TR-07 African traditional medicine: the healer, the plants and the evidence

HEALING after the FALL, research library, TR-07

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How to read this

PH-06 holds the plants of sub-Saharan Africa and their doses, WO-05 the bonesetters' fracture record, SY-04 the publication rules and MA-01 the birth attendant trials (THRIVING library, PH-06, WO-05, SY-04, MA-01). This report covers what they leave out: how African traditions explain illness, who the healers are, how many people use them, what collaboration has achieved, and the harms in full.

Each practice is set out as **the healer's claim**, **the record** and **the inference** modern science draws.

Africa is not one tradition. The peoples named here are the Azande, the Zulu and Xhosa, the BaKongo, the Yoruba, the Amhara and the Muslim peoples of the Sahel. Their systems differ as much as Ayurveda differs from Galenic medicine.

1. Findings by section

1.1 The tradition on its own terms: why this person, and why now

The Azande and the second question. Edward Evans-Pritchard lived among the Azande of the southern Sudan between 1926 and 1930 and published *Witchcraft, Oracles and Magic among the Azande* in 1937. I read it only through secondary summaries (Evans-Pritchard 1937). His best-known case is a granary that collapses and injures the people sitting in its shade. The Azande know perfectly well that termites ate the supports. That explains how it fell. What termites cannot explain is why it fell at that moment, on those people. For that second question the Azande answer is witchcraft, *mangu*, a substance inherited in the body of the witch, who may not know they carry it. The witch is found by consulting oracles, of which the poison oracle is the most trusted, and is asked to withdraw the influence (Evans-Pritchard 1937).

The Azande did not confuse cause and meaning. Biomedicine answers only the first question. A patient who asks "why my child?" is asking the second, and a village healer who cannot answer it will lose the patient to someone who can.

The Zulu: sickness, pollution and the ancestors. In Zulu thought the word for illness, *isifo*, covers what English calls sickness and also misfortune and a broken balance between a person, the kin, the ancestors and the land. Three causes recur in the record. The first is the ancestors, *amadlozi*, who protect the living and who withdraw that protection, or send illness as a call, when they are neglected. The second is witchcraft, the deliberate harm of one person by another through medicines or familiars. The third is pollution, a state of ritual darkness or contamination that follows contact with death, birth and some bodily states, and that makes a person vulnerable and dangerous to

others (Wikipedia, Traditional healers of Southern Africa). Harriet Ngubane's *Body and Mind in Zulu Medicine*, from fieldwork in the Nyuswa reserve between 1963 and 1971, is the standard ethnography of this pollution, *umnyama*, and of the colour symbolism of medicines (Ngubane 1977). I read only a record and a review, so the gloss of *umnyama* is [VERIFY]. The reviewer argued that the book owes as much to British symbolic anthropology as to Zulu thought, a caution that applies to every outsider's account here, including this one.

The treatment follows the cause. Natural illness goes to herbs and increasingly to the clinic, ancestral illness to reconciliation, witchcraft to protection, and pollution to cleansing by emetics, enemas, steaming and washing. The cleansing logic is the root of the infant enema and the purge (section 1.9).

The BaKongo and the therapy managers. John Janzen's *The Quest for Therapy in Lower Zaire* (1978) describes how BaKongo families decide on treatment. The decision is not the patient's alone. A group of kin, the "therapy managing group", discusses the illness, chooses where to go, pays, and changes course when the treatment fails. They use the hospital, the prophet and the herbalist, in sequence or together, without contradiction (Janzen 1978, publisher description only). For a village after the Fall this is the most useful finding: the family council decides, and a healer who speaks only to the patient will be overruled.

The Yoruba: destiny, Ifa and Osanyin. Yoruba healing separates divination from herbal practice. The *babalawo*, "father of secrets", is a priest of Ifa, the oracle associated with Orunmila. He casts the divining chain, the *opele*, or palm nuts, and reads the resulting sign, the *odu*, from a corpus of 256 signs, each with its own verses, sacrifices and remedies. The *onisegun* is the herbalist, working under Osanyin, the orisha of leaves and medicine (Wikipedia, Osanyin). Illness can come from the gods, from witches, from enemies, from the person's own destiny, or from natural causes, and diagnosis by Ifa decides which. The count of 256 *odu* and the length of a babalawo's training, given by popular sources as about 12 years and by others as up to 20, come only from weak sources [VERIFY]. The Ifa verses themselves are a teaching corpus held by the priesthood. Parts are published by Yoruba scholars, notably Wande Abimbola, whom I did not read, and the rest is initiatory (SY-04, category 4).

Ethiopia: the debtera, the herbalist and the evil eye. In the Amhara highlands of Ethiopia healing grew around the Orthodox church. The *debtera* is a lay cleric, trained from childhood in Ge'ez, chant and the psalter, who serves the church as cantor and scribe and who also writes protective scrolls and amulets, performs exorcism with holy water and prescribes herbs. He treats the evil eye, *buda*, which is attributed to particular people [VERIFY: the association with artisan lineages is not confirmed from a source read], and possession by *zar* spirits. He is paid for amulets and remedies but not for the liturgy (Wikipedia, Debtera). Allan Young's fieldwork in Begemder in 1966 separated four kinds of healer that the Amhara themselves distinguish: the debtera, the herbalist, the bonesetter and the midwife (Young 1970, abstract only). Pankhurst's history of Ethiopian medicine, which I could not read, is the source to go to (Pankhurst 1990).

The marabout and the written word. Across the Muslim Sahel and West Africa the *marabout* is a Qur'anic scholar whose healing works through the written word of God. Amulets called gris-gris, leather pouches sewn around written verses, are worn for protection by Muslims and, in Senegal, by some Catholics with Bible verses in place of Qur'anic ones (Savani, Berkley Center). The verse is also drunk. A photograph from Darfur in 1965 shows Fur villagers writing Qur'anic verses on wooden boards and washing the ink off to be drunk as medicine (University of Bergen, Darfur archive). The Timbuktu manuscripts pair verses with plant remedies in the same texts (HMML 2020). Some marabouts work as herbalists. Some, in the record, sold protection against new diseases: in 2020 one was reported selling verses against Covid-19 for 5,000 CFA francs (Worldcrunch 2020).

