BACKGROUND BRIEF · OCTOBER 2026

FOR THE NATIONAL EMT CURRICULUM WORKSHOP

TRAINING EMERGENCY MEDICAL TECHNICIANS

How emergency medical services and EMT curricula work, what other countries have done, and the questions Kenya's national curriculum needs to answer.

Prepared by Sahara EMS College
Background reading for participants · Machakos, 19–23 October 2026

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ABOUT THIS BRIEF

BACKGROUND READING FOR A NATIONAL CONVERSATION

The Ministry of Health, through KNPHI and with support from Malteser International, is consolidating a national curriculum for Emergency Medical Technicians (EMTs) and Emergency Vehicle Operators (workshop in Machakos, 19–23 October 2026). To support that discussion, a team of emergency care practitioners and educators has combined its experience of running ambulance services and EMS training in Africa, Europe and the Middle East with a review of curricula, regulations and research from across Africa and around the world. The brief does not contain or promote any single curriculum proposal.

Kenya now has a national dispatch system, registration of ambulances and EMS personnel, and payment rules for ambulance care. What it does not yet have is a common standard for how the people on those ambulances are trained.

1,200–1,800 h
Typical volume of programmes of about one year, internationally (some figures include self-study)

25–70%
Share of training spent with real patients in comparable programmes

600+
Ambulances linked to Kenya's national dispatch centre since August 2026

CONTENTS

01 · Key messages 03
02 · EMS basics 04
03 · How a curriculum works 05
04 · Kenya today 08
05 · Africa 10
06 · Hours compared 11
07 · Building blocks 13
08 · Lessons from reforms 14
09 · Twelve questions 15
10 · Key terms · Sources 17

01 · KEY MESSAGES

SEVEN THINGS TO KNOW BEFORE THE WORKSHOP

01 **The system is being built now.**

Since August 2026 the national dispatch centre links more than 600 public and private ambulances. KMPDC registers ambulances and EMS personnel, and SHA pays for ambulance care under fixed rules. A common training standard is the missing piece.

02 **Nobody in Africa has a ready-made answer.**

Levels, lengths and regulators differ from country to country, and the World Bank calls standardised accreditation of EMS training in sub-Saharan Africa "non-existent". Tanzania and South Africa first defined levels and scope, then wrote curricula.

03 **Length alone says little.**

Programmes of about one year list roughly 1,200 to 1,800 hours, some of them including self-study. What matters is what graduates can safely do, and how that is checked.

04 **The order of decisions matters.**

First the scope of practice (what the graduate may do), then competencies, content, hours and assessment. Tanzania defined the scope before writing its curriculum.

05 **Practice, not lectures.**

Every skill must be practised hands-on: first in a skills lab, then in simulation, then with real patients. Comparable programmes spend about a quarter to 70% of their hours with real patients.

06 **Reforms fail on people, not on hours.**

In South Africa, Saudi Arabia and the Philippines, problems came when entry levels rose without a bridge for staff already working, or when a qualification had no clear place in the register.

07 **Good building blocks exist.**

WHO's 2025 prehospital guidance, the WHO-ICRC Basic Emergency Care course and a published disaster training design from Sierra Leone can be used. Their licences decide how.

02 · EMS BASICS

WHAT EMERGENCY MEDICAL SERVICES DO, AND WHO WORKS IN THEM

Emergency medical services bring care to patients who cannot wait: the injured, the critically ill, women in complicated labour, children with severe infections. The World Health Assembly called on all countries in 2019 to build emergency care systems, because "millions of deaths and long-term disabilities" could be prevented each year if care is available and reached in time (WHA72.16, 2019).

THE CHAIN OF EMERGENCY CARE

1 CALL
Someone recognises an emergency and calls for help.

2 DISPATCH
A dispatcher sends the right vehicle and gives advice by phone.

3 CARE ON SCENE
The crew assesses the patient and treats life threats.

4 TRANSPORT
Care continues on the way to a facility that can help.

5 HANDOVER
The crew informs the receiving team, ideally before arrival.

Every link depends on trained people. An EMT works in links 3 to 5, and often has to decide which facility a patient needs. In a review of low- and middle-income countries, prehospital trauma systems were associated with about 25% lower trauma mortality, though the certainty of this evidence is low (Henry & Reingold, 2012).

