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Editor's Choice
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Some of the articles mentioned in the editorial:
* BMJ 2025;390:r1537
Reimagining women's health is a global imperative
* BMJ 2025;390:r1556
Reshaping research and development through women's leadership
* BMJ 2025;390:r1242
The protections for healthcare enshrined in international humanitarian law are under severe strain in an increasingly war-torn world

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18. BMJ Global Health. 2025;10:e020703
Global health at a crossroads: WHO's 2025 Emergency Response to outbreaks, conflicts and humanitarian crises

19. Lancet 2025;406(10506):940-9
Epidemiological and demographic trends and projections in global health from 1970 to 2050: a descriptive analysis from the third Lancet Commission on Investing in Health, Global Health 2050

Global Health Finances: funding and funding reductions

20. Lancet 2025;406(10500):261-70
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21. Lancet 2025;406(10500):283-94
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22. PLoS Med 2025;22(8): e1004695
Perspective: Reductions in development assistance for health funding threaten decades of progress in Africa

See also on this topic:
* PLoS Med 2025;22(8): e1004488
The potential impact of declining development assistance for health on population health in Malawi: A modelling study
* Lancet 2025 Jul 5;406(10498):14-15
World Report
Gavi replenishment falls short of US$9 billion target
* Lancet 2025;406(10501):337-48
Tracking development assistance for health, 1990-2030: historical trends, recent cuts, and outlook
* Lancet Glob Health 2025;13(9):e1517-e1524
The potential impact of reductions in international donor funding on tuberculosis in low-income and middle-income countries: a modelling study

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23. Am J TMH 2025;113(3):704-13
Evaluation of a Scalable Design for a Pediatric Telemedicine and Medication Delivery Service: A Prospective Cohort Study in Haiti

24. HPP 2025;40(7):780-804
Health impact of alcohol regulatory interventions: a systematic review of policies in low- and middle-income countries

25. HPP 2025;40(7):805-8
Crises and complexity: how can we make health interventions succeed?

26. Lancet 2025;406(10502):501-70
The Lancet One Health Commission: harnessing our interconnectedness for equitable, sustainable, and healthy socioecological systems

27. Lancet Glob Health 2025;13(8):e1349-e1357
Global, regional, and national health-care inefficiency and associated factors in 201 countries, 1995-2022: a stochastic frontier meta-analysis for the Global Burden of Disease Study 2023

28. Lancet Glob Health 2025;13(8):e1396-e1405
Effective refractive error coverage in adults: a systematic review and meta-analysis of updated estimates from population-based surveys in 76 countries modelling the path towards the 2030 global target

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29. Br J Psychiatry 2025;Jun 27:1-9
Effectiveness of peer support for people with severe mental health conditions in high-, middle- and low-income countries: multicentre randomised controlled trial

30. Lancet Glob Health 2025;13(8):e1484-e1488
Integrating mental health care to reduce intimate partner violence in complex humanitarian emergencies

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31. JAMA Cardiol 2025;Aug 30:e253377
Prevalence, Determinants, and Time Trends of Cardiovascular Health in the WHO African Region

32. Lancet 2025;406(10504):731-78
The Lancet Commission on addressing the global hepatocellular carcinoma burden: comprehensive strategies from prevention to treatment

33. Lancet Glob Health 2025;13(7):e1191-e1202
The burden of stroke, ischaemic heart disease, and dementia in Africa, 1990-2021: an ecological analysis of the Global Burden of Disease 2021

See also on this topic:
* Lancet Glob Health 2025;13(8):e1406-e1414
The burden of cardiovascular events according to cardiovascular risk profile in adults from high-income, middle-income, and low-income countries (PURE): a cohort study

34. Lancet Glob Health 2025;13(8):e1378-e139
Global, regional, and national prevalence of kidney failure with replacement therapy and associated aetiologies, 1990-2023: a systematic analysis for the Global Burden of Disease Study 2023

35. PLoS Med 2025;22(6): e1004632
Community health worker–facilitated telehealth for moderate–severe hypertension care in Kenya and Uganda: A randomized controlled trial

Ophthalmology

36. Br J Ophthalmol 2025;Aug 18:bjo-2025-327776
Global trends in cataract burden: a 30-year epidemiological analysis and prediction of 2050 from the Global Burden of Disease 2021 study

37. HPP 2025;40(7):696-707
Integrating eye health into a child health policy in Tanzania: global and national influences

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38. BMJ Global Health 2025;10:e019030
Self-care interventions for sexual and reproductive health: a strategic health systems investment

39. BMJ Global Health 2025;10:e019102
Barriers to improving preterm newborn outcomes through effective antenatal corticosteroid use in Ethiopia

40. Bull WHO 2025;103(9):518–518A
Efforts to implement WHO recommendations on antenatal, intrapartum and postnatal care

41. Lancet 2025;405(10497):2302-12
Community-based mentoring to reduce maternal and perinatal mortality in adolescent pregnancies in Sierra Leone (2YoungLives): a pilot cluster-randomised controlled trial

42. Lancet Glob Health 2025;13(8):e1415-e1424
Prophylactic strategies for prevention of postpartum haemorrhage in caesarean delivery: a systematic review and Bayesian network meta-analysis of randomised controlled trials

43. PLoS Glob Pub Health 2025;5(9):e0004229
How maternal morbidities impact women's quality of life during pregnancy and postpartum in sub-Saharan Africa and South Asia: A qualitative study

44. TMIH 2025;30(8):812-22
Identification of gaps in the continuum of maternal and neonatal care in a high-mortality setting: An observational study in rural Guinea-Bissau

Miscellaneous

45. BMC Med Educ 2025;25(1):663
Dutch post-graduate training in Global Health and Tropical Medicine: a qualitative study on graduates' perspectives

46. Lancet 2025;406(10502):417
Editorial
Sudan: a health catastrophe ignored

47. Lancet 2025;406(10507):1044-62
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The Lancet Countdown on health and plastics

IHA – International Health Alerts 2025-3

Child Health

1. BMJ Global Health August 2025;10:Suppl 5
Table of contents: Towards a stronger evidence base on wasting and nutritional oedema in infants and children

* BMJ Global Health 2025;10(Suppl 5):e015929
Strengthening the evidence base around prevention and management of wasting and nutritional oedema in infants and children: insights from the 2023 WHO guideline
Daniel AI et al.

Introduction
An estimated 42.8 million (6.6% prevalence) infants and children under 5 years of age experienced wasting at any given time in 2024 and hundreds of thousands more infants and children are estimated to suffer from nutritional oedema. Wasting and nutritional oedema are complex child health challenges that need to be addressed with nutritional and medical management for children to survive, recover and thrive. It is unlikely that the global wasting target (prevalence <5% by 2025) will be achieved. At the 78th World Health Assembly which took place in 2025, member states adopted a Resolution that involves extending the deadline for the Global Nutrition Targets to 2030. Efforts to address wasting and nutritional oedema, and their consequences, have been particularly challenging in recent years due to the current polycrisis of global hunger, conflict and widespread climate-related shocks—and now, major reductions in funding for nutrition which are expected to have significant consequences for managing severe wasting and nutritional oedema especially, which will inevitably increase child deaths.
Summary box
In 2023, WHO released a guideline on prevention and management of wasting and nutritional oedema (acute malnutrition) in infants and children under 5 years as part of the Global Action Plan on Child Wasting, a consolidated framework to accelerate progress in prevention and management of wasting and nutritional oedema.
There were evidence gaps across the populations and topics, which made it difficult for the Guideline Development Group to make recommendations for all prioritised guideline questions and interventions of interest.
The challenges during the guideline development process linked to these evidence gaps included a lack of direct evidence to answer complex guideline questions such as which children should be prioritised for interventions.
In this supplement, we share evidence gaps relevant to the guideline questions for the respective populations and topics, research and methods considerations for resource use and cost-effectiveness data, key reflections on processes and methods for developing the WHO guideline, and development of core outcome sets for future research on wasting and nutritional oedema.

Other articles mentioned in the content:
* Infants and children 6–59 months of age with severe wasting and/or nutritional oedema: evidence gaps identified during WHO guideline development
Thompson DS et al.

