International Health Alerts 2025-4

Child Health

1. Lancet Glob Health 2025;13(11):e1903-e1913
Switching antibiotic therapy from injectable to oral to optimise the duration of inpatient care for young infants presenting with moderate-mortality-risk signs of possible serious bacterial infection: an open-label, multicountry, randomised controlled trial

2. Lancet Glob Health 2025;13(12):e2165-e2174
The path to equitable respiratory syncytial virus prevention for infants: challenges and opportunities for global implementation

3. PLoS Med 2025;22(9):e1004730
Ensuring the safety of newborns and children through community and healthcare actions

4. PLoS Med 2025;22(10):e1004549
Changes in child mortality and population health following 10 years of health systems strengthening in rural Madagascar: A longitudinal cohort study

Climate Change and Health

5. BMJ 2025;391:r2426
China's new climate targets provide opportunities to improve health

Communicable diseases (Malaria and HIV/AIDS: see below)

6. BMJ Global Health 2025;10:e017092
Achieving elimination of soil-transmitted helminthiasis as a public health problem in Mali

7. JAMA 2025;Oct 16
Syphilis: A Review

8. Lancet 2025;406(10509):1283-94
Enteric (typhoid and paratyphoid) fever

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10. TMIH 2025;30(10):1134-41
Silent Circulation of Dengue Virus in Aedes aegypti Mosquitoes in Non-Epidemic Regions of Tanzania: Implications for Surveillance and Control

Food Systems and (Planetary) Health

11. Lancet 2025;406(10512):1625-700
The EAT-Lancet Commission on healthy, sustainable, and just food systems

Global Burden of Disease Study

12. Br J Psychiatry 2025;227(4):688-97
Global, regional and national burden of depressive disorders and attributable risk factors, from 1990 to 2021: results from the 2021 Global Burden of Disease study

13. Lancet 2025;406(10512):1565-86
The global, regional, and national burden of cancer, 1990-2023, with forecasts to 2050: a systematic analysis for the Global Burden of Disease Study 2023

14. Lancet 2025;406(10513):1731-1810
Global age-sex-specific all-cause mortality and life expectancy estimates for 204 countries and territories and 660 subnational locations, 1950-2023: a demographic analysis for the Global Burden of Disease Study 2023

15. Lancet 2025;406(10513):1811-72
Global burden of 292 causes of death in 204 countries and territories and 660 subnational locations, 1990-2023: a systematic analysis for the Global Burden of Disease Study 2023

16. Lancet 2025;406(10513):1873-1922
Burden of 375 diseases and injuries, risk-attributable burden of 88 risk factors, and healthy life expectancy in 204 countries and territories, including 660 subnational locations, 1990-2023: a systematic analysis for the Global Burden of Disease Study 2023

17. Lancet Glob Health 2025;13(12):e2013-e2026
Global, regional, and national sepsis incidence and mortality, 1990-2021: a systematic analysis

18. Tobacco Induc Dis 2025 Oct 31:23
Global burden of vision impairment due to smoking-related cataract: A descriptive study of spatiotemporal trends based on GBD secondary data and projections to 2050

Other paper about this subject:
* Am J TMH 2025;113(6):1430-41
Trends and Disparities in the Impact of Diabetes Mellitus Mortality and Disability, 1990-2021: A Systematic Analysis of the 2021 Global Burden of Disease Study

Global Health Finances: funding and funding reductions

19. Lancet Glob Health.2025;13(10):e1669-e1680
Effects of reductions in US foreign assistance on HIV, tuberculosis, family planning, and maternal and child health: a modelling study

Other papers about this subject:
* Lancet 2025;406(10512):1548-9
World Report
US aid cuts: a new era of HIV care in Malawi

* Lancet 2025; 406(10519):2525-6
World Report
Aid cuts: Tanzania looks to boost domestic financing

Global Health Research

20. HPP 2025;40(9):998-1007
How to (or how not to)…Enhance equity in the conduct of global health research: dimensions and directions for organizations

Global Surgery

21. BMJ Glob Health 2025;10(11):e021441
A pilot study on the acceptability and safety of collaborative triage and treatment with traditional bonesetters for extremity fracture patients: a stepped-wedge, cluster-randomised controlled trial in rural Tanzania

Health Policy

22. BMJ Global Health. 2025;10:e021043
Improving Sierra Leone's skilled health-worker-to-population ratio: how unsalaried and auxiliary health workers are barriers in its path to universal health coverage

23. BMJ Global Health 2025;10:e021574
Health worker unemployment in countries with critical health worker shortages: a rapid synthesis of evidence from 33 countries

24. Lancet 2025;406(10520):2656-66
The effects of government-led cash transfer programmes on behavioural and health determinants of mortality: a difference-in-differences study

Other paper about this subject:
* Eur Psychiatry 2025;68(1):e145
Can cash transfers protect mental health? Evidence from an observational cohort of children and adolescents living in adverse contexts in Brazil

25. Lancet Glob Health 2025;13(12):e2097-e2110
Financial incentives to improve uptake of partner treatment for sexually transmitted infections in antenatal care: a cluster randomised trial in Zimbabwe

26. Lancet Glob Health 2025;13(12):e2175-e2179
Facing up to reality: over-the-counter access to antibiotics in low-income and middle-income countries needs a paradigm shift in thinking

HIV / AIDS

27. BMJ Global Health 2025;10:e016745
The use of Childbirth Experience Questionnaire (CEQ) and Birth Satisfaction Scale-Revised (BSS-R) in comparing the experiences of mothers with and without HIV in Tanzania

28. Lancet 2025;406(1051):1455
HIV community welcomes lenacapavir deal

29. Lancet Glob Health 2025 Dec Series
Sustainable HIV prevention in Africa

The papers in this series:
* Global HIV prevention is not on track: how a health systems approach can promote sustainable progress in African countries
Lancet HIV 2025 Dec 2:S2352-3018(25)00270-X

* Advancing functional and systemic integration of HIV prevention into public health systems
Lancet Glob Health 2026 Jan;14(1):e121-e130
*The role of digital health and artificial intelligence in improving the reach and effectiveness of HIV prevention in Africa
Lancet Glob Health 2026 Jan;14(1):e131-e142
*Enhancing HIV prevention through systematic community engagement, learning, and response
Lancet HIV 2025;Dec 2:S2352-3018(25)00271-1
*Strengthening nationally led approaches to new product introduction for HIV prevention
Lancet HIV 2025 Dec 2:S2352-3018(25)00296-6
*Future directions: ending HIV in Africa—a call to action for sustainable and nationally led prevention
Lancet Global Health 2026 Jan;14(1):e143-e151

30. PLoS Med 2025;22(9):e1004720
Identifying care gaps along the HIV treatment failure cascade: A multistate analysis of viral load monitoring, re-suppression, and regimen switches in Zambia

31. PLoS Med 2025;22(10):e1004781
Differences in growth trajectories in breastfed HIV-exposed uninfected and HIV-unexposed infants in Kenya: An observational cohort study

Malaria

32. Am J TMH 2025;113(5):1006-1010
Efficacy of Spatial Repellents in Malaria Prevention: A Meta-Analysis of Randomized Controlled Trials

33. Am J TMH 2025:tpmd240858
Early Bio-Efficacy Loss of Nets Mass Distributed for Malaria Vector Control in Madagascar in 2018: Implications for Malaria Prevention

34. Lancet Glob Health 2025;13(10):e1723-e1736
Sustained efficacy of the RTS,S/AS01E malaria vaccine over 50 months of follow-up when used in full-dose or fractional-dose regimens in young children in Ghana and Kenya: final results from an open-label, phase 2b, randomised controlled trial

Other paper about this subject:
* Lancet Glob Health 2025 Nov 6:S2214-109X(25)00415-2
Effectiveness of the RTS,S/AS01E malaria vaccine in a real-world setting over 1 year of follow-up after the three-dose primary schedule: an interim analysis of a phase 4 study in Ghana, Kenya, and Malawi

35. PLoS Med 2025;22(9):e1004729
A need for new tools for prevention of malaria in pregnancy

Non-Communicable Diseases

36. Lancet 2025;406(10509):1255-82
Benchmarking progress in non-communicable diseases: a global analysis of cause-specific mortality from 2001 to 2019

37. Lancet Glob Health 2025;13(10):e1681-e1690
Breast cancer overall survival, annual risks of death, and survival gap apportionment in sub-Saharan Africa (ABC-DO): 7-year follow-up of a prospective cohort study

Primary Health Care

38. Bull WHO 2025;103(10):592–606A
Associations between digital maturity in health and primary health care performance, 109 countries

Sexual Reproductive Health and Rights

39. BMJ Global Health 2025;10:e018616
A knowledge translation toolkit for maternal health implementation planning in low- and middle-income countries: development and pilot evaluation in two countries

40. Bull WHO 2025;103(12):799–806
Responses to increased rates of caesarean births

41. HPP 2025;40(10):1056-68
Newborn technology use in low-resource settings: the role of health professionals' communication in implementation

42. Lancet 2025;406(10514):1969-82
Prognostic accuracy of clinical markers of

postpartum bleeding in predicting maternal mortality or severe morbidity: a WHO individual participant data meta-analysis

43. Lancet 2025;406(10517):2309-10
Challenges and opportunities in developing integrated sexual and reproductive health programmes

Other papers about innovation in sexual and reproductive health:
* Lancet 2025;406(10515):2100-18
Partial progress in sexual and reproductive health and rights: the influence of sociocultural, behavioural, structural, and technological changes on epidemiological trends
* Lancet 2025;406(10515):2119-32
Biomedical innovations in contraception: gaps, obstacles, and solutions for sexual and reproductive health
* Lancet 2025;406(10515):2133-51
Innovations in the biomedical prevention, diagnosis, and service delivery of HIV and other sexually transmitted infections
* Lancet 2025;406(10515):2152-67
Who pays and what pays off in sexual and reproductive health? A review of the cost and cost-effectiveness of interventions and implications for future funding and markets

Miscellaneous

44. BMJ Global Health 2025;10:e019713
The burden, clinical outcomes and risk factors related to neglected tropical diseases and malaria in migrant populations in the Middle East and North Africa: a systematic review and meta-analyses

45. BMJ Public Health 2025;3(1):e002411
Global trends in inappropriate use of antibiotics, 2000-2021: scoping review and prevalence estimates

46. Bull WHO 2025;103(11):642–642A
Traditional medicine and its contributions to science, health equity and sustainability

47. Lancet 2025;406(10509):1205-6
Doctors as witnesses of war

48. Lancet Glob Health 2025;S2214-109X(25)00396-1
Mind the gap: rethinking global alcohol metrics in high-abstention low-income and middle-income countries

International Health Alerts 2025-4

Child Health

1. Lancet Glob Health 2025;13(11):e1903-e1913
Switching antibiotic therapy from injectable to oral to optimise the duration of inpatient care for young infants presenting with moderate-mortality-risk signs of possible serious bacterial infection: an open-label, multicountry, randomised controlled trial
PSBI Study Group

Background: In low-resource settings, challenges in hospitalisation stay for sick young infants younger than 2 months persist. Early discharge of young infants with moderate-mortality-risk possible serious bacterial infection (PSBI) signs might provide a safe and effective alternative. We compared the clinical outcomes of switching parenteral antibiotics to oral antibiotics along with hospital discharge after 48 h of admission with those who continued hospitalisation for 7 days.
Methods: An open-label, multicountry, multicentre, individually randomised controlled trial was done in Bangladesh, Ethiopia, India, Nigeria, Pakistan, and Tanzania. Young infants aged 1-59 days presenting with moderate-mortality-risk PSBI signs were screened and hospitalised for inpatient care with injectable ampicillin and gentamicin. After 48 h of admission, young infants without any PSBI sign, and negative C-reactive protein, were randomly assigned to either the intervention (outpatient) group (discontinuation of injectable antibiotics and hospital discharge after switching to oral amoxicillin twice daily for 5 more days) or the control group (continued inpatient care). Treatment received throughout was documented on days 4 and 8 of initiation, and outcomes on days 4, 8, and 15. The primary outcome of poor clinical outcome was a hierarchical composite indicator that included death (any time after randomisation up to day 15 of initiation of therapy), presence of any sign of critical illness (no movement at all, unable to feed at all, or convulsions), or any sign suggestive of another serious infection, such as meningitis, bone or joint infection (on day 4 or day 8 of initiation of therapy), and presence of any sign of clinical severe infection (CSI) (on day 8 of initiation of therapy). The non-inferiority margin was set at 2%. We did a per-protocol analysis to compare the proportions of primary outcome between the two groups and reported risk differences (RDs) with 95% CI. The study is registered with the ISRCTN registry (ISRCTN16872570).
Findings: Between June 24, 2021, and Aug 7, 2024, of 6549 young infants with moderate-mortality-risk PSBI signs who were reassessed after 48 h of admission, 5253 (80.3%) were randomly assigned to the outpatient group (n=2635) or the inpatient care group (n=2618). Treatment adherence was 96.7% (2549 of 2635) in the oral amoxicillin group and 95.7% (2506 of 2618) in the inpatient care group (with at least 80% of the antibiotic dosage received). In the per-protocol analysis, the rate of poor clinical outcome was 4.0% (105 of 2616) in the outpatient group and 3.5% (90 of 2603) in the inpatient care group (RD 0.0056 [95% CI -0.0047 to 0.0158]). The most common reason for poor clinical outcome was any sign of CSI at day 8 (3.4% in the outpatient group and 2.6% in the inpatient care group). Six (0.2%) young infants died in the outpatient group and eight (0.3%) in the inpatient care group. Besides deaths, two young infants developed serious adverse events, and both were in the inpatient group.

Interpretation: Discontinuation of the injectable antibiotics and switching to oral antibiotics with early hospital discharge in young infants with moderate-mortality-risk PSBI signs was effective and safe in diverse low-income and middle-income countries in Africa and Asia. This could optimise health systems and family resources, as well as decreasing the risk of hospital-acquired infections compared with the currently recommended 7-10 days of inpatient care.

2. Lancet Glob Health 2025;13(12):e2165-e2174
The path to equitable respiratory syncytial virus prevention for infants: challenges and opportunities for global implementation
Shaaban FL et al., Department of Paediatric Immunology and Infectious Diseases, University Medical Centre Utrecht, Utrecht, Netherlands

The approval for a respiratory syncytial virus (RSV) maternal vaccination programme by Gavi, The Vaccine Alliance, marks substantial progress toward equitable access, with important work still to come. Several countries, most of which are high-income, have introduced RSV immunisation either using a vaccine containing the RSV fusion protein in its prefusion conformation, which is given to pregnant people in late pregnancy, or by using a long-acting monoclonal antibody (mAb) administered directly to infants. Post-implementation real-world effectiveness data show a major impact in reducing medically attended RSV-lower respiratory tract illness and hospitalisation using either strategy. Although RSV poses a substantial burden to infants and vulnerable children worldwide, 97% of associated mortality occurs in low-income and middle-income countries. However, few of these countries have authorised and introduced RSV preventive strategies. This Review outlines the challenges and opportunities for expanding access to RSV prevention for infants in resource-restricted settings guided by WHO's Immunization Agenda 2030 and the UN's Leave No One Behind framework for non-discriminatory sustainable development. We discuss burden, vaccine and mAb development, health economics and impact modelling, policy, implementation and programmatic considerations, surveillance, and awareness as key RSV domains. This Review summarises recent advances in research and highlights the urgent steps needed to ensure equitable access to RSV prevention for all infants worldwide.

