

Making Safety a Reality Practical Solutions for Africa Seven Steps to Safety

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Seven steps to take

- 1. Culture
- 2. Be person centred
- 3. Study the problem
- 4. Plan for safety
- 5. Reliability
- 6. Choose the problem and solution
- 7. Understand the context



Step 1 Understand Culture



Culture is key

Increasing informedness or mindfulness

Generative

Safety is how we do business here

Proactive

We work on problems we still find

Calculative

we have systems in place to manage all hazards

Reactive

Safety is important - we do a lot when something happens

Pathological

It is ok as long as nothing happens

Increasing information

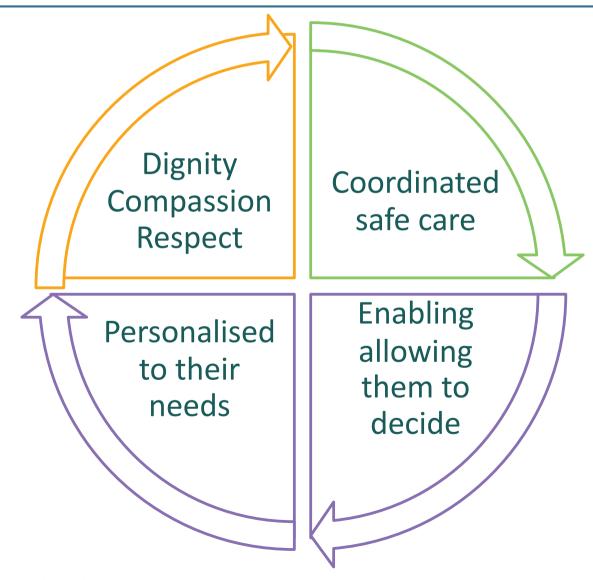
Hudson P. Applying the lessons of high risk industries to health care Qual Saf Health Care 2003



Step 2 Understand what people or the patients want



Ask "What really matters to people"



 $\underline{\text{http://www.health.org.uk/public/cms/75/76/313/4772/Measuring\%20what\%20really\%20matters.pdf?realName=GuxZKx.pdf}$



Step 3 Study the problems



The reality of healthcare

- Limited resources and allocation
- Overworked staff
- Increasing burden of demand
- Acceptance of status quo and tradition
- Process issues
- Knowledge issues



Can we be safe in resource poor settings?



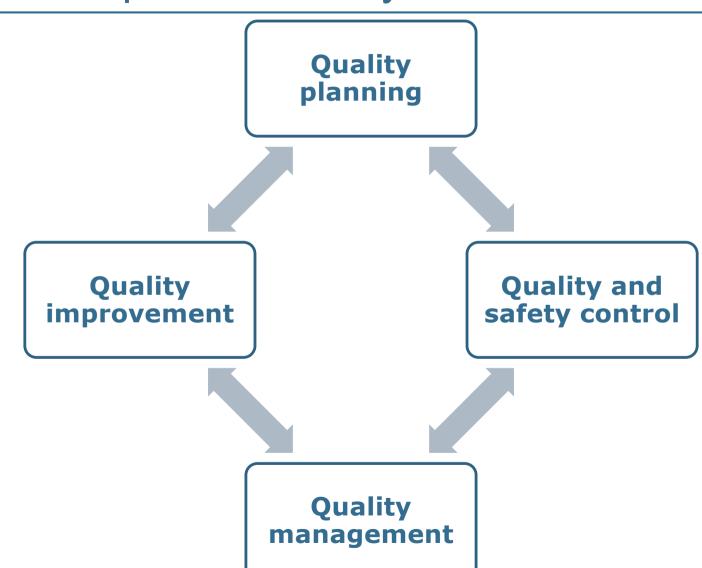
Yes if we want to be safe



Step 4 Plan for safety



We need to plan for safety ref Juran





Three contrasting approaches to safety

Ultra adaptive Context: Taking risks is the essence of the profession:

Deep sea fishing, military in war time, drilling industry, rare cancer, treatment of trauma.