The inference. All five treat illness as happening between people, and between people and the unseen, and all keep a separate empirical layer for herbs, bones and births. The explanatory theories have no evidence as mechanism, and witchcraft has a death toll (section 1.9). But they give meaning to misfortune, bring the family into the decision and make the healer answerable to a community. A village can borrow those without believing the mechanism.

1.2 The healers as institutions: calling, training, fees and referral

Zulu izinyanga and izangoma. In isiZulu the *inyanga* (plural *izinyanga*) is a herbalist who works mainly with medicines and learns by apprenticeship, often inside a family line. The *isangoma* (plural *izangoma*) is a diviner who diagnoses through the ancestors (Wikipedia, Traditional healers of Southern Africa). Many healers do both. The isangoma, more often a woman, does not choose the work: she is called by the ancestors through dreams and an illness, *ukuthwasa*, that does not yield to other treatment. The trainee, *ithwasane*, lives with a teacher, *gobela*, for months or years, and graduates in a ceremony (Wikipedia, Ukuthwasa). The anthropologist Jo Wreford was herself initiated and wrote her Cape Town doctorate from inside the training (Wreford 2005, record only). The training's content is initiatory and not reproduced here (SY-04, category 4).

I found no reliable figure for a sangoma's training or consultation fee [VERIFY, gap]. South Africa's Traditional Health Practitioners Act 22 of 2007 created a council to register healers. The figure usually given, 200,000 or more healers, has no data behind it and was repeated as fact during the Act's passage (Louw 2016). The Witchcraft Suppression Act of 1957, descended from a Cape law of 1895, criminalised naming a witch and remains in force (Wikipedia, Witchcraft Suppression Act, THRIVING library, SY-04).

Yoruba babalawo and onisegun. Ifa training is an apprenticeship to a senior babalawo, with memorisation of the verses of the *odu* and initiation. The onisegun learns plants by apprenticeship. In 1980 D. D. O. Oyebola surveyed 165 Yoruba healers, found their surgery rudimentary, and argued that the essential reform was to persuade bonesetters to refer difficult cases (Oyebola 1980, abstract only). I did not find fee data.

Ethiopian debtera. The debtera's literacy is his licence, gained in the church schools, and I found no fee figures beyond the rule that charms are paid for and liturgy is not.

The marabout. Training is Qur'anic schooling under a master, and authority comes from learning [VERIFY: from the general sources read, no ethnography of marabout training was reached]. The written verse is the remedy.

Ghana: the institution integrated. Ghana has gone furthest in formalising the herbalist. The Traditional Medicine Practice Act 575 of 2000 created a council to register practitioners, and Kwame Nkrumah University of Science and Technology began a four-year BSc in Herbal Medicine in 2001. A pilot placed herbal medicine units in government hospitals from 2012, and by 2023 there were 55 (Asase 2023, abstract and search summary). In 2024 the council was reported to have more than 27,000 registered practitioners (GNA 2024, headline only). The hospital herbalist is the nearest real model of the book's dispensary healer.

Fees, against the hospital. The only robust comparison found is for fractures: a median of USD 30 with a bonesetter against USD 173 in hospital (Unadkat 2025, via THRIVING library, WO-05). Among 400 randomly selected residents of Ilorin, Nigeria, 52.3% had used a bonesetter, and of those who knew the practice 69.3% preferred it, for cost (63.8%), acceptability (58.6%) and access (51.9%). The push factors were the attitude of hospital staff (77.5%), delay in hospital (71.0%) and fear of amputation (54.3%) (Aderibigbe 2013). The irony is that amputation is what bonesetter care too often ends in (section 1.4).

Referral habits. The healers in the record refer when trained to, and rarely otherwise. In Hlabisa, KwaZulu-Natal, 84% of healers asked said they would accept a role as supervisors of TB treatment, and only 4% thought healers could cure TB (Wilkinson 1999, abstract only). Across 180 sub-Saharan studies, between 55.8% and 100% of people who used traditional medicine did not tell their health worker (James 2018, abstract only). The patient carries the information between the systems, or does not.

1.3 The 80 per cent: where it came from and the true range

The claim. That 80% of Africans, or of people in developing countries, rely on traditional medicine for primary health care appears in WHO's Traditional Medicine Strategy 2002 to 2005, in many textbooks and in most papers on the subject.

Where it came from. Africa Check traced it to chapter 28 of a 1983 WHO book, *Traditional Medicine and Health Care Coverage*, written by Robert Bannerman. The sentence there referred to the disadvantaged 80% of the world's population, not to Africans, and gave no survey behind it (Africa Check 2016). Oyebode and colleagues, at Warwick, also traced it to that book and found its underlying data unavailable (Oyebode 2016). The number was a political estimate of the share of humanity outside the reach of modern health services, made in the years of the Alma-Ata declaration, and it became a statistic of healer use by repetition.

What was measured. Oyebode, Kandala, Chilton and Lilford used the WHO Study on Global Ageing and Adult Health (SAGE), household surveys of 35,334 adults in six middle-income countries. Two were African (Oyebode 2016, read in full).

Country	Sample	Traditional medicine as main source of care	Any use of a traditional practitioner in 12 months
Ghana	4,661	2.6% raw, 2.1% adjusted	2.6% raw, 1.5% adjusted
South Africa	3,411	1.2% raw, 1.7% adjusted	0.1% raw, 0.02% adjusted
India		11.7% adjusted	19.0%
China			9.4%

In Ghana, use was associated with depression (odds ratio 2.2) and hypertension (1.7), which suggests that people go to healers for chronic and mental conditions that clinics serve badly. South Africa's 2015 General Household Survey found that 0.5% of households would go first to a traditional healer when ill (Africa Check 2016).

The other side. The systematic review by James and colleagues of 180 studies from 2006 to 2017 found "relatively high" use of traditional and complementary medicine across sub-Saharan Africa, alone and alongside biomedicine, and also found no study that substantiated the 80% figure (James 2018, abstract only). The two are not as far apart as they look: SAGE asked about consulting practitioners, while James's studies include self-treatment and particular patient groups. PH-06 notes that more than half of KwaZulu-Natal adults starting antiretrovirals reported traditional or complementary medicine (THRIVING library, PH-06).

The true range. My reading is that consulting a healer in a given year ranges from under 1% to perhaps 10% of adults in the African population surveys found, while use of herbal remedies, including self-treatment, ranges from about a third to well over half in many patient groups. [VERIFY: my synthesis, not a pooled estimate]. No representative continental figure exists. Where the clinic has gone, the share will rise towards a pre-clinic level nobody measured.