3. PLoS Med 2025;22(9):e1004730
Ensuring the safety of newborns and children through community and healthcare actions
Muzigaba M et al.
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(Abridged):
Preventable harm to newborns and children is probably far more widespread than is documented, especially in low- and middle-income countries (LMICs). A review of 32 hospital studies involving over 33,000 children found that the percentage of patients experiencing harm during their hospital stay varied widely. The analysis showed that in regular children’s wards, hospitals in comparable settings could expect anywhere from 4% to 54% of children to face at least one preventable harmful event, and from 7% to 92% in intensive care units. Yet, there is evidence to show that even low levels of error, whether through omissions or commissions in care, can affect child health and development in both

the short and long term. Aligned with the theme of World Patient Safety Day 2025, this perspective emphasizes the often overlooked need for safer care for newborns and children. Looking ahead, we propose a tiered approach that can be aligned with the local context to guide the scale-up of family and community engagement strategies to ensure safe care for newborns and children:

At the community level, households, community members and groups can support prevention, promotion and timely action to improve safety in partnership with primary healthcare team members. Families and community health workers can observe newborns and children to raise alerts, promote care-seeking when they spot a danger, and improve local referral care systems. Existing or improved community forums can be used to develop an active dialogue with local and sub-national health system managers and keep policy makers at national levels informed of their challenges and experiences in healthcare and patient safety.

In healthcare settings, managers are key to operationalizing strategies. They can integrate family engagement into staff onboarding, routine team discussions such as safety huddles, incident reporting, quality improvement processes, and capacity building initiatives. Workflows and communication channels can be improved to empower parents and family members to raise concerns and for healthcare workers to respond. Managers can appoint patient representatives to participate effectively in facility management meetings. Healthcare providers can routinely involve caregivers in care decisions and daily care processes such as morning rounds, handovers, and discharge planning while continuing to coach parents on how to recognize danger signs in their newborn or child. They can post clearly worded escalation instructions at bedsides and in waiting areas, and encourage families to speak up or request urgent review if they are concerned.

At national and subnational levels, conditions that promote safety can be fostered. For example, governments can institutionalize parent, family member, and community engagement by embedding it into hospital licensing and accreditation requirements and quality of care standards. Financing mechanisms, including reimbursements, can be linked to safety goals, and systems mandating public reporting of family reported safety incidents can be established. Tools to enable families or communities to escalate safety concerns can be developed. Performance dashboards and incident reviews must also give equal weight to community and family reported data. Health workers will need better working conditions (including addressing workforce deficits) and support through structured training to improve their listening, communication, and partnership skills often degraded by burnout.

The World Patient Safety Day 2025, a global public health day observed on 17 September, is dedicated to “Safe Care for Every Newborn and Every Child” with the slogan “Patient safety from the start”. Our proposed approach aligns with this event and fits squarely with several global health commitments. The Patient Safety Rights Charter from the World Health Organization (WHO) states that every person has the right to take part in decisions about their care (Right Ten). The Global Patient Safety Action Plan 2021–2030 also calls for engaging families in care decisions as well as system governance, service design, and safety oversight. This is reflected in one of the plan’s core indicators, which measures whether a patient representative has been appointed to the governing board in at least 60% of hospitals. Ensuring safe care for every newborn and child will require not only action from health systems and governments but also active participation from parents, families, and communities whose voices and vigilance must be recognized as essential to preventing harm and saving lives.

4. PLoS Med 2025;22(10):e1004549
Changes in child mortality and population health following 10 years of health systems strengthening in rural Madagascar: A longitudinal cohort study
Garchitorena A et al., Affiliations MIVEGEC, University of Montpellier, CNRS, IRD, Montpellier, France <andres.garchitorena@ird.fr>

Background. Reducing child mortality rates is a unifying goal of the global health and international development communities. In Africa, unambiguous empirical evidence on how health system interventions can drive such reductions has been elusive. This gap in the literature is due to challenges in implementing system-level changes on a scale and pace to have measurable impacts on mortality, and the challenges of collecting adequate data on the population and programs over sufficient time with plausible counterfactuals. This study aimed to assess the population health impact of the first decade of implementation of a health system strengthening (HSS) intervention in a rural district of Madagascar.
Methods and findings. The study is a prospective quasi-experiment using a district-representative cohort of over 1,500 households (five waves of survey collection), in combination with patient data collected across different levels of care (community health workers and health facilities), geographic information systems, and programmatic data to assess changes in mortality, healthcare coverage and utilization from 2014 to 2023. The HSS intervention integrates support to clinical programs with strengthened health system building blocks and social protection at all levels of care of a district health system (community health, primary care centers, and hospital). Under-five, infant and neonatal mortality were estimated at the population level using the synthetic life-table method for DHS surveys. Impact of the HSS intervention on healthcare coverage and utilization was assessed through interrupted time-series analyses. Changes in geographic and financial inequalities in coverage indicators were studied via the relative concentration index and slope index of inequality. Our results show that trends in child mortality rates (neonatal, infant, under-five) decreased in the initial HSS intervention area from 2014 to 2023, but increased in the comparison area as well as the rest of the country over the same period. The HSS intervention was associated with statistically significant increases in service coverage and primary care utilization for a wide range of maternal and child health indicators, as well as reductions in geographic and financial barriers to care. The main limitations of this study were that the intervention was not randomized, and that changes in child mortality were estimated from 5-year averages from repeated cross sections, with overlapping time windows that prevented formal integration into the statistical modeling framework used for coverage indicators.
Conclusions. By measuring both indirect and direct impacts of HSS on population health in a context where health and economic indicators are not otherwise improving, these results provide converging evidence on how strengthening health systems, from community health to hospitals, in low-resource settings increases overall utilization of services, reduces inequities in access to those services, and corresponds with reductions in mortality.

Climate Change and Health

5. BMJ 2025;391:r2426
Editorial

China’s new climate targets provide opportunities to improve health
Milner J, Green R, Department of Public Health, Environments and Society, London School of Hygiene and Tropical Medicine, London, UK <james.milner@lshtm.ac.uk>

(Abbreviated)
The world is dangerously off-track in its efforts to prevent the worst effects of climate change. Based on current trends, global average temperatures over 2025-29 will be 1.2-1.9°C higher than the pre-industrial average. China is the world’s largest emitter of climate warming emissions (although its per capita emissions are below those of some other economies). As such, its recent announcement that it will cut its greenhouse gas emissions by 7-10% by 2035 is welcome.
If China’s emission reduction targets are increased appropriately over time, the potential to limit the effects of the climate crisis on global health could be considerable. A further argument for scaling up the ambition of China’s climate targets is provided by the more immediate health benefits that can be expected. There is considerable and growing evidence that many actions required to mitigate climate change can result in ancillary short to medium term improvements in health. These are the so called health co-benefits of climate mitigation.
Potential health gains
Phasing out the use of coal for electricity production would benefit health by reducing exposure to harmful air pollutants, including fine particulate matter (PM2.5) and nitrogen dioxide (NO2), and would continue China’s “war on pollution,” which has had considerable success. Stopping the use of coal could lead to 30-50% reductions in concentrations of air pollutants across China and is estimated to avoid 41.7% of premature deaths and 54.5% of disability adjusted life years (DALYs) caused by anthropogenic PM2.5.
Tackling emissions from housing presents further opportunities for reducing exposure to air pollution. Household air pollution, including PM2.5, from the use of solid fuels (mainly firewood and coal) is associated with increased death rates. In China, exposure to indoor pollution for cooking and heating is estimated to have resulted in 966 000 deaths between 2000 and 2022 (22% of total mortality) among the rural population. Reducing the use of coal for heating during the winter would improve air quality and health, particularly in rural areas.
Next, reducing energy use from the transport sector—for example, by improving the efficiency of vehicles and shifting to low emission vehicles—would result in further benefits for air quality and health. Even more substantial health gains could be achieved through policies that encourage active forms of travel (eg, walking and cycling), which are already more common in China than many other settings.
Finally, there are opportunities for positive action on climate and health in the food and agriculture sector. Chinese diets commonly include large amounts of refined grains, excessive meat consumption, and low consumption of fruit and milk compared with global reference diets. Modelling shows the potential for large climate and health benefits through increasing the uptake of healthy and sustainable diets in China.

Communicable diseases (Malaria and HIV/AIDS: see below)

6. BMJ Global Health 2025;10:e017092
Achieving elimination of soil-transmitted helminthiasis as a public health problem in Mali

Traore M et al., Programme National de Lutte Contre les Schistosomiases et les Geohelminthes, Ministère de la Santé, Bamako, Mali
Correspondence to Y Zhang < ictraveller@gmail.com>

Introduction. Mali was endemic for soil-transmitted helminthiasis (STH), mainly hookworms in the southern regions. Following baseline mapping, mass drug administration (MDA) for STH was integrated with MDA for schistosomiasis for school-aged children (SAC) or lymphatic filariasis (LF) for populations aged five and older and vitamin A supplementation for preschool children. Epidemiological evaluations were conducted to assess progress towards eliminating STH as a public health problem.
Methods. Cross-sectional studies were conducted in schools in 2004–2005 at baseline and in 2014–2019 for integrated evaluation with either schistosomiasis assessments or LF transmission assessment surveys (TAS). Children aged 7–14 years (6–7 years in TAS-STH surveys) were selected through systematic random sampling, and stool samples from selected children were examined using the Kato–Katz method for the eggs of any species of STH. The prevalence of infection and the prevalence of moderate-intensity and heavy-intensity (MHI) infections were calculated.
Results. A total of 13 769 SAC were examined at baseline in 2004–2005, with an overall STH prevalence of 6.3% (95% CI 5.9% to 6.7%). Overall STH prevalence was the highest in Sikasso (22.9%), followed by Segou (9.4%). The prevalence of MHI infections ranged from 0% to 9.0% among the survey sites, with high prevalences (2.9–9.0%) in some communities in the Sikasso region. The predominant species of STH infection was hookworm, with negligible infection by Ascaris lumbricoides and Trichuris trichiura. Integrated schistosomiasis/STH impact assessments from 2014 to 2017 sampled 5776 children, with an overall prevalence of 0.1% (95% CI 0.1% to 0.3%) and 0% MHI infections. The integrated TAS-STH surveys in 2018–2019 in 29 districts further confirmed an overall low STH prevalence of 0.1% (95% CI 0.0% to 0.3%). These results indicate the progress towards the national goal of eliminating STH as a public health problem in Mali and highlight the need for continued surveillance in certain regions.
Conclusion. Through over a decade of integrated treatment overcoming major security challenges, Mali may have successfully eliminated STH as a public health problem in all regions, one of the first countries in Africa to achieve this milestone.

7. JAMA 2025;Oct 16
Syphilis: A Review
Chevalier FJ et al., San Francisco Department of Public Health, San Francisco, California

Importance: Syphilis is an infectious disease caused by Treponema pallidum, a gram-negative, spirochete bacterium. Worldwide, an estimated 8 million adults aged 18 to 49 years acquired syphilis in 2022. From 2019 to 2023, US syphilis cases increased by 61% overall, with diagnoses among females increasing by 112% and congenital syphilis cases increasing by 106%.
Observations: Syphilis is transmitted via contact with infectious lesions during vaginal, anal, or oral sex or via the placenta during pregnancy. Individuals at increased risk for syphilis include people with HIV, those engaging in condomless sex with multiple partners, and men who have sex with men (MSM)-who comprised one-third (32.7%) of all males with primary and secondary syphilis in 2023. Early syphilis is defined as syphilis in the first year after

infection and includes symptomatic (primary and secondary) and asymptomatic (early latent) stages. Primary syphilis is characterized by painless anogenital lesions. Secondary syphilis is associated with a diffuse rash, mucocutaneous lesions, and lymphadenopathy. Syphilis diagnosed more than a year after infection is referred to as late syphilis and includes asymptomatic (late latent) and symptomatic (tertiary) stages. Neurosyphilis, which can occur at any stage, can lead to meningitis, uveitis, hearing loss, or stroke. In pregnancy, up to 40% of fetuses with in-utero exposure to syphilis are stillborn or die from their infection during infancy. The diagnosis of syphilis relies on serologic reactivity along with a clinical history and presentation consistent with active or latent syphilis infection. The recommended treatment for syphilis is benzathine penicillin G administered as intramuscular doses of 2.4 million units: a single injection for early stage and 3 weekly injections for late latent stage syphilis. Strategies to identify and prevent syphilis infections include (1) screening of sexually active people aged 15 to 44 years at least once and at least annually for those at increased risk, (2) screening 3 times in pregnant individuals (at the first prenatal visit, during the third trimester, and at delivery), (3) counseling about condom use, and (4) offering doxycycline postexposure prophylaxis (200-mg doxycycline taken within 72 hours after sex as postexposure prophylaxis) to MSM and transgender women with a history of a sexually transmitted infection in the past year.
Conclusions and relevance: Syphilis infections, including congenital syphilis, have increased in the US and worldwide over the past decade. First-line treatment for syphilis is benzathine penicillin G. Routine syphilis screening of all pregnant patients and all sexually active people aged 15 to 44 years and use of doxycycline postexposure prophylaxis in individuals at risk for syphilis infection are recommended strategies to decrease syphilis transmission.

8. Lancet 2025;406(10509):1283-94
Seminar
Enteric (typhoid and paratyphoid) fever
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Enteric fever, caused by the human-restricted bacteria Salmonella enterica serovar Typhi (typhoid) and Salmonella enterica serovar Paratyphi A, B, and C (paratyphoid), affects persons residing in, or travelling from, areas lacking safe water, sanitation, and hygiene infrastructure. Transmission is by the faecal-oral route. A gradual fever onset over 3-7 days with malaise, headache, and myalgia is typical. Symptoms can be altered by previous antimicrobial use. Life-threatening complications can arise in the second week of untreated illness. Differentiation from other febrile illnesses is challenging. Blood or bone marrow culture remain reference standard diagnostic methods, despite the low sensitivity of blood culture. Azithromycin, ciprofloxacin (excepting cases originating in south Asia due to drug resistance), or ceftriaxone are recommended treatment options for both typhoid and paratyphoid; however, choice should be guided by local resistance patterns. Ciprofloxacin-resistant and ceftriaxone-resistant typhoid is common in Pakistan. Three vaccine types are available for prevention of typhoid disease, including the newer, more effective typhoid Vi-conjugate vaccines. Vaccination as well as water, sanitation, and hygiene measures are cornerstones of prevention.

9. Lancet 2025;406(10511):1508-19
Review
Shigellosis
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Shigella is a Gram-negative, facultative intracellular, gastric acid-resistant bacterium of the Enterobacteriaceae family, which includes four serogroups: Shigella dysenteriae, Shigella sonnei, Shigella flexneri, and Shigella boydii. Globally, shigellosis is the most common cause of invasive bloody diarrhoea in children younger than 5 years. Humans are the only natural reservoir and an inoculum of only 10-100 organisms is required for infection. Rising antibiotic resistance rates increasingly reduce the ability to adequately treat severe disease. The prevention of infection with vaccination

10. TMIH 2025;30(10):1134-41
Silent Circulation of Dengue Virus in Aedes aegypti Mosquitoes in Non-Epidemic Regions of Tanzania: Implications for Surveillance and Control
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Objective: This study aimed to assess the prevalence of dengue virus (DENV) infection in Aedes aegypti mosquitoes and evaluate associated ecological and environmental factors in three inland districts (Bahi, Kyela, Ngorongoro) with distinct agro-ecological characteristics and no prior dengue outbreak reports.
Methods: A cross-sectional entomological study was conducted during the wet (April-June 2022) and dry (October-November 2022) seasons. Adult mosquitoes were collected indoors and outdoors using battery-powered aspirators, and immature stages were sampled from natural and artificial water containers. Mosquito pools were screened for DENV RNA using RT-qPCR.
Results: A total of 6459 Ae. aegypti mosquitoes were sampled (54% females). DENV RNA was detected in 0.6% (4/631) of the tested pools: one from Bahi and three from Kyela. No infections were detected in Ngorongoro. High mosquito density was observed in Kyela, particularly in paddy plantations and rice farms. Among DENV-positive pools, 100% (4/4) were collected near vegetation, suggesting that outdoor habitats are high-risk sites. The minimum infection rate was 0.6 (95% CI: 0.2-1.6) per 1000 mosquitoes.
Conclusion: This study confirms silent DENV circulation in Ae. aegypti populations in Tanzanian regions without prior epidemic reports. The detection of DENV in mosquitoes from Bahi and Kyela highlights the risk of future outbreaks and underscores the need for enhanced vector surveillance and integrated control strategies. These findings emphasise the urgency of preemptive public health measures to mitigate dengue spread in Tanzania. Limitations of the study include reliance on RT-qPCR without viral isolation or serotyping and the absence of concurrent human clinical data.

