Importance of Patient Safety

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Wrong-site Procedure

I didn't want to disturb you when you were working, sir. But it is this leg which is injured!

- "A total of 86 wrong-site/side list errors were identified in 29,480 cases (0.29%)". (Journal of Patient Safety: March 2020 - Volume 16 - Issue 1 - p 79-83)
- "The incidence of wrong site surgery has been estimated at 1 out of 112,994 procedures; however, the number of unreported cases is estimated to be higher". (Wrong site surgery : Incidence, risk factors and prevention; https://pubmed.ncbi.nlm.nih.gov/25673117/)

A true comedy (tragedy) of errors

A true comedy of errors

- Attending Consultants tells the Sr. resident to give the patient “water freely” (meaning let her drink water”)
- SR assumes that he meant an IV and writes for water to be given IV
- Junior resident can’t find IV water and calls pharmacy asking where they get IVs; pharmacy asks no questions and tells the JR that they get them from the Central Stores.
- JR obtains IV from C.S. and water bag says “water for irrigation”

(*continued*)

A true comedy of errors

- JR attaches the bag to regular IV tubing and infuses 300 mL of “water”
- At change of shift, more experienced nurse notices that the patient is lethargic, sees bag of water and consults the SR

Free water has no electrolytes and would likely have caused burst red blood cells and death if the nurse hadn’t interceded

AM	1	2	3	4	5	6	7	8	9	10	11	12	PM	13	14	15	16	17	18	19	20	21	22	23	24

DATE 1.22

TIME 1900

PROCESSED BY: NV

IVF: Sterile H2O @ 75 cc/h
(Sterile Water)