Safety model: Power to experts

to rely on personal resilience, expertise and technology to survive and prosper in adverse conditions.

Training through peer-to-peer learning shadowing, acquiring professional experience. knowing one's own limitations.

Adaptation and recovery

Reliability

Context: Risk is not sought out but is inherent in the profession:

Marine, shipping, oil Industry, fire-fighters, elective surgery.

Safety model: Power to the group to organise itself, provide mutual protection, apply procedures, adapt, and make sense of the environment.

Training in teams to prepare and rehearse flexible routines for the management of hazards.

Procedures and adaptation

Ultra Safe

Context: Risk is excluded as far as possible: Civil aviation, nuclear Industry, public transport, food industry, medical laboratory, blood transfusion.

Safety model: Power to regulators and supervision of the system to avoid exposing front-line actors to unnecessary risks.

Training in teams to apply procedures for both routine operations and emergencies.

Preventive strategies

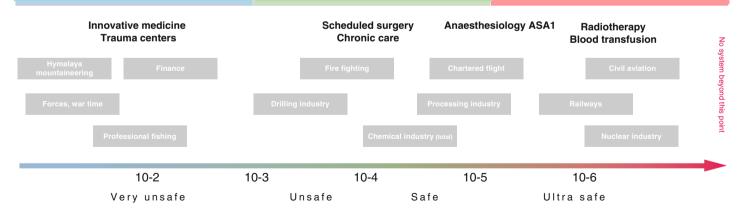
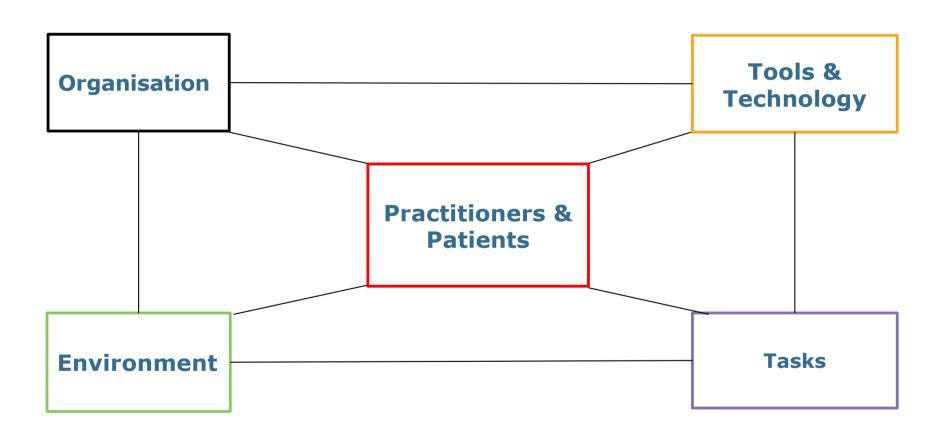