* Infants and children 6–59 months of age with moderate wasting: evidence gaps identified during WHO guideline development
Trehan I et al.

* Prevention of wasting and nutritional oedema: evidence gaps identified during WHO guideline development
Ruel MT et al.

* Infants less than 6 months of age at risk of poor growth and development: evidence gaps identified during WHO guideline development
Kerac M et al.

* Addressing prevention and management of wasting and nutritional oedema in children requires an improved evidence base on resource use and cost-effectiveness of interventions
Huybregts L et al.

* Developing the 2023 WHO guideline on wasting and nutritional oedema in infants and children: key reflections on processes and methods
Naude CE et al.

2. Lancet 2025;406(10500):235-60
Global, regional, and national trends in routine childhood vaccination coverage from 1980 to 2023 with forecasts to 2030: a systematic analysis for the Global Burden of Disease Study 2023
GBD 2023 Vaccine Coverage Collaborators Correspondence to JF Mosser <jmosser@uw.edu>

Background: Since its inception in 1974, the Essential Programme on Immunization (EPI) has achieved remarkable success, averting the deaths of an estimated 154 million children worldwide through routine childhood vaccination. However, more recent decades have seen persistent coverage inequities and stagnating progress, which have been further amplified by the COVID-19 pandemic. In 2019, WHO set ambitious goals for improving vaccine coverage globally through the Immunization Agenda 2030 (IA2030). Now halfway through the decade, understanding past and recent coverage trends can help inform and reorient strategies for approaching these aims in the next 5 years.
Methods: Based on the Global Burden of Diseases, Injuries, and Risk Factors Study 2023, this study provides updated global, regional, and national estimates of routine childhood vaccine coverage from 1980 to 2023 for 204 countries and territories for 11 vaccine-dose combinations recommended by WHO for all children globally. Employing advanced modelling techniques, this analysis accounts for data biases and heterogeneity and integrates new methodologies to model vaccine scale-up and COVID-19 pandemic-related disruptions. To contextualise historic coverage trends and gains still needed to achieve the IA2030 coverage targets, we supplement these results with several secondary analyses: (1) we assess the effect of the COVID-19 pandemic on vaccine coverage; (2) we forecast coverage of select life-course vaccines up to 2030; and (3) we analyse progress needed to reduce the number of zero-dose children by half between 2023 and 2030.
Findings: Overall, global coverage for the original EPI vaccines against diphtheria, tetanus, and pertussis (first dose [DTP1] and third dose [DTP3]), measles (MCV1), polio (Pol3), and tuberculosis (BCG) nearly doubled from 1980 to 2023. However, this long-term trend masks recent challenges. Coverage gains slowed between 2010 and 2019 in many countries and territories, including declines in 21 of 36 high-income countries and territories for at least one of these vaccine doses (excluding BCG, which has been removed from routine immunisation schedules in some countries and territories). The COVID-19 pandemic exacerbated these challenges, with global rates for these vaccines declining sharply since 2020, and still not returning to pre-COVID-19 pandemic levels as of 2023. Coverage for newer vaccines developed and introduced in more recent years, such as immunisations against pneumococcal disease (PCV3) and rotavirus (complete series; RotaC) and a second dose of the measles vaccine (MCV2), saw continued increases globally during the COVID-19 pandemic due to ongoing introductions and scale-ups, but at slower rates than expected in the absence of the pandemic. Forecasts to 2030 for DTP3, PCV3, and MCV2 suggest that only DTP3 would reach the IA2030 target of 90% global coverage, and only under an optimistic scenario. The number of zero-dose children, proxied as children younger than 1 year who do not receive DTP1, decreased by 74·9% (95% uncertainty interval 72·1-77·3) globally between 1980 and 2019, with most of those declines reached during the 1980s and the 2000s. After 2019, counts of zero-dose children rose to a COVID 19-era

peak of 18·6 million (17·6-20·0) in 2021. Most zero-dose children remain concentrated in conflict-affected regions and those with various constraints on resources available to put towards vaccination services, particularly sub-Saharan Africa. As of 2023, more than 50% of the 15·7 million (14·6-17·0) global zero-dose children resided in just eight countries (Nigeria, India, Democratic Republic of the Congo, Ethiopia, Somalia, Sudan, Indonesia, and Brazil), emphasising persistent inequities. Interpretation: Our estimates of current vaccine coverage and forecasts to 2030 suggest that achieving IA2030 targets, such as halving zero-dose children compared with 2019 levels and reaching 90% global coverage for life-course vaccines DTP3, PCV3, and MCV2, will require accelerated progress. Substantial increases in coverage are necessary in many countries and territories, with those in sub-Saharan Africa and south Asia facing the greatest challenges. Recent declines will need to be reversed to restore previous coverage levels in Latin America and the Caribbean, especially for DTP1, DTP3, and Pol3. These findings underscore the crucial need for targeted, equitable immunisation strategies. Strengthening primary health-care systems, addressing vaccine misinformation and hesitancy, and adapting to local contexts are essential to advancing coverage. COVID-19 pandemic recovery efforts, such as WHO's Big Catch-Up, as well as efforts to bolster routine services must prioritise reaching marginalised populations and target subnational geographies to regain lost ground and achieve global immunisation goals.

3. Pediatr Res 2025;Jul 23
Non-invasive meningitis screening in neonates and infants: multicentre international study
Ajanovic S et al., ISGlobal, Barcelona, Spain <sara.ajanovic@isglobal.org>
UNITED study group

Background and objectives: Meningitis diagnosis requires a lumbar puncture (LP) to obtain cerebrospinal fluid (CSF) for a laboratory-based analysis. In high-income settings, LPs are part of the systematic approach to screen for meningitis, and most yield negative results. In low- and middle-income settings, LPs are seldom performed, and suspected cases are often treated empirically. The aim of this study was to validate a non-invasive transfontanellar white blood cell (WBC) counter in CSF to screen for meningitis.
Methods: We conducted a prospective study across three Spanish hospitals, one Mozambican and one Moroccan hospital (2020-2023). We included patients under 24 months with suspected meningitis, an open fontanelle, and a LP performed within 24 h from recruitment. High-resolution-ultrasound (HRUS) images of the CSF were obtained using a customized probe. A deep-learning model was trained to classify CSF patterns based on LPs WBC counts, using a 30cells/mm3 threshold.
Results: The algorithm was applied to 3782 images from 76 patients. It correctly classified 17/18 CSFs with ≥ 30 WBC, and 55/58 controls (sensitivity 94.4%, specificity 94.8%). The only false negative was paired to a traumatic LP with 40 corrected WBC/mm3.
Conclusions: This non-invasive device could be an accurate tool for screening meningitis in neonates and young infants, modulating LP indications.
Impact: Our non-invasive, high-resolution ultrasound device achieved 94% accuracy in detecting elevated leukocyte counts in neonates and infants with suspected meningitis, compared to the gold standard (lumbar punctures and laboratory analysis). This first-in-class screening device introduces the first non-invasive method for neonatal and infant meningitis screening, potentially modulating lumbar puncture indications. This technology could substantially reduce lumbar punctures in low-suspicion cases and provides a viable alternative critically ill patients worldwide or in settings where lumbar punctures are unfeasible, especially in low-income countries).

