

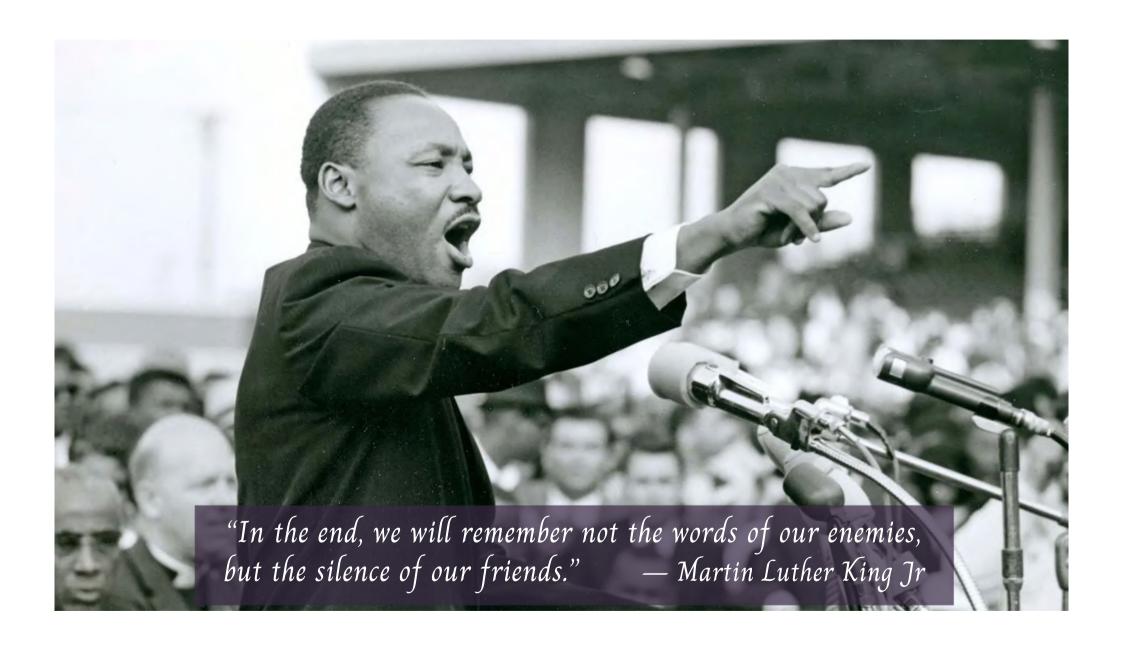


Safe Hands, Bright Futures

Prioritizing Pediatric Anesthesia Safety on a Global Scale

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Agenda 02 01 03 Introduction Inequities Strategies 05 04 Action Success

01

Introduction





5 billions, No access

- Critical needs to be changed...
- Leads to unnecessary deaths and disabilities...