LEVELS OF EMS WORKERS

Most countries train EMS workers at several levels. Names differ, but the logic is similar. WHO's 2025 guidance separates **basic** and **advanced** providers, each with its own protocols and medicines (WHO, 2025). The African Federation for Emergency Medicine (AFEM) distinguishes **first responder care** (Tier 1) from **prehospital care and EMS** (Tier 2) (AFEM, 2014).

LEVEL	TYPICAL TRAINING	WHAT THEY DO	EXAMPLES
First responder	Hours to days	First aid, bleeding control, calling for help	WHO Community First Aid Responder course
Ambulance operator	Days to weeks	Safe driving, basic care, equipment, communication	WHO Basic Ambulance Provider; KMPDC category "Ambulance Operator"
EMT	Months to one year	Assessment, airway, resuscitation, bleeding control, normal birth, a short list of medicines	Ghana Basic EMT (1 year); South Africa Higher Certificate (1 year); KMTC Certificate (1 year)
Advanced EMT	One to three years	Adds IV access, more medicines, advanced airway, ECG	Ghana Advanced EMT (2 years); South Africa Diploma (2 years); KMTC Diploma (3 years)
Paramedic (degree level)	Three to four years	Full advanced practice, leadership, teaching	MMUST BSc Paramedic Science; South Africa Bachelor (4 years)

GOOD TO KNOW

The same title can mean different things. “Advanced EMT” is a certificate at one Kenyan institution and a diploma at another. “Emergency Care Practitioner” is the highest level in South Africa but a lower level in Namibia. A national curriculum therefore needs clear levels, each with a defined scope of practice, before titles are agreed.

TWO WAYS TO ORGANISE CARE

In France and much of Francophone Africa, physicians lead prehospital care (the SAMU model), supported by ambulance staff. In the UK, the US, South Africa, Ghana and Kenya, most care is delivered by EMTs and paramedics, with physicians setting protocols and giving advice (**medical direction**). Germany combines both: paramedics (Notfallsanitäter) lead emergency ambulance crews, and emergency physicians attend the most serious cases. Kenya's choice affects how much EMTs must be able to do on their own.

03 · HOW A CURRICULUM WORKS

A CURRICULUM IN SIX LAYERS

A curriculum is more than a list of topics. It answers six questions, and each answer depends on the one before. Getting the order right avoids rework later.

1 — SCOPE OF PRACTICE
What may a graduate do, for example which medicines? Set by the regulator with medical advice; in Kenya, KMPDC registers EMS personnel.

2 — COMPETENCIES
What must a graduate be able to do safely on the first day of work? Derived from the scope and from the country's emergencies.

3 — LEARNING OUTCOMES
Observable statements such as “performs bag-valve-mask ventilation”, not “knows about airways”. They make teaching and testing comparable.

4 — CONTENT AND LEARNING DESIGN
Which topics, in which order, taught how: classroom, skills lab, simulation, hospital and ambulance placement.

5 — HOURS AND PLACEMENTS
How much time each part needs, and where students meet real patients under supervision.

6 — ASSESSMENT AND LICENSING
How competence is checked, by whom, and how graduates enter the register.

Tanzania's university team fixed the scope **before** writing its EMS courses. After the pilot, the practical share of its basic ambulance course rose to 60%. With no ambulance service available, placements ran in the emergency department and the maternity ward (Sawe et al., 2019).

BY SUBJECT OR BY WORK SITUATION?

Many health programmes teach subject by subject: anatomy first, diseases later, practice at the end. Vocational systems increasingly organise training around real work situations instead, sometimes called **learning fields** or **competency units**. A unit starts from a situation, such as a woman bleeding after birth, and teaches the science, skills and practice for it together. Kenya's TVET system is built on competency-based education and training (CBET) (TVET CDACC).

A 2016 assessment of Kenyan EMS training found weak anatomy and physiology teaching, little syndrome-based training and students who struggled to apply classroom knowledge. The authors recommended nationally defined levels with a scope of practice, and field experience before advanced training (Nicholson et al., 2017).

HOURS, CREDITS AND LEVELS

- **Contact hours** count time with a teacher, in the skills lab or on placement. **Learning hours** and **credits** also include self-study. In Kenya one credit equals 10 learning hours (KNQA), but this varies between countries, so figures from different countries are only roughly comparable.
- The **Kenya National Qualifications Framework** (KNQF) has ten levels. A one-year craft certificate sits at level 5 and a national diploma at level 6 (KNQA).