4. PLoS Med 2025;22(7): e1004664
Progress and inequality in child immunization in 38 African countries, 2000–2030: A spatio-temporal Bayesian analysis at national and sub-national levels
The Nguyen P et al., Research Center for Health Policy and Economics, Hitotsubashi Institute for Advanced Study (HIAS), Hitotsubashi University, Tokyo, Japan
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Background. Monitoring progress and inequality in childhood immunization coverage at both national and sub-national levels is essential for refining equity-oriented health programs and ensuring equitable access to care towards achieving global targets in African countries.
Methods and Findings. Using approximately 1 million records from 104 nationally representative Demographic and Health Surveys (DHS) conducted in 38 African countries (2000–2019), we estimated childhood immunization coverage for key indicators (BCG, MCV1, DPT3, Polio3, and Full immunization), stratified by socioeconomic status. Variations of Bayesian spatio-temporal analysis using Besag, Besag–York–Mollié (BYM) and BYM2 models were employed to assess and project the trends from 2000 to 2030. We evaluated the probability of achieving Universal Health Coverage (80% coverage) and Immunization Agenda (90% coverage) by 2030, at national and sub-national levels. Finally, we conducted a comprehensive inequality analysis using the Slope Index of Inequality (SII) and Relative Index of Inequality (RII) to assess changes over the study period.
Childhood immunization coverage improved significantly across most African countries from 2000 to 2019. However, projections suggest that 12 countries are unlikely to achieve global targets for full immunization by 2030 at the national level if current trends continue. Notably, high-Socio-Demographic Index (SDI) countries such as South Africa, Egypt, and Congo Brazzaville are projected to miss immunization targets across all sub-national regions. While socioeconomic inequalities were widespread in 2000, they are projected to decline or stabilize in 36 countries by 2030, with Eswatini, Morocco, Rwanda, and Burkina Faso expected to eliminate disparities. In contrast, Nigeria and Angola are projected to face increasing inequalities or persistent large gaps. Regional disparities in both coverage and inequality remain pronounced, particularly in Central and Western Africa, where coverage remains low and inequality remains high despite overall national-level improvements. The analysis was limited to DHS surveys 2000–2019, excluding more recent data during the COVID-19 period and potentially overestimating trends in data-sparse settings.
Conclusions. This study highlights both progress and persistent challenges in childhood immunization coverage, along with inequalities across 38 African countries. Persistent regional disparities and socioeconomic inequalities require multifaceted strategies that account for demographic, geographic, economic, and political factors to ensure equitable immunization. Greater efforts are needed to close these gaps and support global health goals for the African nations.

Communicable Diseases

5. Am J TMH 2025;113(2):253-63
Antimicrobial Resistance in Sub-Saharan Africa: A Comprehensive Landscape Review
Totaro V et al., Clinic of Infectious Diseases, Department of Precision and Regenerative Medicine and Ionian Area, University of Bari, Bari, Italy

Antimicrobial resistance (AMR) is a critical health challenge in sub-Saharan Africa (SSA), driven by socioeconomic disparities, weak healthcare systems, and inadequate pharmaceutical regulation. This review examines AMR prevalence, drivers, and consequences in SSA, emphasizing the need for urgent interventions. A literature review was conducted using PubMed, Web of Science, Scopus, and Google Scholar, including studies published from January 2000 to June 2024. The focus was on AMR epidemiology, public health impacts, and interventions specific to SSA. High resistance rates were identified in Escherichia coli, Klebsiella pneumoniae, and Staphylococcus aureus. Key drivers include limited healthcare access; antibiotic misuse; poor surveillance; inadequate water, sanitation, and hygiene infrastructure; and poverty. AMR leads to increased mortality, prolonged hospital stays, and higher healthcare costs, with SSA projected to face 4.1 million AMR-related deaths annually by 2050 without action. Addressing AMR in SSA requires strengthening healthcare systems, expanding surveillance, enforcing pharmaceutical regulations, and enhancing education. International collaboration and funding are essential to mitigate AMR's impacts and support progress toward universal health coverage and the Sustainable Development Goals.

See also on this topic:
* PLoS Med 2025;22(6): e1004638
Antimicrobial resistance in Africa: A retrospective analysis of data from 14 countries, 2016–2019

Osena G

6. Am J TMH 2025;Sep 4 Online ahead of print
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.

7. BMJ 2025;390:r1268
Editorial
Addressing the indirect health burden of covid-19
Lei Z, Department of Statistics and Data Science, Cornell University, Ithaca, NY, USA

Consider collateral impacts when planning for future crises
The covid-19 pandemic's impact extends far beyond the direct effects of infection and death, resulting in sharp increases in other causes of illness and death that demand attention. A new time-series analysis of the Global Burden of Disease data by Chen and colleagues (doi:10.1136/bmj-2024-083868) quantifies these shifts and identifies which conditions had excess burden during 2020-21. Their key finding is that many countries had greater than expected morbidity and mortality from non-covid causes—a signal that health systems were strained in multiple ways. As such, policy makers must look past the virus itself and address collateral impacts. Health experts have noted that assessing health-system resilience now is "vital in helping policymakers plan for sustainable recovery" and to strengthen systems for future crises.
In sum, the study by Chen and colleagues highlights how data can guide smarter recovery. The findings show policy makers where to target resources during the "rebuild" phase: immunisation and infectious disease programmes delayed by covid, mental health outreach to youth and frontline workers, and screening and treatment for chronic conditions deferred in lockdown. In each case, the cost of inaction is documented excess burden. By integrating these insights into postpandemic plans, countries can improve resilience. Concrete steps include: allocating budgets for essential services in emergencies, reinforcing primary health care, expanding disease surveillance networks, and prioritising universal health coverage with a focus on those left behind. Such actions are aligned with the WHO's recommendations and the broader call to "build back better", which aims that future health crises disrupt lives less and afflict populations more evenly. Ultimately, recognising and planning for the pandemic's indirect toll will save lives and leave health systems stronger and fairer for future public health emergencies.

Article by this Editorial:
BMJ 2025;390:e083868
Global, regional, and national characteristics of the main causes of increased disease burden due to the covid-19 pandemic: time-series modelling analysis of global burden of disease study 2021
Chen A et al.

8. BMJ 2025;389:e079579

Clinical Review State of the Art Review
Advances in the management of hepatitis B
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Hepatitis B virus infection remains a pervasive global health challenge, affecting an estimated 254 million people worldwide. This review summarizes the current landscape of hepatitis B, including its epidemiology and the clinical spectrum of acute and chronic infection. It discusses the interplay between host and virus that underlies the progression from acute hepatitis to chronic liver disease, cirrhosis, and hepatocellular carcinoma. The review further examines current screening practices, diagnostic methods, and staging tools, as well as providing an in-depth evaluation of antiviral treatment strategies guided by randomized clinical trials and international consensus. Particular emphasis is placed on emerging therapeutic approaches. Drawing on high quality evidence from large scale epidemiological studies, rigorous clinical trials, and evolving global guidelines, this review not only encapsulates the state of the art in the management of hepatitis B but also highlights critical gaps and future directions. This synthesis is intended to inform clinicians and researchers alike, offering insights that may enhance patient care and guide future research toward the ultimate goal of elimination of hepatitis B.

9. Emerg Infect Dis 2025;31(8):1516-25
Emergence of Clade Ib Monkeypox Virus-Current State of Evidence
Satheshkumar PS et al.

Mpox was first identified against the backdrop of the smallpox eradication campaign. Monkeypox virus (MPXV), the causative agent of mpox, has been maintained in animal reservoirs in the forested regions of West and Central Africa as 2 distinct clades; clade I has historically caused more severe infection in Central Africa than clade II, historically found in West Africa. However, rapid reemergence and spread of both MPXV clades through novel routes of transmission have challenged the known characteristics of mpox. We summarize mpox demographic distribution, clinical severity, and case-fatality rates attributed to genetically distinct MPXV subclades and focus on MPXV clade Ib, the more recently identified subclade. Broad worldwide assistance will be necessary to halt the spread of both MPXV clades within mpox endemic and nonendemic regions to prevent future outbreaks.

10. Emerg Infect Dis 2025;31(9):1708-17
Rickettsioses as Underrecognized Cause of Hospitalization for Febrile Illness, Uganda
Blair PW et al.

The complexity of rickettsial serodiagnostics during acute illness has limited clinical characterization in Africa. We used archived samples from sepsis (n = 259) and acute febrile illness (n = 70) cohorts in Uganda to identify spotted fever and typhus group rickettsiae by using immunofluorescence assay and clinically validated rRNA reverse transcription PCR (RT-PCR). Among 329 participants, 10.0% had rickettsial infections (n = 33; n = 20 identified with immunofluorescence assay and n = 13 by RT-PCR). Serum rRNA RT-PCR was 75.0% (95% CI 42.8-94.5%) sensitive and 91.2% (95% CI 85.8-95.1%) specific. Thrombocytopenia was more common among patients with rickettsial infections than with other nonmalarial infections (adjusted odds ratio 3.7; p = 0.003). No participants were on a tetracycline antimicrobial drug at admission. rRNA RT-PCR is a promising diagnostic strategy for identifying acute rickettsial infections. Doxycycline should be included in empiric antimicrobial drug regimens for nonmalarial febrile illness in this region.