Food Systems and (Planetary) Health

11. Lancet 2025;406(10512):1625-700
The Lancet Commissions

The EAT-Lancet Commission on healthy, sustainable, and just food systems

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Key messages

• Food systems sit at the nexus of health, environment, climate, and justice. A food systems transformation is fundamental for solving crises related to the climate, biodiversity, health, and justice. The central position of food systems emphasises the interdependent nature of these crises, rather than each crisis separately, which highlights the need to position food systems change as a global integrator across economic, governance, and policy domains.

• The updated planetary health diet (PHD) has an appropriate energy intake; a diversity of whole or minimally processed foods that are mostly plant sourced; fats that are primarily unsaturated, with no partially hydrogenated oils; and small amounts of added sugars and salt. The diet allows flexibility and is compatible with many foods, cultures, dietary patterns, traditions, and individual preferences. The PHD also provides nutritional adequacy and diminishes the risks of non-communicable diseases. At present, all national diets deviate substantially from the PHD, but a shift to this pattern could avert approximately 15 million deaths per year (27% of total deaths worldwide). Such a transition would reduce the rates of many specific non-communicable diseases and promote healthy longevity.

• Food drives five planetary boundary transgressions, including land system change, biosphere integrity, freshwater change, biogeochemical flows, and approximately 30% of greenhouse gas emissions driving climate change. How and where food is produced, which foods are produced and consumed, and how much is lost and wasted, all contribute to planetary boundary transgressions. No safe solution to climate and biodiversity crises is possible without a global food systems transformation. Even if a global energy transition away from fossil fuels occurs, food systems will cause the world to breach the Paris Climate agreement of limiting global mean surface temperature to 1·5°C.

• Human rights related to food systems (ie, the rights to food, a healthy environment, and decent work) are not being met, with nearly half the world's population below the social foundations for these rights. Meanwhile, responsibility for planetary boundary transgressions from food systems is not equal: the diets of the richest 30% of the global population contribute to more than 70% of the environmental pressures from food systems. Just 1% of the global population is in a safe and just space. These statistics highlight the large inequalities in the distribution of both benefits and burdens of current food systems. National policies that address inequities in the distribution of benefits and burdens of current food systems would aid in ensuring food-related human rights are met.

• The PHD needs to be available, affordable, convenient, aspirational, appealing, and delicious. To increase demand for healthy sustainable diets and enable necessary dietary shifts, food environment interventions, next-generation culinary research and development, increased purchasing power, and protection and promotion of healthy traditional diets are important actions.

• A food systems transformation following recommendations from the EAT–Lancet Commission—which include a shift to healthy diets, improved and increased agricultural productivity, and reduced food loss and waste—would substantially reduce environmental pressures on climate, biodiversity, water, and pollution. However, no single action is sufficient to ensure a healthy, just, and sustainable food system. Comparing 2050 values

with the current state (as of 2020), a shift to healthy diets in isolation could lead to a 15% reduction in agricultural emissions, compared with a 20% reduction when all three actions are implemented simultaneously with improvements in productivity and food loss and waste. Individually, all three actions modestly reduce future nitrogen and phosphorous use (ie, a 27–34% increase by 2050 with individual actions vs a 41% increase under the business-as-usual scenario); however, in combination they substantially reduce future growth in nitrogen and phosphorous use (ie, a 15% increase compared with 2020 levels of use).

• Additional environmental benefits are accrued through sustainable and ecological intensification practices. Unprecedented investments and effort in these practices could potentially result in a net-zero food system. A diversity of context-specific practices can sequester additional carbon biomass, create and connect habitats, reduce nutrient applications, and increase the interception and capture of excessive crop fertiliser before it pollutes groundwater and surface water systems. These practices can be enabled by securing equitable access to land and water resources, strengthening public advisory services, addressing structural imbalances between producers and dominant agribusinesses, and through public and private sector investments that support farmers shifting towards sustainable practices.

• A food systems transformation following recommendations from the EAT–Lancet Commission could lead to a less resource-intensive and labour-intensive food system that can supply a healthy diet for 9·6 billion people, with modest impacts on average food costs. However, such a transformation would have profound implications for what, how, and where food is produced, and for people involved in these processes. For example, as a part of this restructuring, some sectors would need to contract (eg, a 33% reduction in ruminant meat production) and others would need to expand (eg, a 63% increase in fruit, vegetable, and nut production) compared with 2020 production levels.

• Justice is needed to unlock and accelerate action for transformation. A fair distribution of opportunities and resources—such that the rights to food, a healthy environment, and decent work are met, and distribution of the responsibility to produce, distribute, and consume healthy diets within planetary boundaries is fair—are the basis of a successful food systems transformation. Power asymmetries and discriminatory social and political structures prevent these rights from being met, which results in harms to people's health, precarious livelihoods for food systems workers, and lack of voice, undermining freedom, agency, and dignity. Ensuring liveable wages and collective bargaining, while regulating and limiting market concentration and improving transparency, accountability, representation, and access to information, are all impactful actions. We emphasise the protection of basic human rights in conflict areas as a fundamental foundation of justice.

• Unprecedented levels of action are required to shift diets, improve production, and enhance justice. A just transformation requires building coalitions with actors from inside and outside the food system, identifying bundles of actions, developing national and regional roadmaps for implementation, unlocking finance for the transformation, and rapidly putting joint plans into action. Such efforts should closely align with other sustainability and health initiatives (eg, the Paris Agreement, Kunming– Montreal Global Biodiversity Framework, and nation- specific food-based dietary guidelines). These frameworks have all identified food systems actions as powerful, particularly in their capacity to integrate across goals. Mobilising and repurposing finance is essential for enabling this transformation.

Global Burden of Disease Study

12. Br J Psychiatry 2025;227(4):688-97
Global, regional and national burden of depressive disorders and attributable risk factors, from 1990 to 2021: results from the 2021 Global Burden of Disease study
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Background: Depressive disorders pose a significant global public health challenge, yet evidence on their burden remains insufficient.
Aims: To report the global, regional and national burden of depressive disorders and their attributable risk factors from 1990 to 2021.
Conclusions: Despite decreasing trends in incidence, prevalence and DALYs rates, absolute case numbers and age-standardised rates continue to increase for depressive disorders. Tackling childhood abuse and improving depressive disorder management are crucial to reducing future burdens.

13. Lancet 2025;406(10512):1565-86
The global, regional, and national burden of cancer, 1990-2023, with forecasts to 2050: a systematic analysis for the Global Burden of Disease Study 2023
GBD 2023 Cancer Collaborators
Correspondence to LM Force <lforce@ue.edu>

Background: Cancer is a leading cause of death globally. Accurate cancer burden information is crucial for policy planning, but many countries do not have up-to-date cancer surveillance data. To inform global cancer-control efforts, we used the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2023 framework to generate and analyse estimates of cancer burden for 47 cancer types or groupings by age, sex, and 204 countries and territories from 1990 to 2023, cancer burden attributable to selected risk factors from 1990 to 2023, and forecasted cancer burden up to 2050.
Interpretation: Cancer is a major contributor to global disease burden, with increasing numbers of cases and deaths forecasted up to 2050 and a disproportionate growth in burden in countries with scarce resources. The decline in age-standardised mortality rates from cancer is encouraging but insufficient to meet the SDG target set for 2030. Effectively and sustainably addressing cancer burden globally will require comprehensive national and international efforts that consider health systems and context in the development and implementation of cancer-control strategies across the continuum of prevention, diagnosis, and treatment.

14. Lancet 2025;406(10513):1731-1810
Global age-sex-specific all-cause mortality and life expectancy estimates for 204 countries and territories and 660 subnational locations, 1950-2023: a demographic analysis for the Global Burden of Disease Study 2023
GBD 2023 Demographics Collaborators
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Background: Comprehensive, comparable, and timely estimates of demographic metrics-including life expectancy and age-specific mortality-are essential for evaluating,

understanding, and addressing trends in population health. The COVID-19 pandemic highlighted the importance of timely and all-cause mortality estimates for being able to respond to changing trends in health outcomes, showing a strong need for demographic analysis tools that can produce all-cause mortality estimates more rapidly with more readily available all-age vital registration (VR) data. The Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) is an ongoing research effort that quantifies human health by estimating a range of epidemiological quantities of interest across time, age, sex, location, cause, and risk. This study-part of the latest GBD release, GBD 2023-aims to provide new and updated estimates of all-cause mortality and life expectancy for 1950 to 2023 using a novel statistical model that accounts for complex correlation structures in demographic data across age and time.

Methods: We used 24 025 data sources from VR, sample registration, surveys, censuses, and other sources to estimate all-cause mortality for males, females, and all sexes combined across 25 age groups in 204 countries and territories as well as 660 subnational units in 20 countries and territories, for the years 1950-2023. For the first time, we used complete birth history data for ages 5-14 years, age-specific sibling history data for ages 15-49 years, and age-specific mortality data from Health and Demographic Surveillance Systems. We developed a single statistical model that incorporates both parametric and non-parametric methods, referred to as OneMod, to produce estimates of all-cause mortality for each age-sex-location group. OneMod includes two main steps: a detailed regression analysis with a generalised linear modelling tool that accounts for age-specific covariate effects such as the Socio-demographic Index (SDI) and a population attributable fraction (PAF) for all risk factors combined; and a non-parametric analysis of residuals using a multivariate kernel regression model that smooths across age and time to adaptably follow trends in the data without overfitting. We calibrated asymptotic uncertainty estimates using Pearson residuals to produce 95% uncertainty intervals (UIs) and corresponding 1000 draws. Life expectancy was calculated from age-specific mortality rates with standard demographic methods. For each measure, 95% UIs were calculated with the 25th and 975th ordered values from a 1000-draw posterior distribution.

Findings: In 2023, 60·1 million (95% UI 59·0-61·1) deaths occurred globally, of which 4·67 million (4·59-4·75) were in children younger than 5 years. Due to considerable population growth and ageing since 1950, the number of annual deaths globally increased by 35·2% (32·2-38·4) over the 1950-2023 study period, during which the global age-standardised all-cause mortality rate declined by 66·6% (65·8-67·3). Trends in age-specific mortality rates between 2011 and 2023 varied by age group and location, with the largest decline in under-5 mortality occurring in east Asia (67·7% decrease); the largest increases in mortality for those aged 5-14 years, 25-29 years, and 30-39 years occurring in high-income North America (11·5%, 31·7%, and 49·9%, respectively); and the largest increases in mortality for those aged 15-19 years and 20-24 years occurring in Eastern Europe (53·9% and 40·1%, respectively). We also identified higher than previously estimated mortality rates in sub-Saharan Africa for all sexes combined aged 5-14 years (87·3% higher in GBD 2023 than GBD 2021 on average across countries and territories over the 1950-2021 period) and for females aged 15-29 years (61·2% higher), as well as lower than previously estimated mortality rates in sub-Saharan Africa for all sexes combined aged 50 years and older (13·2% lower), reflecting advances in our modelling approach. Global life expectancy followed three distinct trends over the study period. First, between 1950 and 2019, there were considerable improvements, from 51·2 (50·6-51·7) years for females and 47·9 (47·4-48·4) years for males

in 1950 to 76·3 (76·2-76·4) years for females and 71·4 (71·3-71·5) years for males in 2019. Second, this period was followed by a decrease in life expectancy during the COVID-19 pandemic, to 74·7 (74·6-74·8) years for females and 69·3 (69·2-69·4) years for males in 2021. Finally, the world experienced a period of post-pandemic recovery in 2022 and 2023, wherein life expectancy generally returned to pre-pandemic (2019) levels in 2023 (76·3 [76·0-76·6] years for females and 71·5 [71·2-71·8] years for males). 194 (95·1%) of 204 countries and territories experienced at least partial post-pandemic recovery in age-standardised mortality rates by 2023, with 61·8% (126 of 204) recovering to or falling below pre-pandemic levels. There were several mortality trajectories during and following the pandemic across countries and territories. Long-term mortality trends also varied considerably between age groups and locations, demonstrating the diverse landscape of health outcomes globally.
Interpretation: This analysis identified several key differences in mortality trends from previous estimates, including higher rates of adolescent mortality, higher rates of young adult mortality in females, and lower rates of mortality in older age groups in much of sub-Saharan Africa. The findings also highlight stark differences across countries and territories in the timing and scale of changes in all-cause mortality trends during and following the COVID-19 pandemic (2020-23). Our estimates of evolving trends in mortality and life expectancy across locations, ages, sexes, and SDI levels in recent years as well as over the entire 1950-2023 study period provide crucial information for governments, policy makers, and the public to ensure that health-care systems, economies, and societies are prepared to address the world's health needs, particularly in populations with higher rates of mortality than previously known. The estimates from this study provide a robust framework for GBD and a valuable foundation for policy development, implementation, and evaluation around the world.

15. Lancet 2025;406(10513):1811-72
Global burden of 292 causes of death in 204 countries and territories and 660 subnational locations, 1990-2023: a systematic analysis for the Global Burden of Disease Study 2023
GBD 2023 Causes of Death Collaborators
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Background: Timely and comprehensive analyses of causes of death stratified by age, sex, and location are essential for shaping effective health policies aimed at reducing global mortality. The Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2023 provides cause-specific mortality estimates measured in counts, rates, and years of life lost (YLLs). GBD 2023 aimed to enhance our understanding of the relationship between age and cause of death by quantifying the probability of dying before age 70 years (70q0) and the mean age at death by cause and sex. This study enables comparisons of the impact of causes of death over time, offering a deeper understanding of how these causes affect global populations.
Interpretation: We examined global mortality patterns over the past three decades, highlighting-with enhanced estimation methods-the impacts of major events such as the COVID-19 pandemic, in addition to broader trends such as increasing NCDs in low-income regions that reflect ongoing shifts in the global epidemiological transition. This study also delves into premature mortality patterns, exploring the interplay between age and causes of death and deepening our understanding of where targeted resources could be applied to

further reduce preventable sources of mortality. We provide essential insights into global and regional health disparities, identifying locations in need of targeted interventions to address both communicable and non-communicable diseases. There is an ever-present need for strengthened health-care systems that are resilient to future pandemics and the shifting burden of disease, particularly among ageing populations in regions with high mortality rates. Robust estimates of causes of death are increasingly essential to inform health priorities and guide efforts toward achieving global health equity. The need for global collaboration to reduce preventable mortality is more important than ever, as shifting burdens of disease are affecting all nations, albeit at different paces and scales.