FROM KNOWING TO DOING: FOUR PLACES OF LEARNING

1 CLASSROOM
Understanding why the body fails and why a treatment works. Cases and discussion, not only lectures.

2 SKILLS LAB
One skill at a time on training equipment, repeated with feedback until it is safe.

3 SIMULATION
A whole case in a realistic scenario: patient, team, time pressure, decisions. Then a debriefing.

4 REAL PATIENTS
Supervised practice in hospital and on ambulances, recorded in a logbook.

THE CORE PRINCIPLE

Telling is not training. Medical skills cannot be learned by listening or watching alone. Every skill in an EMT curriculum needs hands-on practice with feedback: first in the skills lab, then in simulation, then with real patients under supervision. A programme that only describes skills does not produce competent EMTs.

WHAT A SKILLS LAB IS, AND WHAT IT NEEDS

A skills lab is a training room where students practise practical skills on equipment made for training: manikins, airway heads, IV arms and real clinical equipment. Its value depends on what is in it and on how many students share it. A lab with one manikin for forty students is a lecture room.

TYPICAL MINIMUM EQUIPMENT

- **Resuscitation:** adult, child and infant manikins with feedback on compression depth and rate, which the American Heart Association strongly recommends for training (AHA, 2025); AED trainers.
- **Airway and breathing:** airway trainer heads, bag-valve-masks in all sizes, suction, oxygen equipment, supraglottic airways.
- **Circulation:** IV and intraosseous training arms or legs, wound-packing trainers, tourniquets.
- **Trauma and moving patients:** splints, pelvic binder, scoop stretcher, vacuum mattress, carry chair.
- **Childbirth and newborn:** birthing simulator, newborn manikin, delivery kit.
- **Monitoring:** monitor and defibrillator trainer, pulse oximeter, glucose meter, blood pressure devices.

A national curriculum can turn this into a minimum standard: an equipment list per skill, a maximum number of students per instructor and per manikin, and a maintenance plan. Accreditation visits can then check it.

SIMULATION DOES NOT HAVE TO BE EXPENSIVE

Simulation means practising a whole emergency as realistically as possible, then talking it through. Realism comes from the task, not from the price of the manikin. AHA guidance accepts simpler, lower-fidelity manikins where higher-fidelity ones cannot be used (AHA, 2025). In Tanzania, Helping Babies Breathe training with simple, low-cost newborn manikins nearly halved newborn deaths in the first 24 hours (Msemo et al., 2013). In Uganda, birth attendants were asked to keep practising weekly on simulators after a one-day course. Few did, but facilities with a named practice coordinator practised more often (Williams et al., 2019).

SIMULATION ON A SMALL BUDGET

- Students or volunteers as patients, with make-up wounds (**moulage**) and a short written script.
- Real equipment and, where possible, a real ambulance, or a room taped out to the size of one.
- A smartphone on a tripod to record, and a laptop to replay key moments in the debriefing.
- A short checklist for observers, so the whole group learns, not only the team in the scenario.

The learning happens mainly in the **debriefing**, the guided conversation after the scenario: what happened, why, and what to do differently next time. In a review of debriefing studies, even a scripted debriefing led by less experienced instructors improved team leaders' performance in paediatric resuscitation (Garden et al., 2015). Video makes the debriefing concrete, because students see what they actually did rather than what they remember. It supports the conversation rather than replacing it: in one randomised study, video-assisted and oral debriefing gave similar results (Farooq et al., 2017). In Kenya, Sahara EMS College, which prepared this brief, trains with medical simulation, audio-video debriefing and video laryngoscopy at its campuses in Nakuru and Kisumu.

Simulation complements real patients but does not replace them. US paramedic education bodies state that simulation "is not a replacement for all live patient experiences" (CoAEMSP/NREMT, 2026). In 640 US paramedic programmes, substituting simulation in more than five skill areas was linked to lower first-attempt pass rates in the national exam (Salhi et al., 2026). Skills also fade, so short, repeated practice sessions after the course are recommended (AHA, 2025).