Fig. 3.1 Three contrasting approaches to safety

Charles Vincent Rene Amalberti Safer Healthcare Strategies for the Real World

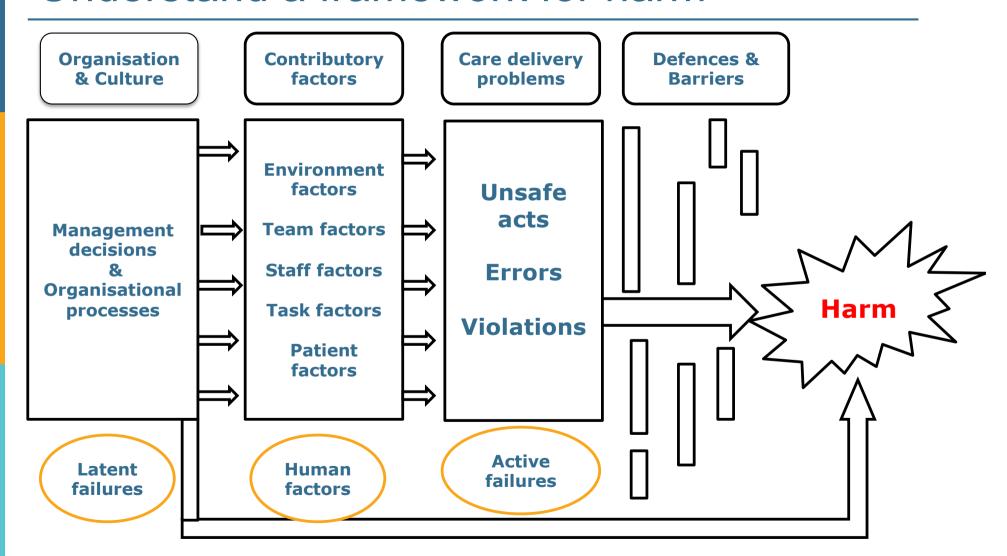


Understand the human factors





Understand a framework for harm





Step 5 Consider reliability of care one patient at a time



Actions to take

- Small errors are signs of larger problems
- □ Pay attention to what's happening on the front-line
- □ Do not simplify But don't make it complex
- □ Commitment to learn and build resilience

■ The experts are patients and their providers of care in the front line



A framework to assess real time safety





The measurement and monitoring



Be aware all the time

Every 6-8 hours in real time assess on a team talk or "huddle"

- 1. The safety of the clinical area in terms of safety theory
- 2. The reliability of care
- 3. Predict the safety for the next period
- 4. Assess the risk to each patient
- 5. Meeting lasts no more than 10-15 minutes



Step 6 Choose Key areas to work on



Medications

http://www.who.int/patientsafety/en/

http://www.who.int/topics/patient_safety/en/

https://www.youtube.com/watch?v
=MWUM7LIXDeA

Medication Without Harm



WHO Global Patient Safety Challenge





Maternal and Child Health

BEFORE BIRTH

WHO Safe Childbirth Checklist



On Admission	
Does mother need referral? ☐ No ☐ Yes, organized	Check your facility's criteria
Partograph started? ☐ No, will start when ≥4cm ☐ Yes	Start plotting when cervix ≥4 cm, then cervix should dilate ≥1 cm/hr • Every 30 min: plot HR, contractions, fetal HR • Every 2 hrs: plot temperature • Every 4 hrs: plot BP
Does mother need to start: Antibiotics? No Yes, given	Ask for allergies before administration of any medication Give antibiotics to mother if any of: • Mother's temperature >38°C • History of foul-smelling vaginal discharge • Rupture of membranes >18 hrs
Magnesium sulfate and antihypertensive treatment? No Yes, magnesium sulfate given Yes, antihypertensive medication given	Give magnesium sulfate to mother if any of: Diastolic BP ±110 mmHg and 3+ proteinuria Diastolic BP ±90 mmHg, 2+ proteinuria, and any; severe headche, visual disturbance, epigastric pain Give antihypertensive medication to mother if systolic BP >160 mmHg Goal: keep BP <150/100 mmHg
☐ Confirm supplies are available to clean hands and wear gloves for each vaginal exam.	
☐ Encourage birth companion to be present at birth.	
☐ Confirm that mother or companion will call for help during labour if needed.	Call for help if any of: • Bleeding • Severe abdominal pain • Severe headache or visual disturbance • Unable to urinate • Urge to push

This checklist is not intended to be comprehensive and should not replace the case notes or partograph. Additions and modifications to fit local practice are encouraged. For more information on recommended use of the checklist, please refer to the "WHO Safe Childbirth Checklist Implementation Guide" at: www.who.int/patientsafety.