16. Lancet 2025;406(10513):1873-1922
Burden of 375 diseases and injuries, risk-attributable burden of 88 risk factors, and healthy life expectancy in 204 countries and territories, including 660 subnational locations, 1990-2023: a systematic analysis for the Global Burden of Disease Study 2023
GBD 2023 Disease and Injury and Risk Factor Collaborators
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Background: For more than three decades, the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) has provided a framework to quantify health loss due to diseases, injuries, and associated risk factors. This paper presents GBD 2023 findings on disease and injury burden and risk-attributable health loss, offering a global audit of the state of world health to inform public health priorities. This work captures the evolving landscape of health metrics across age groups, sexes, and locations, while reflecting on the remaining post-COVID-19 challenges to achieving our collective global health ambitions.
Interpretation: Our findings underscore the complex and dynamic nature of global health challenges. Since 2010, there have been large decreases in burden due to CMNN (communicable, maternal, neonatal, and nutritional) diseases and many environmental and behavioural risk factors, juxtaposed with sizeable increases in DALYs attributable to metabolic risk factors and NCDs (non-communicable diseases) in growing and ageing populations. This long-observed consequence of the global epidemiological transition was only temporarily interrupted by the COVID-19 pandemic. The substantially decreasing CMNN disease burden, despite the 2008 global financial crisis and pandemic-related disruptions, is one of the greatest collective public health successes known. However, these achievements are at risk of being reversed due to major cuts to development assistance for health globally, the effects of which will hit low-income countries with high burden the hardest. Without sustained investment in evidence-based interventions and policies, progress could stall or reverse, leading to widespread human costs and geopolitical instability. Moreover, the rising NCD burden necessitates intensified efforts to mitigate exposure to leading risk factors-eg, air pollution, smoking, and metabolic risks, such as high SBP (systolic blood pressure), BMI (body mass index), and FPG (fasting plasma glucose) -including policies that promote food security, healthier diets, physical activity, and equitable and expanded access to potential treatments, such as GLP-1 receptor agonists. Decisive, coordinated action is needed to address long-standing yet growing health challenges, including depressive and anxiety disorders. Yet this can be only part of the solution. Our response to the NCD syndemic-the complex interaction of multiple health risks, social determinants, and systemic challenges-will define the future landscape of global health. To ensure human wellbeing, economic stability, and social equity, global action to sustain and advance health gains must prioritise

reducing disparities by addressing socioeconomic and demographic determinants, ensuring equitable health-care access, tackling malnutrition, strengthening health systems, and improving vaccination coverage. We live in times of great opportunity.
Lancet 2025;406(10518):2461-82
Global, regional, and national burden of chronic kidney disease in adults, 1990-2023, and its attributable risk factors: a systematic analysis for the Global Burden of Disease Study 2023
GBD 2023 Chronic Kidney Disease Collaborators

17. Lancet Glob Health 2025;13(12):e2013-e2026
Global, regional, and national sepsis incidence and mortality, 1990-2021: a systematic analysis
GBD 2021 Global Sepsis Collaborators, Institute for Health Metrics and Evaluation, University of Washington, Seattle, WA, USA

Background: The global burden of sepsis, a life-threatening dysregulated host response to infection leading to organ dysfunction, remains challenging to quantify. We aimed to comprehensively estimate the global, regional, and national burden of sepsis, including the impact of the COVID-19 pandemic and underlying causes of sepsis-related deaths with co-occurring infectious syndromes.
Interpretation: The global burden of sepsis increased in 2020 and 2021, reversing progress from 1990. Sepsis incidence and mortality increased in people aged 15 years and older, especially those aged 70 years and older, and as a complication of non-infectious underlying causes of death such as stroke, primarily through bloodstream infections and lower respiratory infections. The global burden of sepsis is substantial, and sepsis is increasingly a complication of non-infectious causes of death.

18. Tobacco Induc Dis 2025 Oct 31:23
Global burden of vision impairment due to smoking-related cataract: A descriptive study of spatiotemporal trends based on GBD secondary data and projections to 2050
Chen Y et al., Department of Ophthalmology, Quanzhou Maternity and Children's Hospital, Quanzhou City, China

Introduction: Smoking is a major modifiable risk factor for cataract, with strong biological and epidemiological evidence supporting this association. Nevertheless, the global burden and regional variations in vision impairment attributable to smoking-related cataract have not been comprehensively assessed.
Conclusions: Despite a declining age-standardized burden globally, the absolute burden is increasing due to population growth and aging, presenting ongoing challenges, particularly for low- and middle-income countries. Strengthening tobacco control and improving access to cataract surgery are recommended.

Other paper about this subject:
* Am J TMH 2025;113(6):1430-41
Trends and Disparities in the Impact of Diabetes Mellitus Mortality and Disability, 1990-2021: A Systematic Analysis of the 2021 Global Burden of Disease Study

Global Health Finances: funding and funding reductions

19. Lancet Glob Health.2025;13(10):e1669-e1680
Effects of reductions in US foreign assistance on HIV, tuberculosis, family planning, and maternal and child health: a modelling study
Stover J et al., Avenir Health, Glastonbury, CT USA <JStover@AvenirHealth.org>

Background: The USA has traditionally been the largest donor to health programmes in low-income and middle-income countries (LMICs). In January 2025, almost all such funding was stopped and prospects for its resumption are uncertain. The suddenness of the funding cuts makes it difficult for national health programmes in LMICs to adapt. We aimed to estimate the impact of these cuts on deaths and other outcomes (new infections, number of family planning users, and unplanned pregnancies) for four health areas that have been a focus of a substantial amount of US foreign assistance: HIV, tuberculosis, family planning, and maternal and child health.
Methods: We applied established mathematical models to the countries receiving US foreign assistance in each domain to estimate health impacts over the period 2025 to 2030. We used six models of HIV, three different approaches to estimate family planning impact, and one model each for tuberculosis and maternal and child health, applying these models to as many as 80 countries. We compared model projections assuming constant funding (status quo) with projections assuming complete elimination of US funding in each country. Some models also considered partial cuts or restoration of funding over time.
Findings: A complete cessation of US funding without replacement by other sources would lead to drastic increases in deaths from 2025 to 2030: 4.1 million (range 1.6–6.6) additional AIDS-related deaths across 55 countries, 606,900 (95% uncertainty interval [UI] 466,000–768,800) additional tuberculosis deaths across 79 countries, 40–55 million additional unplanned pregnancies and 12–16 million unsafe abortions across 51 countries, and 2.5 million (1.3–4.5) additional child deaths from causes other than HIV and tuberculosis across 24 countries. Restoration of funding for HIV treatment but not prevention would avoid most of the increase in deaths but still result in nearly 1 million more new HIV infections from 2025 to 2030.
Interpretation: Substantial progress has been made in improving global health in the past few decades. This progress has strengthened hope in reaching global development goals. However, the recent funding cuts threaten to change these trajectories and could lead to sharp increases in avoidable mortality for the poorest countries. Even a partial restoration of US funding would combat the most severe effects and provide time for countries that have received substantial US foreign assistance to adjust to the new funding landscape.

Other papers about this subject:
* Lancet 2025;406(10512):1548-9
World Report
US aid cuts: a new era of HIV care in Malawi

* Lancet 2025; 406(10519):2525-6
World Report
Aid cuts: Tanzania looks to boost domestic financing

Global Health Research

20. HPP 2025;40(9):998-1007
How to (or how not to)…Enhance equity in the conduct of global health research: dimensions and directions for organizations
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Global health research can either challenge or reinforce power imbalances in knowledge production, funding, agenda-setting, authorship, data access, and capacity-building. These inequities are shaped by colonial legacies, funding disparities, extractive partnerships, and Global North dominance over Global South priorities. They manifest in research conduct, procedural ethics, and ethics-in-practice. While much literature focuses on individual or project-level strategies, structural, and institutional dynamics—beyond the control of individual researchers—play a critical role. While macro-level structural change may occur slowly, in line with the pace of societal change, meso-level change within organizations is possible. Research organizations and networks are well positioned to integrate equity and influence broader change. Importantly, the meso-level offers a space to challenge Global North–South binaries and foster a shared ethics-of-practice.
We reviewed 255 resources from a live Zotero inventory on equity in global health research, shortlisting 42 and identifying over 135 strategies. These were categorized into domains and organized into 14 action groups, mapped onto a three-stage implementation framework—Preparation, Establishing, and Maintaining—drawing from the literature. Our goal was to distil practices applicable across institutions, recognizing that context and resources shape prioritization.
The preparation phase involves assessing current practices, reforming partnerships, and promoting inclusive leadership, with attention to gender equity, community engagement, and institutional self-assessment. The establishing phase emphasizes transparent communication, local and Indigenous participation, diverse recruitment, and culturally responsive research design. The maintaining phase focuses on sustaining equity-focused teams, incentivizing inclusive leadership, supporting under-represented researchers, and formalizing equity policies.
Our findings offer a phase-wise typology of organizational reforms to embed equity in conduct of global health research. Advancing these strategies requires institutional commitment and donor engagement across all resource settings. Networked organizations and reflexive designs are key to enabling shared learning and equity-aligned transformation.

Global Surgery

21. BMJ Glob Health 2025;10(11):e021441
A pilot study on the acceptability and safety of collaborative triage and treatment with traditional bonesetters for extremity fracture patients: a stepped-wedge, cluster-randomised controlled trial in rural Tanzania
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Introduction: Fracture patients in resource-limited settings frequently attend traditional bonesetters (TBSs), often resulting in non/malunion or infectious complications.

Intersectoral collaboration between formal healthcare and TBSs has the potential to make this practice safer but has never been tested previously. This pilot study assesses the acceptability and safety of collaborative fracture management (CFM).
Methods: Within a pilot stepped-wedge cluster-randomised controlled trial, we included three TBSs (clusters) and their extremity fracture patients from Rorya district, Tanzania. We randomly assigned TBS timepoints to transition from standard TBS care (control) to CFM (intervention). CFM consisted of X-ray imaging, analgesia and guideline-based discussion between a doctor and TBS to guide definitive fracture management. Patient follow-up was at 1, 3 and 6 months postinclusion. In an intention-to-treat analysis, we estimated average treatment effects through ordinary least squares and Poisson regression for primary outcomes of protocol adherence, patient satisfaction and number of complications. The trial is registered at the Pan-African Clinical Trial Registry (PACTR202307910320431) and is completed.
Results: Between 28 August 2023 and 28 April 2024, we included 21 intervention (9 females, 12 males) and 31 control patients (11 females, 20 males). Protocol adherence was 66.7% in the intervention group, with prohibitive cost and fear of surgery being the most common reasons for non-adherence. Mean satisfaction, quality of life and disability did not differ statistically between groups. Intervention patients had 0.072 less complications than control patients (95% CI -0.11 to -0.031, p=0.001), corresponding with a number-needed-to-treat of 13.9 patients to prevent one complication.
Conclusion: Our results suggest CFM is acceptable and safe to patients and TBSs, offering a model to improve fracture care in resource-limited settings worldwide. To improve the model's efficacy, additional strategies are necessary to overcome socioeconomical and educational barriers to surgery. Future research could investigate the generalisability of our findings in other settings.

Health Policy

22. BMJ Global Health. 2025;10:e021043
Improving Sierra Leone’s skilled health-worker-to-population ratio: how unsalaried and auxiliary health workers are barriers in its path to universal health coverage
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Background. Achieving Universal Health Coverage (UHC) is one of Sierra Leone’s main health policy goals. To achieve UHC, a country needs a skilled-health-worker-to-population ratio of 44.5 doctors, midwives and nurses per 10 000. In Sierra Leone, this ratio is 6.4 per 10 000. There is limited government funding to expand the health worker payroll, and the majority of healthcare providers on the payroll are auxiliary cadres, who fall below WHO’s definition of ‘skilled’ health workers.
Since 2010, approximately 10 000 auxiliary nurses have been engaged in the public health system on an unsalaried ‘volunteer’ basis. They compete for paid employment with graduates who meet skilled health worker criteria. This study examines barriers and enablers to Sierra Leone’s expansion of its skilled health workforce.
Methods. Mixed methods: trainee health worker (projected) enrolment data were collected for 2019–2027. Primary care facility staffing data at district level was collected in 2023–2024, salaried and unsalaried. Semistructured interviews were conducted with students, faculty

(n=20), health workers (n=110), salaried and unsalaried staff and key informants. The health labour market framework for UHC was used to analyse the results.
Results. Since 2019, Sierra Leone's emphasis has shifted to training nurses who meet WHO standards. This has led to a significant increase in public and private institutions offering health worker training courses. In 4 years, enrolment in nursing training facilities has quadrupled. District level data show that, at primary care level, over 50% of public health workers are in unsalaried positions, waiting for paid public employment.
Conclusion. While the production of additional health workers can be a potential enabler to a health worker density improvement, a lack of government funding to absorb both new graduates and all trained volunteer health workers who have been waiting for job opportunities means that barriers to a health workforce expansion outweigh the enablers.

23. BMJ Global Health 2025;10:e021574
Health worker unemployment in countries with critical health worker shortages: a rapid synthesis of evidence from 33 countries
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Introduction. There have been increasing concerns about the overproduction of the health workforce in low- and middle-income countries, leading to unemployment, even as recent literature and country reports point to concurrent shortages based on population health needs. This paradox underscores the need for analyses that synthesise and reconcile these contrasting phenomena.
Methods. This is a rapid review of evidence of unemployment for countries that are listed on the 2023 WHO list of safeguard countries, which are countries designated as having critical health workforce shortages. Searches were done in PubMed, Embase and Google for health labour market analyses, peer-reviewed literature and grey literature detailing health workforce physician, nurse or midwife, unemployment. We combined unemployment rates into a weighted estimate (except for graduates) and as trends. We also provided a narrative summary from the literature providing unemployment rate estimates.
Results. Searches yielded 99 estimates from 72 sources, representing 33 of the 55 (60%) safeguard countries. 65 estimates were used for quantitative analysis. The weighted average of unemployment was 26.8% for physicians (across 13 countries), 39.7% for nurses/midwives (across 18 countries) and 26.1% in health workforce-wide estimates (across 8 countries). The unweighted average unemployment rate for new graduates is 54.2% across cadres: 58.4% for physicians across eight countries, 68.8% for nurses among six countries and 46.2% for midwives in two countries reported. Trends indicated declines in some countries but general increases in unemployment since 2020. Key findings included the contribution of education-market discoordination to unemployment, the realities of informal health care labor and shortage-unemployment paradoxes and migration and protests as a response to unemployment.
Conclusion. The disconnect between health workforce unemployment and critical shortages in many countries underscores deep systemic inefficiencies and missed opportunities to strengthen health systems. Addressing this misalignment is not only urgent, but also essential for achieving universal health coverage and improving population health outcomes.

24. Lancet 2025;406(10520):2656-66

The effects of government-led cash transfer programmes on behavioural and health determinants of mortality: a difference-in-differences study

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Background: Poverty is strongly associated with numerous adverse health outcomes. Government-led cash transfer programmes are crucial to poverty reduction strategies in many low-income and middle-income countries (LMICs). Although extensive research from individual programmes exists on the effects of cash transfers on beneficiaries, evidence of these programmes' population-wide health effects remains scarce. Previously, we showed that cash transfer programmes are associated with substantially reduced mortality rates among women and young children at the population level in LMICs. In this study, we aimed to explore the mechanisms underlying these reductions.

Methods: In this two-stage difference-in-differences study, we combined individual-level data from Demographic and Health Surveys in 37 LMICs with a comprehensive database of government-led cash transfer programmes between 2000 to 2019 to compare countries with cash transfer programmes and countries without these programmes before and after the introduction of them. We evaluated the effects of cash transfer programmes on 17 outcomes related to maternal health service use, fertility and reproductive decision making, caregiver health behaviours, and child health and nutrition. Outcomes were assessed across all respondents of the surveys but could not be differentiated between recipients and non-recipients for countries with cash-transfer programmes.