The Lancet Commission on Global Surgery



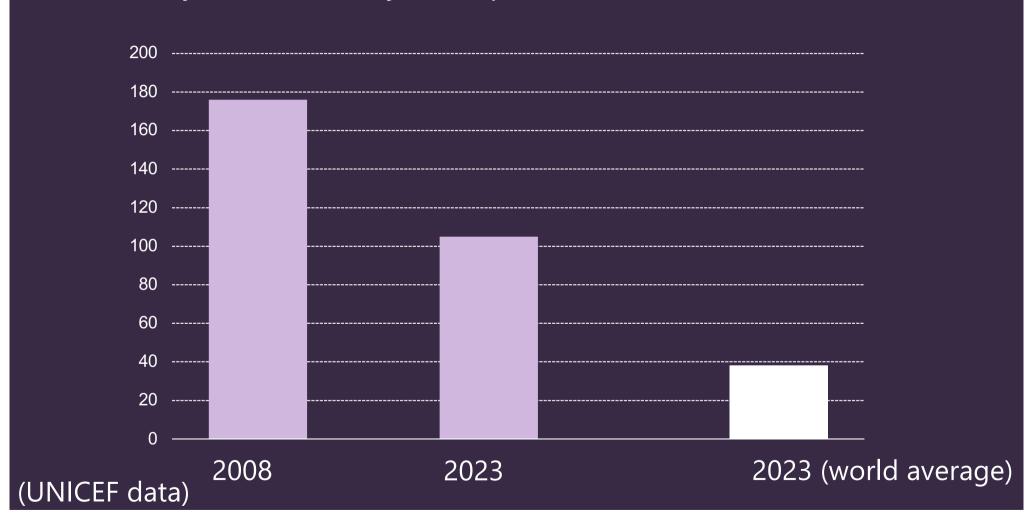
Provincial hospital, Cambodia, 2010



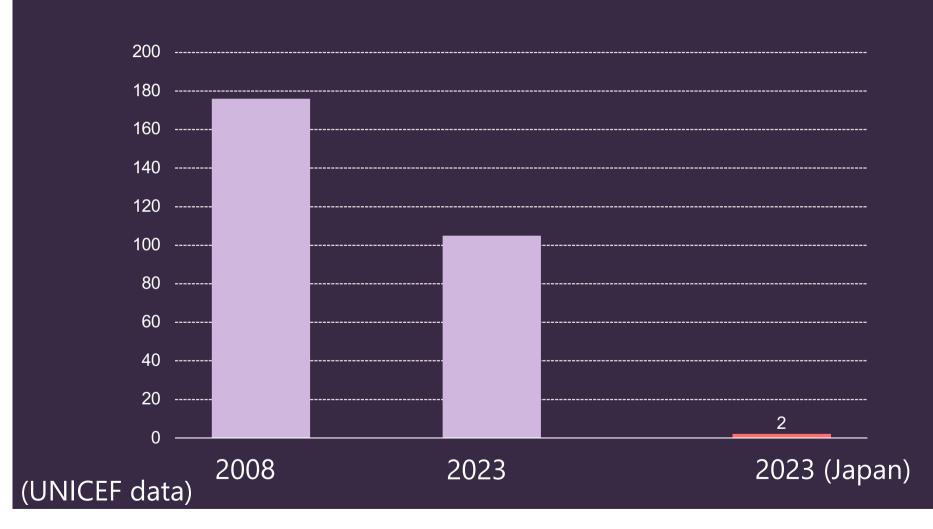


















Safe Anesthesia is a Key...

- Improve patient outcome and health care quality...
- Essential lifeline to be prioritized...

02

Inequities

- to take steps to equitable future...