WHO/HIS/SDS/2015.26 WHO Safe Childbirth Checklist

BEFORE BIRTH

WHO Safe Childbirth Checklist



Does mother need to start: Antibiotics? □ No □ Yes, given	Ask for allergies before administration of any medication Give antibiotics to mother if any of: • Mother's temperature >38" C • History of foul-smelling vaginal discharge • Rupture of membranes >18 hrs • Caesarean section
Magnesium sulfate and antihypertensive treatment? No Yes, magnesium sulfate given Yes, antihypertensive medication given	Give magnesium sulfate to mother if any of: • Diastolic BP ≥110 mmHg and 3+ proteinuria • Diastolic BP ≥50 mmHg, 2+ proteinuria, and any: severe headache, visual disturbance, epigastric pain Give antihypertensive medication to mother if systolic BP >160 mm • Goal: keep BP <150/100 mmHg
Confirm essential supplies are at bedside and prepare for delivery: For mother Gloves Alcohol-based handrub or soap and clean water Oxytocin 10 units in syringe	Prepare to care for mother immediately after birth: Confirm single baby only (not multiple birth) 1. Give oxytocin within 1 minute after birth 2. Deliver placenta 1-3 minutes after birth 3. Massage uterus after placenta is delivered 4. Confirm uterus is contracted
For baby Clean towel Tie or cord clamp Sterile blade to cut cord Suction device Bag-and-mask	Prepare to care for baby immediately after birth: 1. Dry baby, keep warm 2. If not breathing, stimulate and clear airway 3. If still not breathing: clamp and cut cord clean airway if necessary ventiate with bag-and-mask shout for help
☐ Assistant identified and ready to help at birt	h if needed.

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WHO Safe Childbirth Checklist



AFTER BIRTH

WHO Safe Childbirth Checklist

WHO Safe Childbirth Checklist



s mother bleeding abnormally?	If bleeding abnormally:
□ No	Massage uterus
Yes, shout for help	Consider more uterotonic
,	Start IV fluids and keep mother warm
	Treat cause: uterine atony, retained placenta/fragments, vaginal tear, uterine rupture
Does mother need to start:	Ask for allergies before administration of any medication
Antibiotics?	Give antibiotics to mother if placenta manually removed or if mother's temperature ≥38 °C and any of:
□ No	Chills
Yes, given	Foul-smelling vaginal discharge
	If the mother has a third or fourth degree of perineal tear give antibiotics to prevent infection
Magnesium sulfate and	Give magnesium sulfate to mother if any of:
antihypertensive treatment?	Diastolic BP ≥110 mmHg and 3+ proteinuria
□ No	 Diastolic BP ≥90 mmHg, 2+ proteinuria, and any: severe headache, visual disturbance, epigastric pain
Yes, magnesium sulfate given	, , , , , , , , , , , , , , , , , , ,
Yes, antihypertensive medication given	Give antihypertensive medication to mother if systolic BP >160 mmHg • Goal: keep BP <150/100 mmHg
Does baby need:	Check your facility's criteria.
Referral?	
□ No	
Yes, organized	
Antibiotics?	Give baby antibiotics if antibiotics given to mother for treatment of
□ No	maternal infection during childbirth or if baby has any of:
☐ Yes, given	Respiratory rate >60/min or <30/min Chest in-drawing, grunting, or convulsions
	Cnest in-drawing, grunting, or convuisions Poor movement on stimulation
	Baby's temperature < 35 °C (and not rising after warming)
	or baby's temperature ≥38 °C
Special care and monitoring?	Arrange special care/monitoring for baby if any:
- · · · ·	More than 1 month early
Yes, organized	Birth weight <2500 grams
	Needs antibiotics Parties described as
	Required resuscitation
☐ Started breastfeeding and skin-to-skin conta	ct (if mother and baby are well).

Responsibility for the interpretation and use of the material in this checklist lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use. For more information visit www.who.int/patientsafety.