1.4 Bonesetting: the record beside WO-05

WO-05 gives the bonesetter record in full (THRIVING library, WO-05). Four figures matter here. About 85% of Nigerian fracture patients go first to a bonesetter (Dada 2011). Complications in the hospital series run from 16.1% to 64.3% for malunion or non-union, 2.8% to 29.6% for gangrene and 2.8% to 60% for amputation (Unadkat 2025). In Jos, 60 of 70 trauma amputations over ten years followed bonesetter care (Onuminya 2000). One-day courses for 112 healers in southern Ethiopia cut gangrene amputations from 25 to 7 (Eshete 2005). All four are from WO-05.

The healer's claim. The Yoruba bonesetter sets bones with herbs, schnapps, cream applied with a feather, and splints of raffia, bamboo or bark bound with pressure (Omololu 2008, via WO-05). The claim is that bonesetters heal fractures more cheaply, with less pain and without the amputations people fear from hospitals.

The record. It supports half of that. Most closed fractures heal if held still, and a teaching hospital sees only the failures. The only population study, an abstract from Sidama in Ethiopia, found adjusted odds of complication of 4.15 after bonesetter care among 830 injured people (OTA 2024, via WO-05). No study gives union, malunion and infection for an unselected African bonesetter population.

The inference. The bonesetter's diagnosis by hand is good, the splint materials are sound, and the failure lies in tight circular binding on a fresh, swelling limb, in scarification over a fracture, and in keeping displaced and open fractures that need a surgeon. Every complication series puts gangrene from tight binding first. The trained-against-untrained comparison in Nigeria (gangrene 2.5% against 10%, Onuminya 2006) and the Ethiopian courses show that the specific error can be taught out in a day. I agree with WO-05's grades: training bonesetters C, tight binding X, scarification over a fracture X, untrained bonesetting of displaced or open fractures X.

What it says about a district without a surgeon. After the Fall every district lacks an orthopaedic surgeon, as Nigeria nearly did, with fewer than 200 for 140 million people (Omololu 2008, via WO-05). The bonesetter is not the alternative to the surgeon but his absence made into an institution. The village should keep him, remove the tight binding and teach the triage rule. Omololu's rule is that displaced fractures and open fractures go to hospital, undisplaced closed fractures stay with the bonesetter, and an undisplaced open fracture stays only if the wound is under 1 cm (Omololu 2008, via WO-05). After the Fall "go to hospital" means "go to the most skilled hands within reach", which will often be the district infirmary.

1.5 Midwifery: the attendant, the labour herbs and the cut

The healer's claim. The village birth attendant is usually a senior woman who learned from other women. Many give herbs to prepare the womb, shorten labour, expel the placenta and stop bleeding. Their claim is skill and presence where no midwife is.

The record on attendants. MA-01 has the trials (THRIVING library, MA-01). In Larkana, Pakistan, training attendants and linking them to health workers lowered perinatal death (odds ratio 0.70, Jokhio 2005). In Lufwanyama, Zambia, attendants trained in newborn resuscitation, amoxicillin for suspected infection and referral cut neonatal deaths by 45% (relative risk 0.55, Gill 2011). The Cochrane review judged the evidence promising but insufficient (Sibley 2012). The detail belongs in TR-14, not yet written. I grade training of attendants A for neonatal survival on the Zambian and Pakistani trials, with the Cochrane caution.

The record on labour herbs. At King Edward VIII Hospital in Durban, Mabina, Pitsoe and Moodley studied 229 women. 55% had taken herbal medicines in pregnancy. Grade II to III meconium staining, a sign of fetal distress, was found in 55.6% of herb users against 15% of others, and caesarean section was performed in 38.5% against 22% (Mabina 1997, abstract only). In Mchinji, Malawi, a secondary analysis of trial data on 8,219 births found that 25.7% of women used *mwanamphepo*, herbs to hasten labour. Their adjusted odds of maternal complications were 1.28 (1.09 to 1.50) and of neonatal death or illness 1.22 (1.06 to 1.40) (Zamawe 2018). In Buikwe, Uganda, women named 104 plants for labour, bleeding after birth and abortion (Nabatanzi 2024, preprint abstract only). *Hoslundia opposita* and *Phytolacca dodecandra* were among them. A uterine stimulant given to a labour that is slow because the baby cannot pass is how obstruction becomes a ruptured uterus [VERIFY: inference, no African series found]. Labour-hastening herbs are grade X.

The cut: gishiri and gurya. In Hausa-speaking northern Nigeria and Niger, *gishiri* is a cut made in the front wall of the vagina, given for obstructed labour and for many other complaints [VERIFY: description from the fistula literature in general, not from the abstracts read]. In rural north-western Nigeria, among 323 pregnant women, it was the most widely known form of genital cutting (53.5%), and 26.9% believed it eased childbirth (Ashimi 2015, abstract only). At the Danja fistula centre in Niger, 10 of 360 women with fistula had a fistula caused by a *gurya* cut (Ouedraogo 2018, abstract only). A Nigerian review found that prolonged obstructed labour was the commonest cause of vesicovaginal fistula in every series, 65.9% to 96.5%, and listed the gishiri cut among the other causes (Ijaiya 2010, abstract only). Tahzib's 1983 series from Zaria is the classic source on gishiri fistula, but I could not find the percentage it gave [VERIFY, gap]. The cut is grade X. It does not relieve obstruction, which is caused by the bony pelvis, and it adds a wound.

The inference. The attendant's presence, clean hands and referral work on the trials. Her herbs and the cut do not.

1.6 Surgery and inoculation: the strongest pages of the record

The Bunyoro caesarean, 1879. In 1879 the Scottish medical missionary Robert Felkin watched a caesarean section at Kahura in Bunyoro, in what is now western Uganda, and published his account in 1884. The patient was a woman of about 20 having her first child. She was given banana wine until half intoxicated, and the operator washed his hands and her abdomen with banana wine. He opened the abdomen, controlled bleeding with a red-hot iron, delivered the child, did not suture the uterus, and closed the abdominal wall with iron spikes. Felkin followed the woman for 11 days, and mother and child survived (Diop 2021). The Bunyoro healers also practised inoculation of infants against syphilis according to Lambkin in 1903 (Diop 2021).