Findings: Among 37 countries included in the study, 20 introduced large-scale cash transfer programmes during the study period. We included data from 2 156 464 livebirths, and 954 202 children younger than 5 years. We identified statistically significant effects of cash transfer programmes on early antenatal care (5·0 percentage points, 95% CI 2·1 to 7·9; padjusted=0·0019), facility deliveries (7·3 percentage points, 3·2 to 11·3; padjusted=0·0014), delivery by a skilled birth attendant (7·9 percentage points, 3·2 to 12·6; padjusted=0·0027), desired pregnancies (1·9 percentage points, 0·5 to 3·2; padjusted=0·014), interdelivery intervals (2·5 months, 1·8 to 3·1; padjusted=0·0017), unmet needs for contraception (-10·3 percentage points, -15·2 to -5·3; padjusted=0·0006), exclusive breastfeeding (14·4 percentage points, 13·3 to 15·5; padjusted=0·0004), minimum acceptable diets (7·5 percentage points, 5·5-9·5; padjusted=0·0009), measles vaccinations (5·3 percentage points, 1·6 to 8·9; padjusted=0·026), male twin livebirths (0·8 per 1000 male livebirths, 0·3 to 1·4; padjusted=0·023), diarrhoeal illness (-6·4 percentage points, -11·7 to -1·1; padjusted=0·038), and underweight nutritional status (-2·0 percentage points, -3·6 to -0·4; padjusted=0·029). There were no statistically significant effects on age at first birth (1·6 months, -1·3 to 4·4; padjusted=0·48), intended pregnancies (-0·2 percentage points, -2·8 to 2·3; padjusted=0·86), small birth sizes (0·4 percentage points, -0·7 to 1·4; padjusted=0·53), wasting (-2·1 percentage points, -5·0 to 0·9; padjusted=0·17), and stunting (4·3 percentage points, -0·2 to 8·7; padjusted=0·10).

Interpretation: As many countries consider the future of their cash transfer programmes, including whether to embrace approaches such as basic or guaranteed incomes, these findings provide new evidence on the numerous ways in which such programmes can improve population health.

Other paper about this subject:
* Eur Psychiatry 2025;68(1):e145
Can cash transfers protect mental health? Evidence from an observational cohort of children and adolescents living in adverse contexts in Brazil

25. Lancet Glob Health 2025;13(12):e2097-e2110
Financial incentives to improve uptake of partner treatment for sexually transmitted infections in antenatal care: a cluster randomised trial in Zimbabwe
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Background: Partner treatment is an essential component of sexually transmitted infection (STI) case management. We aimed to compare the uptake of partner treatment for STIs within antenatal care in Zimbabwe, with and without the provision of a financial incentive.
Methods: The present cluster randomised trial was embedded within a prospective study (IPSAZ) evaluating point-of-care STI screening among pregnant women in Harare, Zimbabwe. Any pregnant woman attending one of two study clinics for antenatal care was eligible for participation in the IPSAZ study. For the current embedded trial, the study population was those women enrolled and screened in the IPSAZ study who were diagnosed with a curable STI or treated for an STI syndrome (index participants), between Jan 23 and Oct 23, 2023. Clinic days were randomised (1:1) by computer-based randomisation to be an intervention (incentive) day or non-intervention (standard-of-care control) day. On intervention days, index participants were offered partner slips that entitled their partners to US$3 in compensation if they attended the same clinic for treatment. On control days, non-incentivised partner slips were offered. Participants were masked to the intervention before receipt of partner slips, while researchers including outcome assessors were unmasked. The primary outcome was the proportion of index participants, among those who took at least one partner slip, who had at least one partner attend the study clinic for treatment within 28 days of index diagnosis. This outcome was compared across the intervention and control groups by individual-level logistic regression, with robust standard errors to account for clustering, and analysed by intention to treat. Thematic analysis of two focus group discussions with pregnant women and 57 semi-structured interviews with pregnant women, partners, health-care staff, and intervention team members was also conducted. The parent IPSAZ study was registered on ClinicalTrials.gov (NCT05541081), and the current embedded trial was registered on the Pan African Clinical Trials Registry (PACTR202302702036850), both of which have been completed.
Findings: Between Jan 23 and Oct 23, 2023, 323 participants were diagnosed with a curable STI or treated for an STI syndrome. 156 (48%) of these index participants were randomly assigned to receive incentivised partner slips and 167 (52%) to receive standard-of-care control partner slips across 171 clusters (85 intervention clusters and 86 control clusters). Overall uptake of one or more partner slips by index participants was 91% (294 of 323 participants), with 87% uptake (136 of 156) in the intervention group and 95% uptake (158 of 167) in the control group. The median age of the 294 index participants who took partner slips was 24 years (IQR 21-29). No notable imbalances were observed in participant characteristics between the trial groups. Partners attended the clinic for treatment within 28 days of index diagnosis for 39 (29%) of 136 index participants who took at least one partner slip in the intervention group, and for 42 (27%) of 158 in the control group (odds ratio 1.11

[95% CI 0.66-1.86]; p=0.69). We identified potential barriers across the pathway from index diagnosis to partner treatment. Barriers to pregnant women informing partners included perceived risks of informing partners and complex relationship structures. Barriers to partner attendance were both structural, including time and costs, and cultural, including how men perceived clinics and their engagement with health care. Crucially, partners were not always aware of the availability of incentives.
Interpretation: Financial incentives did not address barriers to index participants informing partners, and ultimately did not improve partner attendance for STI treatment. Multifaceted packages addressing barriers for both the index individual and partner, and influencing multiple points in the partner notification and treatment pathway, are likely required to facilitate partner treatment.

26. Lancet Glob Health 2025;13(12):e2175-e2179
Facing up to reality: over-the-counter access to antibiotics in low-income and middle-income countries needs a paradigm shift in thinking
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Almost half of the global population do not have access to universal health coverage and the current shortfall of health-care professionals (including doctors and nurses) is estimated to reach a deficit of 11 million by 2030, disproportionately affecting low-income and middle-income countries (LMICs). Against this backdrop, of the 8 million deaths per year from bacterial sepsis worldwide, over 3 million are from treatable antibiotic-sensitive infections. This number suggests that access to antibiotics under the current model is insufficient. In many LMICs, over-the-counter antibiotic sellers that range from informal drug procurers to small-sized and medium-sized private pharmacies are the primary and most accessible care providers. Yet global health narratives, often shaped by the traditional doctor-led prescribing model, portray them as drivers of misuse rather than recognising them as politically and economically embedded actors that meet unmet health and antibiotic needs. In this Viewpoint, we argue that over-the-counter antibiotic sellers need to be integrated into a solution for antibiotic misuse and overuse, rather than being seen as part of the problem. Furthermore, we provide a framework with which to achieve integration, so that the concept of global health care for all becomes a reality.

HIV / AIDS

27. BMJ Global Health 2025;10:e016745
The use of Childbirth Experience Questionnaire (CEQ) and Birth Satisfaction Scale-Revised (BSS-R) in comparing the experiences of mothers with and without HIV in Tanzania
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Introduction. Mothers' experiences at birth and respectful maternal care are critical to achieving Sustainable Development Goal number 3 in Tanzania. However, little is known about the differences in perinatal experience quality between women with and without HIV.

To address this gap, we compared mothers' experience at birth among women with and without HIV.
Methods. This cross-sectional study was conducted in four Reproductive and Child Health Clinics in Mbeya, Tanzania between June and August 2022. Childbirth experience was assessed among mothers with and without HIV 1 week after birth using the Child Birth Experience Questionnaire (CEQ) and Birth Satisfaction Scale-Revised (BSS-R) questionnaires translated to Swahili. Higher scores reflected better experiences. Using this baseline assessment, bivariate and multivariate linear regression analyses tested the associations between HIV status and other patient factors and child-birth experience scores.
Results. A total of 1252 mothers were invited, of which 626 (288 (46%) with HIV, mean (SD age 31.9±7.8 years)), were included. Mothers with HIV had lower scores in most CEQ and BSS-R domains compared with mothers without HIV. Significant mean CEQ score differences between mothers with and without HIV were observed in both CEQ and BSS-R scores: After adjusting for demographic factors, regression coefficients, β for CEQ scores were higher among mothers without HIV compared with mothers with HIV for: 'own capacity' 0.73, $p<0.001$, 'Professional support' 0.94, $p<0.001$ and 'Participation' 0.33, $p<0.001$. Similarly, β for BSS-R scores were higher among mothers without HIV for 'Quality of care provision' 0.87, $p<0.001$), 'Women's personal attributes' 0.27, $p=0.002$ and 'Stress experienced' 0.1, $p=0.1$.
Conclusions. Mothers with HIV in the postpartum period reported poorer CEQ and BSS-R scores compared with mothers without HIV. These results suggest a need to improve respectful maternity care at birth among the mothers with HIV.

28. Lancet 2025;406(1051):1455
World Report
HIV community welcomes lenacapavir deal
Cousins S.

(Abbreviated)
Researchers and civil society leaders have welcomed the news that low-cost generic versions of lenacapavir, a twice-yearly injection to prevent HIV, will be available in more than 100 countries from 2027.
Agreements announced at the UN General Assembly in New York, NY, USA, involve Unitaid, the Clinton Health Access Initiative, and Wits RHI, who will support the Indian generic manufacturer Dr Reddy's Laboratories to deliver generic versions of the drug. In another deal, the Gates Foundation will support Hetero Drugs with funding and volume guarantees. The deals will bring the cost down to US$40 per patient per year.
Lenacapavir offers almost complete protection against HIV, with WHO previously hailing it as "the next best thing" to an HIV vaccine.
WHO and the European Commission recommended its use for HIV prevention. In 2024, the drug's developer, Gilead Sciences, announced it had signed licensing agreements with six generic manufacturers, including Dr Reddy's and Hetero Drugs, to allow the production of low-cost versions for 120 high-incidence, resource-limited countries.
UNAIDS estimates that 1·3 million people were infected with HIV globally in 2024, more than three times the 2025 target and it anticipates there could be 6·6 million new HIV infections globally by 2029 due to widespread funding cuts. Many experts welcomed the lenacapavir announcement, having previously raised concerns about whether the drug would be

affordable enough to make a difference in countries where HIV incidence remains stubbornly high, including South Africa.
Others have expressed concern about how lenacapavir will be rolled out. The US President's Emergency Plan for AIDS Relief and The Global Fund plan to provide the drug to an initial 2 million people in high-burden countries But the Trump administration has suggested its funding of lenacapavir might only apply to pregnant and breastfeeding women. “It's wonderful news we’ve managed to reach this price so quickly”, Andrew Hill, Senior Visiting Research Fellow in the Department of Pharmacology and Therapeutics at the University of Liverpool (Liverpool, UK), told The Lancet. “However, we need at least 10 million people taking lenacapavir to have a significant effect on the HIV epidemic, especially after the cuts in US funding...Who knows the commercial sex workers if all the outreach workers have been sacked? Specialised units shut down overnight earlier this year. The benefits of giving 10 million people lenacapavir will be much smaller if Americans insist the money be channelled to pregnant women.”
Prabhat Jha, Professor and Head of the Nuffield Department of Population Health of Oxford University (Oxford, UK), said he welcomed the news but expressed concern about the limited impact oral pre-exposure prophylaxis (PrEP) has had on the HIV epidemic.
Hill added that he was concerned about the countries excluded from Gilead's deal. He told The Lancet that Gilead's licence excluded countries where around 38% of global HIV transmission occurs, such as parts of Latin America, central Asia and eastern Europe, and north Africa and the Middle East. Numerous countries excluded from the deal have already said they cannot afford the drug.

29. Lancet Glob Health 2025 Dec Series
Sustainable HIV prevention in Africa

Despite more than four decades of progress, HIV remains a global health challenge, with 1·3 million new infections a year. The six-paper Series on Sustainable HIV Prevention in Africa argues that epidemic control depends on shifting from fragmented, donor-led programmes to nationally led, integrated health systems. Countries that adopt an integrated health systems approach to the HIV response will be better able to achieve sustainable prevention outcomes and withstand external funding shocks. Examples from Rwanda, South Africa, Malawi, Zambia, Eswatini, Ghana, and Kenya show feasibility and impact. A sustainable approach to HIV prevention will require resilient supply chains and workforce capacity, aligning partners to national plans, meaningful community involvement, and a focus on health equity.

The papers in this series:
* Global HIV prevention is not on track: how a health systems approach can promote sustainable progress in African countries
Lancet HIV 2025 Dec 2:S2352-3018(25)00270-X
* Advancing functional and systemic integration of HIV prevention into public health systems
Lancet Glob Health 2026 Jan;14(1):e121-e130
*The role of digital health and artificial intelligence in improving the reach and effectiveness of HIV prevention in Africa
Lancet Glob Health 2026 Jan;14(1):e131-e142

*Enhancing HIV prevention through systematic community engagement, learning, and response
Lancet HIV 2025;Dec 2:S2352-3018(25)00271-1
*Strengthening nationally led approaches to new product introduction for HIV prevention
Lancet HIV 2025 Dec 2:S2352-3018(25)00296-6
*Future directions: ending HIV in Africa—a call to action for sustainable and nationally led prevention
Lancet Global Health 2026 Jan;14(1):e143-e151

30. PLoS Med 2025;22(9):e1004720
Identifying care gaps along the HIV treatment failure cascade: A multistate analysis of viral load monitoring, re-suppression, and regimen switches in Zambia
Sikombe K et al., Implementation Science Unit, Centre for Infectious Disease Research in Zambia, Lusaka <kombatende.sikombe@cidrz.org>

Background. Timely response to treatment failure is critical for improved outcomes and viral re-suppression among people living with HIV, but care gaps along the treatment failure cascade can occur due to delays by both clients (e.g., retention and adherence) and health systems (e.g., fidelity to viral load [VL] monitoring guidelines). We used multistate analysis to identify drivers of implementation gaps in the treatment failure cascade, including time to HIV VL monitoring, re-suppression, and regimen switches, in Zambia.
Methods and findings. We used national electronic HIV health records to identify adults on antiretroviral therapy (ART) for more than 6 months who experienced treatment failure (VL ≥ 1,000 copies/ml) at 24 clinics in Lusaka, Zambia, between August 2019 and November 2021. Using multistate analyses, we examined how care evolved after treatment failure, accounting for transitions across the treatment failure cascade over time, such as return visits, repeat VL testing, treatment interruptions (>60 days late for visit), and viral re-suppression. Analyses were stratified by ART regimen at cohort entry: tenofovir disoproxil fumarate/lamivudine or emtricitabine/dolutegravir TDF/XTC/DTG (TLD) and tenofovir disoproxil fumarate/lamivudine or emtricitabine/efavirenz TDF/XTC/EFV (TLE). We repeated analyses to assess switch to second-line therapy among those with consecutively unsuppressed VL test results who were due for regimen switch. Among 179,855 individuals on ART (143,857 with documented VL), 7,916 (4.4%) had a documented elevated VL and drug regimen at the time of treatment failure (52.3% female, median age was 36.7 years (IQR 29.9–43.6), median time on ART 3.3 years (IQR 1.7–6.6), 54.6% on TLD and 45.4% on TLE). Among those with treatment failure, 72.2% (CI 71.3, 73.0%) had returned to clinic 6 months after initial elevated VL was drawn. After one year, 70.1% (CI 69.3, 70.9%) had a repeat VL, 16.6% (CI 15.9, 17.2%) experienced treatment interruption, and 11.4% (CI 10.3, 12.4%) returned to care without repeat VL testing. Among those with a repeat VL, 85.0% (CI 83.9, 86.1%) on TLD and 58.2% (CI 56.8, 59.8%) on TLE had resuppressed. Among those due for second-line switch, 27.9% (CI 24.1, 31.5%) on TLD and 66.6% (CI 64.5, 68.9%) on TLE had changed regimens after one year while 52.4% on TLD had a third VL repeated prior to switch (CI 47.2, 57.4%) (68.0% CI 61.6, 75.2% suppressed of those with repeated VL) compared to 32.1% (CI 29.9, 34.1%) (40.7% CI 36.1, 45.4% suppressed) on TLE. This study was limited by the inability to capture all aspects of care delivery related to treatment failure, such as outreach, enhanced adherence counseling confirmation, and provider rationale for delayed VL rechecking.