HOW COMPETENCE IS CHECKED

An **OSCE** (Objective Structured Clinical Examination) is a practical exam. Students rotate through a circuit of stations, often ten or more, spending five to ten minutes at each. Every station presents one task, for example a manikin in cardiac arrest or an actor with a bleeding leg. An examiner scores what the student does against a checklist of observable steps. Some steps are **critical**: missing one means failing the station, whatever the overall score. Because every student meets the same tasks and the same checklist, results are fairer and more comparable than in an unstructured practical exam. OSCEs are widely used in medical, nursing and paramedic education.

EXAMPLE OSCE STATION: BLEEDING AFTER A MOTORBIKE CRASH

Task (8 minutes): "This rider has a deep cut on the thigh and is bleeding heavily. Show what you do." The examiner ticks: scene safety and gloves · direct pressure · tourniquet placed above the wound · **tourniquet tight enough to stop the bleeding (critical)** · time recorded · circulation reassessed · pre-alert to the receiving facility.

METHOD	WHAT IT CHECKS	GOOD PRACTICE
Written test	Knowledge and clinical reasoning	A share of clinical judgement questions; US AEMT and paramedic exams use about a third (NREMT)
OSCE	Practical skills, station by station, with a checklist	Reasonably reliable and valid if well designed; pass marks need careful setting (Mash, 2007)
Logbook	Real patient contacts on placement	Cases observed by a preceptor, with feedback, not just counted (Miller & Archer, 2010)
Final examination	Integrated performance	Set or supervised by a body independent of the training institution

04 · KENYA TODAY

A NATIONAL SYSTEM TAKES SHAPE, TRAINING IS STILL FRAGMENTED

THE SYSTEM AROUND THE EMT

- **Law:** emergency medical treatment is a constitutional right. Under the Health Act 2017 it includes pre-hospital care, stabilisation and referral (Health Act, 2017).
- **Policy:** under the Emergency Medical Care Policy 2020–2030, 23 of 47 counties had started county policies by August 2024, and 13 were implementing them (Siegel et al., 2024).
- **Dispatch:** the 922 emergency number and the National Ambulance Dispatch Centre launched on 5 August 2026. They serve all 47 counties and link more than 600 public and private ambulances; the Health Cabinet Secretary cited over 200 fully KMPDC-accredited ambulances (Citizen Digital, 2026).
- **Regulation:** in September 2025 KMPDC directed all ambulances and emergency care personnel to register (Eastleigh Voice, 2025). Its application form lists **Ambulance Operator, Emergency Medicine Technician and Paramedic**, but sets no minimum qualification, scope or hours per category (KMPDC form). We found no published EMS scope of practice; KMPDC says it aims to set EMS standards and competencies (KMPDC, 2025).

- **Payment:** SHA pays ambulance care only for dispatches coordinated by the National Ambulance Dispatch Centre (listed as "Line 112" in the tariff annex). Patients must go to the nearest facility able to manage their condition. Claims need a dispatch ID, run sheet, patient care record and signed handover (SHA, 2026).

WHAT THIS MEANS FOR TRAINING

The SHA rules turn documentation, destination choice and handover into everyday duties of every crew. A national curriculum can teach them as core skills, not as paperwork.

THE EMERGENCIES EMTS MEET

4,748

road deaths recorded in 2024, most of them pedestrians and motorcyclists (NTSA data via Nation). WHO estimated 14,926 deaths for 2021, against 4,579 reported (WHO, 2023).

39.7%

of maternal deaths were caused by bleeding in the first national enquiry; half of the women who died had been referred between facilities (MoH, 2017).

9,682

registered deaths from pneumonia in 2024, the most of any cause (KNBS via The Star).

WHO TRAINS EMTS TODAY

KMTC offers a **Certificate in Emergency Medical Technician** (1 year; KCSE C-, Biology D), a **Diploma in Emergency Medical Technology** (3 years; KCSE C, Biology D+) and a **2-year upgrading programme** from certificate to diploma (KMTC, 2025). For the March 2026 intake, the Certificate is offered at 31 campuses and the Diploma at five (KUCCPS–KMTC, 2026). In 2023 MMUST helped KMTC develop a Diploma in Advanced Emergency Medical Technology, a route into MMUST's BSc in Paramedic Science (MMUST, 2023).

