



**ECRI**

The Most Trusted  
Voice in Healthcare

# Total Systems Safety Overview



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President and CEO, ECRI

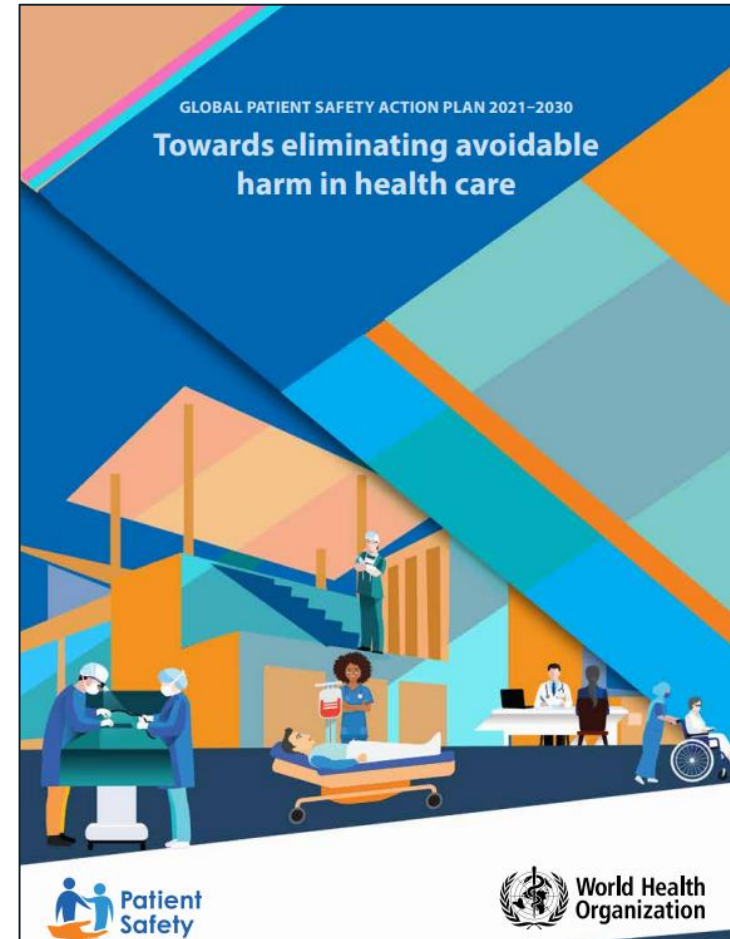
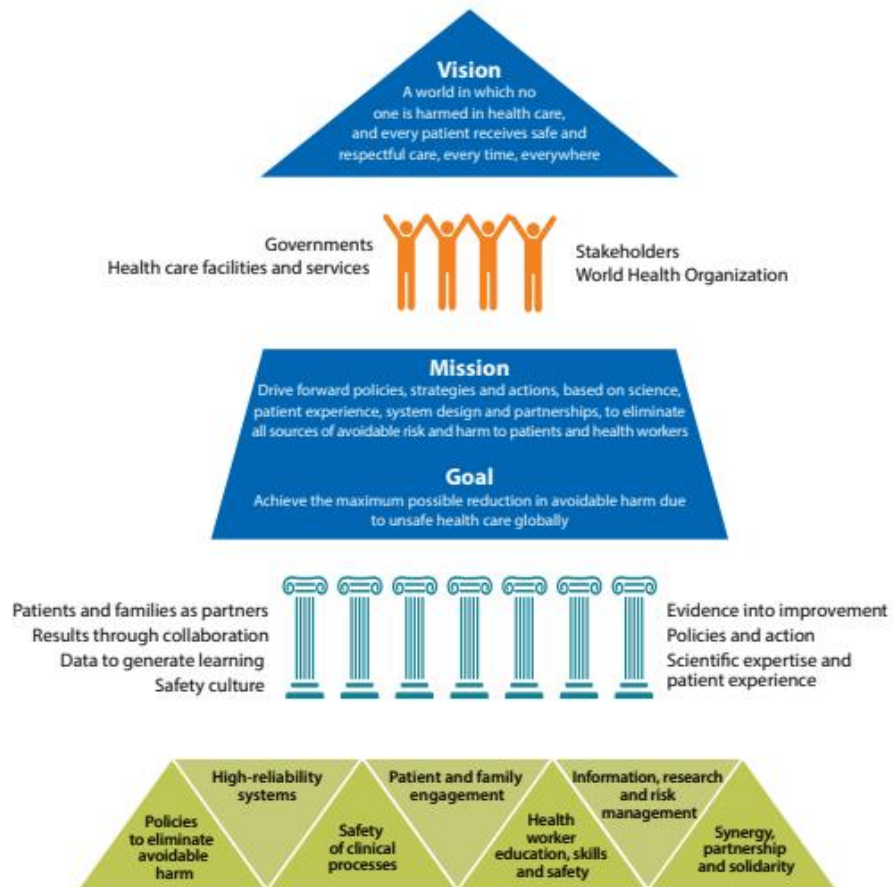
# Healthcare Associated Harm is a Global Problem