The record is one witnessed operation with a good outcome. The inference is that the Banyoro operator understood alcohol to clean and cautery to stop bleeding at a time when European caesarean survival was poor [VERIFY: comparison not sourced here]. It is grade D as a procedure and cannot be taught from one account, but it shows African surgical skill that was lost rather than recorded.

Inoculation and Onesimus. In about 1716 an enslaved West African man in Boston called Onesimus told the minister Cotton Mather that he had been given smallpox matter in a cut as a child, in an operation common among his people, and was protected. Mather persuaded the physician Zabdiel Boylston to try it in the epidemic of 1721 and 1722. Of 280 inoculated, 6 died (2.2%). Of 5,889 who caught smallpox naturally, 844 died (14.3%) (Wikipedia, Onesimus). The groups were not alike, but the difference was large. Variolation was an African practice that America adopted. It is grade B as history, against a disease that is gone.

Trephination by Kisii healers in Kenya is reported in the literature, but I found no source on it [VERIFY, gap]. Uvulectomy, the commonest traditional operation today, is a harm (section 1.9).

1.7 Mental illness: where collaboration has a trial

The healer's claim. Psychosis and other severe mental illness are widely explained in West Africa by spirits, witchcraft or a broken taboo. Families take the sick person to a traditional healer or to a prayer camp, where treatment can include herbs, prayer, fasting and, for people who are violent or wander, chaining.

Aro, 1954. Thomas Adeoye Lambo, the first Western-trained Nigerian psychiatrist, opened Aro hospital at Abeokuta in 1954 and from about 1956 boarded patients in four nearby villages with their relatives, with nurses on 24-hour duty and traditional healers involved, up to 200 to 300 patients at a time (Wikipedia, Thomas Adeoye Lambo). I found no outcome data [VERIFY, gap].

COSIMPO, 2020. Oye Gureje and colleagues randomised 51 clusters of traditional and faith healers in Kumasi, Ghana, and Ibadan, Nigeria. Intervention clusters linked healers with primary health workers in shared care. 307 patients with psychosis were enrolled, with a PANSS score of 60 or more. At six months the PANSS score was 53.4 in the intervention arm against 67.6 in controls, an adjusted mean difference of 15.01 points (95% confidence interval 8.84 to 21.17). Harmful practices such as shackling fell in both arms, from 57% to 9% with the intervention and from 42% to 10% without it, with no difference between them. Costs fell more in the intervention arm (Gureje 2020, abstract only). Grade A. I did not read the intervention's detail in the full paper [VERIFY].

The prayer camp, 2018. Angela Ofori-Atta and colleagues randomised 139 residents of a Ghanaian prayer camp: 71 received psychiatric medication, 68 did not, and both continued with prayer and the camp's regime. Symptoms (BPRS) fell more with medication ($P = 0.003$, effect size 0.48). The number of days in chains did not differ (Ofori-Atta 2018, abstract only).

The inference. Medicine and collaboration improve symptoms. Chaining falls when outsiders watch, in both arms, and not further because of medicine. A 2025 scoping review of six studies concluded that education reduces harmful practices (Jilka 2025, abstract only). Ending chaining therefore needs its own rule (Protocol 6).

1.8 HIV and TB: what collaboration achieved

THETA, Uganda. Traditional and Modern Health Practitioners Together against AIDS (THETA) was at work in Kampala by 1992, when it designed a clinical study [VERIFY: founding year]. It studied healers' herbal treatment of herpes zoster in people with HIV and reported faster pain relief with the herbal treatment (Homsy 1999, abstract only). The design was observational and the comparison weak, so the herpes result is grade D. THETA's lasting work was training healers as HIV educators and counsellors (Wikipedia, THETA). Like most of this literature, its reports come from the programme itself.

TB in Hlabisa. In Hlabisa, KwaZulu-Natal, healers were trained as supervisors of directly observed TB treatment. Between April 1999 and December 2000, 3,461 TB patients registered. Treatment success was 77% in intervention areas against 75% in control areas. Among patients supervised by healers, completion was 88% (48 patients) against 75% for other supervisors (227), a difference that was not statistically significant (P = 0.38) (Colvin 2003, abstract only). The press reported a clear success. It shows healers supervise as well as others, not better. Grade B.

Antiretrovirals in Mozambique. In a pre-post study of 276 people with HIV in rural Mozambique, pairing patients with a trained healer made no difference to adherence as measured by medication possession: 0.80 against 0.79 (P = 0.96) (Audet 2022, abstract only). The patients nonetheless said that without the healer they would be dead.

HIV testing by healers in South Africa. In a pilot in rural South Africa, trained traditional health practitioners offered HIV testing to their clients. Of 409 eligible, 316 were tested and 20 were positive, of whom 95% were linked to care (Audet 2025, abstract only). A cluster trial is registered with no results yet [VERIFY].

The plants. Sutherlandia did nothing for HIV and was linked to more TB, and its promotion in place of antiretrovirals is the library's clearest lesson in remedies promoted on politics (THRIVING library, PH-06).

The inference. Healers can supervise, test, counsel and refer as well as other lay workers, and are the largest pool of them. The collaborations that work give the healer a biomedical task and leave the theory alone.

1.9 The harms, given their full weight

Callilepis laureola, impila. PH-06 gives the plant and its toxins (THRIVING library, PH-06). The scale needs adding. K. D. Bhoola's 1983 Natal thesis reviewed 21,687 consecutive post-mortems at King Edward VIII Hospital in Durban over 20 years and found acute liver necrosis as the main cause of death in 447. Of these, 263 showed the pattern of centrilobular necrosis with acute kidney tubular necrosis that he linked to impila, with low blood sugar as the leading clinical sign (Bhoola 1983, abstract only). That is about 13 deaths a year at one hospital [VERIFY: my arithmetic]. This confirms the thesis author PH-06 marked [VERIFY]. Grade X.

Other poisoning. Among 206 traditional-medicine deaths in the Johannesburg forensic record, and in a series of acute kidney failure after folk remedies in which 41% of patients died, the plants were often unknown (Stewart 1999, Luyckx 2005, both via THRIVING library, PH-06).

Enemas and purges in infants. In one KwaZulu-Natal study 89% of babies under three months had been given an enema, *isiqoni*, and caustic enemas have destroyed a child's rectum and colon (THRIVING library, PH-06). The harm is dehydration and caustic injury. Grade X.