11. Lancet 2025;406(10500):295-306
Review
A decade later, what have we learned from the Zika epidemic in children with intrauterine exposure?
Brasil P et al., Acute Febrile Illness Laboratory, Evandro Chagas National Institute of Infectious Diseases, Oswaldo Cruz Foundation, Rio de Janeiro, Brazil <patricia.brasil@ini.fiocruz.br>

Since the emergence of the Zika virus epidemic in 2014 and the associated novel sequalae that emerged, much has been learned about the effects of antenatal exposure to Zika virus. Zika virus in pregnancy carries severe teratogenic potential to the fetus, ranging from congenital Zika syndrome to milder neurodevelopmental sequelae. Congenital Zika syndrome is associated with a spectrum of alterations that can affect cognitive, language, and motor development. Among children with congenital Zika syndrome, dysphagia and seizures are common, as are hospitalisations for pneumonia and urinary tract infections; overall, morbidity and mortality are extremely high. Children without congenital Zika syndrome but exposed to Zika virus antenatally are also at risk of developmental disorders. In addition, in utero exposure to Zika virus does not lead to the production of neutralising antibodies. Although the epidemic has subsided, Zika virus remains endemic in many countries and continues to affect families. Maternal associations have been fundamental in advocating for health care for children with congenital Zika syndrome and economic support for families. Gaps in scientific knowledge include the absence of data on long-term outcomes among school-age children. Future research and investments are needed to improve diagnostics, restart the stalled development of Zika virus vaccines, and evaluate antiviral treatments.

12. Lancet Glob Health 2025;13(7):e1203-e1212
Protection from killed whole-cell cholera vaccines: a systematic review and meta-analysis
Xu H et al., Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA

Background: Killed whole-cell oral cholera vaccines (kOCVs) are a standard prevention and control measure in cholera-endemic areas and during outbreaks and humanitarian emergencies. New evidence has emerged and the ways in which the vaccines are used have changed. We aimed to provide an updated synthesis of evidence on protection conferred by kOCV.
Methods: In this systematic review and meta-analysis, we used the same search procedure as a previous systematic review to identify randomised clinical trials (RCTs) and observational studies that reported estimates of protection conferred by kOCVs against medically attended, confirmed cholera. Eligible studies in English, French, Spanish, or Chinese published up until March 8, 2024, including those identified in the previous review, were included. Data on efficacy and effectiveness were extracted, as were the number of doses, duration of follow-up, and age group. Efficacy and effectiveness estimates were summarised separately using random-effect models to estimate protection by time since vaccination; meta-regression models were used to estimate protection, by dose, as a function of time since vaccination. This updated study is registered along with the original review with PROSPERO (CRD42016048232).
Findings: We identified 8205 records published online up until March 8, 2024, including 6224 articles from the previous review and 1981 articles from our new search (after Jan 1, 2016). Of these, 53 were eligible for full-text review. Five RCTs and ten observational studies from 23 publications were included. Average two-dose efficacy 12 months after vaccination was 55% (95% CI 46-62), declining to 44% (25-59) 48 months after vaccination. Average two-dose effectiveness was 69% (58-78) 12 months after vaccination, declining to 47% (9-70) 48 months after vaccination. Only one RCT assessed one-dose efficacy and found sustained protection for 24 months (57% [42-69]) among those 5 years and older with no significant protection in younger children. Average one-dose effectiveness 12 months after vaccination was 60% (51-68) and after 24 months was 47% (34-58). Using age group-specific meta-analysis, we found that average two-dose efficacy in children younger than 5 years was half that of older individuals.
Interpretation: Two doses of kOCV provide protection against medically attended cholera for at least 4 years after vaccination. One dose of kOCV provides protection for at least 2 years after vaccination, but wanes faster than that of two doses. Children younger than 5 years are less protected by kOCVs than those aged 5 years and older, regardless of the number of doses received.

13. PLoS Med 2025;2(7): e1004666
Rapid molecular testing or chest X-ray or tuberculin skin testing for household contact assessment of tuberculosis infection: A cluster-randomized trial

Adjobimey M et al., Corresponding author: Dick Menzies, Faculty of Medicine, McGill University, McGill International TB Centre, Research Institute of the McGill University Health Center, Montreal Canada

Background. The World Health Organization recommends evaluation of all household contacts (HHC) of index tuberculosis (TB) patients for TB disease (TBD) and TB infection (TBI). Tests to identify TBI and TBD are preferred but can be skipped in persons living with HIV and children <5 years. There is equipoise on the need for these tests in other HHC.
Methods. We conducted a superiority, open label cluster-randomized trial in Benin and Brazil to compare three strategies to evaluate HHC aged 5–50 of persons newly diagnosed with drug susceptible pulmonary TBD: Standard: tuberculin skin testing (TST) for TBI and if positive, chest X-ray (CXR) to rule out TBD; rapid molecular test (RMT): same as Standard, except CXR replaced by an RMT; and No-TST: CXR for all but no TST. Randomization was computer-generated and stratified by country, in blocks of variable length. The primary outcome was TB preventive therapy (TPT) initiation among HHC considered eligible (positive TST, if done, and no evidence of TBD on CXR or RMT). Secondary outcomes were: completion of investigations to detect TBI and TBD, detection of TBD, TPT completion, severe adverse events, and societal costs.
Results. Among 1,589 participating HHC enrolled from 29 January 2020, to 30 November 2022, 474 were randomized to the standard, 583 to the RMT, and 532 to the no-TST strategies; all were included in the analyses. Of 848 HHC considered eligible for TPT, 802 (94.6%) initiated TPT, with no difference between strategies (95%, 94%, and 95% for the standard, RMT, and no-TST strategies, respectively). Of the secondary outcomes, protocol-mandated investigations to detect TBI and exclude possible TBD were completed for 93.4% overall, with slight differences between arms (93%, 95%, and 93% for the standard, RMT, and no-TST strategies, respectively). Adverse events resulting in discontinuation of TPT occurred in 3 (0.4%) participants in total (with 1, 0, and 2 events among participants in the Standard, RMT, and no-TST arms, respectively). The proportion completing TPT was similar with Standard and RMT strategies but was 13% lower (95% confidence interval: 3% to 23% lower) with the No-TST strategy. Societal costs per HHC completing investigations were $61 ($56–$65) with the standard strategy, compared to $52 ($49–$55) with the RMT strategy and $74 ($72–$77) with the no-TST strategy.
Conclusion. This randomized trial provides high-quality evidence that TST followed by selected use of CXR or an RMT to exclude disease can achieve high rates of TPT initiation at reasonable costs. A limitation of the trial is the potential study effect, which may have affected adherence by providers and HHCs. RMT could replace CXR in the management of HHC in resource limited settings.