- In high-income countries, it is estimated that **one in every 10** patients is harmed while receiving hospital care
- Each year, **134 million** adverse events occur in hospitals in low- and middle-income countries, due to unsafe care, resulting in 2.6 million deaths
- **Unsafe medication practices and medication errors** are a leading cause of avoidable harm in health care systems across the world.

Cost: US\$  
42 billion  
annually

50% of  
adverse  
events are  
preventable

# Global Patient Safety Plan to Eliminate Harm

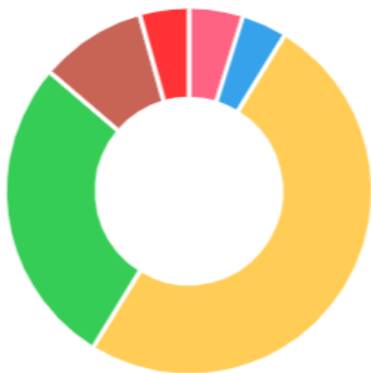


<https://www.who.int/teams/integrated-health-services/patient-safety/policy/global-patient-safety-action-plan>

# Thailand National Reporting and Learning System (NRLS) for Clinical Risk Incidence and Adverse Events

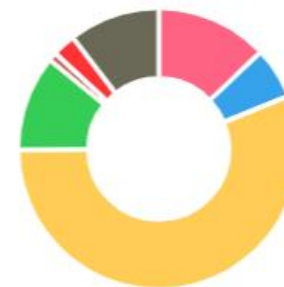
## Patient Safety Goals or Common Clinical Risk Incident

- Safe Surgery
- Infection Prevention and Control
- Medication & Blood Safety
- Patient Care Process
- Line, Tube & Catheter and Laboratory
- Emergency Response



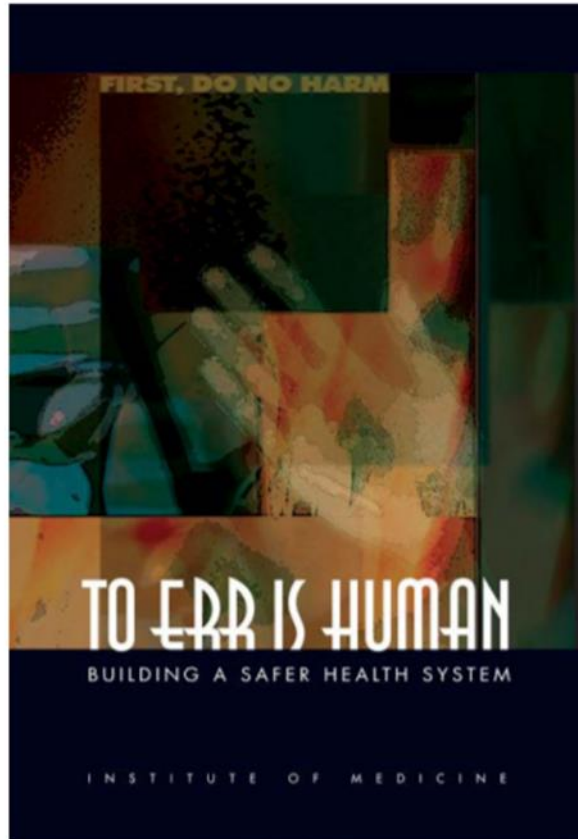
## Specific Clinical Risk Incident

- Gynecology & Obstetrics diseases and procedure
- Surgical diseases and procedure
- Medical diseases and procedure
- Pediatric diseases and procedure
- Orthopedic diseases and procedure
- Eye, Ear, Nose, Throat diseases and procedure
- Dental diseases and procedure