VERBAL ☐
TELEPHONE ☐

Print Name/Title of Person Giving Order

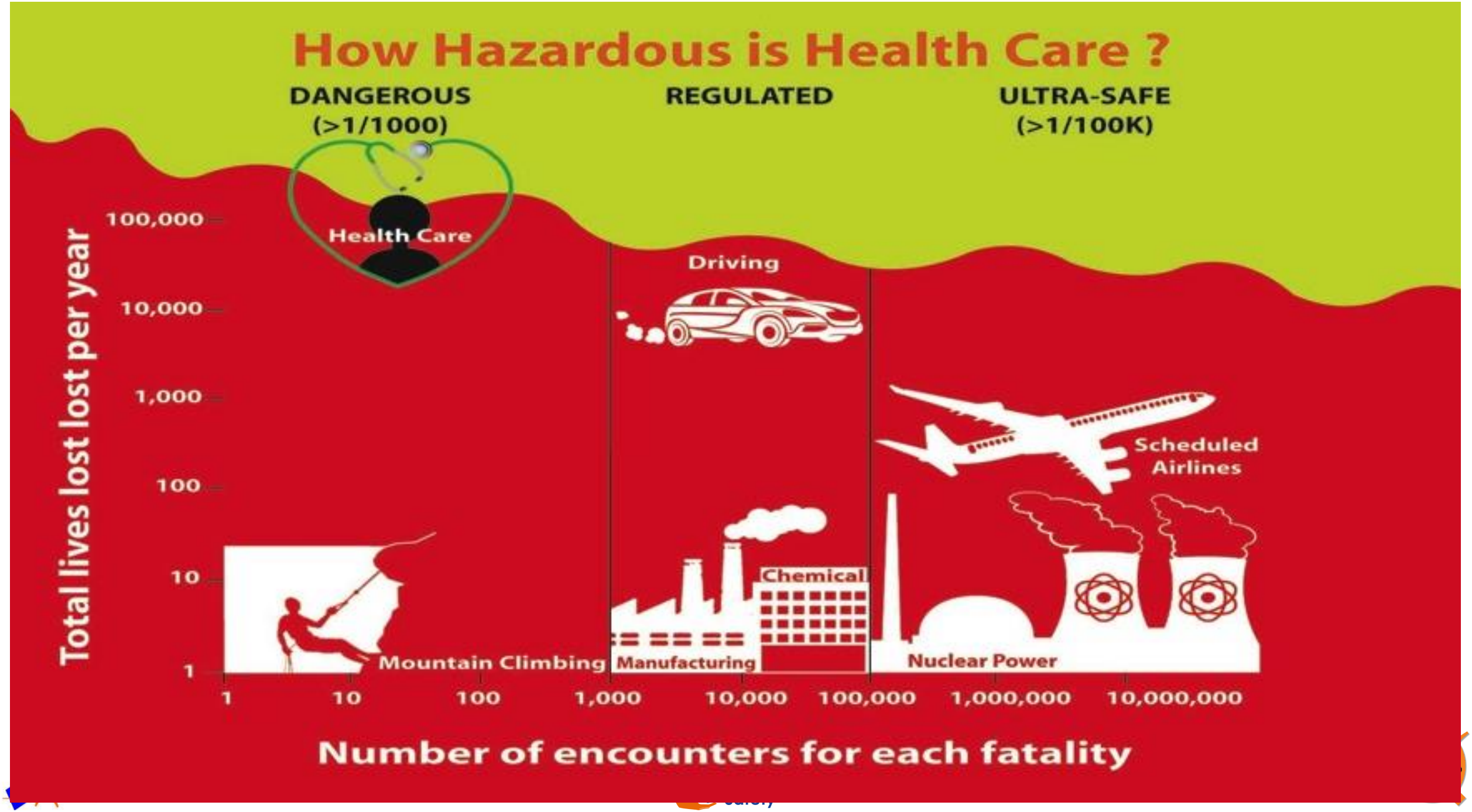
Signature/Title of Person Taking Order

DATE 1/22/03

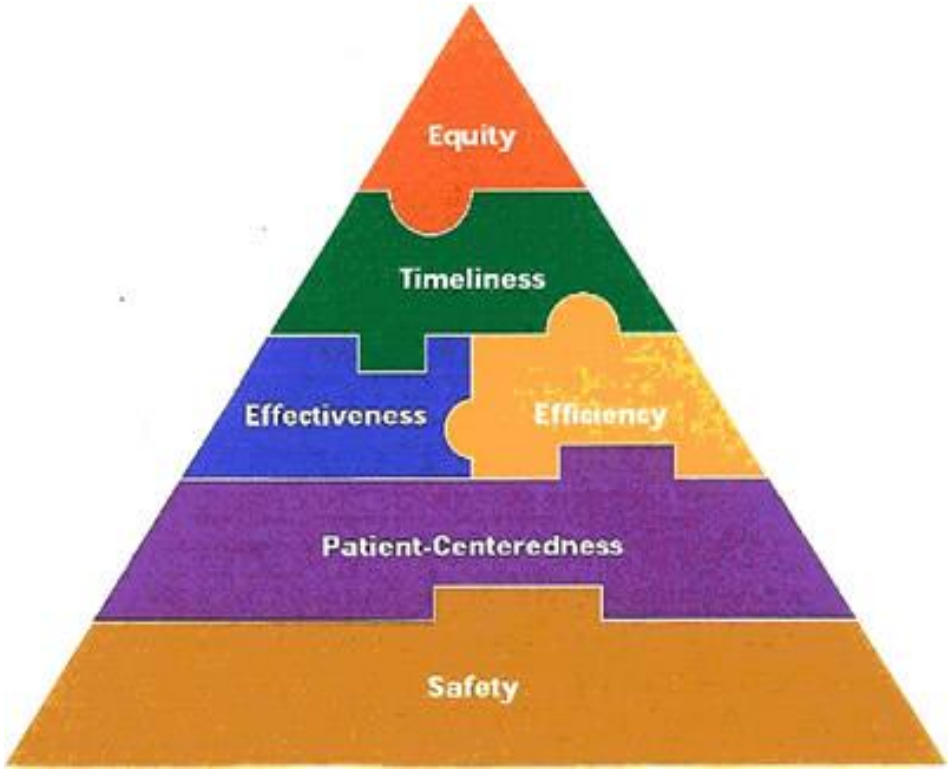
TIME 1900

DR. SIGNATURE [redacted]

DR. # [redacted]


How Hazardous is Health Care ?
DANGEROUS
(>1/1000)
REGULATED
ULTRA-SAFE
(>1/100K)
Health Care
Driving
Scheduled
Airlines
Chemical
Mountain Climbing
Manufacturing
Nuclear Power
Total lives lost lost per year
100,000
10,000
1,000
100
10
1
1
10
100
1,000
10,000
100,000
1,000,000
10,000,000
Number of encounters for each fatality