Other providers offer programmes of different lengths, as publicly advertised:

PROVIDER	PROGRAMMES AS ADVERTISED	SOURCE
AAR	6 months of tuition plus 3 months of attachment; certified by KCEMT	AAR
Kenya Red Cross Training Institute	Certificate in Advanced Emergency Medical Technician (12–18 months), Diploma in Paramedicine (24–30 months)	KRCTI
MMUST	BSc Paramedic Science, first graduates in 2020	MMUST
Sahara EMS College	AEMT Certificate (12 months), Emergency Medical Responder, Emergency Medical Dispatch, EVOC; AHA Training Site (AHA BLS, AHA ACLS, AHA PALS); campuses in Nakuru and Kisumu	Sahara EMS College
St John Ambulance	EMT Certificate (2 years), EMT Diploma (3 years), EMT Diploma Upgrade (2 years), Emergency Medical Responder (10 weeks)	St John Kenya

Malteser International, funded by the German development ministry, supports the Ministry of Health and partners including EMKF, KCEMT, MMUST and Nairobi County towards a standardised national curriculum (Malteser). In 2024 it supported, with EMKF, a 6-day EVOC course in Turkana (Turkana County).

WHAT THIS SHOWS

Kenya has several good programmes, but no national definition of levels, hours, placements or examinations. Employers, SHA and patients cannot yet tell what an "EMT" certificate guarantees. That is exactly what a national curriculum can fix.

05 · AFRICA

WHAT OTHER AFRICAN COUNTRIES HAVE DONE

EAST AFRICA

- **Uganda** now has two formal levels. A **2-year Certificate in Emergency and Accidents Care** was piloted from July 2022, developed by the Ministries of Education and Health with the Allied Health Professionals Council (Daily Monitor), and a **National Diploma in Medical Emergency Care** took its first students in 2025/26 (GlobalGiving).
- **Tanzania** (MUHAS) developed four short courses, including Basic Ambulance Provider and Dispatcher, and fixed the scope before the curriculum (Sawe et al., 2019). A 3-year paramedic diploma proposed in 2019 had still not started by 2025 (MUHAS, 2025).
- **Rwanda:** SAMU ambulances are staffed by nurses and anaesthetists (Rosenberg et al., 2020). Rwanda created an Emergency Care Assistant cadre, with first licensing exams in 2024 (Austrian Red Cross). **Ethiopia** has no standardised paramedic cadre yet (Teferi, EMJ).

SOUTHERN AFRICA

South Africa replaced its short courses between 2017 and 2020 with three higher-education levels, each with its own professional register (NECET, 2017; HPCSA, 2018):

LEVEL	DURATION	NQF LEVEL	CREDITS	REGISTER
Higher Certificate in Emergency Medical Care	1 year	5	120	Emergency Care Assistant
Diploma in Emergency Medical Care	2 years	6	240	Emergency Care Technician
Bachelor of Emergency Medical Care	4 years	8	480	Emergency Care Practitioner

Each institution registers its own Higher Certificate within the national policy (SAQA 119803). South Africa's clinical practice guidelines were developed under AFEM's lead by adapting existing guidelines rather than writing new ones (McCaul et al., 2018).

- **Botswana:** a private college wrote its own Diploma in Emergency Care Technology (251 credits, 28% clinical practice), registered it with the national qualifications authority and benchmarked it against a South African university programme (BQA Q1067). The government employed 76 of its graduates, 19 of them at diploma level (Daily News Botswana).
- **Namibia:** a 3-year bachelor's degree with a diploma exit after year 2 (NUST).
- **Zimbabwe:** one operator combines 5 or 14 weeks of theory with an **11-month attachment** (The Herald).

WEST AND NORTH AFRICA

- **Ghana:** the National Ambulance Service trains **Basic EMTs in 1 year** and **Advanced EMTs in 2 years** at its own school; 2,558 Basic, 222 Intermediate and 425 Advanced EMTs are in service. An Ambulance Council is planned to regulate practitioners and schools (ISD Ghana, 2026; ModernGhana, 2026).
- **Nigeria:** a hospital school in Kano runs a **2-year National Diploma in Paramedic Technology**, accredited by the national technical education board (ThisDay, 2026).
- **Sierra Leone:** a national ambulance service with about 1,000 staff went nationwide within six months, after short basic courses (World Bank, 2020; Ragazzoni et al., 2021). Its later training package for mass casualty incidents and outbreaks was rolled out through trained trainers; the published description, including the module plan, is openly licensed (Caviglia et al., 2022).