<https://thai-nrls.org/>

# Patient Safety: A National Priority



1999

## The Patient Safety and Quality Improvement Act of 2005



# More is Needed

*The new england journal of medicine*

## Special Article

### The Safety of Inpatient Health Care

David W. Bates, M.D., David M. Levine, M.D., M.P.H.,  
Hojjat Salmasian, M.D., Ph.D., M.P.H., Ania Syrowatka, Ph.D., David M. Shahian, M.D.,  
Stuart Lipsitz, Sc.D., Jonathan P. Zebrowski, M.D., M.H.Q.S.,  
Laura C. Myers, M.D., M.P.H., Merranda S. Logan, M.D., M.P.H.,  
Christopher G. Roy, M.D., M.P.H., Christine Iannaccone, M.P.H., Michelle L. Frits, B.A.,  
Lynn A. Volk, M.H.S., Sevan Dulgarian, B.S., B.A., Mary G. Amato, Pharm.D., M.P.H.,  
Heba H. Edrees, Pharm.D., Luke Sato, M.D., Patricia Folcarelli, Ph.D., R.N.,  
Jonathan S. Einbinder, M.D., M.P.H., Mark E. Reynolds, B.A.,  
and Elizabeth Mort, M.D., M.P.H.

ABSTRACT



Bates, et al.. N Engl J Med, 2023

# Addressing Harm in High-Risk Industries

THE SATURDAY ESSAY

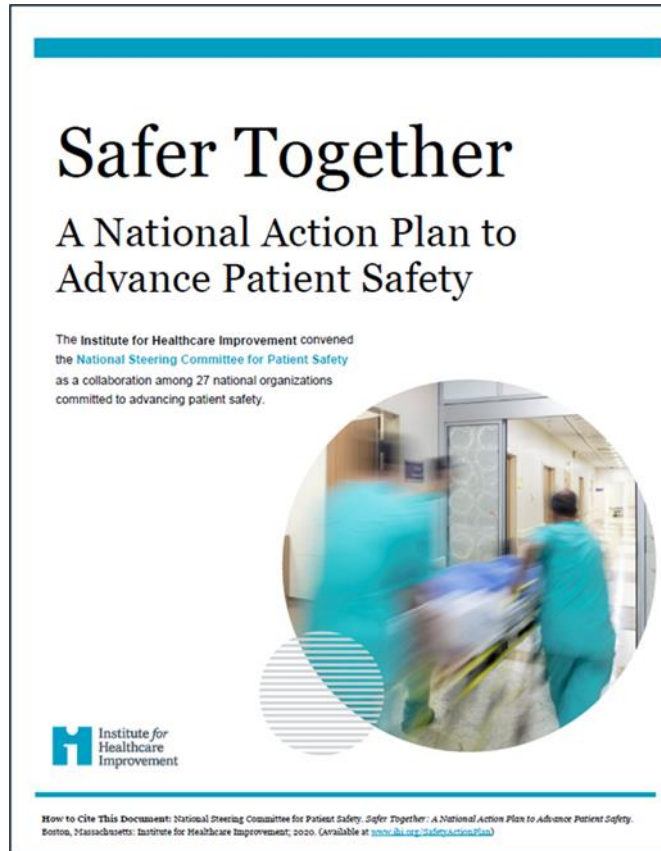
## The Airline Safety Revolution

No commercial airline in the U.S. has had a fatal crash since 2009. Here's the story of the industry insiders who came together to build new systems and to allay the worst fears of air travelers