Siddhartha Children Hospital, Butwal, Nepal, 2003

Inequities

Access

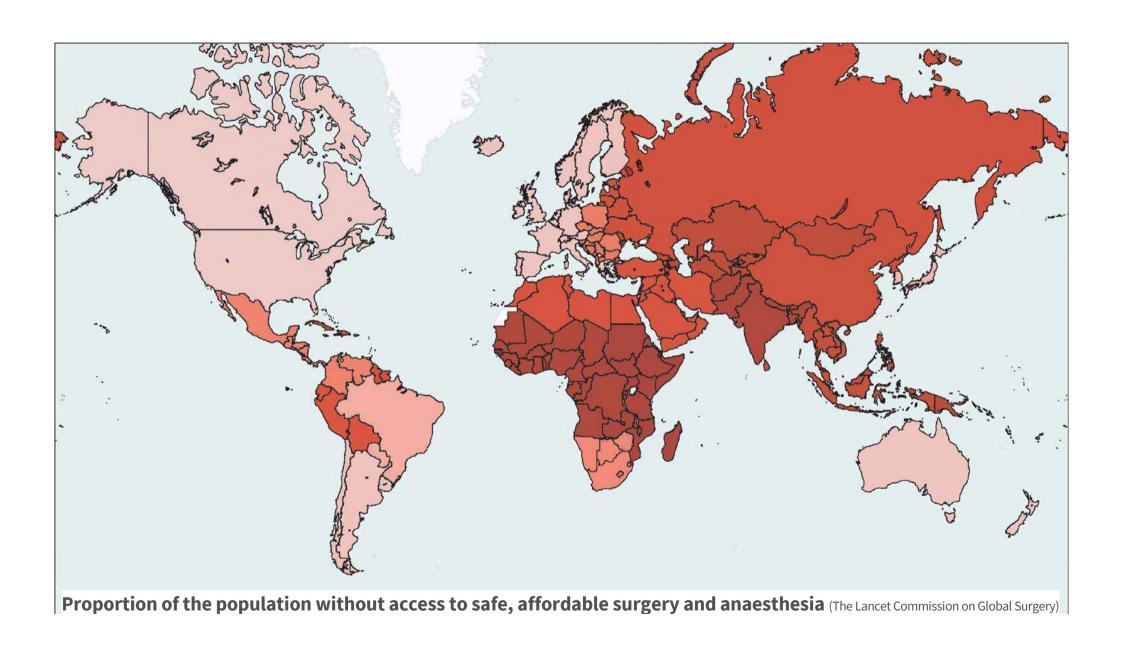


Safety



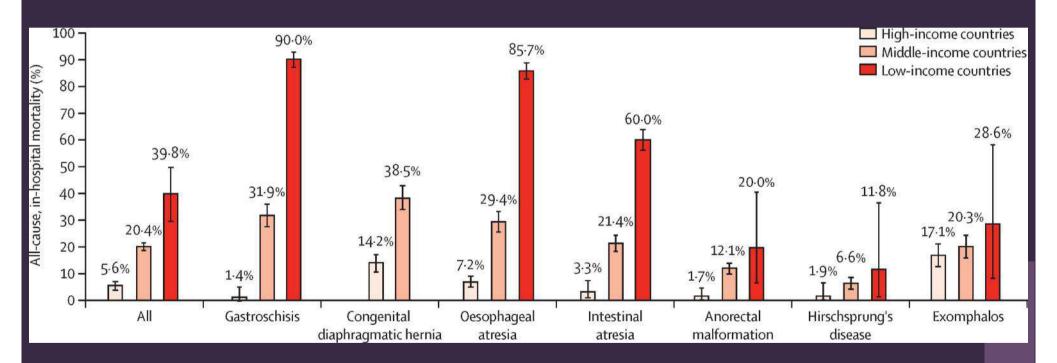
Workforce





Disparities in outcome of common pediatric surgical diseases

- die from diseases that would not be fatal...
- Urgent need for improving access...



Lancet. 2021 Jul 24;398(10297):325-339.

Inequities

Access



Safety

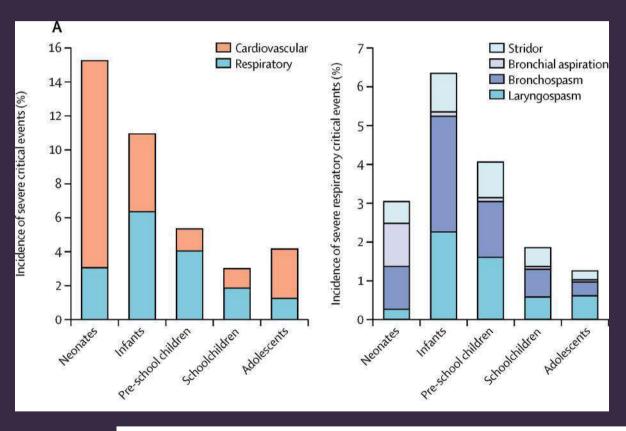


Workforce



Higher Anesthesia Risks for Younger Children

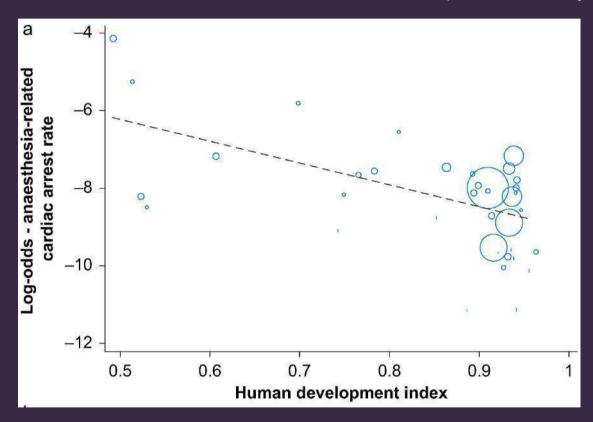
- Need of well-trained anesthetists for younger patients...



Incidence of severe critical events in paediatric anaesthesia (APRICOT): a prospective multicentre observational study in 261 hospitals in Europe. Lancet Respir Med. 2017 May;5(5):412-425.