Uvulectomy. The uvula is cut, often in infancy, by a traditional practitioner with a blade or a sickle knife, to prevent throat infection, cough, vomiting and failure to thrive. PH-06 cites an Ethiopian meta-analysis of 19 studies and 23,559 people with complications in 29% (THRIVING library, PH-06). A second review across Africa pooled 11 studies of 7,231 children and found a prevalence of 40.98% (25.04% to 56.92%), and linked the reuse of blades to HIV and hepatitis B (Demis Kebede 2025). The record shows bleeding, anaemia, infection, sepsis and death. There is no benefit. Grade X.

Scarification and shared blades. Incisions for medicine to be rubbed in are part of many traditions, including Zulu and Yoruba practice. In Buea, Cameroon, among 1,144 adults, past traditional operations or scarification were linked to hepatitis B infection (adjusted odds ratio 2.87, 1.67 to 4.92) (Tazinkeng 2022, abstract only). The harm is the shared blade, not the cut. A single new or boiled blade for each person removes most of it [VERIFY: inference]. Shared-blade scarification is grade X, and the cut itself is grade D.

The Eastern Cape circumcision deaths. Among the amaXhosa and other peoples of South Africa, boys become men through *ulwaluko*, an initiation that includes circumcision by a traditional surgeon and a period of seclusion under the care of attendants (Douglas and Maluleke 2018). The rite is restricted to initiates and is not described here (SY-04, category 4). The harms are public. Between June 2006 and December 2014, among more than 400,000 initiates in the Eastern Cape, 532 died, 233 lost their penis to amputation and 5,586 were admitted to hospital (Daily Dispatch 2015). That is a death rate of about 1.3 per 1,000 initiates [VERIFY: my arithmetic from the newspaper figures]. A systematic review of traditional male circumcision in eastern and southern Africa found complication rates of 35% and 48% in two studies and mortality of 0.2% in one (Wilcken 2010). The causes of death named are dehydration, sepsis, gangrene, pneumonia, assault and thrombosis (Douglas 2018). Dehydration is the most preventable: water was withheld by tradition and by inexperienced attendants, and deaths followed (Douglas and Maluleke 2018, abstract only). Protocol 5 touches only the body: water, the wound and the dressing.

Delay to care. In a national household survey in Malawi, surgical conditions caused 26.9% of deaths, and 12.9% of the people who died had also visited a traditional healer (Varela 2020). A scoping review of 78 studies of delay to appendicectomy named traditional or alternative medicine among the causes (Louw 2023, abstract only). In Lusaka, among 240 emergency laparotomies, the median time from onset to surgery was 34 hours, of which 18.5 hours were spent before seeking care (Gazzetta 2026, abstract only). For cancer, a review of seven Ethiopian studies and 2,641 patients found that 54% (39% to 68%) delayed seeking care, with rural residence tripling the odds (Abdulwehab 2026, abstract only). In South Africa, where five-year breast cancer survival is about 40%, delays ran from 28 days to over 12 months (Reissis 2026, abstract only). Neither abstract isolates the healer's share of the delay [VERIFY]. I found no study that measured the extra deaths caused by a visit to a healer before appendicectomy or caesarean section [VERIFY, gap]. The inference is that where hours matter, a perforating appendix or an obstructed labour, a detour costs lives, and where months matter, in cancer, it costs the window for cure.

Witchcraft accusations. The witchcraft theory kills. UNICEF's 2010 study of children accused of witchcraft in West and Central Africa found "thousands" of accused children in Kinshasa and Lubumbashi and many in Akwa Ibom in Nigeria, mostly boys aged 8 to 14, beaten, abandoned or killed, and said no comprehensive count existed (UNICEF 2010). In northern Ghana women accused of witchcraft, mostly old, live in "witch camps". ActionAid counted about 800 women and 500 children in them (ActionAid 2012, search summary only), and a 2021 coalition report counted 539 accused people in five remaining camps, 498 of them women (Sanneh Institute 2021, search summary only). In Tanzania, the belief that the body parts of people with albinism bring wealth led to at least 73 killings since 2000 (UN 2014). Not all involve healers, and many healers oppose them [VERIFY: the share involving diviners was not measured in any source read]. The theory is the cause, whatever the healer.

1.10 Sacred knowledge and the keep-and-reject rule

SY-04 sets five categories of knowledge (THRIVING library, SY-04). This report has kept to them. It names the sangoma's calling, the Ifa corpus, the debtera's scrolls and the Xhosa initiation as knowledge that exists and is restricted (category 4), and it reproduces none of their content. It gives the plant uses only where PH-06 already published them from published sources (categories 1 and 2). It describes no ceremonial psychoactive (category 5). A warning is not a disclosure: saying that initiates die of thirst is a public safety fact, published by Xhosa and South African researchers and journalists, and saying it does not reveal the rite.

The keep-and-reject rule this book uses for African healing is Protocol 1. Its principle is that the book judges what is done to the body, not what is believed about the cause. A diviner who explains a child's fever as an ancestor's anger

and sends the child to the dispensary is doing good. A diviner who explains it as a sister's witchcraft and keeps the child is doing harm. The theory is the same.

2. Evidence grades

Practice	Healer's claim	Record	Grade
Collaborative care between healers and health workers for psychosis	Heals madness	PANSS 15 points better, 307 patients (Gureje 2020)	A
Training birth attendants in resuscitation, antibiotics and referral	Safer birth	Neonatal deaths 45% lower (Gill 2011, MA-01)	A
Healers as TB treatment supervisors	Can help	88% against 75%, not significant (Colvin 2003)	B
Healers offering HIV testing and linking to care	Can help	316 tested, 95% of positives linked (Audet 2025)	B for feasibility
Healers supporting antiretroviral adherence	Keeps patients alive	No difference, 0.80 against 0.79 (Audet 2022)	D
Training bonesetters in loose splinting and referral	Better outcomes	Gangrene 2.5% against 10%, amputations down (WO-05)	C
Bonesetting of closed undisplaced fractures with padded, loose splints	Heals	Most heal, no unselected series (WO-05)	C
Tight binding, scarification over a fracture, keeping open or displaced fractures	Heals	Leading cause of gangrene and amputation (WO-05)	X
Variolation	Protects against smallpox	2.2% against 14.3% deaths, Boston 1721	B, historical
Bunyoro caesarean	Saves mother and child	One case, both survived (Diop 2021)	D
Divination, ancestral and witchcraft diagnosis	Finds the cause	No test of accuracy. Witch-naming kills	D as meaning, X when it names a witch
Herbs for HIV (Sutherlandia, African potato)	Treats AIDS	No effect, TB signal (PH-06)	X
Herbal treatment of herpes zoster in HIV (THETA)	Heals faster	Weak observational study (Homsy 1999)	D
Labour-hastening herbs (mwanamphepo and others)	Shorter labour	Meconium 55.6% against 15%, aOR 1.28 and 1.22	X
Gishiri or gurya cut	Eases labour	Causes fistula (Ouedraogo 2018)	X