Blocks of 'Patient-Centric' Quality of Care



Quality of Care

* Source: Institute of Medicine

Mortality due to low-quality health systems in the UHC era*

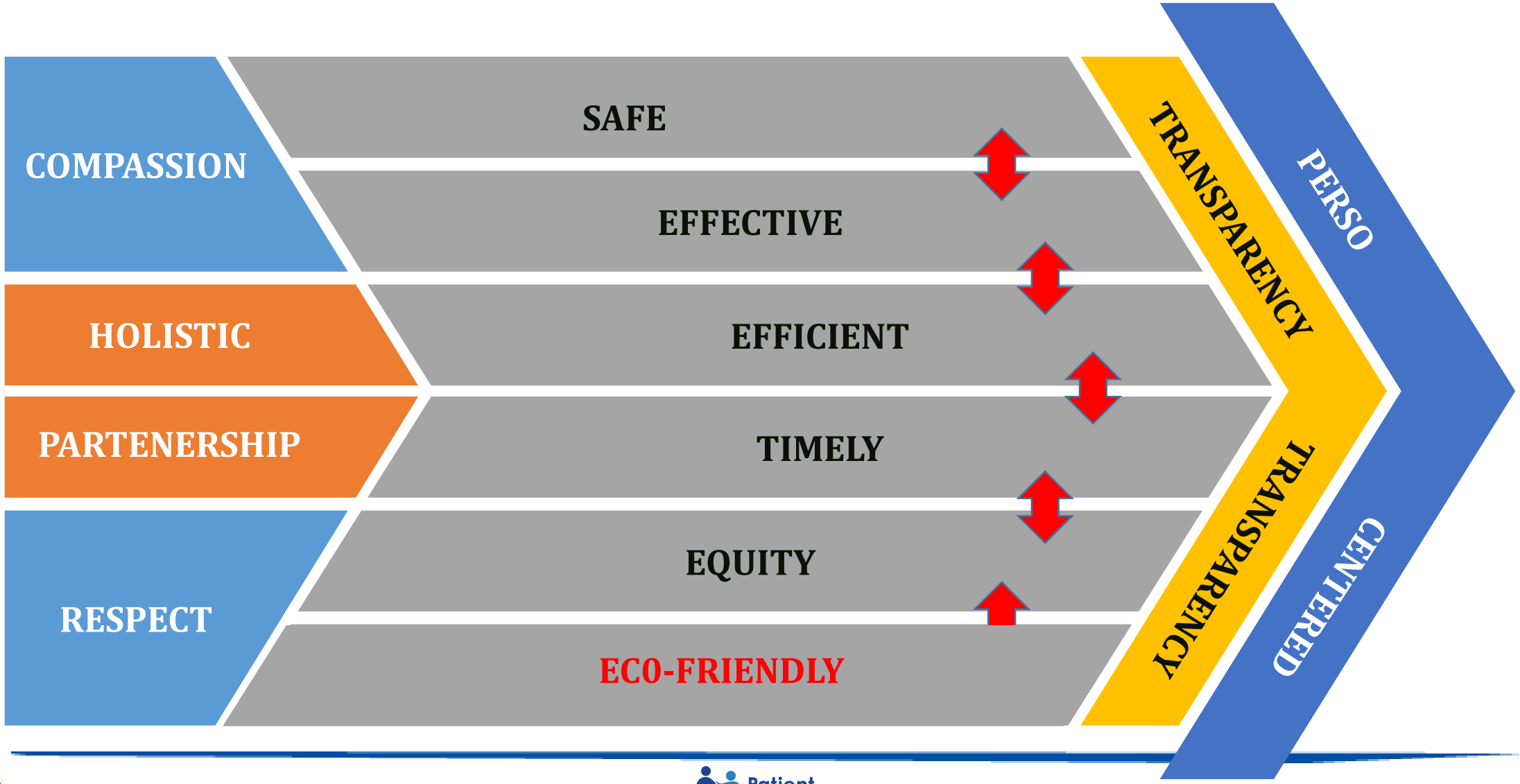
	Avertable deaths		Amenable deaths		
Country	Deaths preventable by public health interventions	Deaths amenable to health care	Deaths due to use of poor-quality services	Deaths due to non-utilization of health services	Percent of amenable deaths due to poor quality
India	**1,498,027**	**2,438,342**	**1,599,870**	**838,473**	**66%**
Nepal	27,541	46,400	26,556	19,845	57%
Russia	299,856	204,791	131,744	73,047	64%
Pakistan	256,683	348,174	225,389	122,785	65%
Indonesia	235,662	351,190	225,641	125,549	64%
China	847,843	1,283,099	629,765	653,334	46%
Bangladesh	117,549	182,905	91,631	91,275	50%
Brazil	76,295	204,036	153,327	50,708	75%
Ukraine	104,362	71,081	44,202	26,879	62%

* Source - Mortality due to low-quality health systems in the universal health coverage era: a systematic analysis of amenable deaths in 137 countries, Margaret E Kruk, et al, www.thelancet.com Vol 392 November 17, 2018

NHSRC

Patient Safety

Quality in Health Care



Global Burden of Unsafe Care

- Occurrence of adverse events due to unsafe care is likely to be one of the 10 leading causes of death & disability.
- 70 Lakhs* surgical patients suffer significant complications each year, resulting into death of 10 Lakh such patients
- 1.7 Lakhs* admissions annually in USA due to Patient harm
- 15% of hospital expenditure on treatment of safety failure in OECD countries
- 50% of such harms are preventable

**1 million = 10 lakhs*

Some more harm…..

- Recent studies suggest that:
  - Medical errors occur in 2.9% to 3.7% of hospital admissions.
  - 8.8% to 13.6% of errors lead to death.
  - As many as 98,000 hospital deaths may occur each year as a result of medical errors (USA).
  - In Australia medical error results in as many as 18 000 avoidable deaths, and more than 50 K patients become disabled each year.

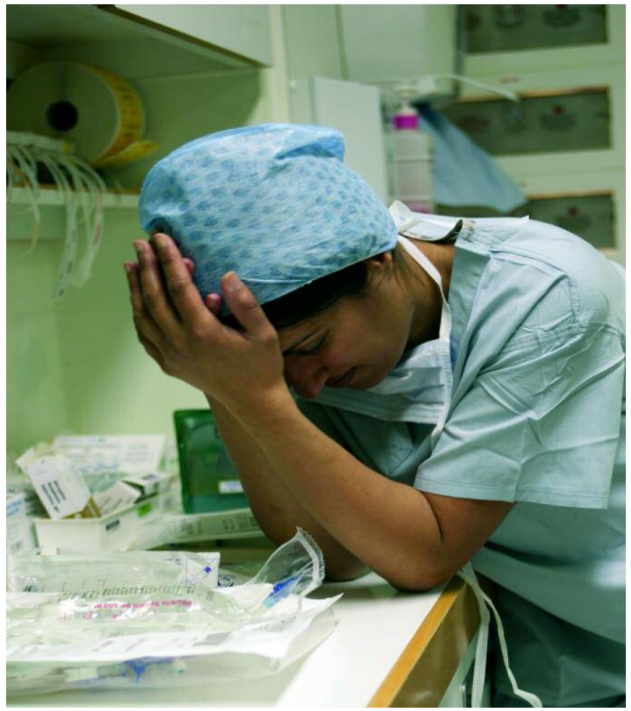
Medical Errors in India*

- India recordings approx. 52 Lakhs injuries each year due to medical errors and adverse events.
- Major contribution – medication-errors, hospital-acquired infections and blood clots (Thrombosis)
- Similarly, approximately 3 million years of healthy life are lost each year due to these injuries.

