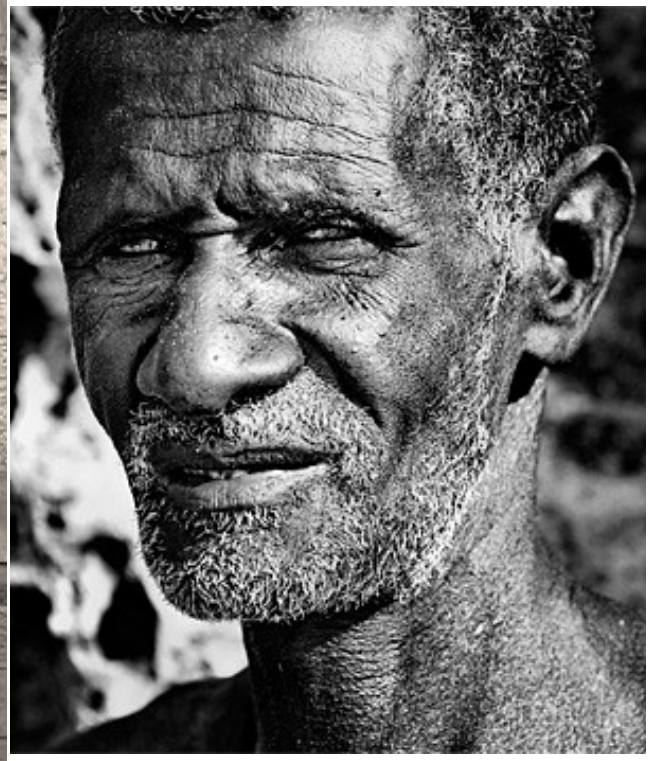
This led to pressures on managers and clinicians to achieve the target.

In turn, this led to distortion of clinical care, gaming, and manipulation of data, all products of an unhealthy target culture.

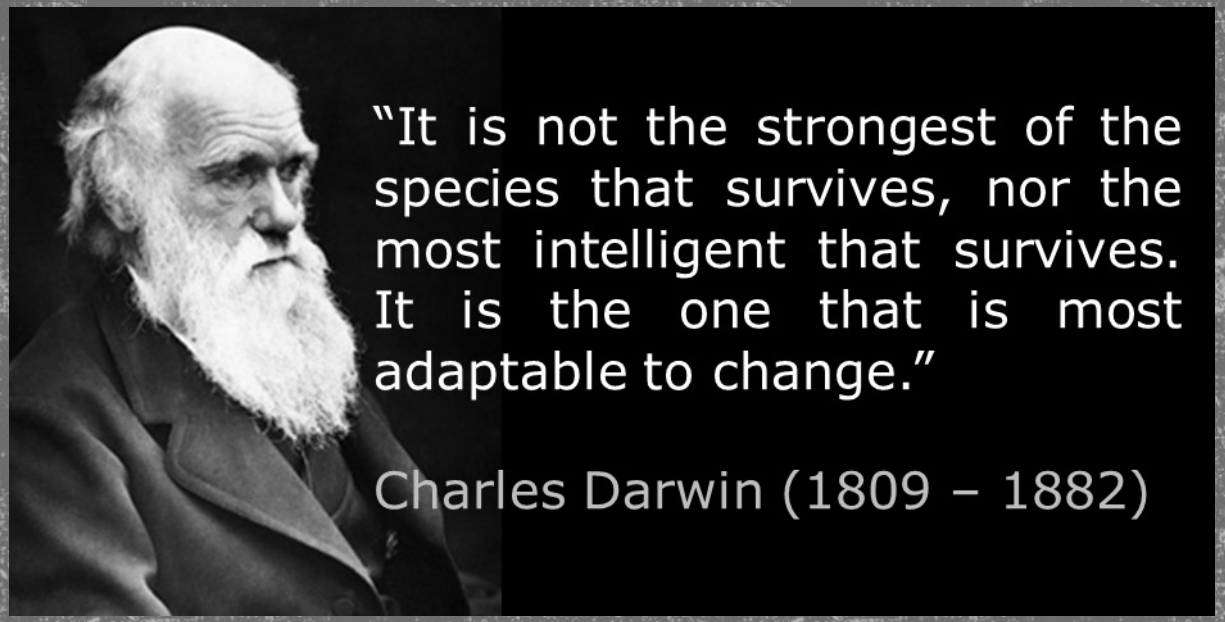
John Heyworth - College of EM - UK

"…..The spirit and intent is that these (indicators) should function as **indicators — not targets** — to allow organizations to measure their performance, establish the reasons for underachieving, and identify the measures required to improve followed by implementation of the new strategies.

Perhaps inevitably a target culture has rapidly emerged.




Time for
Change


"It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change."
Charles Darwin (1809 – 1882)

PROSPETTIVE

- Quanti Specialisti formeremo nei prossimi 2 anni?
- Quanti Medici perderemo nei prossimi 2 anni?
- Quanti Specialisti Perderemo nei prossimi 2 anni?

MEU

- N° di pazienti chiusi per turno/per postazione
- N° di procedure effettuate/mese
- Reingressi Individuali a 72 ore
- N° di consulenze specialistiche/specifiche coorti di pazienti

SAPERE *conoscenza*

SAPER FARE
competenza
SAPER ESSERE *soft skills*

- Pazienti aperti e chiusi per turno
- Ripresentazioni a 72 ore
- % Ricovero di codici 4 e 5
- N° di prestazioni richieste per codici 4 e 5
- Procedure Invasive eseguite
  - IOT
  - Drenaggio Toracico
  - CVE
  - Incannulamento Venoso Centrale

Automisurazione !!!!

	Struttura	Processo	Esito
Sicurezza	*Infermieri/ Pazienti*	*Tempo di Boarding per pazienti ricoverati in TI*	*Percentuale di Procedure effettuate con Checklist compilata*
Efficacia	*n° di STEMI intercettati da 118 sul totale* *Percentuale di TEP trattate con TL sistemica*	*N° di stroke fibrinolisati entro 45' dall'arrivo in DEA*	*Outcome a 3 e 6 mesi (Rankin) nell'ictus*
Centrata sul Paziente	*Quanto personale dedicato all'accoglienza*	*Tempo di attesa alla visita medica*	*Reingressi a 72 ore*
Tempestività	*Tempo di somministrazione della terapia analgesica*	*TAT Lab, Tempo di refertazione radiol*	*Tempo trascorso in attesa del ricovero*
Efficienza	*% di esami radiologici richiesti dalla bassa complessità*	*N° di consulenze cardiologiche richieste sul totale dei paz con dolore toracico*	*Percentuale di pazienti con Sincope in cui viene effettuata una TC Cranio*
Equità	*Percentuali di codici 1 e 2 nella popolazione con barriera linguistica*	*Tempi di attesa x consulenza Ortopedica (notte vs giorno)*	*Tempo alla somministrazione di antibiotici in pazienti settici (Festivi vs Feriali)*

OUTCOMES = mortalità

- Misurare
- Misurare
- Misurare……..