Practice	Healer's claim	Record	Grade
Uvulectomy	Prevents throat illness	29% complications, blood-borne infection	X
Shared-blade scarification	Delivers medicine	Hepatitis B aOR 2.87 (Tazinkeng 2022)	X
Infant enema and purge	Cleanses	Caustic injury, dehydration (PH-06)	X
Callilepis laureola	Many uses	263 deaths at one hospital in 20 years (Bhoola 1983)	X
Water restriction in initiation	Part of the rite	Dehydration deaths (Douglas and Maluleke 2018)	X
Prayer camp and healer chaining	Contains the sick	No benefit, falls with oversight (Gureje 2020)	X
Qur'anic water and amulets	Protect and heal	No test. Harmless if boiled water and no delay	D

3. Means ledger

Rung	What can be done	What it changes
Hands and knowledge	Ask the family council (Janzen), ask "what else has been given?", the red flags of section 5, Omololu's triage rule, no tight binding, no cut without a new blade, never withhold water	Removes most of the documented harm. Costs nothing
Hearth	Boiled water, oral rehydration solution, clean cloth splints and padding, a boiled blade per person, honey on a wound	Prevents initiation dehydration deaths, enema dehydration, blade-borne infection
Garden and still	The PH-06 plants with grade B or C, alcohol for hands and skin, a scale	Allows the safe part of the herbal pharmacy, with weighed doses
Village dispensary (300)	A trained lay healer working with the local healers, a register of patients shared by both, birth attendants trained in resuscitation and referral, salvaged antibiotics	The collaborative model: COSIMPO, Lufwanyama, Hlabisa. The largest gain on the record
District infirmary (3,000)	A nurse or doctor, sterile room, ten beds, plaster, antipsychotics if salvaged, laparotomy if a surgeon exists	Takes the displaced and open fracture, the obstructed labour, the acute abdomen, the psychotic patient in chains
Hospital before the Fall	Orthopaedic surgery, caesarean section, antiretrovirals, cancer surgery, a poisons centre	The reference. Its absence makes the healer's referral habits more important, not less

4. Harm test

Practice	How it harms	Who must never receive it	Signs it is going wrong	What to do
Tight fracture binding	Gangrene, amputation, death	Every fresh fracture for the first 3 to 5 days	Pain out of proportion, cold or white fingers or toes, numbness, swelling beyond the splint	Cut the binding at once, raise the limb, see WO-05
Labour herbs	Fetal distress, ruptured uterus, bleeding	Every labour, above all one that is slow	Green or brown waters, contractions that do not stop, pain between contractions, a baby's heartbeat that slows	Stop the herb, empty bladder, left side, send for the most skilled birth hands. MA-01
Gishiri cut	Fistula, bleeding, infection	Every woman	Leaking urine or stool after birth	Keep clean, keep bladder drained if possible, refer. MA-01
Uvulectomy	Bleeding, aspiration, sepsis, HIV, hepatitis B	Every child	Blood in the mouth, refusing feeds, fever, fast breathing	Protocol 4
Infant enema	Dehydration, caustic injury	Every infant	Bloody stool, swollen belly, no wet nappy for 6 hours, sunken eyes	Protocol 4, ORS
Shared blade	Hepatitis B, hepatitis C, HIV, tetanus	Everyone	Jaundice months later	New or boiled blade per person
Initiation water restriction	Kidney failure, death	Every initiate	Thirst, dark or no urine, confusion, collapse	Protocol 5
Circumcision wound	Sepsis, gangrene, amputation	Every initiate	Smell, black tissue, spreading redness, fever	Protocol 5, remove tight dressing
Callilepis	Liver and kidney failure, low sugar	Everyone	Vomiting, drowsiness, convulsions, little urine	Sugar by mouth, refer. PH-06
Witch accusation	Beating, banishment, murder	Every accused child, old woman, person with albinism	A named witch	Protocol 6
Delay	Death from perforated appendix, obstructed labour, cancer beyond cure	Anyone with a red flag	See section 5	Refer the same day
Chaining	Wounds, contracture, death	Everyone	A person tied	Protocol 6

5. Red flags

Signs that must not be treated at home, whatever the theory of cause.

1. **The belly.** Pain that moves to the lower right, a belly that is hard or that the patient will not let you touch, vomiting with no stool or wind, pain for more than 6 hours that is getting worse. Send the same day to the most skilled hands within reach. Do not give an enema or purge.
2. **The labour.** Active labour (from 5 cm) lasting more than 12 hours in a first birth or 10 in later ones, or the head not moving down after 1 hour of good pushing (WHO 2018 and Hesperian, via THRIVING library, MA-01), bleeding that soaks more than a cloth in a few minutes, fits, green waters. Send at once with the attendant. MA-01 holds the detail.
3. **The limb.** A bone that shows through the skin, a limb that is bent where it should not be, cold, white or numb fingers and toes under a splint.
4. **The child.** A baby who will not feed, who has fits, who breathes fast or with grunting, who has no wet nappy for 6 hours, who has blood in the stool after an enema, or who bleeds from the mouth after a cut.
5. **The initiate.** No urine for 12 hours [VERIFY: threshold my inference], confusion, a black or foul-smelling wound.
6. **The lump.** A breast lump, a sore that has not healed in a month, bleeding from the bowel or womb outside the expected time. These may be cancers that can be cured early and cannot later.
7. **The mind.** A person who is violent, will not eat, or is chained. They need medicine if any exists and they always need release from chains.
8. **The poisoned.** A person who has taken impila or an unknown remedy and is vomiting, drowsy or fitting.