Higher Pediatric anesthesia risk in LMICs

- disparities in safety between HIC and LMICs



Inequities

Access



Safety

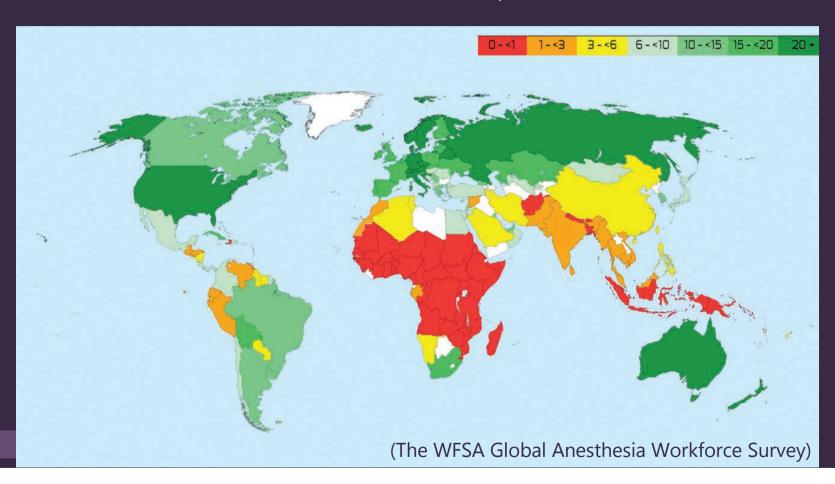


Workforce



Global distribution of physician anesthesia providers

- disparities in densities between HIC and LMICs



Inequities

Access



Safety



Workforce





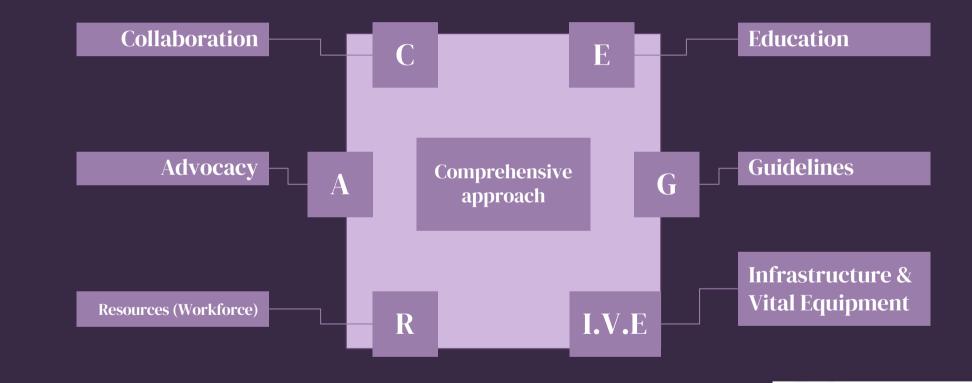
03

Strategies

- to address inequities...
- to change the world...



Strategies | C.A.R.E.G.I.V.E.





The World Federation of Societies of Anaesthesiologists



GlobalU4ERaftseitetfestréest#læsseaWitrikstviede



Education and Training

- Training Boosts Pediatric Anesthesia Safety in LMICs

- Short-subspeciality courses: SAFE, VAST, EPM...
- Fellowship and scholars
- Education materials: UIA, ATOW, videos...





WFSA fellowship program

Education and Training

- Short-subspeciality courses: SAFE, VAST, EPM...
- Fellowship and scholars
- Education materials: UIA, ATOW, videos...

Available at: https://resources.wfsahq.org/update-in-anaesthesia

Update in **Anaesthesia**

Education for anaesthesia providers worldwide

Volume 37

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PAEDIATRICS

CLINICAL REVIEW

- Paediatric critical care in rescurce-limited settings: An overview
- · Paediatric burn injury: Key points for the anaesthesiologist
- Paediatric cardiogenic shock
- The child with severe tetanus
- Children with sickle cell disease: acute complications, acute pain and perioperative manageme
- · Anaesthesia for neonatal and Infant male circumcision
- Anaesthesia for omphalocele and gastroschisis repair
- Hypertrophic pyloric stenosis in infant;
- Anaesthesia for neurosurgical procedures Ventriculo-Peritoneal (VP) shunt and meningomyelocele repair
- Anaesthesia in children with congential heart disease for non-cardiac surgery
- Anaesthesia for large Wilms' turnour (Nephroblastoma)
- Anaesthesia for cerebral palsy
- Paediatric neuraxial anaesthesia and analgesia
- · Paediatric anaesthesia outside the operating room in children

CASEREPORT

 Barlum bronchogram following hydrostatic reduction of intussusception: presentation of a rare complication and brief review of literature

The Journal of the World Federation of Societies of Anaesthesiologists



Special edition on Pediatrics, 2023

Workforce

2,200,000

Additional surgeons, anesthetists for UC

- Recruitment and retention
- Workforce survey
- Non-physician providers







The Lancet Commission on Global Surgery



Advocacy

- raise awareness and get more resources



Former WFSA President Dr Jannicke Mellin-Olsen presenting a statement at the 71st World Health Assembly.