Conclusion. After treatment failure, we identified substantial delays in returning for adherence counseling, treatment interruptions, and missed opportunities in rechecking VL status or switching to second-line therapy in routine care in Zambia. Among those who did have VL tests rechecked, re-suppression rates were significantly higher among individuals on TLD compared to TLE. To optimize response and outcomes after treatment failure, strategies must prioritize and target both client and health systems behaviors to meet the care needs in the modern era of TLD.

31. PLoS Med 2025;22(10):e1004781
Differences in growth trajectories in breastfed HIV-exposed uninfected and HIV-unexposed infants in Kenya: An observational cohort study
Tiwari R et al., Department of Global Health, University of Washington, Seattle, USA <ruchit@uw.edu>

Background. Children who are HIV-exposed and uninfected (CHEU) are at increased risk for poor growth compared to children who are HIV-unexposed (CHU). There are limited data on growth among CHEU in the era of preferred dolutegravir-based antiretroviral therapy (ART) for pregnant and breastfeeding women living with HIV (WLWH). We aimed to compare child growth outcomes in the first two years of life between breastfed CHEU and CHU, and to examine maternal HIV factors associated with growth in CHEU.
Methods and findings. We enrolled pregnant women in Kenya and followed them with their child to age 24 months. We measured anthropometry within 7 days of birth, at 3 and 6 weeks, and months 3, 6, 9, 12, 18, and 24. We compared length-for-age Z-scores (LAZ), weight-for-age Z-scores (WAZ), weight-for-length Z-scores (WLZ), head circumference-for-age Z-scores (HCZ), and mid-upper arm circumference-for-age Z-scores (MUAC), and stunting (LAZ < −2), underweight (WAZ < −2), and wasting (WLZ < −2) between groups using linear mixed effects or modified Poisson regression models adjusted for maternal age, education, depression, anemia, household wealth index, time-varying breastfeeding, time-varying food insecurity, parity, and child sex. Among 333 mother-child pairs with at least two child visits (CHEU = 171; CHU = 162), mothers of CHEU were older, less educated, and had lower wealth than mothers of CHU. Birth characteristics were similar between groups, with 9% preterm births and 6% low birthweight. All WLWH were on ART, 89.5% on dolutegravir–lamivudine–tenofovir, 76.6% initiating ART preconception, and 91.2% virally suppressed. The duration of breastfeeding was significantly shorter for CHEU than CHU (median 15 versus 17 months). CHEU had significantly lower LAZ at birth, 18- and 24-months than CHU. In multivariable analysis, growth trajectories for WLZ and HCZ were lower among CHEU than CHU in the first 24 months (interaction p = 0.001 and p = 0.009, respectively). There was no difference in trajectory in LAZ, WAZ, and MUACZ between groups. By 24 months, 31.5% of CHEU were stunted, 9.3% underweight, and 2.4% wasted, versus 27.2%, 3.2%, and 0.6% of CHU, respectively; only the difference in underweight prevalence was statistically significant. CHEU had a higher risk of being underweight from 9- to 24 months than CHU (adjusted Relative Risk at 24 months, 2.99 [95% CI: 1.08, 8.30]; p = 0.034). Growth was associated with maternal education, wealth, and breastfeeding and was lower among male infants. Among CHEU, maternal preconception ART was not associated with growth. Important limitations of this study include the possibility of unmeasured confounding and limited generalizability to contexts with differing prevalence of malnutrition, access to and uptake of ART, or breastfeeding practices.

Conclusions. Despite breastfeeding and optimal maternal dolutegravir-based ART, CHEU experienced growth deficits compared to CHU in the first two years of life. Continued monitoring of the expanding CHEU population is essential in the context of rapidly evolving guidelines and policies to optimize their health and to identify and prevent future health disparities and disease risks.

Malaria

32. Am J TMH 2025;113(5):1006-1010
Efficacy of Spatial Repellents in Malaria Prevention: A Meta-Analysis of Randomized Controlled Trials
Prager M et al., Department of Clinical Pharmacology, Medical University of Vienna, Vienna, Austria

The efficacy of spatial repellents in preventing malaria infections is unclear. In the present study, a meta-analysis of four randomized controlled trials conducted in China, Indonesia, and Kenya, involving 6,745 participants, was conducted to assess the efficacy of spatial repellents in reducing malaria infections. The risk of malaria infection was lower with the use of spatial repellents (681 [20.0%] of 3,399 participants) compared with controls (1,055 [31.0%] of 3,346 participants), resulting in a 52% risk reduction (pooled risk ratio: 0.48; 95% CI: 0.33 to 0.70; P <0.001). No statistically significant effects on mosquito density (mean difference -10.0; 95% CI: -29.6 to 9.7), measured via human landing catch, or sporozoite rates (82 [0.007%] of 12,321 mosquitoes versus 79 [0.006%] of 14,151 mosquitoes; risk ratio: 1.13; 95% CI: 0.83 to 1.54) were observed. High statistical and methodological heterogeneity limited the certainty of pooled estimates. In this meta-analysis, spatial repellents were associated with a substantial reduction in malaria infections, supporting their role as a complementary intervention for malaria prevention.

33. Am J TMH 2025:tpmd240858
Early Bio-Efficacy Loss of Nets Mass Distributed for Malaria Vector Control in Madagascar in 2018: Implications for Malaria Prevention
Nepomichene T et al., Medical Entomology Unit, Institut Pasteur de Madagascar, Antananarivo, Madagascar

In 2018, insecticide-treated nets (ITNs) were mass distributed across Madagascar. The bio-efficacy of DawaPlus® 2.0 and PermaNet® 2.0 ITNs was assessed upon arrival and at 12, 24, and 36 months after distribution. Chemical analyses of insecticide residue on ITNs were also conducted. On arrival, mosquito mortality rates observed when exposed to DawaPlus 2.0 (86.4%) and PermaNet 2.0 nets (83.6%) exceeded the WHO's threshold of 80.0%. At 12, 24, and 36 months after distribution, mosquito mortality rates were <56% for all districts. Moreover, the knockdown effect was below the WHO threshold of 95.0% for all districts and at all time points, even for new ITNs. With the exception of the new DawaPlus 2.0, the deltamethrin residue on ITNs was also lower than the expected ranges of 80 mg/m2 ± 25% for DawaPlus 2.0 and 55 mg/m2 ± 25% for PermaNet 2.0; regardless of ITN age, the concentration of deltamethrin was <66 mg/m2 for DawaPlus 2.0 and <36 mg/m2 for PermaNet 2.0 ITNs. According to the manufacturers, ITNs are effective for 36 months; therefore, mass distribution campaigns are organized every 3 years. However, the DawaPlus

2.0 and PermaNet 2.0 ITNs exhibited a loss of bio-efficacy within 1 year of distribution. This bio-efficacy loss could be due to a manufacturing problem, poor storage and transportation conditions, or poor use and net care practices in Madagascar. Understanding and correcting the root causes of this issue is critical for guiding corrective actions, such as improving manufacturing processes, replacing ITNs more frequently, and increasing education on ITN care.

34. Lancet Glob Health 2025;13(10):e1723-e1736
Sustained efficacy of the RTS,S/AS01E malaria vaccine over 50 months of follow-up when used in full-dose or fractional-dose regimens in young children in Ghana and Kenya: final results from an open-label, phase 2b, randomised controlled trial
Osei-Tutu L et al., Kwame Nkrumah University of Science and Technology/Agogo Presbyterian Hospital, Agogo, Asante Akyem, Ghana

Background: We conducted a phase 2b trial evaluating fractional-dose and full-dose regimens of the RTS,S/AS01E vaccine (RTS,S). All regimens provided substantial protection against clinical malaria in natural exposure settings, over 21 and 32 months of follow-up. Here, we present end-of-study results, after 50 months of follow-up.
Methods: This open-label, randomised controlled trial was conducted at two research centres in Agogo (Ghana) and Siaya County (Kenya) between Sept 28, 2017, and Nov 14, 2022. Children aged 5–17 months were randomly assigned (1:1:1:1:1) to one of five groups to receive rabies vaccine (the control group) at months 0, 1, and 2; or full doses of RTS,S at months 0, 1, and 2, followed by either full doses (R) at month 20 (group R012-20) or months 14, 26, and 38 (R012-14-26-38); or full doses at months 0 and 1, followed by fractional doses (Fx; one-fifth of full dose) at months 2, 14, 26, and 38 (Fx012-14-26-38) or months 7, 20, and 32 (Fx017-20-32). We present results of secondary objectives, evaluating vaccine efficacy, impact, immunogenicity, and harms up to month 50. Endpoints were the occurrence of clinical malaria meeting the primary and secondary case definitions and antibody responses at predefined timepoints, and the occurrence of solicited adverse events within 7 days from vaccination and serious adverse events and adverse events of special interest up to study end. This trial is registered at ClinicalTrials.gov (NCT03276962) and is complete.
Findings: Between Sept 28, 2017, and Sept 25, 2018, 2157 children were enrolled, of whom 1609 were randomly assigned (322 to each RTS,S group and 321 to the control group). Of these 1609 children, 1500 received at least one study vaccine dose (exposed set), and 1333 were included in the per-protocol set for efficacy. Among children in the exposed set, to month 50, vaccine efficacy against all episodes of clinical malaria was 36% (95% CI 19–50), 51% (37–61), 43% (28–55), and 41% (26–53) in groups R012-20, R012-14-26-38, Fx012-14-26-38, and Fx017-20-32, respectively ($p<0·001$ for all). The numbers of cases averted per 1000 RTS,S full-dose equivalents were 353 (R012-20 group), 544 (R012-14-26-38 group), 1151 (Fx012-14-26-38 group), and 1134 (Fx017-20-32 group). Vaccine efficacy and impact and immune responses were maintained over 50 months of follow-up in groups who received additional vaccine doses after the fourth dose. The vaccine was well tolerated; only five serious adverse events were considered to be related to vaccination. There were no deaths considered to be related to vaccination.
Interpretation: All RTS,S regimens provided substantial protection against clinical malaria, with additional yearly doses maintaining vaccine efficacy and impact up to 50 months. Using fractional-dose regimens could increase the availability of RTS,S and reduce vaccination cost.

Other paper about this subject:
* Lancet Glob Health 2025 Nov 6:S2214-109X(25)00415-2
Effectiveness of the RTS,S/AS01E malaria vaccine in a real-world setting over 1 year of follow-up after the three-dose primary schedule: an interim analysis of a phase 4 study in Ghana, Kenya, and Malawi

35. PLoS Med 2025;22(9):e1004729
A need for new tools for prevention of malaria in pregnancy
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Malaria is the most common parasitic disease in humans with over 250 million cases every year, affecting small children and pregnant women particularly. In 2023, an estimated 36 million pregnant women in sub-Saharan Africa were at risk of malaria and one-third had malaria infections. Malaria parasites infect red blood cells, and Plasmodium falciparum, the most pathogenic species among the four species that primarily infect humans, can invade the placenta. In addition to maternal anemia, placental malaria causes placental insufficiency, leading to small-for-gestational-age (SGA), preterm birth, and fetal loss. These harmful effects are evident even when the burden of parasitemia is below levels detectable by rapid diagnostic tests (RDT) or microscopy, highlighting the need to prevent malaria infection in the first place.
Intermittent preventive treatment in pregnancy (IPTp) is one of the chemoprevention strategies endorsed by the World Health Organization (WHO) since 1998 for moderate-to-high malaria endemic areas and is currently implemented in 38 countries. The currently recommended regimen is three or more doses of the antimalarial sulfadoxine–pyrimethamine (SP) given at the full therapeutic dosage, repeated at least 4 weeks apart starting from the second trimester, regardless of gravidity. While low uptake (44% of women received three doses or more in 2023) is a practical challenge, another problem is the spread of high-level resistance to SP in falciparum parasites in east and southern Africa. The most effective alternative antimalarial candidate has been monthly dihydroartemisinin–piperaquine (DP). Although IPTp-DP has been shown to have superior antimalarial efficacy to IPTp-SP, reducing the risk of clinical malaria episodes by two-thirds, placental malaria at delivery, and maternal anemia, many randomized controlled trials (RCTs) failed to show superiority in reducing the risk of low birth weight (LBW).
On the contrary, the superior efficacy of IPTp-DP on malaria-related outcomes did not equate to superior anthropometric outcomes for the newborns (e.g., birth weight and infant growth by two-month old) or mothers (e.g., maternal gestational weight gain and middle-upper-arm-circumference at delivery) compared with IPTp-SP. Similarly, IPTp-SP showed a reduced risk of LBW, maternal anemia, and preterm birth even in areas with higher-level SP resistance, where its antimalarial effects were almost completely lost. The anthropometric benefits of SP, independent of its antimalarial effect, have been a mystery among malariologists. Several hypotheses have been proposed: SP's broader antibacterial/antiparasitic spectrum, anti-inflammatory effects, and direct effects on nutritional absorption. It is therefore quite natural to consider what would happen if SP and DP were given together.

In a recent PLOS Medicine study, Kakuru and colleagues conducted a large double-blinded RCT in Uganda, where high-level SP-resistant parasites harboring five or more mutations are prevalent. In total, 2,757 HIV-uninfected pregnant women were enrolled and randomly allocated to one of the three monthly chemoprevention regimens: SP alone, DP alone or SP + DP. The key finding of this RCT is that a combination of SP + DP did not convey any additional benefits compared with SP or DP alone, including both malaria outcomes and the risk of composite adverse birth outcomes. When fetal outcomes were assessed individually, the risks of SGA and LBW, the main components contributing to the composite outcome, were higher in SP + DP than in SP alone. In addition, the risk of preterm birth was lowest in the DP arm. The latter is consistent with subgroup analysis findings from an individual patient data meta-analysis that included only RCTs started at ≤20 weeks' gestation. Unexpectedly, some malaria outcomes in the SP + DP arm were slightly but statistically significantly inferior to those of DP alone.

The authors hypothesized at least two potential explanations: DP has a negative anthropometric effect, or DP and SP interact when co-administered. Although the first explanation seems plausible, it does not explain the inferior malaria outcomes in SP + DP compared with DP, which a drug-drug interaction can better explain. A pharmacokinetic study nested within this RCT has revealed lower absorption of both SP and DP when they were given together. This implies that DP and SP can be given on separate days to achieve their full potential.

Another interesting finding was that the maternal and fetal anthropometric benefits of SP were more pronounced or only observed in multigravida women, as was shown in a meta-analysis. This is biologically plausible considering that the higher antimalarial effect of DP would benefit more primigravida women, whose risk of and impact from malaria infection is higher due to the lack of parity-dependent immunity against placental malaria. However, using different regimens depending on gravidity is logistically challenging, and there is also a potential risk of a rebound effect in the subsequent pregnancies due to the impairment of acquired parity-dependent immunity.