* Source: Times of India 21st Sep 2013: Dr Ashish Jha, Harvard School of Public Health

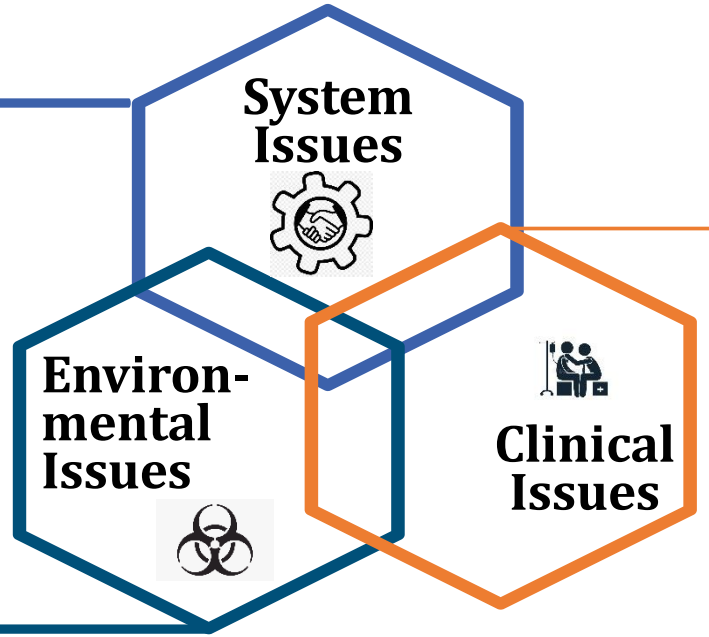
Patient Safety: Simple Mistakes, Dangerous Consequences

Potentially deadly medication errors are so common that a typical 300-bed hospital experiences 40 medication errors every day



Patient Safety-Multiple facets

- Reporting and learning
- Safety culture
- Patient engagement
- Competence based training
- Leadership and governance
- Human Factors and Ergonomics
- Safety Surveillance
- Psychological Safety
- Disaster preparedness



- Medication Safety
- Medical Device Safety
- Infection Prevention and Control
- Falls
- Patient identification
- Bed sores
- Venous Thromboembolism
- Personal Protection
- Injection Safety
- Diagnostic safety
- Sepsis
- Communication during transition of care
- Radiation safety
- Safety in mental health care
- Blood safety
- Surgical Safety
- Anaesthesia safety

- Fire Safety
- Electrical safety
- Structural Safety
- Hygiene and Environment
- Seismic Safety
- Illumination
- Infectious waste management

Three Common Safety Incidents

- Related to Surgical Procedures (27%)
- Medication Errors (18.3%)
- Healthcare Associated Infections (12.2%)

Existing Initiatives supporting Patient Safety

- National Quality Assurance Standards
- 'Kayakalp' Initiative – Infection Control, Needle Stick Injury
- National Patient Safety Implementation Framework
- Pharmacovigilance Programme of India – Medication Safety
- Haemovigilance Programme of India – Blood Safety
- Health Management Information System (HMIS) – SSI, Needle Stick Injuries, Performance of Health Facilities (ALS, BOR), Audits, etc.
- Facility Level Audits – MDR, CDR, Death Audits, Prescription audits

NATIONAL QUALITY ASSURANCE PROGRAMME

National Quality Assurance Standards

LaQshya

LAQSHYA लक्ष्य

Kayakalp

KAYAKALP कायाकल्प

Rejuvenating Public Healthcare Facilities

Patient Safety

Patient Safety

FACILITY LEVEL QUALITY TEAM

DISTRICT QUALITY ASSURANCE COMMITTEE

STATE QUALITY ASSURANCE COMMITTEE

CENTRAL QUALITY SUPERVISORY COMMITTEE

Patient Safety components under National Quality Assurance Standards (NQAS)

Patient Safety : An Integral Part of NQAS systems

Physical Safety

Infrastructure Safety, Electrical Safety, Fire Safety, Diester Management, Secure & comfortable Environment for Staff, Visitors & Patients

Patient Identification, Identification of high risk & vulnerable patients, Identification & continuity of care of during transition & referral

Patient Identification

Medication Safety

Rationale prescription, Safe drug administration, medication reconciliation, review & optimization

Promoting Safe clinical processes, Use of safe surgery checklist, safe anaesthesia checklist & safe birth checklist, etc.

Procedure Safety

Patient Safety : An Integral Part of NQAS systems

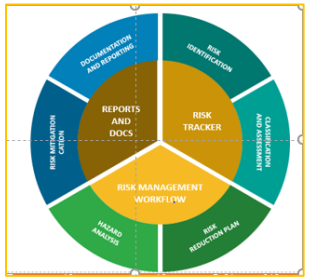
Blood Safety

Screening of donated blood, compatibility testing, Adverse reaction associated with blood transfusion.

Reporting of HAI, HAI surveillance, Hand hygiene, Use PPE, Instruments processing, Environmental safety, Bio medical waste management

Health Care Associated infections

Risk Management



Risk management framework & plan, identification of existing & potential risks, risk assessment, reporting, evaluation and its mitigation as per plan

Staff protection from infections, radiations and other Hazards, provision of medical check ups, immunization, prophylaxis, etc.