14. PLoS Med 2025;22(8): e1004683
The transmission blocking activity of artemisinin-combination, non-artemisinin, and 8-aminoquinoline antimalarial therapies: A pooled analysis of individual participant data
Vanheer, LN et al., Department of Infection Biology, London School of Hygiene & Tropical Medicine, UK, Malaria Centre, London School of Hygiene & Tropical Medicine, UK Corresponding author: T Bousema <teun.bousema@radboudumc.nl>

Background. Interrupting human-to-mosquito transmission is important for malaria elimination strategies as it can reduce infection burden in communities and slow the spread of drug resistance. Antimalarial medications differ in their efficacy in clearing the transmission stages of Plasmodium falciparum (gametocytes) and in preventing mosquito infection. Here, we present a retrospective combined analysis of six trials conducted at the same study site with highly consistent methodologies that allows for a direct comparison of the gametocytocidal and transmission-blocking activities of 15 different antimalarial regimens or dosing schedules.
Methods and findings. Between January 2013 and January 2023, we conducted six clinical trials evaluating antimalarial treatments with transmission endpoints at the Clinical Research Centre of the Malaria Research and Training Centre of the University of Bamako in Mali. These trials tested Artemisinin-Combination Therapies (ACTs), non-ACT regimens and combinations with 8-aminoquinolines. Participants were males and non-pregnant females, between 5 and 50 years of age, who presented with P. falciparum mono-infection and gametocyte carriage by microscopy. We

collected blood samples before and after treatment for thick film microscopy, infectivity assessments by mosquito feeding assays and molecular quantification of gametocytes. To combine direct and indirect effects of treatment groups across studies, we performed a network meta-analysis. This analysis quantified changes in mosquito infection rates and gametocyte densities within treatment groups over time and between treatments. In a pooled analysis of 422 participants, we observed substantial differences between antimalarials in gametocytocidal and transmission-blocking activities. Artemether-lumefantrine (AL) was significantly more potent at reducing mosquito infection rates within 48 h than dihydroartemisinin-piperaquine ($p = 0.0164$) and sulfadoxine-pyrimethamine plus amodiaquine ($p = 0.0451$), while this difference was near-significant for artesunate-amodiaquine ($p = 0.0789$) and pyronaridine-artesunate ($p = 0.0519$). The addition of single low-dose primaquine (SLD PQ) accelerated gametocyte clearance for any ACT and led to a substantially greater reduction in mosquito infection rate within 48 h of treatment for all ACTs except AL, while an SLD of the 8-aminoaquinoline tafenoquine showed a delayed activity, compared to SLD PQ, but was similarly effective. The main limitations of the study include the inclusion of highly infectious individuals, which may not reflect the broader malaria patient population with lower or undetectable gametocyte densities and the small sample sizes in some treatment groups, which resulted in wide confidence intervals and reduced the certainty of effect estimates.
Conclusions. We found marked differences among ACTs and single low-dose 8-aminoquinoline drugs in their ability and speed to block transmission. The findings from this analysis can support treatment policy decisions for malaria elimination and be integrated into mathematical models to improve the accuracy of predictions regarding community transmission and the spread of drug resistance under varying treatment guidelines.

15. TMIH 2025;30(9):865-92
Burden of Chikungunya Fever and Its Economic and Social Impacts Worldwide: A Systematic Review
Pedí VD et al., Fundação Oswaldo Cruz, Brasília, Federal District, Brazil

Objectives: This study aimed to investigate the social and economic impacts and disease burden of Chikungunya Fever globally through a systematic literature review.
Methods: We performed a comprehensive literature search through MEDLINE (via PubMed), LILACS, and Embase databases, and grey literature, including studies of populations diagnosed with Chikungunya Fever or at risk of infection published in English, Spanish, French, or Portuguese, without date restrictions. Two reviewers independently performed study selection, data extraction, and quality assessment. Methodological quality was assessed using different tools.
Results: Forty-three publications were included. Until 2013, publications originated solely from the Asian and African continents. From 2015 onwards, South America emerged as the predominant source. Publications were classified as cost studies (25), including cost-of-illness (18) and program cost (6); burden of disease studies (10); cost-outcome studies (4), including cost-effectiveness (3) and cost-utility (1); and quality-of-life studies (15). Reported total direct costs associated with Chikungunya Fever ranged from US$ 3.5 million (US Virgin Islands, 2014-2015) to US$ 83.6 billion (Region of the Americas, 2013-2015). Direct medical costs varied from US$ 308.94 (Tamil Nadu, India, 2006) to US$ 33.7 million (Réunion Island, 2005-2006). Vector control program costs ranged from US$ 888,000 annually (Greece, 2013-2017) to US$ 466 million (Brazil, 2016). Estimated disability-adjusted life years per 100,000 population ranged from 4.53 (India, 2006) to 2432 (Region of the Americas, 2013-2015). Quality-of-life studies demonstrated substantial declines across multiple domains, indicating significant functional impairment due to Chikungunya Fever.
Conclusion: Chikungunya Fever imposes a considerable economic and social burden, surpassing that of other endemic arboviral diseases such as dengue and yellow fever. These findings underscore the need for further research to accurately quantify the full scope of Chikungunya Fever-related costs and impacts on affected populations.

Gender

16. BMJ 2025;390:r1605

Editor's Choice
Upending women's health
Clark J.

This year is unleashing a series of devastating blows to women's health worldwide. Cuts to foreign aid. Denial of abortion access and reproductive autonomy (doi:10.1136/bmj.r459). Targeted attacks on hospitals, including maternity clinics, in conflict areas (doi:10.1136/bmj.r1242). Waning support for a UK women's health strategy (doi:10.1136/bmj.r1600). All are consequences of regressive government decisions—decisions designed to be stealth but destined to be harmful. For all the talk about the importance of women's wellbeing, their health and rights hold the least currency in the present political markets of power and influence.
Women's exploitation is particularly acute in health. Women sustain communities and health systems, often unpaid, and bear the heaviest burdens during crises. Even in female dominated professions—such as nursing, which is critical to domestic and global health goals (doi:10.1136/bmj.r1480)—women's work is diminished by gender pay gaps favouring men. Worse, women are vastly under-represented in decision making on health priorities and investments.
Exclusion is damaging. As highlighted in new commentaries in The BMJ, women comprise just a third of researchers worldwide (doi:10.1136/bmj.r1556) and make up a mere 16% of patent holders in the US (doi:10.1136/bmj.r1489)—skewing what research questions are asked, whose experiences are valued, and which health interventions and innovations are prioritised. This leads to bias: only 8.8% of research funded by the US National Institutes of Health, and less than 2% of all venture capital health investments are focused exclusively on women (doi:10.1136/bmj.r1537), who comprise more than half the population. This inequity fuels the persistent women's health gap, where globally women spend 25% more time in poor health than men owing to conditions that affect them uniquely or disproportionately.

Some of the articles mentioned in the editorial:
* BMJ 2025;390:r1537
Reimagining women's health is a global imperative
Cheng R

* BMJ 2025;390:r1556
Reshaping research and development through women's leadership
Ndiaye F

* BMJ 2025;390:r1242
The protections for healthcare enshrined in international humanitarian law are under severe strain in an increasingly war-torn world
Norcliffe-Brown D

Global Health

18. BMJ Global Health. 2025;10:e020703
Global health at a crossroads: WHO's 2025 Emergency Response to outbreaks, conflicts and humanitarian crises
Elmi AH, Nurse and Midwife at Dr Sumait Hospital, SIMAD University, Mogadishu, Somalia

The year 2025 has emerged as a defining moment for global health, shaped by intersecting crises that demand urgent, coordinated action. Against a backdrop of conflict, disease outbreaks, displacement and climate shocks, the WHO has launched a $1.5 billion Health Emergency Appeal to address the scale and complexity of mounting health threats worldwide. This appeal is not merely a call for funding but is a recognition that the world is confronting a new era of health emergencies that are increasingly frequent, protracted and interconnected.
Summary box

Health emergencies are increasing in frequency and complexity, particularly in fragile states, where WHO's coordination is vital but is often constrained by political and logistical barriers.
This article critically reflects on WHO's 2025 Health Emergency Appeal, highlighting the structural, ethical and operational challenges facing implementation in conflict-affected regions.
This study might affect research, practice or policy. It advocates for a shift toward inclusive, transparent and decentralised emergency response models that prioritise long-term health system resilience and local stakeholder engagement.