AFTER BIRTH

WHO Safe Childbirth Checklist



Before Discharge	
4	
☐ Confirm stay at facility for 24 hours after del	livery.
Does mother need to start antibiotics? ☐ No ☐ Yes, given and delay discharge	Ask for allergies before administration of any medication Give antibiotics to mother if any of: ■ Mother's temperature ≥38 °C ■ Foul-smelling vaginal discharge
Is mother's blood pressure normal? No, treat and delay discharge Yes	Give magnesium sulfate to mother if any of: ■ Diastolic BP ≥110 mmHg and 3+ proteinuria ■ Diastolic BP ≥90 mmHg, 2+ proteinuria, and any: severe headache, visual disturbance, epigastric pain
	Give antihypertensive medication to mother if systolic BP >160 mmHg • Goal: keep BP <150/100 mmHg
Is mother bleeding abnormally? No Yes, treat and delay discharge	If pulse >110 beats per minute and blood pressure <90 mmHg • Start IV and keep mother warm • Treat cause (hypovolemic shock)
Does baby need to start antibiotics? ☐ No ☐ Yes, give antibiotics, delay discharge, give special care	Give antibiotics to baby if any of: • Respiratory rate >60/min or <30/min • Chest in-drawing, grunting, or convulsions • Poor movement on stimulation • Baby's temperature <35°C (and not rising after warming) or baby's temperature ≥38°C • Stopped breastfeeding well • Umbilicus redness extending to skin or draining pus
Is baby feeding well?	
\square No, establish good breastfeeding practices a \square Yes	nd delay discharge
☐ Discuss and offer family planning options to	mother.
☐ Arrange follow-up and confirm mother / com	npanion will seek help if danger signs appear after discharge.
Danger Signs	,
Mother has any of:	Baby has any of:
Bleeding	Fast/difficult breathing
Severe abdominal pain	• Fever
Severe headache or visual disturbance Breathing difficulty	Unusually cold Stops feeding well
Breatning difficulty Fever or chills	Stops reeding well Less activity than normal
Difficulty emptying bladder	Whole body becomes yellow
Epigastric pain	

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WHO Safe Childbirth Checklist Completed by ____







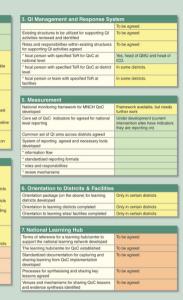
National QI approach	2/11
2. Selection of learning sites	2/6
QI management and response system	1/6
QI coaching system and structures	0/5
5. Measurement	7/8
6. Orientation to districts and facilities	0/3
7. National learning hub	0/5

Population (thousands)	27,410
Fertility rate per woman	4.22
Total institutional maternal deaths (2016)	9331
Neonatal mortality rate (per 1,000 live births)	292
Stillbirth rate (per 1,000 toal births)	22.74

Demand for Family Planning satisfied (%)	47.22
Antenatal care (4 or more visits, %)	872
Skilled Birth Attendance (%)	742
Caesearan Section Rate (%)	132
Early Initiation of Breastfeeding (%)	56²
Exclusive Breastfeeding rate (%)	522
Postnatal visit for baby (within 2 days, %)	831
Postnatal visit for mother (within 2 days, %)	812