Staff Safety

NPSIF Released on 19th April 2018

Patient Safety

NPSIF – Strategic Objectives

Establishing Institutional Framework

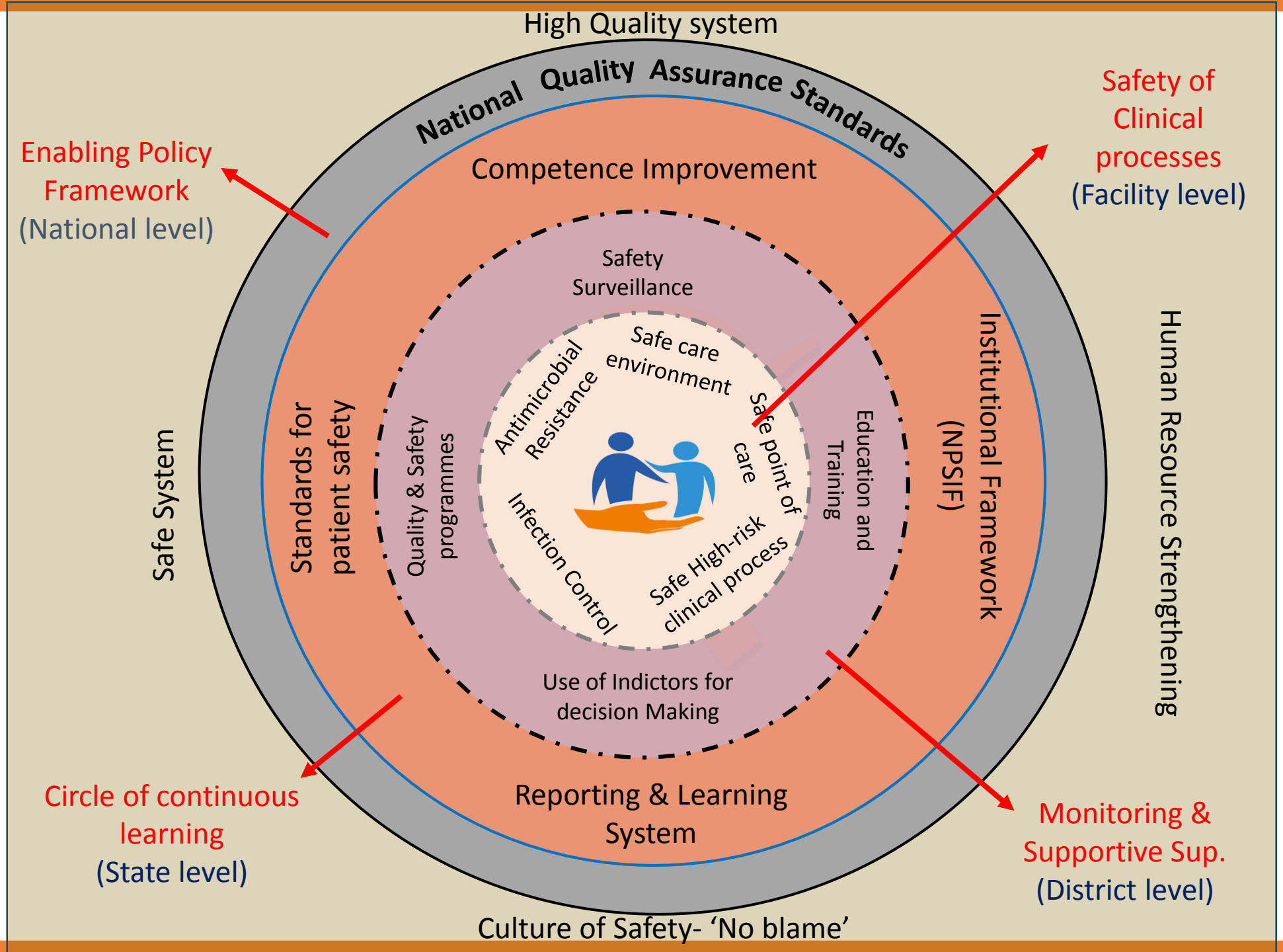
Assessment & Reporting of Adverse Events

Competent Healthcare Workforce

Infection Prevention & Control

Safety in Programs and Clinical Domains

Patient Safety Research


High Quality system
National Quality Assurance Standards
Competence Improvement
Safety Surveillance
Safe care environment
Safe point of care
Safe High-risk clinical process
Infection Control
Antimicrobial Resistance
Quality & Safety programmes
Education and Training
Use of Indictors for decision Making
Reporting & Learning System
Standards for patient safety
Safe System
Institutional Framework (NPSIF)
Human Resource Strengthening
Enabling Policy Framework (National level)
Safety of Clinical processes (Facility level)
Circle of continuous learning (State level)
Monitoring & Supportive Sup. (District level)
Culture of Safety- 'No blame'