What to do anyway. Where no one can operate, fluids, rest, a clean bed, what pain relief exists, and the family with, if they wish, their healer, are what remains. A dying patient's family will ask the diviner's question, why this person. The book should not forbid the healer from answering it, only from naming a witch.

6. The case against

Against the tradition. The strongest case is made by African clinicians who counted the harm. Nigerian surgeons, among them Onuminya, Dada and Omololu, documented bonesetter gangrene and amputation (WO-05). South African clinicians, among them Bhoola, Mabina and Moodley, documented impila deaths and labour herb distress. The Academy of Science of South Africa opposed herbs for AIDS in place of antiretrovirals (PH-06). The witchcraft theory has no evidence and a death toll. No test of divination's accuracy was found. On this view the book should keep the herbs that pass PH-06 and the hands that pass WO-05, and nothing else.

Against the statistics. Oyebode and Lilford, and Africa Check, showed that the claim on which much advocacy rests, that 80% of Africans rely on healers, has no data and is wrong by an order of magnitude for consultation in Ghana and South Africa. Louw and Duvenhage showed the same for the 200,000 healers claimed in South Africa. False numbers weaken the case for the collaborations that work.

Against the critics. The reply is that the harms record is almost entirely hospital-based, and hospitals see only failures. A bonesetter who heals many fractures and sends one to gangrene appears in the record only as the gangrene. Suppression, from the Witchcraft Suppression Act of 1957 onwards, made healers secretive, which plausibly hid and prolonged their harms [VERIFY: inference]. The collaborations that have been tested, COSIMPO in psychosis, Lufwanyama in birth, Hlabisa in TB, show that working with healers improves outcomes or matches other lay workers, at low cost. Janzen showed that families use both systems. The "noble healer" romance SY-04 warns against distorts as much as contempt.

The balance. Old does not mean safe: impila, the enema, the cut and the tight splint are old. Modern does not mean replaceable: after the Fall, the bonesetter, the birth attendant and the diviner will be there when the surgeon is not.

The book's judgement: the healer's empirical layer is partly good, partly lethal and can be sorted, and the explanatory layer can stay so long as it neither keeps patients from care nor names witches.

7. Ten-line summary of robust findings

1. The 80% figure has no data. Surveys found under 3% of adults using a healer as their main source of care in Ghana and South Africa.
2. Herbal self-treatment is far commoner, often more than half in pregnancy, HIV and chronic illness, and most users do not tell the clinic.
3. African theories of illness answer the question "why this person, why now", which biomedicine does not, and the family, not the patient, decides on care.
4. Collaborative care between healers and health workers improved psychosis by 15 PANSS points in a 307-patient trial.
5. Healers supervise TB treatment as well as other lay workers, and can test for HIV and link people to care.
6. Bonesetters' failures come from tight binding and keeping fractures they should refer, and a day's training cuts gangrene.
7. Labour-hastening herbs raise fetal distress and complications, and the gishiri cut causes fistula.
8. Uvulectomy, infant enemas, shared blades and Callilepis are grade X, with deaths in the record.
9. Eastern Cape initiation killed 532 young men in eight years, mostly from preventable dehydration and sepsis.
10. Witchcraft accusations kill children, old women and people with albinism, and are the explanatory theory's direct harm.

8. Open questions

- What are bonesetter outcomes in an unselected population, with follow-up? Only the Sidama abstract approaches this.
- How many deaths does a detour to a healer add in appendicitis, obstructed labour and cancer? No study has measured the excess.
- What is the true rate of healer consultation and of herbal self-treatment in rural Africa, by condition? No representative survey exists.
- What are the fees and training periods of sangomas, babalawos and debteras today? I found no reliable source.
- Did Lambo's Aro village system improve outcomes? No data were found.
- Can a diviner's diagnosis be tested? No study of divination accuracy was found.
- What did Tahzib's 1983 Zaria series show about the share of fistulas caused by gishiri?
- How far can training remove tight binding and water restriction in initiation without the support of a health system?

9. Sources to read in full

1. Oyebode O and colleagues 2016, Health Policy and Planning, the SAGE analysis of traditional medicine use.
2. Gureje O and colleagues 2020, the Lancet, the COSIMPO trial of collaborative care for psychosis.
3. Janzen JM 1978, *The Quest for Therapy in Lower Zaire*, University of California Press.
4. Ngubane H 1977, *Body and Mind in Zulu Medicine*, Academic Press.
5. Evans-Pritchard EE 1937, *Witchcraft, Oracles and Magic among the Azande*, Clarendon Press.
6. Colvin M and colleagues 2003, the Hlabisa TB healer supervision study.
7. Wilcken A and colleagues 2010, Bulletin of the World Health Organization, traditional male circumcision complications.
8. James PB and colleagues 2018, BMJ Global Health, the systematic review of traditional medicine use in sub-Saharan Africa.

9. Feierman and Janzen 1992, *The Social Basis of Health and Healing in Africa*, and Sofowora 2008, *Medicinal Plants and Traditional Medicine in Africa*, both named in the brief and not read [VERIFY].

At the bedside after the Fall

Household. Four habits: ask what else has been given (Protocol 2), know the red flags and send the same day, never give an infant an enema, withhold water or bind a fresh fracture tight, and make oral rehydration solution (Protocol 7). What it needs to start: a pot, a measuring cup, salt, sugar, clean cloth and this page. The first failure to expect: a grandmother's enema given to a baby with diarrhoea, followed by collapse, and a family that does not say so because they expect blame.

Village of 300. A working relationship, and a shared register, between the lay healer and the traditional healers, bonesetter and birth attendants. The healer keeps the meaning and the safe herbs, the lay healer the red flags, rehydration and referral. The bonesetter learns loose splinting and Omololu's rule, the attendant resuscitation, clean hands and when to send (MA-01). What it needs to start: a respectful meeting with the healers in which their knowledge is acknowledged and not asked for, a register, splint materials, resuscitation skills and a reject list the healers agree. The first failure to expect: the healers do not come, because they expect to be accused, or they come and are lectured and do not return.

District of 3,000. Collaborative care on the COSIMPO, Hlabisa and Lufwanyama models: healers supervise treatment, refer psychosis and refuse to chain, and the infirmary takes their referrals without humiliation. A council that includes the healers enforces the rule against witch accusations and plans the initiation season. What it needs: a nurse or doctor willing to work with healers, a few days of training each year, a district register of initiates, and a way to send a patient to the infirmary within hours. The first failure to expect: an initiate dies of thirst in a lodge the district did not know existed, and the families blame the infirmary for interfering.