19. Lancet 2025;406(10506):940-9
Epidemiological and demographic trends and projections in global health from 1970 to 2050: a descriptive analysis from the third Lancet Commission on Investing in Health, Global Health 2050
Chang AY et al., Danish Institute for Advanced Study, University of Southern Denmark, Odense, Denmark <achang@health.sdu.dk>

Background: Systematic analyses of global health trends can provide an accurate narrative of progress and challenges. We analysed the impact of changing age-specific mortality (epidemiology) and age structure (demography) on crude death rates (CDRs) and causes of death with large or rising mortality to inform the third Lancet Commission on Investing in Health.
Methods: Data from the World Population Prospects 2024 and Global Health Estimates 2021 were used to assess epidemiological and demographic trends, including CDR (defined as the total number of deaths divided by the total mid-year population, reported per 1000 population), all-cause age-specific mortality rates for 1970-2050, and selected cause-specific mortality rates from 2000-19. We excluded data for 2020-23 to avoid effects of the COVID-19 pandemic. For estimating decadal changes in cause-specific mortality rates, we combined the estimates into the following age groups: 0-14, 15-49, 50-69, and 70 years and older.
Findings: Mortality rates declined substantially across age groups in most regions, with rapid improvements observed in recent decades. Between the 2000s (ie, 2000-10) and 2010s (ie, 2010-19), the mortality decline accelerated in China, central and eastern Europe, India, and Latin America and the Caribbean in ages 0-14 years and 15-49 years, but decelerated in the north Atlantic, the USA, and western Pacific and southeast Asia. For ages 50-69 years, mortality decline decelerated in all regions except sub-Saharan Africa. The USA experienced not only deceleration but increase in mortality rates in those aged 15-49 years and 50-69 years. Globally, the lowest CDR was reported in 2019. In the past, CDR has declined primarily because of decreasing age-specific mortality rates. Future trends suggest that changing population age structure will drive a large increase in CDR. Age-specific mortality rates from major diseases declined once population changes were accounted for. The exception was diabetes, with accelerating increase in age-specific death rates in all regions, with especially high rates in central and eastern Europe and India.
Interpretation: There is reason for optimism regarding global health progress, but disparities and emerging challenges persist. Falling age-specific mortality rates show progress; however, rapid ageing brings new challenges. Slowing mortality declines in some regions require enhanced efforts. Rising mortality among middle-aged Americans emphasises that continuous improvements require concerted efforts. Key recommendations include prioritising interventions to address specific health challenges and adapting health-care systems to demographic transitions.

Global Health Finances: funding and funding reductions

20. Lancet 2025;406(10500):261-70
The case for optimal investment in combating HIV, tuberculosis, and malaria: a global modelling study
Hallett TB et al., MRC Centre for Global Infectious Disease Analysis, School of Public Health, Imperial College London, London, UK <timothy.hallett@imperial.ac.uk>

Background: The Sustainable Development Goals (SDGs) include ending the epidemics of HIV, tuberculosis, and malaria by 2030. With 5 years remaining to meet this goal, and with the Global Fund to Fight AIDS, Tuberculosis and Malaria seeking funding for programmes in 2027-29, establishing

what can be achieved through continued investment in combatting these diseases is crucial. We aimed to estimate the potential for impact by analysing the funding landscape and epidemiological situations of these three diseases, the costs of key programmes, and the extent of possible future progress in the countries eligible for Global Fund support.
Method: In this modelling study, we developed estimates of the financial resources needed in Global Fund-supported countries to combat HIV, tuberculosis, and malaria from the global plans produced by UNAIDS, the Stop TB Partnership, and WHO. Estimates of available resources in the coming years were obtained by assuming that national expenditure on the three diseases would grow in line with general governmental expenditures, that the Global Fund would contribute an additional $18·0 billion, and that other developmental assistance would be at the same level in real terms as the average in the period 2020-22. Epidemiological and costing models for each of the three diseases were used to quantify the possible impact in Global Fund-eligible countries (including on aggregated mortality and incidence rates). The return on investment (ROI) was computed considering both the intrinsic value of health and the direct economic benefits of the reduced risk of morbidity and premature mortality. The analysis was completed at the end of 2024 with the latest available data, which pertained to the year 2023. The focus of the projection period was 2027-29, a period for which scale-up plans and funding have not yet been committed and the period when most of the resources raised by the eighth replenishment of the Global Fund would be used.
Findings: The total resource needs for the three diseases were estimated to be US$140·6 billion in 2027-29. We calculated that $111·3 billion (79%) of this need could be met from domestic financing ($69·7 billion), the Global Fund ($18·0 billion), and other external donors ($23·6 billion). Optimal use of these available resources could save 23 million lives and avert 400 million cases and new infections during 2027-29. The trajectory of the combined mortality rate for all diseases was projected to approach that needed to reach the SDG for 2030 (with a difference between the target in 2030 and the projection at the end of 2029 of between 1·5% and 15·5% of the normalised aggregated mortality rate), inequality in life expectancy between countries would be 7% lower by 2029, and 189 million fewer hospital days and 572 million fewer outpatient visits would be needed in 2027-29, saving $1·1 billion. For every $1·00 invested, there could be up to $19·00 in intrinsic health value created or $3·50 in direct economic benefits.
Interpretation: Continued investments to combat HIV, tuberculosis, and malaria could yield enormous health gains and a high return on investment. Realising these benefits will require continued growth in national expenditure and a broad maintenance of external financing for these diseases, including a successful replenishment of the Global Fund in 2025.

21. Lancet 2025;406(10500):283-94
Evaluating the impact of two decades of USAID interventions and projecting the effects of defunding on mortality up to 2030: a retrospective impact evaluation and forecasting analysis
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Correspondence to D Rasella < davide.rasella@isglobal.org>

Background: The US Agency for International Development (USAID) is the largest funding agency for humanitarian and development aid worldwide. The aim of this study is to comprehensively evaluate the effect of all USAID funding on adult and child mortality over the past two decades and forecast the future effect of its defunding.
Methods: In this retrospective impact evaluation integrated with forecasting analysis, we used panel data from 133 countries and territories- including all low-income and middle-income countries (LMICs)-with USAID support ranging from none to very high. First, we used fixed-effects multivariable Poisson models with robust SEs adjusted for demographic, socioeconomic, and health-care factors to estimate the impact of USAID funding on all-age and all-cause mortality from 2001 to 2021. Second, we evaluated its effects by age-specific, sex-specific, and cause-specific groups. Third, we did several sensitivity and triangulation analyses. Lastly, we integrated the retrospective evaluation with validated dynamic microsimulation models to estimate effects up to 2030.
Findings: Higher levels of USAID funding-primarily directed toward LMICs, particularly African countries-were associated with a 15% reduction in age-standardised all-cause mortality (risk ratio [RR] 0·85, 95% CI 0·78-0·93) and a 32% reduction in under-five mortality (RR 0·68, 0·57-0·80).

This finding indicates that 91 839 663 (95% CI 85 690 135-98 291 626) all-age deaths, including 30 391 980 (26 023 132-35 482 636) in children younger than 5 years, were prevented by USAID funding over the 21-year study period. USAID funding was associated with a 65% reduction (RR 0·35, 0·29-0·42) in mortality from HIV/AIDS (representing 25·5 million deaths), 51% (RR 0·49, 0·39-0·61) from malaria (8·0 million deaths), and 50% (RR 0·50, 0·40-0·62) from neglected tropical diseases (8·9 million deaths). Significant decreases were also observed in mortality from tuberculosis, nutritional deficiencies, diarrhoeal diseases, lower respiratory infections, and maternal and perinatal conditions. Forecasting models predicted that the current steep funding cuts could result in more than 14 051 750 (uncertainty interval 8 475 990-19 662 191) additional all-age deaths, including 4 537 157 (3 124 796-5 910 791) in children younger than age 5 years, by 2030.
Interpretation: USAID funding has significantly contributed to the reduction in adult and child mortality across low-income and middle-income countries over the past two decades. Our estimates show that, unless the abrupt funding cuts announced and implemented in the first half of 2025 are reversed, a staggering number of avoidable deaths could occur by 2030.