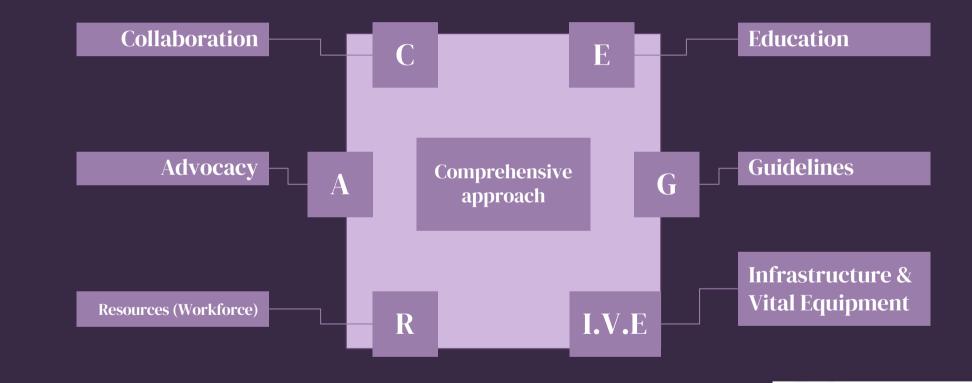


Fostering Collaboration

- share knowledge and best practices beyond border...



Strategies | C.A.R.E.G.I.V.E.









Russian Ventilator, Kharkiv Ukraine, 2012

04

Success

- My personal small stories...

Toward SAFE pediatric anesthesia elsewhere

Training



Teaching



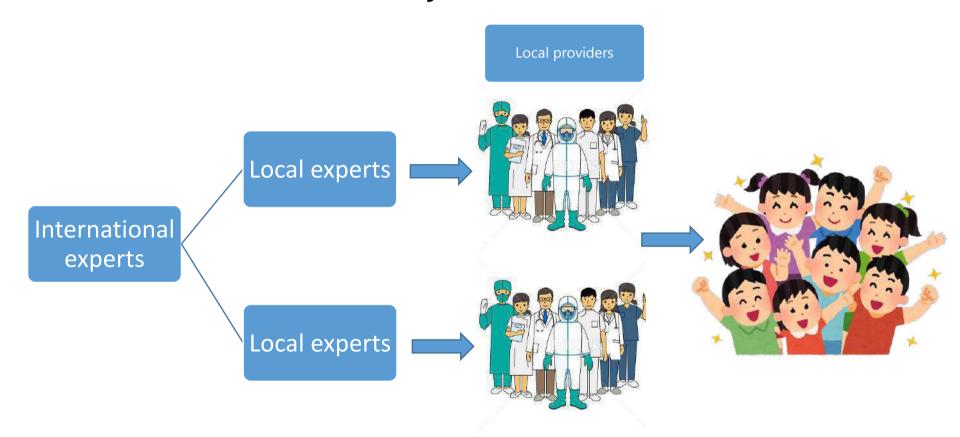
Collaboration



On-site vs scholarship training

	Pros	Cons		
On-site	✓ Tailored to local needs✓ Lower cost✓ Reach more providers	✓ Tutors?✓ Sustainable?✓ Educational resources?		
✓ Educational resources✓ Cutting-edge education		 ✓ Licensure? ✓ Different practice pattern ✓ Costly, limited trainees ✓ Locum? ✓ May not return to original place 		

"Teach one, Reach many"

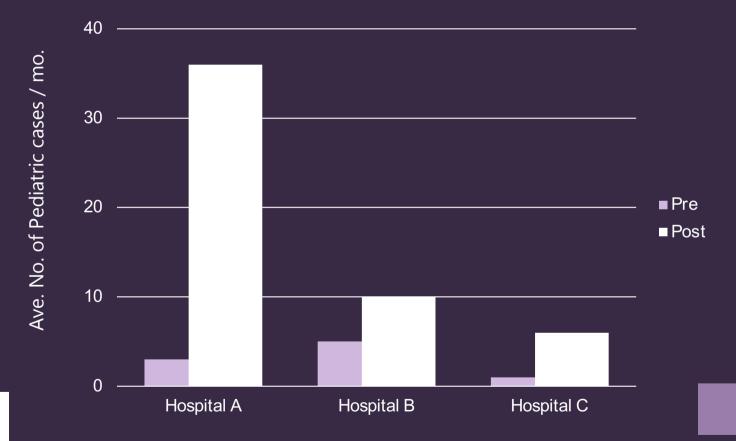


Local pediatric experts as a leadership role



Pediatric anesthesia training for anesthesia nurses from province hospitals National Pediatric Hospital, Phnom Penh, Cambodia, 2011