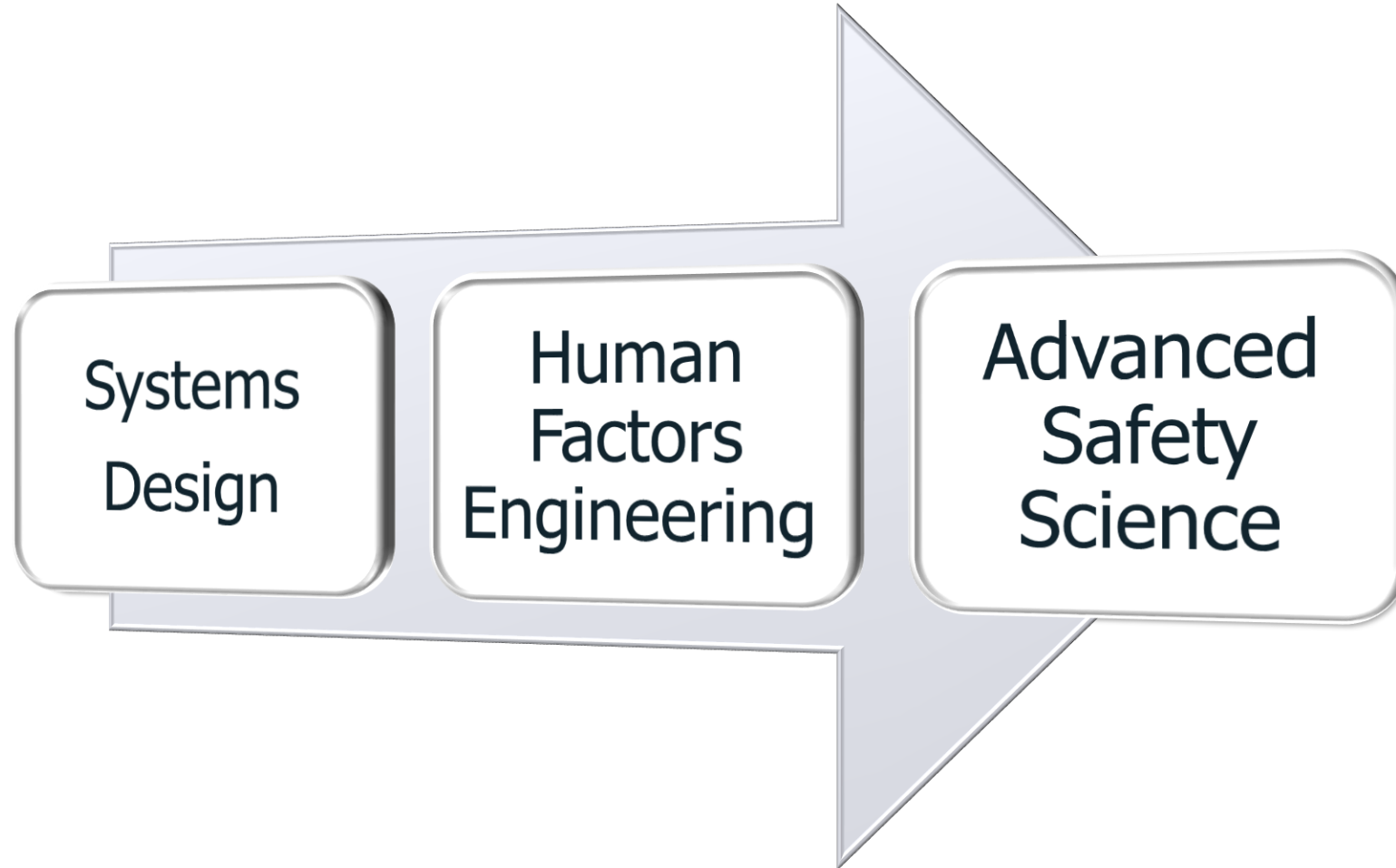
[wsj.com/articles/the-airline-safety-revolution-11618585543](https://www.wsj.com/articles/the-airline-safety-revolution-11618585543)