22. PLoS Med 2025;22(8): e1004695
Perspective: Reductions in development assistance for health funding threaten decades of progress in Africa
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In the Malawian language Chichewa, the proverb “Tsabola wakale sawawa” is literally translated as “Old pepper is not hot” and can be interpreted as meaning that, as the world changes, new solutions are needed. For low-income countries like Malawi that are heavily dependent on donor aid, the world has indeed rapidly changed. Cuts of more than 83% have been made to the 2023 $42.4 billion USD budget of the US Agency for International Development (USAID), along with disruption to the President’s Emergency Plan for AIDS Relief (PEPFAR), as well as reductions in overseas aid development funding from countries like the United Kingdom. These sudden cuts will have devastating consequences, with modeling indicating that USAID cuts will likely contribute to an additional 15.2 million AIDS deaths, 2.2 million tuberculosis deaths, 7.9 million child deaths, and 40–55 million unplanned pregnancies between 2025 and 2040.
In a recent PLOS Medicine study, Molaro and colleagues set out to investigate how future declines in development assistance for health (DAH) to Malawi, and consequently health funding, will impact upon health projections for the country. (It is worth noting that this research was undertaken before the recent substantial cuts to DAH funding and international aid). Specifically, they use a whole health systems model known as Thanzi La Onse to project the impact that different DAH funding scenarios would likely have on health outcomes in Malawi between 2019 and 2040. The modeling inputs are uniquely detailed, capturing evolving demography, risk factors for ill health, and incidence of a comprehensive set of infectious and non-communicable diseases, as well as health-seeking behavior, healthcare delivery, and intervention effectiveness. Importantly, the Ministry of Health of Malawi was closely involved in model development and checking, lending credibility to projections. The main finding is that overall increases in disability adjusted life years (DALY) should be anticipated for all likely DAH scenarios considered, ranging from a 7% to 16% increase compared to scenarios where health expenditure as a percentage of gross domestic product remains at current levels. In their analysis, the population benefits of increased health expenditure are clear, with reductions of ~10 million DALYs achieved for every percentage point increase in funding, but with diminishing returns above a 4% increase, due to capabilities constraints.
In contrast, projections across DAH growth scenarios for the three leading infectious diseases (tuberculosis, HIV/AIDS, and malaria) indicate that continued downwards trends in DALYs due to these diseases (particularly for TB and HIV/AIDS, but less so for malaria) can be sustained despite little or no projected growth beyond current health investment. This is likely because Malawi has already made substantial gains in achieving extremely high coverage of diagnosis and treatment of HIV, which has resulted in recent rapidly declining prevalence of TB. This has been achieved through its pioneering “public health approach” to TB and HIV programming predicated on achieving scale-up

through primary care, very limited treatment monitoring with expensive laboratory assays, and rigorous and responsive monitoring and evaluation programs.

However, complacency should be avoided; in the short term, the unprecedently large recent cuts to foreign aid budgets are likely to severely affect all programs, and especially those for TB, HIV, and malaria that are heavily aid-dependent, and will have far-reaching consequences for population health. The larger and longer the decline in international aid, the more expensive it will be to restore the health and prosperity of low- and middle-income countries. Moreover, interruptions to screening programs and diagnostic capabilities, as well as disruptions to treatment administration, monitoring, and evaluation capabilities may also result in re-emergence, as well as generation and transmission of drug-resistant disease that may go undetected for prolonged periods due to suboptimal surveillance systems.

The implications of these findings are stark, even before we consider the additional severe impact of the recent unprecedented cuts. To achieve sustained increases in life expectancy and avoid huge increases in ill health and disability in Malawi, funding dedicated to health must be increased. The authors note that while their analysis assumes “constant effectiveness” of medical interventions, technological innovation may lead to improvements in diagnosis and treatment, mitigating some of the more extreme projections. Although new diagnostics, treatments, and prevention have been developed for several major infectious diseases, deployment has been extremely inequitably distributed at both the global level as well as within regions and countries. Innovation and implementation of new technologies for non-communicable diseases—the major contributors to projected increases in DALYs in this analysis—lags far behind. Action to bridging the “know-do gap” to improve accessibility and affordability of new technologies will be essential, and this will require concerted political and community advocacy.

So, what solutions could Malawi and other countries battling similar trends, and who have been suddenly and severely affected by recent health funding cuts, implement to mitigate against the worst effects, or indeed break this vicious cycle? At the national level, a renewal of the public health approach to prevention, health promotion, and healthcare delivery will be essential. Malawi has already shown that this can be done to tackle diseases like HIV and TB, and a renewed strategy centered around the major infectious and non-communicable diseases is required, focusing on maternal, infant, and child health, as well as the commercial, environmental, and social determinants of disease.

Efficient, high-quality surveillance, alongside monitoring and evaluation systems, can be effect-multipliers, increasing efficiency and supporting universal access to health. Focusing national infrastructure investment toward renewable energies, active transport, and digital technologies, while supporting sustainable agriculture and manufacturing, can yield large returns on investment, both in terms of future health, but also funding for health and other services. More broadly, cuts to DAH funding from countries in the Global North are antithetical to global commitments to equity, shared prosperity, and health security. If we are serious about preventing avoidable suffering, averting future pandemics, and achieving the Sustainable Development Goals, these cuts must not only be reversed, but accompanied by sustained, increased international assistance for health and development. Now is the time for renewed solidarity and investment—not retreat—to support countries like Malawi in building resilient, fair, and effective health systems.

See also on this topic:
* PLoS Med 2025;22(8): e1004488
The potential impact of declining development assistance for health on population health in Malawi: A modelling study
Molaro M

* Lancet 2025 Jul 5;406(10498):14-15
World Report
Gavi replenishment falls short of US$9 billion target
Usher, AD

* Lancet 2025;406(10501):337-48

Tracking development assistance for health, 1990-2030: historical trends, recent cuts, and outlook
Apeagyei AE
Findings: DAH peaked at US$80·3 billion in 2021 and fell to $49·6 billion in 2024. In 2025, announced budget cuts-particularly reductions in US bilateral aid-are expected to contribute to further declines in global DAH to $38·4 billion, amounts last seen in 2009. Key global health institutions (eg, Foreign, Commonwealth & Development Office and US Agency for International Development and Agence Française) providing DAH for key infectious diseases and childhood vaccines will contract their own disbursements. Because these key multilateral development banks have been protected from the major funding cuts, the World Bank has increased its relative share of total DAH disbursements. Forecasts indicate continued stagnation in DAH until 2030 under current policies, reaching $36·2 billion in 2030. Our sensitivity analyses suggest that our estimate for 2025 could range from $36·8 billion in a pessimistic scenario to $40·0 billion in an optimistic scenario, based on changes in US cuts. Similarly, in the next 5 years, total DAH is expected to reach $37·8 billion in 2030 under a positive scenario for US contribution and $34·5 billion under a negative scenario for US contribution. Interpretation: The global health financing landscape is entering a period of sustained cuts. Major reductions in DAH, particularly from historically leading donors, threaten to widen health disparities unless mitigated by increased domestic resource mobilisation or alternative financing mechanisms. This study highlights the urgent need for greater efficiency, strategic reprioritisation, and strengthened fiscal resilience in recipient countries to safeguard the substantial global health gains of the previous three decades.

* Lancet Glob Health 2025;13(9):e1517-e1524
The potential impact of reductions in international donor funding on tuberculosis in low-income and middle-income countries: a modelling study
Clark RA et al.

Health Policy

23. Am J TMH 2025;113(3):704-13
Evaluation of a Scalable Design for a Pediatric Telemedicine and Medication Delivery Service: A Prospective Cohort Study in Haiti
Klarman MB et al., Department of Pediatrics, University of Florida, Gainesville, Florida

Early access to health care is essential to avert morbidity and mortality. A telemedicine and medication delivery service (TMDS) is an innovative solution to address this need; however, pathways to scalability are unclear. We sought to evaluate a scalable pediatric TMDS. A TMDS in Haiti was configured for scalability by triaging severe cases to hospital-level care, nonsevere cases with higher clinical uncertainty to in-person examinations at households, and nonsevere cases with low clinical uncertainty to medication delivery alone. This design was evaluated in a prospective cohort study conducted among pediatric patients 10 years old or younger. Clinical and operational metrics were compared with a formative reference study in which all nonsevere patients received an in-person examination. The primary outcomes were rates of clinical improvement/recovery and in-person care seeking at 10 days. In total, 1,043 cases were enrolled in the scalable TMDS mode, and 19% (190) of nonsevere cases received an in-person examination; 382 cases were enrolled in the reference study, and 94% (338) of nonsevere cases received an in-person examination. At 10 days, rates of improvement were similar for the scalable and reference modes. Rates of participants who sought follow-up care were 15% in the scalable mode and 24% in the reference mode. In the context of a 5-fold reduction of in-person examinations, participants in the scalable mode had noninferior rates of improvement at 10 days. These findings highlight an innovative and now scalable solution to improve early access to health care without compromising safety.