CONTINENTAL FRAMEWORKS

The World Bank describes standardised accreditation of EMS training in sub-Saharan Africa as "non-existent". It recommends a single regulator, disaster management in every curriculum and regional harmonisation (World Bank, 2021). WHO offers courses from community first aid to basic ambulance provider, and protocols up to the advanced level, but sets no hours for a certificate or diploma (WHO, 2025).

WHAT THIS SHOWS

- Tanzania and South Africa defined **levels and scope first**, then wrote curricula.
- Several adapted existing material rather than starting from zero.
- In Tanzania, with no ambulance service to ride with, the emergency department and maternity ward served as placement sites.

06 · HOURS COMPARED

HOW LONG EMS PROFESSIONAL EDUCATION TAKES AROUND THE WORLD

The table compares programmes by their published hours. It helps to see what is usual, not to copy one country. Some one-year programmes lead to advanced or paramedic levels, but only on top of an earlier qualification, such as a two-year paramedic diploma in Ontario or EMT certification in California.

COUNTRY	PROGRAMME	CALENDAR LENGTH	TOTAL HOURS	OF WHICH CLINICAL + AMBULANCE
AFRICA				
Kenya	Certificate in EMT (KMTC)	1 year	n/s	n/s
South Africa	Higher Certificate in EMC	1 year	c. 1,200–1,320[1]	c. 320[1]
South Africa	Diploma in EMC	2 years	c. 2,490[1]	c. 660[1]

COUNTRY	PROGRAMME	CALENDAR LENGTH	TOTAL HOURS	OF WHICH CLINICAL + AMBULANCE
ABOUT ONE YEAR				
Estonia	Emergency Medical Technician	c. 1 year	1,560[1]	572[1]
Switzerland	Transportsanitäter EFA	1 year	1,800[2]	n/v
USA	Paramedic, California minimum	n/v	min. 1,090	min. 640
Canada	Advanced Care Paramedic (Ontario)	1 year after a 2-year paramedic diploma	c. 1,230	c. 872
Australia	Diploma of Emergency Health Care	not fixed	925	n/v
ABOUT THREE YEARS				
Germany	Notfallsanitäter	3 years	4,600	2,680
Switzerland	Dipl. Rettungssanitäter HF	3 years	5,400[2]	c. 60–65%[2]
Poland	Ratownik medyczny (bachelor)	3 years	min. 3,675	960 + clinical classes
Czechia	Bc. Paramedic	3 years	5,100	1,800
Israel	B.EMS, Ben-Gurion University	3 years	c. 3,400	c. 1,300 (BGU, 2023)
SHORT ENTRY LEVELS				
France	Diplôme d'État d'ambulancier	c. 23 weeks	801	245
Germany	Rettungssanitäter (NRW)	c. 3 months full-time	min. 520	240
Ireland	EMT	4–5 weeks	160	min. 40
India	EMT-Basic	n/v	450	150
WHO	Basic Ambulance Provider	c. 2 weeks	30 h + 2–5 days	—

"Clinical + ambulance" = hours with real patients in hospital and on ambulances. [1] Converted from credits, includes self-study. [2] Learning hours including self-study. n/s = not stated in the source; n/v = not verified.

WHAT THE COMPARISON SHOWS

- **One year means roughly 1,200 to 1,800 hours**, some including self-study; three years mean about 3,400 to 5,400 hours.
- **Placement shares** range from about a quarter to 70%. Estonia spends 37%, Germany's Notfallsanitäter 58%, Ontario's advanced paramedic about 71%.
- **Clear minimums can be checked.** California requires at least 160 hospital hours, 480 ambulance hours and at least 40 advanced patient contacts; Los Angeles County asks for 50 (LA County EMS). Germany fixes hospital hours by department (NotSan-APrV, Annex 3) and requires at least 175 real missions (Annex 2).
- **Ladders save time.** In Switzerland, the one-year qualification is credited with 1,800 learning hours and shortens the three-year diploma to two years, much like Kenya's existing upgrading route (Swiss framework curriculum, 2022).

07 · BUILDING BLOCKS

READY-MADE BUILDING BLOCKS, AND WHAT THEIR LICENCES ALLOW

Kenya does not need to write everything from scratch. These materials are publicly available. Their licences decide whether they can be copied, adapted or only cited.