Regardless of the level of SP resistance, there are limitations to the current IPTp-SP policy. IPTp-SP is a monthly monotherapy, which will, based on its pharmacokinetics, neither cure existing parasitemia nor prevent new infections for a full month during pregnancy when the clearance of sulfadoxine is markedly increased. IPTp-SP can suppress but not clear parasitemia; suppression can offer some benefit for primigravida women but is not ideal as an intervention against malaria, which can be harmful even at a clinically undetectable level. The beneficial anthropometric effect of IPTp-SP must mostly come from its non-malarial effect, necessitating a proper preventive measure against malaria. Identification of the pathways SP exerts benefits may contribute to improved care and better use of SP, which is also an antibiotic. Additionally, IPTp-SP does not protect women in early gestation because of later antenatal care attendance and contraindication of SP, an antifolate combination, in the first trimester. As the placenta develops in the first 20 weeks, the adverse impact of malaria has already started and is probably most severe by the time IPTp-SP can be given. This RCT revealed that 70% of women had parasitemia at enrollment (between 12 and 20 weeks); even very low parasitemia (more than 1000-times lower than the limit of detection by RDT) at the first antenatal care appointment was previously shown to be associated with lower birthweight. More pre-conceptional studies, which start enrolling reproductive age women before gestation, would be beneficial to assess the impact of malaria and also the safety of antimalarials for treatment and prevention in early gestation. Preconception

vaccines are also an alternative or an additional option to chemoprevention to protect from malaria infection, even before women become aware of their pregnancy. Vaccines targeting placental malaria are in the pipeline, as are non-placental-malaria vaccines, including the R21/Matrix-M malaria vaccine (NCT06080243), which are currently being tested specifically for women of reproductive age. Longevity of immunity is one of the key factors for the success of this approach.
The findings of the current study discourage the use of SP + DP as an alternative IPTp regimen. Biological explanations of the non-malarial effect of SP can be multi-factorial, and we now have another question about the apparent negative interactions between SP and DP, both of which require further study. A better understanding of these mechanisms, improvement in the uptake of IPTp, and measures to prevent malaria in early gestation, including preconception malaria vaccines, will all contribute to a better future in malaria-endemic areas by protecting future generations from the harm of malaria.

Non-Communicable Diseases

36. Lancet 2025;406(10509):1255-82
Benchmarking progress in non-communicable diseases: a global analysis of cause-specific mortality from 2001 to 2019
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Background: Non-communicable diseases (NCDs) have received substantial policy attention globally and in most countries. Our aim was to quantify how much NCD mortality changed from 2010 to 2019 in different countries, especially compared with the preceding decade and with the best-performing country in each region, and the specific NCD causes of death that contributed to change.
Key findings:
• NCD mortality declined in approximately 80% of the world's countries, where more than 70% of the world population resided, from 2010 to 2019
• In approximately 60% of countries, the decline from 2010 to 2019 was smaller than it had been in the preceding decade or there was a reversal of the earlier decline
• Within all regions, there were substantial performance gaps between the regional frontrunner and other countries in terms of how much NCD mortality declined from 2010 to 2019
• National performance in reducing NCD mortality from 2010 to 2019 was rarely dominated by one NCD and often resulted from a combination of changes in multiple NCDs
• In some countries, NCD mortality in working and older ages changed in the same direction, leading to large overall declines or increases; in others, it changed in opposite directions, diminishing the magnitude of the overall change

37. Lancet Glob Health 2025;13(10):e1681-e1690
Breast cancer overall survival, annual risks of death, and survival gap apportionment in sub-Saharan Africa (ABC-DO): 7-year follow-up of a prospective cohort study
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Background: There are few estimates of breast cancer survival and its determinants at 5 years and beyond in sub-Saharan Africa. We aimed to estimate survival up to 7 years, estimate annual mortality risk, and apportion survival gaps.
Methods: The African Breast Cancer-Disparities in Outcomes (ABC-DO) prospective cohort study was done at eight hospitals across five sub-Saharan African countries (Namibia, Nigeria, South Africa, Uganda, and Zambia). We prospectively recruited women (aged ≥18 years) who attended hospital with suspected breast cancer. Vital status was updated telephonically once every 3 months for 7 years. We collected detailed sociodemographic, clinical, and treatment data. The primary outcome was overall survival. We estimated age-standardised net survival, conditional survival, and predicted survival gains if there were favourable shifts in the distribution of prognostic factors aligned with the WHO Global Breast Cancer Initiative (GBCI).
Findings: Between Sept 8, 2014, and Dec 31, 2017, 2313 women were recruited and followed up to Jan 1, 2022, and for a further year in South Africa. We excluded 87 women without breast cancer, 14 women from small racial groups (eight White and six Asian women in South Africa), 57 women with previous treatment or possible recurrences, and two women without follow-up data. The remaining 2153 (93%) women were categorised by country and race, as follows: three groups in Namibia (60 White women, 50 mixed race women, and 367 Black women), two in South Africa (37 mixed race women and 638 Black women), and one group of Black women in each of Uganda (419 women), Zambia (198 women), and Nigeria (384 women). During follow-up to at most 7 years, 1323 (61%) of 2153 women died, 672 (31%) were alive at administrative censoring, and 158 (7%) were lost to follow-up, giving crude survival at 3 years, 5 years, and 7 years of 51%, 40%, and 33%, respectively. Large between-country variations in 5-year age-standardised net survival were observed: 35–42% in Zambia and Nigeria; 52–58% in Black women in Uganda, South Africa, and Namibia; and over 83% in non-Black Namibian women. The annual probability of death (1-year conditional net survival, censored before the COVID-19 pandemic) declined generally from 2–3 years after diagnosis, but remained at 8–21% for Black women in Namibia, Uganda, and Nigeria during the fifth year after diagnosis. Reaching the GBCI 60% stage I or II target and accessing treatment would lead to an approximate reduction in deaths by a third among Black women in Namibia, Nigeria, South Africa, Uganda, and Zambia.
Interpretation: Survival after breast cancer is poor in several sub-Saharan African countries, with a substantial risk of death even among women who have survived beyond 3 years after diagnosis. Understanding and preventing deaths among longer-term breast cancer survivors requires further research.

Primary Health Care

38. Bull WHO 2025;103(10):592–606A
Associations between digital maturity in health and primary health care performance, 109 countries
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Introduction. A well-functioning primary health care system that provides high-quality and affordable services is essential for achieving universal health coverage (UHC). Although

primary health care delivers nearly 90% of essential health services, it remains underfunded: in 2025, the annual investment shortfall was estimated to be between 200 and 370 billion United States dollars (US$). This funding gap exacerbates health inequalities, particularly in low- and middle-income countries. In 2019, the World Health Organization (WHO) reported a 18.1-year gap in life expectancy between the poorest and richest countries. These substantial variations in primary health care performance highlight the need for strategic investment.

Over the past two decades, increased access to mobile devices and the internet has provided new opportunities for strengthening primary health care delivery and quality. By 2021, mobile broadband had reached 95% of the global population, with much of the growth occurring in low- and middle-income countries, where half the population now uses the mobile internet. The World Bank's Digital-in-health: unlocking the value for everyone report emphasized the role of digital technologies in strengthening health systems and improving the effectiveness, equity and reach of health service delivery and financing. By 2024, over 120 countries had developed national digital health strategies, which reflects a global commitment to integrating digital technology into aspects of health services such as electronic health records, clinical decision support and diagnostics management.

The coronavirus disease 2019 (COVID-19) pandemic accelerated interest in, and the adoption of, digital health services, particularly for telemedicine, supply-chain systems and health communications programmes. However, many initiatives were fragmented, lacked coordination and had limited sustainability beyond the pandemic's acute phase. Efforts focused on vertical interventions and often lacked strategies for interoperability, sustainability or scaling up. The pandemic underscored the need for governments to ensure that investment in digital health is directed towards building a sustainable digital infrastructure capable of scaling up digitally assisted primary health care delivery and pandemic preparedness.

Although evidence is still emerging, several studies of the impact of digital technology on primary health care in low- and middle-income countries found positive associations between digital interventions and improved primary health care outcomes. In addition, WHO's recommendations on digital interventions for health systems strengthening emphasize the role of implementation and contextual factors in the effective deployment and scaling up of digital interventions. Consequently, an understanding of these digital ecosystem factors is essential for ensuring that digitization leads to measurable improvements in health systems and health outcomes, and for identifying drivers of sustainable digital transformation.

Objective. To investigate associations between digital maturity in health and primary health care performance globally.

Methods. We conducted a search of publicly available data on digital maturity in health and primary health care performance for the 194 World Health Organization Member States. We identified 14 indicators of digital maturity in health, covering seven core subcomponents. A digital maturity in health index was derived from these indicators. Primary health care performance was assessed using the universal health coverage effective coverage index.

Findings. Digital maturity in health data were missing for 85 of the 194 countries, with considerable variation across subcomponents. The remaining 109 countries were divided into four types by digital maturity in health index. We identified countries leading or lagging in digital maturity and highlighted the strongest and weakest subcomponents. Overall, there was a strong, nonlinear, positive correlation between digital maturity in health and primary

health care performance (Spearman correlation: 0.85). However, there were notable exceptions, which indicates digital maturity can enhance primary health care but is not necessary for its improvement. The relationship between health-care expenditure and digital maturity in health and primary health care performance varied among countries with similar spending and digital maturity.
Conclusion. Overall, primary health care performance was positively associated with digital maturity in health and health-care expenditure. However, some countries had a strong primary health care system despite low digital maturity, and some had high digital maturity but a weak primary health care system. The study's findings could help policy-makers prioritize investment in digital health.

Sexual Reproductive Health and Rights

39. BMJ Global Health 2025;10:e018616
A knowledge translation toolkit for maternal health implementation planning in low- and middle-income countries: development and pilot evaluation in two countries
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Background. Despite progress, maternal mortality rates remain unacceptably high with an estimated 800 lives lost worldwide daily as a result of pregnancy or childbirth. Given this less than desired progress to date, reducing maternal mortality remains a priority in the United Nations sustainable development goals. 95% of maternal deaths occur in low- and middle-income countries (LMICs) where maternal mortality rates were 430 per 100 000 live births versus 13/100 000 live births in high-income countries. Deaths result from causes for which proven interventions exist but are not optimally implemented such as post-partum haemorrhage, post-partum sepsis and eclampsia. These deaths occur despite the availability of high-quality guidelines produced and disseminated by the WHO, which were developed to incorporate options addressing the unique challenges facing LMIC implementers, such as alternative medication options for management of post-partum haemorrhage where refrigeration of oxytocin is not possible.
Knowledge translation (KT) approaches have been advocated to increase uptake of evidence to improve maternal health outcomes in low- and middle-income countries (LMICs). However, their use is limited by lack of KT capacity and limited applicability of many existing KT tools to the unique challenges of LMIC health settings. We developed and evaluated a toolkit designed for use by non-experts and tailored to support implementation planning in LMICs.
Method. Based on our prior research which identified common implementation barriers across five LMICs, a literature review and a qualitative study with women and families in two LMICs, we developed a preliminary item list. Through consultation with our international partners, the item list was refined, a draft toolkit developed and usability tested.
Pilot evaluation of the toolkit employed observation and focus groups with participants at implementation planning meetings conducted in Argentina and Ghana, focused on locally identified evidence-based maternal health implementation priorities.
Results. 31 interested parties participated, 10 in Argentina and 21 in Ghana, representing a range of roles relevant to implementation in the local contexts including providers, health educators, policy/decision makers, researchers and patients/patient representatives.

Participants reported a number of benefits to the content and organisation of both the toolkit and meeting format, which they noted encouraged open exchange of perspectives and experiences, and comprehensive consideration and discussion of barriers and facilitators (BFs) to implementation in their context. Minor changes to the instructions and wording of a few BFs were suggested and incorporated.
Conclusion. The toolkit provides a resource to support LMIC maternal health implementers by offering a structured approach to assessment and ranking of BFs to implementation and a guide to mapping BFs to evidence-based implementation strategies. Further evaluation across a wider range of health topics and LMICs and in low-resource contexts in high-income countries is needed.

40. Bull WHO 2025;103(12):799–806
Responses to increased rates of caesarean births
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Performing caesarean sections without medical need exposes women and babies to unnecessary risks without clear benefits. Yet the global number of caesarean sections has continued to rise considerably over the years, with caesarean sections increasingly performed before the onset of labour and among women at low risk of birth complications. In recent years, considerable efforts have been made to reduce unnecessary caesarean sections. However, interventions that aim to reduce such births are complex, have mixed outcomes, do not translate well between settings and lack clear evidence on which components or mechanisms drive success. In this article, we outline a three-step pathway for implementing interventions that aim to optimize caesarean use: (i) conduct formative research to identify context-specific needs and priorities; (ii) design evidence-based, multifaceted interventions; and (iii) ensure implementation through meaningful stakeholder engagement. Finally, we emphasize how improving the quality of care during childbirth is key to achieving optimal and equitable use of caesarean sections.

41. HPP 2025;40(10):1056-68
Newborn technology use in low-resource settings: the role of health professionals' communication in implementation
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Neonatal deaths remain a critical public health challenge in many low- and middle-income countries (LMICs), including Kenya. Affordable technologies such as Comprehensive Positive Airway Pressure (CPAP) and phototherapy machines can reduce neonatal mortality and are used in these settings. However, their introduction and implementation in resource-constrained health system contexts are poorly understood. This study investigates how communication among health professionals influences decisions to use CPAP and phototherapy devices in Kenyan newborn units. Using a focused ethnographic approach, we conducted unstructured non-participatory observations, semistructured interviews, and document reviews in two newborn units in level five Kenyan referral hospitals. The study participants were all health professionals working in the newborn units. We gathered data in two phases, 6 months apart, and analyzed the data thematically. Data collection and analysis

were informed by The Non-Adoption, Abandonment, Scale-Up, Spread, and Sustainability (NASSS) framework. We found four interconnected contextual factors that influenced health professionals' communication on the initiation, maintenance, discontinuation, and repair of neonatal technologies. These factors are as follows: First, physical environment, including space availability, newborn unit layout, and the arrangement of cots and incubators. Second, socio-organizational dynamics, such as the team composition, workload, management approach, and workplace culture. Third, technology-specific attributes, particularly the perceived complexity of CPAP and phototherapy's features and functions. Finally, the wider system encompasses administrative burdens from research and donor-supported programs as well as political, financial, and regulatory factors. Stakeholders, including funders, policymakers, local governments, and health professionals, must recognize that interconnected physical, organizational, technological, and wider contexts shape communication, decision-making, and use of life-saving technologies. A tailored approach that considers these complex realities, rather than a one-size-fits-all approach, should contribute to better integration and sustainability of these technologies, leading to improved outcomes in newborn care.

42. Lancet 2025;406(10514):1969-82
Prognostic accuracy of clinical markers of postpartum bleeding in predicting maternal mortality or severe morbidity: a WHO individual participant data meta-analysis
WHO Consortium on Postpartum Haemorrhage Definition
Gallos I et al., UNDP/UNFPA/UNICEF/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction, Department of Sexual, Reproductive, Maternal, Child, Adolescent Health and Ageing, WHO, Geneva, Switzerland <gallosi@who.int>

Background: Postpartum haemorrhage (excessive bleeding after birth) is a leading cause of maternal mortality and morbidity worldwide. However, there is no global consensus on which clinical markers best define excessive bleeding or reliably predict adverse maternal outcomes. The aim of this study was to assess the prognostic accuracy of clinical markers of postpartum bleeding in predicting maternal mortality or severe morbidity.
Methods: In this individual participant data meta-analysis, eligible datasets were identified through a global call for data issued by WHO and systematic searches of PubMed, MEDLINE, Embase, the Cochrane Library, and WHO trial registries (from database inception to Nov 6, 2024). Studies were eligible if they included at least 200 participants with objectively measured blood loss or other clinical markers of haemodynamic instability, and reported at least one clinical outcome of interest. Individual participant data were requested for all eligible studies. For each dataset, we computed the prognostic accuracy of each clinical marker to predict a composite outcome of maternal mortality or severe morbidity (blood transfusion, surgical interventions, or admission to intensive care unit). Five clinical markers were assessed: measured blood loss, pulse rate, systolic blood pressure, diastolic blood pressure, and shock index. Results were meta-analysed through two-level mixed-effects logistic regression models, with a bivariate normal model used to generate summary accuracy estimates. Clinical marker and threshold selections were informed by a WHO expert consensus process, which placed emphasis on maximising prognostic sensitivity (preferably >80%) over prognostic specificity (preferably ≥50%). This meta-analysis was registered on PROSPERO (CRD420251034918).