Protocols

Protocol 1. Keep and reject (every rung, from the first meeting with healers)

- ☐ Meet the healers as colleagues. Ask what they need, not what they know.
- ☐ Do not ask for restricted knowledge. If a healer says something is secret, do not write it down or ask again (SY-04, category 4).
- ☐ Judge what is done to the body, not what is believed about the cause.
- ☐ **Keep:** the healer's presence and explanation, the family council, prayer, Qur'anic water if boiled, amulets, the grade B and C plants of PH-06 at its doses, bonesetting of closed undisplaced fractures with loose padded splints, the birth attendant's presence and clean hands, TB and HIV supervision.
- ☐ **Reject:** tight binding of a fresh fracture, scarification over a fracture, keeping open or displaced fractures, labour herbs, the gishiri cut, uvulectomy, infant enemas and purges, shared blades, Callilepis, water restriction in initiation, chaining, naming a witch.
- ☐ Agree the reject list with the healers. A list they helped write is kept. A list given to them is not.
- ☐ Write the list where both lay healer and traditional healer can see it. Review it once a year.

Protocol 2. The questions at every consultation (2 minutes)

- ☐ "What else has been given?" By mouth, from behind (enema), on the skin, by a cut.
- ☐ "Who else have you seen?" Healer, prophet, marabout, bonesetter.
- ☐ "Who in the family decides?" Speak to them as well as the patient (Janzen 1978).
- ☐ Ask without blame. A family that is blamed will not tell the next time.
- ☐ Record the answers in the register.

Protocol 3. The healer's referral card (for every traditional healer, bonesetter and birth attendant)

- ☐ Send the same day: a hard or very tender belly, pain lasting more than 6 hours and getting worse, vomiting with no stool.
- ☐ Send at once: bleeding in labour, fits in pregnancy, a labour that is not progressing (MA-01 times govern).
- ☐ Send: a bone through the skin, a bent limb, a cold or numb hand or foot under a splint. Undisplaced closed fractures may stay (Omololu 2008).
- ☐ Send: a baby who will not feed, breathes fast, has fits, has no wet nappy for 6 hours.
- ☐ Send within a week: a breast lump, a sore unhealed for a month, bleeding from the bowel.
- ☐ Never: chain a person. Never name a witch. Never give an enema to a baby.
- ☐ The healer may go with the patient and continue to care for the patient's spirit and family.

Protocol 4. The child after a cut or an enema

- ☐ **Bleeding from the mouth after uvulectomy.** Sit the child up and lean forward so blood runs out, not down. Press on the bleeding point with clean cloth if it can be reached, for 10 minutes by the clock [VERIFY: time from general first aid, not a uvulectomy source]. Send if bleeding continues, if the child is pale or drowsy, or if breathing is noisy.
- ☐ **Fever or refusal to feed after a cut.** Treat as infection. Give fluids. Refer for antibiotics at the dispensary.
- ☐ **After an infant enema.** Look for blood in the stool, a swollen belly and signs of dehydration (no wet nappy for 6 hours, sunken eyes, dry mouth). Give oral rehydration solution by spoon, in small amounts often (Protocol 7, HY-03). Refer bloody stool or a swollen belly the same day.
- ☐ Ask about the plant used and record it. Purges from Senecio species can cause liver damage days later (PH-06).
- ☐ Ask without blame.

Protocol 5. Initiation season: water and wound (district, with the families and the traditional surgeons)

This protocol is about the body. It does not describe or alter the rite.

- ☐ Before the season, ask the elders responsible for the lodges where they will be and how many initiates there are. Record them.
- ☐ Agree with the traditional surgeons a new or boiled blade for each initiate.
- ☐ Agree with the elders that initiates will have water. An initiate needs water every day [VERIFY: minimum volume, adult fluid needs of about 2 to 3 litres a day in heat, my inference].
- ☐ Visit or have the attendants report every day in the first week. Check: is he passing urine? Is the wound clean? Is the dressing tight?
- ☐ Danger signs: no urine for 12 hours, confusion, black tissue, foul smell, spreading redness, fever. Any of these: remove a tight dressing, give ORS (Protocol 7) and send to the infirmary the same day.
- ☐ Record every initiate's outcome. Report deaths and amputations to the district council and the elders together.

Protocol 6. Chains and accusations (village and district)

- ☐ Any person found chained: release from chains, keep in a safe room with family present, give food and water, treat wounds. Refer for medicine if available (Gureje 2020).
- ☐ Any person accused of witchcraft: give protection at once. Bring the accused into the care of the village council, not the accusers.
- ☐ The council states, once and in public, that no person may be harmed for witchcraft, and that a healer who names a witch will not be consulted by the dispensary.
- ☐ Children: an accused child stays in the care of an adult the council names until the matter is closed.
- ☐ People with albinism: protect, and treat any threat as a threat of murder (UN 2014).

Protocol 7. Oral rehydration solution (hearth and above)

- ☐ Boil water and let it cool.
- ☐ Into exactly 1 litre, stir 6 level teaspoons of sugar and half a level teaspoon of salt until dissolved. Two sources agree on this recipe (rehydrate.org and Alberta Health Services, as given in THRIVING library, HY-03).
- ☐ Taste: it should not taste saltier than tears. More water is safe, more salt is not.
- ☐ Give in small sips or by spoon. Make fresh every day.

Numbers to carry

1. **Under 3%.** Adults using a healer as their main source of care in Ghana and South Africa (Oyebode 2016). The 80% is a myth.
2. **15 points.** The PANSS improvement in psychosis with collaborative care (Gureje 2020).
3. **2.5% against 10%.** Gangrene after trained against untrained bonesetters (Onuminya 2006, WO-05).
4. **Displaced or open goes. Undisplaced closed stays. Wound under 1 cm stays.** Omololu's rule.
5. **55.6% against 15%.** Meconium after labour herbs against none (Mabina 1997).
6. **29%.** Complications after uvulectomy (PH-06).
7. **532 in 8 years.** Initiation deaths in the Eastern Cape, mostly preventable (Daily Dispatch 2015).
8. **6 teaspoons, half a teaspoon, 1 litre.** Oral rehydration solution.
9. **6 hours.** Belly pain getting worse for 6 hours, or no wet nappy for 6 hours: send.

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