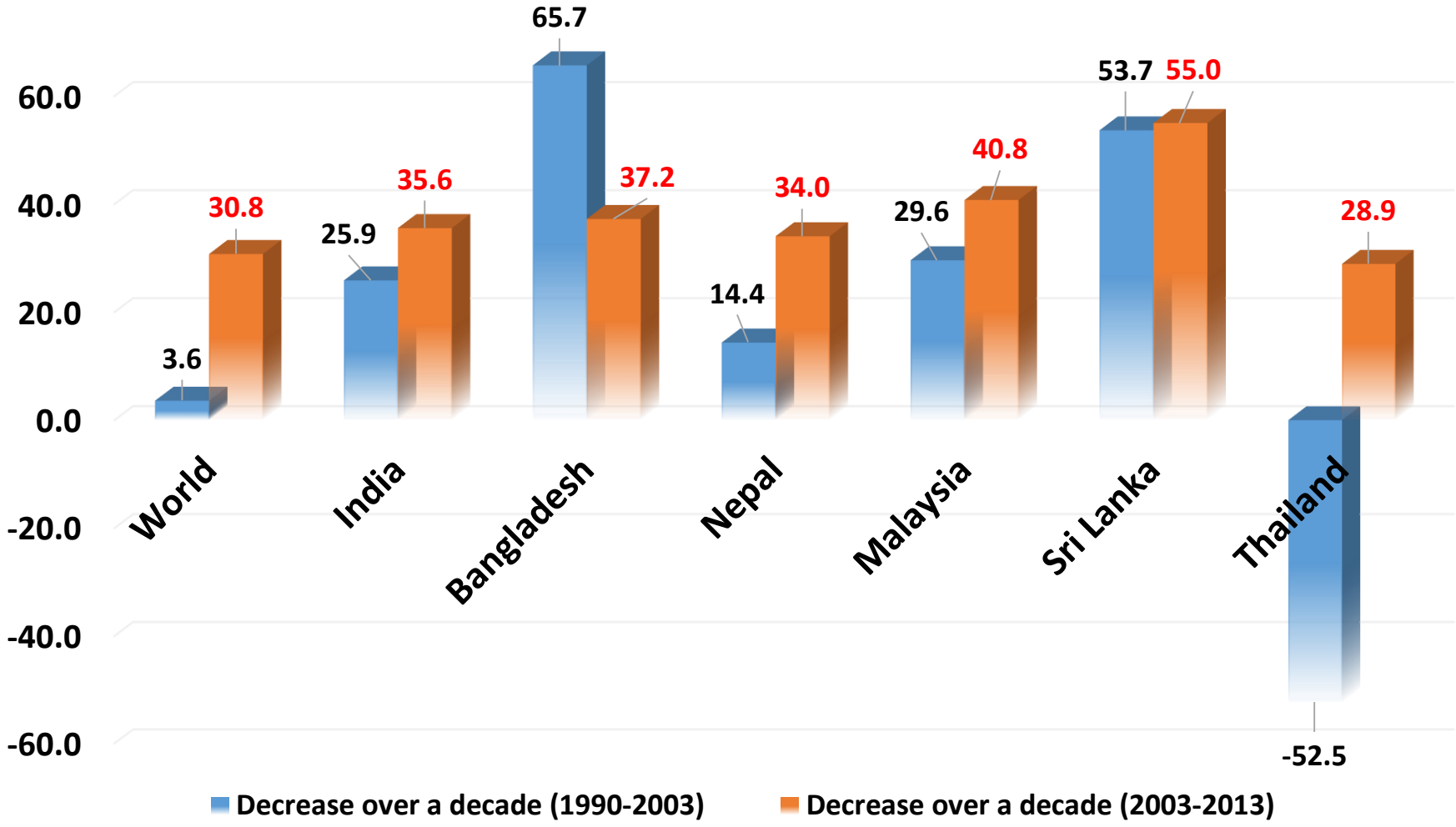
Challenges

- Culture Change – shift from punitive to 'Just' culture
- Creating Enabling Environment
- Robust Learning & Reporting System
- Health system-based approach in addressing safety issues

Patient Safety Themes

2019	• ‘Patient Safety: A Global Health Priority’
2020	• 'Speak up for health worker safety!'
2021	• ‘Safe maternal and newborn care’

Percentage decline in the Maternal Mortality Ratio (per 100,000 livebirths) over a period of two decades



https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(14)60696-6/fulltext

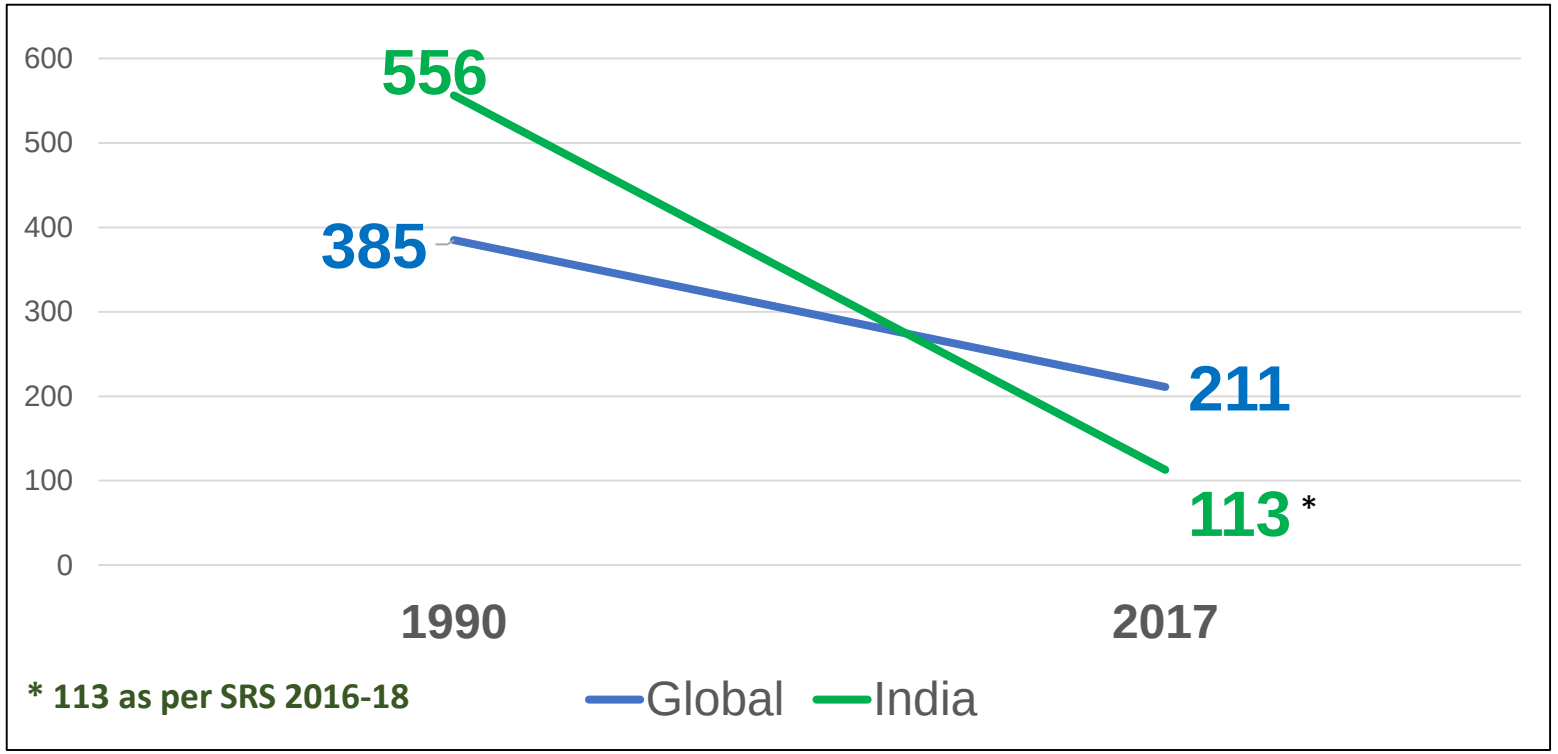
Global, regional, and national levels and causes of maternal mortality during 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013