1. National Quality Impro	vement Approach
National Standards on MNH QoC developed/available	MBFHI Guide completed, integrated WHO MNH QoC standards.
	Draft in process for Newborn
National package on QI interventions agreed upon through review and consultation	Some districts have interventions ongoing.
Key interventions in national QI	4 districts:
package developed (specify type of interventions)	Interventions are guided by of EMEN and WHO standards.
	The QI process involve formation of QI teams, baseline and ongoing assessments, Plan-
	Do-Study-Act (PDSA) Cycle and structures to sustaining change
* leadership and organization management	National Quality Management unit established to complement existing Institutional Care Division.
	MBFHI governing structure established in 4 districts
* QI coaching	MBFHI coaches trained (UNICEF)
	Pilot collaborative with the Regional Health Directorate of Accra to train QI teams in 5 districts (support: Ubora)
	GHS Improvement Coaches trained in 93 districts across S4H-supported regions: 79 districts are implementing improvement projects and providing QI coaching and mentoring support
	(support: USAID Systems for Health)
* clinical mentorship	To start in Ubora supported districts
	Clinical mentors in all MBFHI districts
	Clinical mentors also in USAID supported districts
* audit and feedback	Perinatal audits in some districts
* improving data systems	MBFHI districts: weekly data submission and data analysis
	Integrated coaching to improve service delivery/ data quality in 110 districts across USAID S4H supported regions
	Support Health Information Technical Boot Camps at national level to address systems level gaps in DHIMS 2.
* learning networks/systems, including learning collaboratives	MBFHI: Collaborative learning system established among 3 hospitals through weekly teleconference
	Support learning networks in 4 regions (NR, VR, WR and GAR) in the areas of MNCH, ETAT, malari and family planning (USAID S4H support)
* performance based financing	In some districts
* policy/strategy development support	National Quality Healthcare Strategy Developed.
support	NQS technical committee undergone training in Q
	QI training for CEOS (high impact leadership course) planned
	QMU, MoH(Quality Management Unit) set up

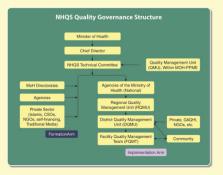
Criteria for selection of learning districts developed and agreed	
Criteria for selection of learning sites/facilities developed and agreed	
Learning districts selected (specify name and any supporting partners)	Some districts with QI interventions already ongoing are being considered New districts to be selected when funds available to carry out interventions.
Learning sites/facilities selected (specify name and any supporting partners)	
Baseline situational analysis at learning sites conducted	MBFHI: Baseline assessments conducted and quarterly assessments been conducted
	Some districts with QI interventions already ongoing carried out baseline assessments based on selected nteventions
	As new districts are selected standardized baseli assessment will have to be carried out.
	None on a national scale.
Initial resource provision to	
Initial resource provision to learning sites	MBFHI: Training, equipment and improvement or WASH facilities being provided
	MBFHI: Training, equipment and improvement on WASH facilities being provided
learning sites	WASH facilities being provided
tearning sites 4. QI Coaching System 8	WASH facilities being provided k Structure
4. QI Coaching System &	WASH facilities being provided
tearning sites 4. QI Coaching System 8	WASH facilities being provided k Structure
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Being developed

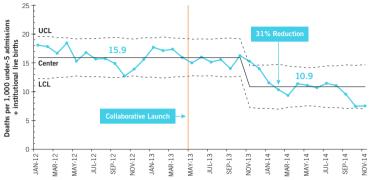
Examples from Implementation



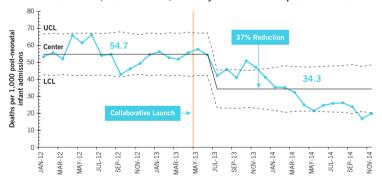






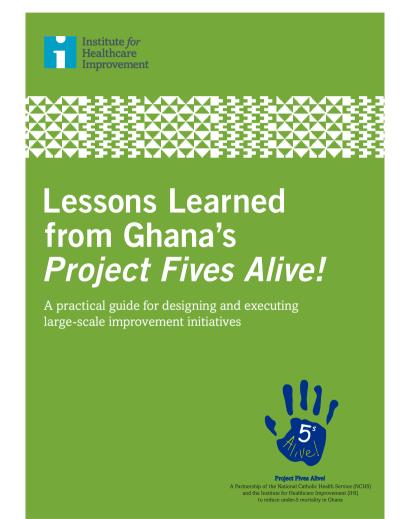


Post-Neonatal Infant (1 to 11 Months) Mortality Rate in 134 Hospitals across Seven Reg