LICENCES AT A GLANCE

- **CC BY:** free to copy and adapt, with credit to the author.
- **CC BY-NC-SA** (most WHO material): free to adapt for **non-commercial** use, with credit, and adapted versions must be shared under the same licence. Fee-paying training may count as commercial use, so WHO's permission is advisable.
- **Copyright without licence:** can be read and cited, but not reproduced without permission.

BUILDING BLOCK	WHAT IT OFFERS	LICENCE
WHO Prehospital emergency care: operational guidance (2025)	21 clinical protocols; medicines lists for basic and advanced providers; guidance on dispatch and handover	CC BY-NC-SA 3.0 IGO
WHO-ICRC Basic Emergency Care	5-day course for first-contact providers in low-resource settings	CC BY-NC-SA 3.0 IGO
WHO Basic Ambulance Provider syllabus (2025)	Course outline for basic ambulance providers	Not stated; contact WHO
WHO Emergency Care Toolkit	Triage, referral and transfer tools	Open access, licence not stated
Sierra Leone disaster training package	Published design of a mass casualty and outbreak course for crews	CC BY 4.0 (article)
US National EMS Education Standards (2021, amended 2025)	Competencies per level	US federal document
NHTSA EVOC (Ambulance), 1995	Classroom, driving-range and on-the-job modules	US federal document
Philippines TESDA EMS NC II (2013)	Competency-based units with assessment guides, close to Kenya's CBET format	Not stated
IFRC First Aid Guidelines (2025)	Lay and designated first aid	Non-commercial copying with credit

WHO's Basic Emergency Care course has already been taught in Kenya. At the University of Nairobi, medical students' marks rose from 82% to 94.5% after the five-day course (Michaeli et al., 2023). Knowledge and confidence fell again within 12 to 18 months, so refresher training is needed (Michaeli et al., 2025).

Kenya has no resuscitation council of its own within ILCOR, the international resuscitation committee (ILCOR). Curricula usually refer to current ILCOR evidence and the American Heart Association guidelines.

08 · LESSONS FROM REFORMS

WHY EMS TRAINING REFORMS SUCCEED OR FAIL

South Africa is the best-documented case. When all short courses were discontinued in 2017 (HPCSA, 2018), **93% of the workforce held the two lowest short-course qualifications** (NECET, 2017). In one district, only **0.9%** of short-course staff met the entry requirements of the new Higher Certificate, and none those of the Diploma (Selahla et al., 2025). One university lost its accreditation, so its enrolled students could not register (HPCSA, 2018). A new mid-level met resistance on duty, because colleagues did not know what it covered (Malgas, 2021).

Saudi Arabia introduced EMT diplomas in 2005, then in 2012 made a bachelor's degree the minimum for work in any health field (Khattab et al., 2019). In the **Philippines**, a national certificate qualified holders as "Emergency Medical Technician (Basic)" in 2006 (TESDA, 2006); the 2013 version explicitly no longer did (TESDA, 2013). The pattern: when reforms raise the entry level, lower qualifications lose standing unless the reform gives them a place.

HOW OTHERS BRIDGED THE EXISTING WORKFORCE

- **Germany:** experienced staff moved to the new Notfallsanitäter qualification through a supplementary exam, after a **bridging course of 480 or 960 hours** if less experienced; the window closed after ten years (NotSanG).
- **Norway:** a transition rule lets experienced ambulance staff and nurses apply for full paramedic authorisation until 2030 (Helsedirektoratet).
- **United Kingdom:** beside the registered degree-level paramedic, the unregistered Associate Ambulance Practitioner (Level 4 apprenticeship) offers a recognised step towards it (Skills England).

FIVE LESSONS FOR KENYA

01 **Regulator first.** Levels, titles and scope should be defined with KMPDC before programmes are accredited.

02 **A published scope of practice** before the first cohort graduates under the new curriculum.

03 **Recognition of prior learning** and bridging modules for everyone already working, including maths and science where needed.

04 **Transition windows** of several years, so services keep running.

05 **Accredit before enrolling**, and protect students if accreditation is withdrawn.

Like South Africa before 2017, Kenya has programmes of very different lengths; unlike South Africa then, its regulator is only now defining categories. Planning the transition early protects the people already on the ambulances.