Dr Nicholas J Kassebaum, MD • Amelia Bertozzi-Villa, BA • Megan S Coggeshall, BA • Katya A Shackelford, BA • Caitlyn Steiner, MPH • Kyle R Heuton, BS • et al. Show all authors • Show footnotes

Published: May 02, 2014 • DOI: https://doi.org/10.1016/S0140-6736(14)60696-6 •

Check for updates

Maternal Mortality Ratio (MMR)



Between 1990 and 2017

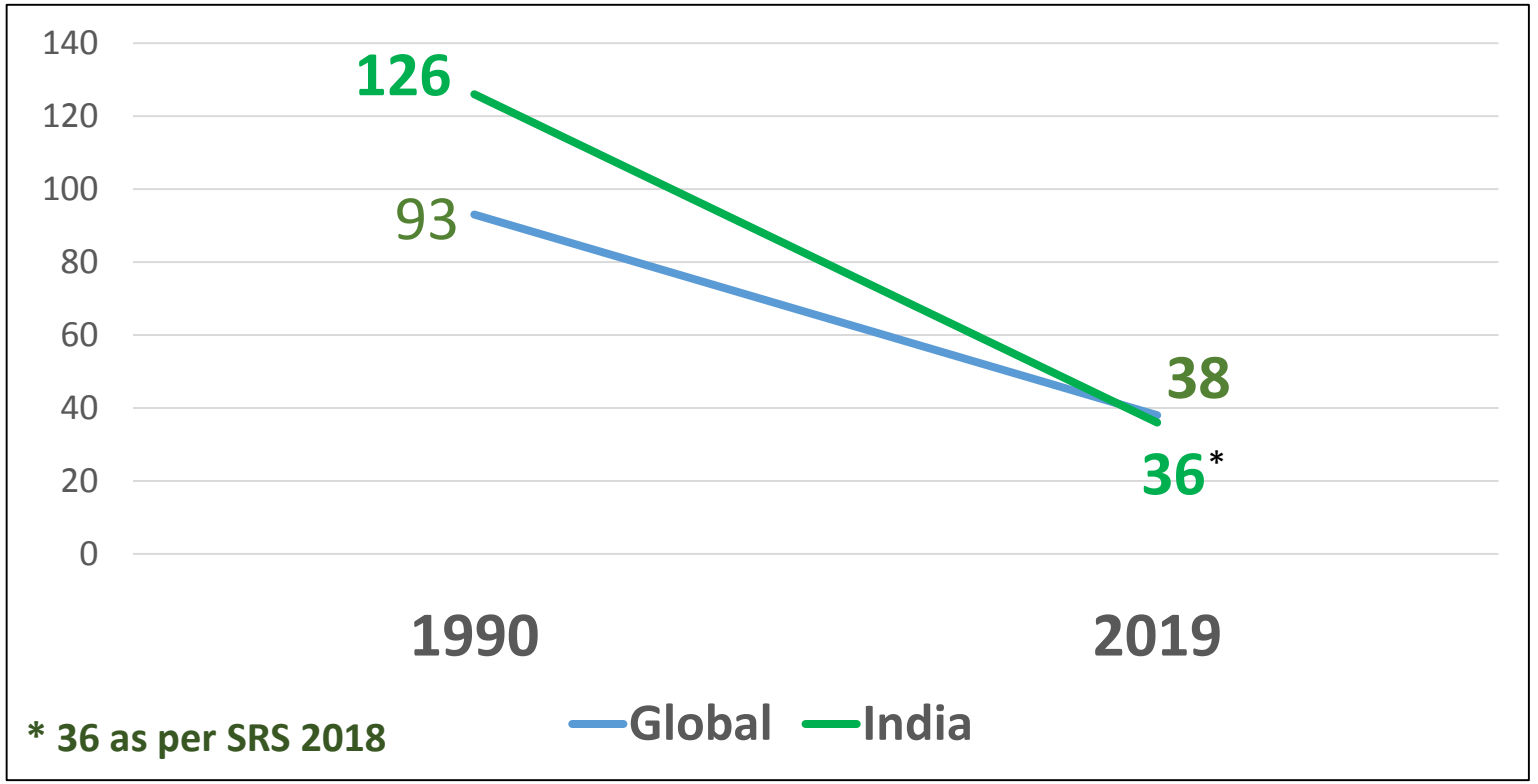
India MMR Decline	Global MMR Decline
80%	45%