# National Action Plan to Advance Patient Safety



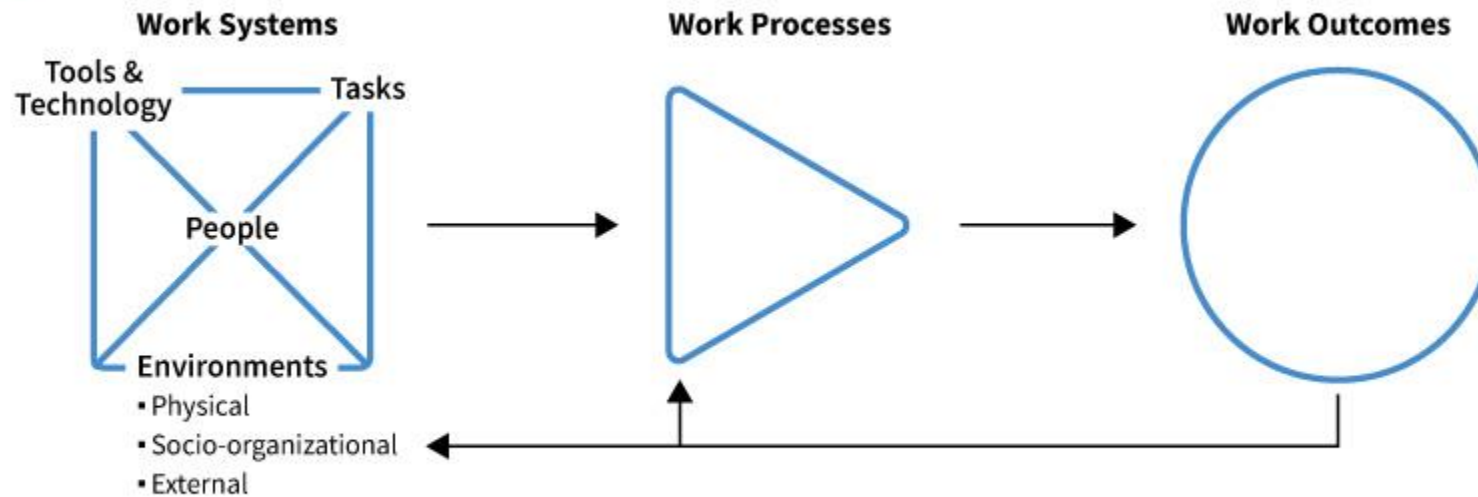


# ECRI: Taking A Total Systems Approach to Safety



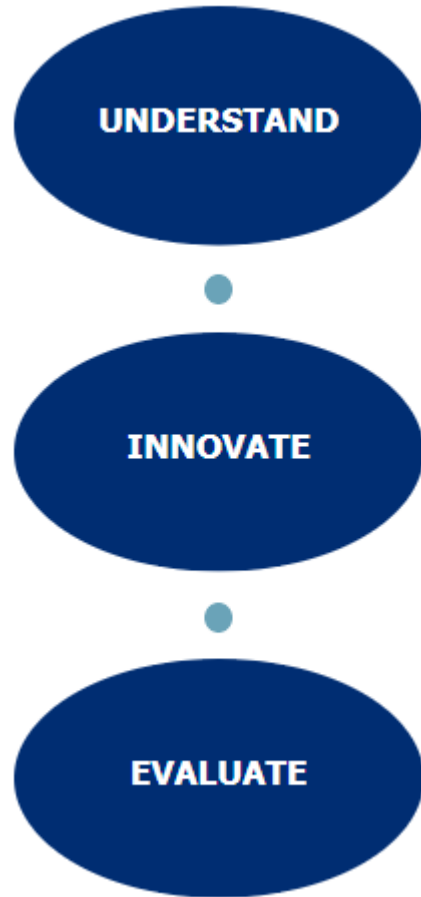
# Systems Design for Safety

**Figure.** SEIPS 101 Framework



Adapted from: Holden RJ, Carayon P. SEIPS 101 and seven simple SEIPS tools. *BMJ Qual Saf.* 2021;30(11):901-910. doi:10.1136/bmjqs-2020-012538. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8543199/> © Author(s) (or their employer(s)) 2021. Re-use permitted under CC BY-NC. <https://creativecommons.org/licenses/by/4.0/legalcode> No commercial re-use. See rights and permissions. Published by BMJ.

# Human Factors Engineering for Safety



# Advanced Safety Science



REPORT ERRORS



REVIEW THE  
CAUSE



LEARN FROM THE  
LESSONS



REDUCE THE  
RISK

# ECRI Leading the Way





# Final Thoughts...





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# Thank You and Questions



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