Findings: We identified 33 potentially eligible datasets and successfully obtained and analysed full data for 12 datasets, comprising 312 151 women. At the conventional threshold of 500 mL, measured blood loss had a summary prognostic sensitivity of 75·7% (95% CI 60·3-86·4) and specificity of 81·4% (95% CI 70·7-88·8) for predicting the composite outcome. The preferred sensitivity threshold was reached at 300 mL (83·9% [95% CI 72·8-91·1]), although at the expense of reduced specificity (54·8% [95% CI 38·0-70·5]). Prognostic performance improved with a decision rule that combined the use of either blood loss thresholds less than 500 mL (≥300 mL to ≥450 mL) and any abnormal haemodynamic sign (pulse rate >100 beats per min, systolic blood pressure <100 mm Hg, diastolic blood pressure <60 mm Hg, or shock index >1·0) or 500 mL or more of blood loss, with sensitivities ranging from 86·9% to 87·9% and specificities from 66·6% to 76·1%.
Interpretation: Measured blood loss below the conventional threshold, combined with abnormal haemodynamic signs, accurately predicts women at risk of death or life-threatening complications from postpartum bleeding and could support earlier postpartum haemorrhage diagnosis and treatment.

43. Lancet 2025;406(10517):2309-10
World Report
Challenges and opportunities in developing integrated sexual and reproductive health programmes
Zarocostas J.

(Abbreviated)
With drastic reductions in health aid threatening essential services and millions of lives, WHO issues new guidance for countries to safeguard health budgets, limit out-of-pocket payments, and mobilise domestic resources.
With the sudden health aid cuts by the USA—the world's biggest donor—and other major donors severely impacting millions of people in low-income countries, global health leaders have hailed the new guidance by WHO as a timely wake-up call.
The WHO guidance includes a set of immediate policy measures to cushion the effect of the health aid cuts. These include a call for governments to increase and protect budget allocations for health; prioritise the health services accessed by the people living in poverty to avoid increased out-of-pocket payments; improve efficiency through better procurement, reduced overheads, and strategic purchasing; and integrate externally funded or disease-specific services into primary health-care-based delivery.
For the medium to longer term, WHO recommends, among other measures, that governments strengthen domestic fiscal capacity and revenue, including through well-designed health taxes on tobacco, alcohol, and sugar-sweetened beverages, and prioritise health in national budgets and improve financial protection, including through publicly financed health insurance.
Some countries heavily dependent on health aid, such as Kenya, Nigeria, Uganda, and South Africa, have taken steps to allocate additional funds, notes WHO. Nigeria increased its budget by $200 million to offset aid shortfalls. Similarly, Ghana lifted the cap on excise tax for its national health insurance scheme, resulting in a 60% budget increase.
While hailing the WHO recommendations, health leaders and experts point out that rapid progress is far from a given.

WHO's guidance also sounds sensible; however, uptake of this guidance requires political action.
Health analysts and development economists point out that some low-income countries and many lower-middle-income countries have some policy space to usher in increases in public health outlays to fill the aid gap by mobilising more domestic resources for health. But at the same time, they highlight that about 20 fragile low-income countries will require sustained external assistance and help to respond to the crisis.
On Oct 22, António Guterres, UN Secretary-General, declared that many developing countries are victims of limited fiscal space, slow growth, and the debt crisis. Around the world, he said, "developing countries face a serious barrier to development. Debt. Borrowing should work for—not against—developing countries. But countries are getting crushed. Developing countries spend $1·4 trillion on annual debt service." 61 of them, he said, spent 10% or more of their government revenues on interest payments last year. And 3·4 billion people live in countries that spend more on servicing debt than on health or education.

Other papers about innovation in sexual and reproductive health:
* Lancet 2025;406(10515):2100-18
Partial progress in sexual and reproductive health and rights: the influence of sociocultural, behavioural, structural, and technological changes on epidemiological trends
* Lancet 2025;406(10515):2119-32
Biomedical innovations in contraception: gaps, obstacles, and solutions for sexual and reproductive health
* Lancet 2025;406(10515):2133-51
Innovations in the biomedical prevention, diagnosis, and service delivery of HIV and other sexually transmitted infections
* Lancet 2025;406(10515):2152-67
Who pays and what pays off in sexual and reproductive health? A review of the cost and cost-effectiveness of interventions and implications for future funding and markets

Miscellaneous

44. BMJ Global Health 2025;10:e019713
The burden, clinical outcomes and risk factors related to neglected tropical diseases and malaria in migrant populations in the Middle East and North Africa: a systematic review and meta-analyses
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Introduction. This systematic review investigates the burden, clinical outcomes and risk factors of neglected tropical diseases (NTDs) and malaria in the Middle East and North African region, highlighting the urgency and scope of these health challenges.
Methods. We searched six databases for peer-reviewed literature and additional sources to capture grey literature in any language from 2000 to 28 August 2024. Studies were included if they provided primary data on outcomes in migrants. Primary outcomes were prevalence, incidence and mortality. Peer-reviewed articles were critically appraised using Joanna Briggs Institute tools, while the AACODS (Authority, Accuracy, Coverage, Objectivity, Date and

Significance) checklist was used for grey literature. Estimates were pooled using random-effects meta-analysis where possible or synthesised narratively.
Results. We included 39 studies with 81 678 migrants across 11 countries for NTDs and 16 studies encompassing 12 823 migrants across five countries for malaria. The pooled prevalence of specific NTDs among migrants was 4.7% for hookworm (95% CI 0.9% to 11.3%, I^2=99%), 1.8% for Trichuris trichiura (95% CI 0.3% to 4.3%, I^2=98%), 1.75% for Ascaris lumbricoides (95% CI 0.6% to 3.5%, I^2=96%) and 1.8% for taeniasis (95% CI 0.3% to 4.4%, I^2=98%). Compared with non-migrants, migrants exhibited higher prevalence rates for hookworm (1.8% vs 0.03%), Ascaris lumbricoides (0.3% vs 0%), Trichuris trichiura (0.5% vs 0%), dengue (26% vs 3.5%) and chikungunya (4.2% vs 0.5%). Migrants had a higher proportion of confirmed cases of schistosomiasis (0.21–20.3% vs 0–0.013%), cystic echinococcosis (7.4% vs 3.5%) and dengue (57.2% vs 56.4%) among suspected cases compared with non-migrants. Case fatality rates were 3.1% for dengue and 0.2–1.5% for malaria. Malaria incidence was only reported in Sudan (internally displaced persons: 6.8/1000; refugees: 2.72/1000; refugees <5 years old: 7.3/1000). While hospitalisation and intensive care unit rates for malaria were 25.8% and 1.3%, respectively, severe malaria was higher in non-migrants compared with migrants in Qatar (50% vs 5.2%, respectively).
Conclusions. Despite a wide range of diseases reported in 55 studies, there were gaps in the evidence, primarily related to risk factors, clinical outcomes and the subregion of North Africa. We generally found that migrants were disproportionately affected by both NTDs and malaria, especially in the Middle East.

45. BMJ Public Health 2025;3(1):e002411
Global trends in inappropriate use of antibiotics, 2000-2021: scoping review and prevalence estimates
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Introduction: Inappropriate antibiotic use is a major driver of antimicrobial resistance. However, the scope of literature and its prevalence across world regions remain largely unknown, as do the most common indicators and study designs used. In this study, we summarised the current literature on inappropriate use of antibiotics by world regions. We also provided the first global estimates of the overall amount of antibiotics that are potentially used inappropriately each year.
Methods: We considered both patient and provider-mediated inappropriate antibiotic use. We reviewed 412 studies published between 2000 and 2021 and used beta regression and marginal contrasts to compare prevalence of inappropriate use by study design, indicator, world region, and national income level. Country-level sales of antibiotics from 2022 were combined with inappropriate antibiotic use estimates derived from two study designs (clinical audits and patient interviews) and one indicator (lack of indication) to estimate the amount of antibiotics inappropriately used globally.
Results: Clinical audits (50.1%, 208/412) and 'non-prescription' use (37.1%, 153/412) were the most common study design and indicator, respectively, used to estimate inappropriate antibiotic use. Inappropriate antibiotic use prevalence was ~6% higher in low-income and middle-income than in high-income countries. However, this difference disappeared after accounting for a proxy of access to care: physicians per capita. Globally, based on clinical audits, patient interviews and lack of indication, the estimated proportion of inappropriate

antibiotic use was 29.5%, 36.5% and 30.8%, respectively, with an average of ~30% (~13 000 000 kg) the equivalent of the annual antibiotic consumption in China.
Conclusions: Inappropriate antibiotic use is highly prevalent across all countries regardless of national income level, with a third of global antibiotic consumption potentially due to unnecessary prescription ('lack of indication'). Antibiotic stewardship efforts and defining internationally standardised indicators are needed to track progress in reducing the occurrence of inappropriate antibiotic use where necessary, as well as identifying gaps in access to care.

46. Bull WHO 2025;103(11):642–642A
Traditional medicine and its contributions to science, health equity and sustainability
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The World Health Organization's (WHO) new Global traditional medicine strategy 2025–2034 aims to advance the contribution of evidence-based traditional, complementary and integrative medicine to the highest attainable standard of health and well-being. In support of this goal, in December 2025, the second WHO Global Summit on Traditional Medicine will convene global leaders under the theme of the science and practice of restoring balance, underscoring the importance of implementing the traditional medicine strategy.
This theme issue of the Bulletin of the World Health Organization supports the summit's agenda, by exploring how the integration of traditional medicine can enrich health systems, promote UHC and support inclusive, sustainable development. Doing so requires anchoring traditional medicine in a transformative scientific frame, ensuring its safety and efficacy, and redefining health as achieving a dynamic balance of self, society and ecosystems that promotes well-being. The local and cultural foundation of traditional medicine should be preserved, and the fundamental values of equity in access and rights of Indigenous communities remain at the centre of the global strategy. The articles in this issue detail pathways via responsible scaling, cultural respect, knowledge protection and equitable benefit-sharing.
One article describes how Chapter 26 of the 11th International Statistical Classification of Diseases and Related Health Problems enables the coding of traditional medicine disorders and patterns alongside biomedical diagnoses, filling long-standing data gaps and making traditional medicine visible in health information systems. At the population level, another article demonstrates how national health surveys can be refined to better capture who uses traditional medicine and why.
To facilitate systems integration, a model for strengthening the traditional medicine workforce is proposed. A systematic review identifies enablers and barriers to integration into primary health care in low- and middle-income countries, from governance and financing to education and standards.
Traditional medicine is the primary or preferred care for billions of people worldwide. Analysis of 71 nationally representative surveys shows its widespread use for hypertension, diabetes and hypercholesterolemia, often alongside conventional care. The clinical potential is considerable, exemplified by the Zang-Fu theory-guided framework for cancer supportive care, which links organ-based imbalances to standardized interventions. Interest in mental health and well-being is also growing, supported by an expanding evidence base for

practices such as mindfulness and a global shift towards whole-health systems. However, challenges remain; for instance, while acupuncture is recommended for migraine, many guidelines show methodological and procedural gaps.
Health systems integration requires safety as a foundation. One article calls for a global hub for medicinal plant safety that integrates traditional knowledge with modern science, complemented by a respect for cultural and local ecosystems integrity. Another underscores that for Indigenous Peoples, access to land, language and data sovereignty is inseparable from sustaining their medicine systems and intergenerational knowledge transmission. This recognition expands the notion of evidence, which is generated in trials and surveys but also grounded in rights, traditions and stewardship. Safety is thus pharmacological, ecological and cultural, based on both science and sovereignty.
Traditional medicine is increasingly used in the health, wellness and bioeconomy sectors. Nonetheless, an analysis revealed that less than 1% of global health research funding is dedicated to traditional medicine, an inequity that undermines efforts to build the required evidence base. Decolonizing research paradigms, protecting Indigenous knowledge systems, and ensuring equitable benefit-sharing are also critical. The 2024 World Intellectual Property Organization treaty on intellectual property, genetic resources and associated traditional knowledge provides a milestone for fairer innovation. The success of this treaty depends on effective national implementation and substantive engagement of Indigenous Peoples and all traditional medicine stakeholders.
Innovation can accelerate traditional medicine progress and scale, but only if guided by ethics, equity and ecological sensitivity. One article describes how artificial intelligence (AI) can enhance diagnostics and personalize treatment but warns of risks around biases and data security. Such caution is particularly relevant given the threat of automated biopiracy, where AI could systematically mine traditional knowledge without consent.
Traditional medicine is more than a collection of therapies; it represents a worldview in which health is harmony within and between individuals, communities and ecosystems. Restoring this balance is a scientific, rights-based and sustainability imperative.

47. Lancet 2025;406(10509):1205-6
World Report
Doctors as witnesses of war
Ahsan S.

(Abbreviated)
With international media barred from Gaza, and local reporters killed, displaced, or silenced, doctors have taken on the role of witnesses. Dr Khalil Abu Nada, a Gazan physician now based in the UK, but formerly at the Indonesian Hospital in Bait Lahia, northern Gaza, described the dual roles of medics. “Whilst outside media cannot enter Gaza, local journalists have been injured and killed to make the world see daily realities. But there are fewer of them now. That puts enormous pressure on medics. They are not only saving lives but also carrying the burden of being witnesses.”
As journalists diminished, clinicians had to fill the void.
The role of medics as outspoken witnesses is not new. In 1987, during the Amal militia-led siege of the Bourj al-Barajneh Palestinian camp in Beirut, British surgeon Pauline Cutting described starvation and operations by candlelight over a crackling BBC radio link, broadcasting statements to whoever was listening.

History shows testimony can save lives.
For clinicians, the lesson was never that they should become journalists; but when independent reporting is absent, they are forced into that role.
Protect Humanitarians urges stronger legal and psychological support for humanitarian workers from threats and reprisals.
The lesson from Bourj al-Barajneh to Gaza is not that doctors become journalists. It is that when reporters are barred, threatened, or killed, medics are forced to bear witness. They become both healers and narrators of suffering. In doing so, they become vulnerable to attack.

48. Lancet Glob Health 2025;S2214-109X(25)00396-1
Mind the gap: rethinking global alcohol metrics in high-abstention low-income and middle-income countries
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Alcohol per capita consumption (APC; total pure alcohol consumed per person 15 years or older per year) is the primary indicator used to track global progress in reducing harms associated with alcohol use. However, in many low-income and middle-income countries (LMICs), where most of the population abstain from alcohol and risk of alcohol-associated harm is concentrated in a heavy-drinking minority, APC can misrepresent both exposure and risk. This Viewpoint argues for the routine inclusion of drinker-adjusted metrics, specifically litres of alcohol consumed per drinker (alcohol per drinker), alongside the standard APC indicator. By use of data from WHO's Global Information System on Alcohol and Health, we show how alcohol per drinker reveals patterns hidden by population averages, particularly in high-abstention LMICs. For example, South Africa and the UK have similar APC but starkly different alcohol-attributable harm profiles, which are better explained by differences in alcohol per drinker. Although APC remains valuable, relying on this metric alone risks misinterpreting progress and misdirecting policy in contexts where drinking is concentrated among a minority of the population who drink heavily. As global monitoring evolves, we call for the inclusion of additional metrics that better reflect risk in diverse contexts.