Data Source: SRS India and Trends of Maternal Mortality 2000-2017, UN MMEIG

SDG Target: 70 by 2030

As per SRS 2016-18, **five States have already attained SDG target: Kerala (43), Maharashtra (46), Tamil Nadu (60), Telengana (63) & Andhra Pradesh (65)**

Under 5 Mortality Rate (U5MR)



Between 1990 and 2019

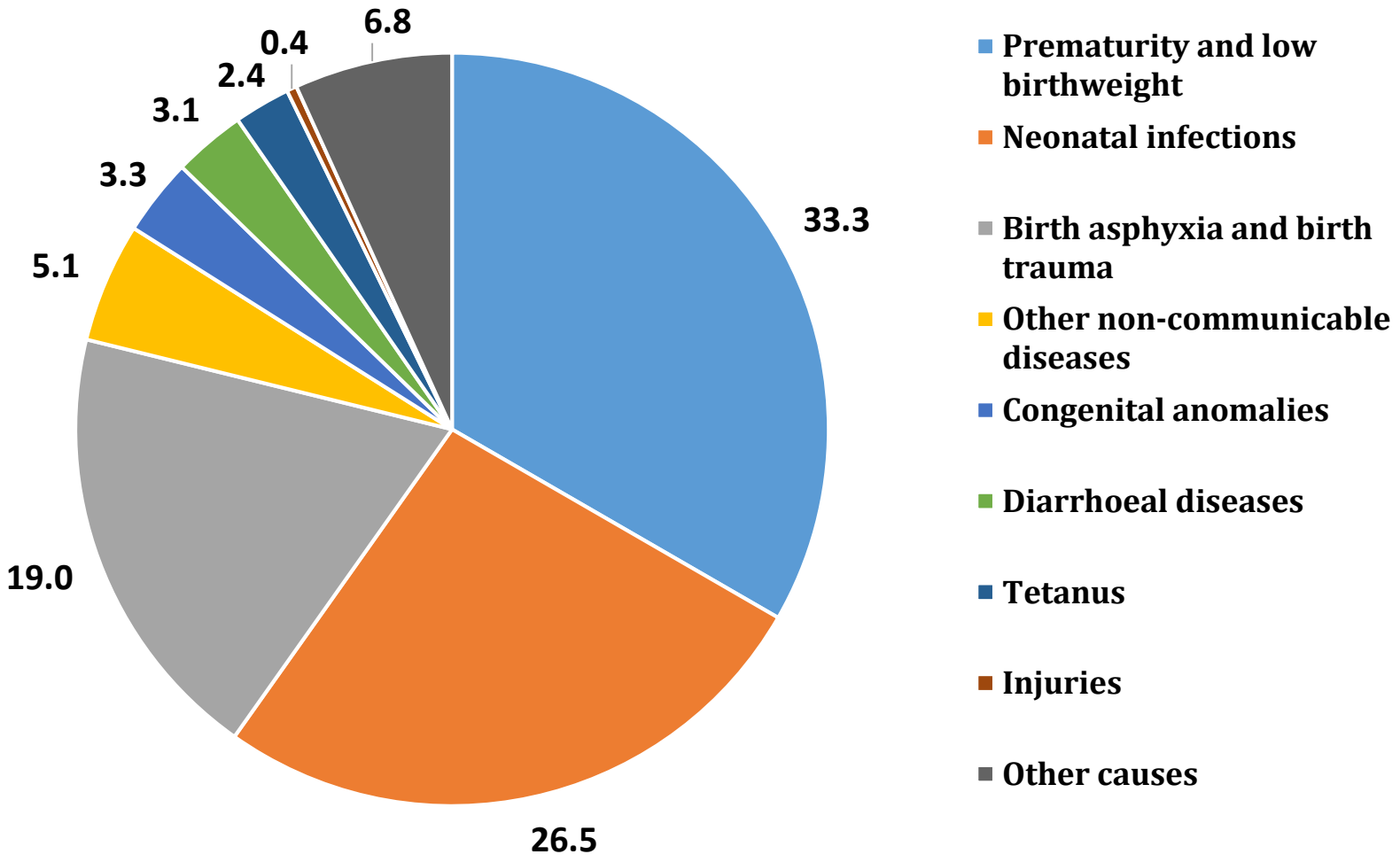
India U5MR Decline	Global U5MR Decline
71%	59%

Data Source: SRS, India and Levels & Trends in Child Mortality Report 2020 , Estimates developed by the UN Inter-agency Group for Child Mortality Estimation

SDG Target: 25 by 2030

As per SRS 2018, **seven States have already attained** SDGs target : Kerala (10), Tamil Nadu (17), Delhi (19), Maharashtra (22), J&K (23), Punjab (23) & Himachal Pradesh (23)

Causes of neonatal and child mortality in India



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Causes of neonatal and child mortality in India: a nationally representative mortality survey

The Million Death Study Collaborators ‡ • Show footnotes

Published: November 15, 2010 • DOI: https://doi.org/10.1016/S0140-6736(10)61461-4

Thank you

Let’s commit together for building Quality and Safe health systems!!