09 · GUIDANCE

TWELVE QUESTIONS TO ASK OF ANY EMT CURRICULUM

These questions can be used to review any proposal, including the national draft. A good curriculum gives a clear answer to each.

SCOPE AND REGULATION

01 **Is the scope of practice written down?** Which skills and medicines does the graduate use, and under whose medical direction?

02 **Does each level match a KMPDC category?** Ambulance Operator, EMT and Paramedic should each have a defined training route.

03 **Does it fit the qualifications framework?** Is the KNQF level stated, and can graduates progress to the next level without starting again?

CONTENT AND RELEVANCE

04 **Are learning outcomes observable?** "Performs", "recognises", "decides", rather than "knows about".

05 **Does Kenya's burden of disease set the weight?** Road injuries, bleeding in childbirth, sick children, infections, snakebite, burns and poisoning should get the most time.

06 **Is every intervention justified by evidence?** Practices that do not help patients should be replaced, and the reason given.

07 **Does it work with the equipment that is really there?** Skills should be taught with full equipment and with minimal resources, and include choosing the right facility.

PRACTICE AND ASSESSMENT

08 **How many hours are spent with real patients?** Comparable programmes spend about a quarter to 70%; are hospital and ambulance placements specified?

09 **Is every skill practised hands-on?** Is there a minimum equipment standard for skills labs, are scenarios debriefed, and are skills refreshed?

10 **How is competence checked?** Practical stations (OSCE), a signed logbook and a final examination independent of the training institution.

PEOPLE AND IMPLEMENTATION

11 **What happens to people already working?** Recognition of prior learning, bridging modules and a transition period.

12 **Are placements and preceptors available?** Who supervises students on ambulances and in hospitals, and how are those supervisors trained?

DECISIONS THE NATIONAL PROCESS WILL NEED TO TAKE

- [ ] Levels, titles and scope of practice per KMPDC category
- [ ] National minimum hours, placement hours and logbook numbers
- [ ] Which body sets and runs the national examination
- [ ] Recognition of prior learning and a transition window for the existing workforce
- [ ] Medical direction and nationally consistent clinical protocols
- [ ] One standard for emergency vehicle operator training (EVOC) and one triage system for all agencies
- [ ] Minimum standards for skills labs: equipment, group sizes and maintenance
- [ ] Placement sites, preceptor training and their funding

10 · KEY TERMS

KEY TERMS EXPLAINED

COMPETENCY-BASED EDUCATION AND TRAINING (CBET)

Training organised around what learners must be able to do at work, assessed by performance. Kenya's TVET system uses it.

COMPETENCY

The ability to perform a task safely and correctly in a real setting, combining knowledge, skills and judgement.

CONTACT HOURS, LEARNING HOURS, CREDITS

Contact hours are spent with a teacher or on placement. Learning hours and credits also include self-study.

DEBRIEFING

The guided conversation after a simulation: what happened, why, and what to do differently next time.

EVOC

Emergency Vehicle Operator Course: training in safe emergency driving.

KNQF

Kenya National Qualifications Framework, which places every qualification on one of ten levels.

LEARNING FIELD

A unit of training built around a real work situation, combining theory and practice for that situation.

LEARNING OUTCOME

An observable statement of what a learner can do after training, such as "performs adult CPR".

LOGBOOK

A record of real patient contacts and skills on placement, signed by a supervisor.

MEDICAL DIRECTION

Physician oversight of EMS: protocols, advice in real time and review of care.

MOULAGE

Make-up and props that imitate wounds and other signs, to make simulation realistic.

OSCE

Objective Structured Clinical Examination: a practical exam in which every student rotates through the same stations and is scored against the same checklist.

PLACEMENT

Supervised training with real patients in hospital departments or on ambulances.

PRECEPTOR

An experienced practitioner who supervises and assesses students on placement.

RECOGNITION OF PRIOR LEARNING (RPL)

Formal credit for skills and experience someone already has, so they do not repeat training.

SCOPE OF PRACTICE

The skills and medicines a practitioner is permitted to use, set by the regulator.

SIMULATION

Practising a whole emergency in a realistic scenario with manikins or actors, followed by a debriefing. It can be done with simple means.

SKILLS LAB

A training room equipped with manikins, task trainers and real clinical equipment, where students practise one skill at a time with feedback.

APPENDIX

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All sources as linked in the text, by section; each entry links to the full document. Accessed October 2026.

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