Under-5 Malaria Case Fatality Rate in 134 Hospitals across Seven Regions







Safer Surgery



World Health Organization **Surgical Safety Checklist** Patient Safety Charles in the name of Before induction of anaesthesia Before skin incision Before patient leaves operating room (with at least nurse and asserthetist) (with nurse, anaesthetist and surgeon) (with nurse, anaeuthetist and surgeon): Confirm all team members have introduced themselves by name and role. Has the patient confirmed his her identity, Nurse Verbally Confirms: site, procedure, and consent? □ The name of the procedure Confirm the patient's name, procedure, and where the incision will be made. Completion of instrument, sponge and needle is the site marked? Specimen labelling (read specimen labels about, including patient name) ☐ Yes Has antibiotic prophylaxis been given within the last 60 minutes? Not applicable □ Whether there are any equipment problems to be ☐ Yes addressed is the anaeythesia machine and medication Not applicable check complete? To Surgeon, Anaesthetist and Nurse; **Anticipated Critical Events** What are the key concerns for recovery and is the pulse eximeter on the patient and functioning? management of this patient? To Surgeon: What are the critical or non-routine steps? How long will the case take? Does the patient have a: What is the anticipated blood loss? To Asperthetict: Known allergy? ☐ No Are there any patient-specific concerns? ☐ Yes To Nursing Team: Difficult airway or aspiration risk? Has sterility (including indicator results). Are there equipment issues or any concerns? Yes, and equipment/assistance available is essential imaging displayed? Risk of >500ml blood loss (7ml/kg in children)? □ Yes Not applicable Yes, and two IVs/central access and fluids This checklist is not intended to be comprehensive. Additions and modifications to fit local practice are encouraged. Revised 1 / 2009 @ WHO, 2009



Infections

Health care-associated infections

10% of patients get an infection while receiving care.

Surgical site infections

More than 50% of surgical site infections can be antibiotic-resistant.

Impact of infection prevention and control

Effective infection prevention and control reduces health care-associated infections by at least 30%.

http://www.who.int/infection-prevention/en/

THE ECONOMICS OF PATIENT SAFETY

Strengthening a value-based approach to reducing patient harm at national level

Luke Slawomirski, Ane Auraaen and Niek Klazinga









Step 7 Understand the Context

"Safety" is the ability of a system to sustain required operations under both expected and unexpected conditions.

Safety is what we do every day



Seven steps to take

- 1. Culture
- 2. Be person centred
- 3. Study the problem
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Daily questions to ask at all levels

■ What did we do well?

So we can replicate

Past harm

Has patient care been safe in the past?

Reliability

Are our clinical systems and processes reliable?

Sensitivity to operations

Is care safe today?

Anticipation and preparedness

Will care be safe in the future?

Integration and learning

Are we responding and improving?

Join ISQua's African Community of Practice





About ISQua's African Community of Practice

Set up in 2016, ISQua's African Community of Practice includes quality improvement specialists working in health and social care settings across Africa.

With regular online meetings, members can exchange quality improvement strategies, discuss their successes and challenges, and learn how best practices can be applied to their own organisations.

This group is open to anyone interested in furthering QI work and initiatives in Africa.

Countries involved to date:

Algeria	Nigeria
Botswana	Rwanda
Ghana	South Africa
Kenya	Sudan
Malawi	Uganda
Mozambique	Zambia
Namibia	Zimbabwe

WEBINARS

Watch recordings of the Community's previous meetings where they share their country's planned or completed quality improvement strategies and join the discussions in our live webinars

NETWORK

Exchange information and share learning on issues that are specific to your region; highlight concerns and support each other

ISQua

Join our Membership and Fellowship programme, and register for our annual conference at reduced rates Email: plachman@isqua.org

@peterlachman



If you are interested in joining the network, please visit ISQua.org/interest-groups/communities-of-practice or email ccurran@isqua.org