"Teach one, Reach many" model in Cambodia







Toward SAFE pediatric anesthesia elsewhere

Training



Teaching



Collaboration



SAFE pediatric anesthesia course

SAFE Paediatric Course: 3-day programme overview

Each module = 4 breakout sessions (4 x 25 minutes)
Fach lecture = 15-20 minutes

	Module	Breakout sessions				
		Α	b	С	d	
DAY 1	Pre-course testing					
	LECTURE: Introduction to the SAFE Paediatric Course					
	LECTURE: Overview: The child is not a small adult					
	1. Basic principles (Part 1)	Pre-operative assessment	Basic calculations and normal ranges	Pre-operative fasting	Maintenance fluids	
	2. Basic principles (Part 2)	The paediatric airway – basic principles	The paediatric airway – advanced	Anaesthetic plan: induction and maintenance	Extubation	
	3. Basic principles (Part 3)	Pain assessment and management in children		Local anaesthetic blocks	Handover and recovery	
DAY 2	LECTURE: Safety in paediatric anaesthesia					
	4. Special conditions (Part 1)	ENT surgery	Cleft lip and palate surgery	Eye surgery	Inhaled foreign body	
	5. Special conditions (Part 2)	Sickle cell disease or the malnourished child	Airway emergencies	Seizures	Congenital cardiac disease	
	LECTURE: Recognition and assessment of the sick child					
	6. Resuscitation	Resuscitation		Intraosseous access	Recognition of the sick child	
	7. The sick laparotomy	Pre-operative pl	Sick laparotomy: ty anning / induction / i	phoid perforation ntra-operative / posto	perative care	
DAY 3	LECTURE: Trauma in children + demonstration scenario					
	8. Trauma	Trauma assessment	Assessment of blood loss	Head injury in children	Transfer	
	9. Burns	Burns assessment	Burns size estimation and fluid resuscitation	Dressing changes/sedation	Difficult airway	
	LECTURE: Neonates					
	10. Neonates	Newborn resuscitation and care		Imperforate anus	Pyloric stenosis	
	Post-course testing					
	CLOSE					

Interactive, practical

	LECTURE: Introduction to the SAFE Paediatric Course				
	LECTURE: Overview: The child is not a small adult				
1. Basic principles (Part 1)	Pre-operative assessment	Basic calculations and normal ranges	Pre-operative fasting	Maintenance fluids	
2. Basic principles	The paediatric	The paediatric	Anaesthetic plan: induction and	Extubation	

> 8000 providers, >50 countries

		_			
DAY 3	LECTURE: Trauma in children + demonstration scenario				
	7. The sick laparotomy	Sick laparotomy: typhoid perforation Pre-operative planning / induction / intra-operative / postoperative care			
	Resuscitation	Resuscitation		access	the sick child

Train the Trainers

SAFE Paediatric Anaesthesia Course Facilitator Manu Date of last review. September 201









Faculties

- Faculty leaders
 - ➤ Lowri Bowen (UK, SAFE steering committee)
 - Nori Kuratani (Japan, WFSA pediatric chair)
 - > Tep Sokha (Cambodia, SCARMU)
- UK:4, Japan:4, Cambodia:5

SAFE pediatric course

- 2 days course
- 5 lectures, 19 modules
- 26 local providers trained

Train the Trainer

- 1 day course
- 10 new trainers









Nov. 12-17, 2023

SAFE Pediatric Anesthesia in Chuuk, Micronesia

Micronesia Anesthesia Refresher Course









Toward SAFE pediatric anesthesia elsewhere

Training



Teaching



Collaboration



Collaboration with international communities

ASPA

IVUmed

WORLD FEDERATION OF SOCIETIES OF ANAESTHESIOLOGISTS

SmileAsia

FIDR





05

Action

- You can contribute to change...

How You Can Improve Global Pediatric Anesthesia Safety?





"In the end, we will remember not the words of our enemies, but the silence of our friends."

— Martin Luther King Jr."

Acknowledgements









Work Together!





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