24. HPP 2025;40(7):780-804
Health impact of alcohol regulatory interventions: a systematic review of policies in low- and middle-income countries

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Alcohol consumption poses significant public health challenges globally, with low- and middle-income countries (LMICs) experiencing a substantial burden from alcohol-related harm. However, the effectiveness of interventions to control alcohol consumption in LMICs remains understudied. This paper aims to investigate the effectiveness of alcohol regulatory interventions adopted in LMICs. A systematic search of MEDLINE, EMBASE, CINAHL, PsycINFO, and Web of Science was conducted on 10 August 2024. The search strategy included terms related to regulatory interventions and their impact on alcohol consumption, health, and other related outcomes. Risk of bias was assessed using the National Institutes of Health, Cochrane Effective Practice and Organization of Care checklist, ISPOR-SDMD checklist, and CASP quality assessment tools, and a narrative synthesis was performed to summarize the review findings. Of the 169 full texts screened, 62 studies were included in this review. Most of the studies were conducted in upper-middle-income countries (n = 48, 77%), seven were from lower-middle-income countries, one from a low-income country, and others were combinations of the above. Sixty per cent of the included studies were of good quality. In terms of World Health Organization alcohol policy domains, 18 studies focused on restriction of physical availability, 11 on pricing, 1 on marketing, 21 on drink driving, and 11 on a combination of all policy domains. Alcohol consumption-related outcomes were reported in 26 studies, while health and other outcomes were reported in 25 and 14 studies, respectively. Restrictions on physical availability of alcohol were largely effective across all outcomes, while the pricing policy domain consistently demonstrated effectiveness in reducing alcohol consumption. The scarce evidence on marketing policy interventions was inconclusive; interventions targeting drink driving showed beneficial effects. The available evidence suggests that alcohol control policies are largely effective in LMICs. Further regular and statutory enforcement of these interventions is likely to improve their effectiveness.

25. HPP 2025;40(7):805-8
Crises and complexity: how can we make health interventions succeed?
Mkrtchyan Z et al., Evaluation of Social and Population Health Interventions (ESPHI) Group. Department of Global Health and Development, Faculty of Public Health and Policy, London School of Hygiene and Tropical Medicine, UK <zaruhi.mkrtchyan@lshtm.ac.uk>

The end of the COVID-19 global health emergency presents an opportunity to reflect on actions needed to enhance the effectiveness of responses to any future shocks. We highlight critical areas requiring attention from researchers and research commissioners to enhance the identification and adoption of ‘good value’ interventions, and we discuss the complexities of evidence-informed decision-making across multiple sectors, the evolving role of modeling, and the need for improved stakeholder engagement and institutional coordination to effectively address interconnected health and policy challenges. We conclude the commentary by making a set of related recommendations to support intervention identification and implementation. Researchers, policymakers, and other key stakeholders should: renew efforts to step out of silos and to develop methods and frameworks that link and synthesize evidence from multiple sources and perspectives, to support planetary health goals and the ‘One Health’ concept; support more research into understanding the constraints to adopting interventions regarded as good value for money, to enhance evaluation methods ex ante and to better inform systems and stakeholders of the implementation requirements; and maintain an ongoing commitment to equitable research partnerships to ensure that evidence use is relevant for the target settings.
Key messages
• Recent global public health threats and crises have emphasized long-recognized perspectives on the interconnectedness between human, animal, and environmental health, wealth, and well-being, and on the structural factors that impact on progress in all these areas. Addressing challenges in evidence-informed policymaking impacting across multiple sectors is essential for preventing disease, reducing health inequalities, and ensuring global health security.

• Making decisions on appropriate interventions in this context is necessarily difficult and complex and involves a number of considerations, including the availability of evidence, guidance, the content and context of policies, opportunities for cross-sector collaboration, modeling, institutionalization of effective priority setting frameworks, and the need for equitable partnerships.
• Going forward, to support the effective identification and adoption of good value interventions, we recommend that researchers and research commissioners should:

a. move beyond narrow approaches to inquiry and instead apply multidisciplinary methods and frameworks as part of evidence generation for policy decisions;
b. gain better insight on the challenges affecting the adoption and implementation of cost-effective policies to enhance their uptake and impact; and
c. maintain a strong focus on equitable research partnerships to ensure that evidence is both locally owned and useful for the intended settings.

26. Lancet 2025;406(10502):501-70
The Lancet One Health Commission: harnessing our interconnectedness for equitable, sustainable, and healthy socioecological systems
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(Abbreviated)
Industrialisation, urbanisation, and globalisation have substantially improved human life expectancy over the past century. In tandem, an expanding array of interlinked threats to humans, other animals, plants, and a myriad of other biotic and abiotic elements in our shared ecosystems has been generated. These threats include emerging and re-emerging infectious diseases, antimicrobial resistance (AMR), non-communicable diseases (NCDs), jeopardised food safety and security, freshwater scarcity, climate change, pollution, and biodiversity loss. These pressing health and sustainability challenges exceed the scope of any single discipline, government ministry, or societal sector, underscoring the need for interdisciplinary, transdisciplinary, and multisectoral collaboration, as well as for a socioecologically oriented systems perspective that appreciates the fundamental interconnections between humans, other animals, and the wider ecosystem.
The Commission is guided by a One Health ethos comprising principles of holism and systems thinking, epistemological pluralism, equity and egalitarianism, and stewardship and sustainability. The Commission also engages a socioecological systems perspective that sheds light on the crucial importance of the environment, including plants, soil, water, air, wildlife, biodiversity, and climate. In our approach, we have deliberately avoided boundaries between humans, other animals, and the environment. As reflected in the key messages, the evidence synthesis and appraisal was structured via sections dedicated to surveillance, infectious diseases, AMR, NCDs, health systems, and food systems.
Key messages

- Expanding the One Health concept.

In supporting this expansion, this Commission asserts that One Health is an interdisciplinary, transdisciplinary, and multisectoral approach to addressing pressing global health and sustainability challenges and promoting equitable, sustainable, and healthy socioecological systems.

- The socioecological systems perspective

Socioecological interconnection among humans, other animals, plants, and the wider environment is the foundation of One Health.

- Surveillance

More effective disease surveillance is needed, and can be achieved through an integrated One Health approach.

- Infectious diseases

A One Health approach to infectious diseases must address not only zoonotic diseases of pandemic potential, but also neglected tropical diseases and the effect of infectious animal diseases on the health of livestock, wildlife (terrestrial and aquatic animal, plant, and insect species), companion animals, food systems and nutrition, antimicrobial use, livelihoods, and economic development.

- Antimicrobial resistance

The One Health approach to antimicrobial resistance must emphasise environmental drivers, which this Commission has found to differ across high-income countries and low-income and middle-income countries.

- Non-communicable diseases

A One Health approach to non-communicable diseases enables a systematic understanding and equitable approach to addressing the shared risk factors (eg, environmental pollutants, unhealthy diets, and climate change) and other determinants of health and wellbeing across species and throughout the socioecological system.

- Health systems and health-promoting synergies

A One Health approach to interventions (eg, diagnostics, medicines, vaccines, and similar strategies for promoting health and preventing disease) entails collaboration across two or more sectors and disciplines to harness health-promoting synergies and holistically advance health and wellbeing throughout the socioecological system. Inclusive processes that prioritise community engagement can facilitate context-adapted interventions.

- Food systems

The One Health approach is important for navigating the complexity of food systems challenges, for cultivating unifying values around roles and responsibilities, and, ultimately, for informing and realising the systemic changes that are necessary to deliver food safety and security in globally and intergenerationally equitable ways.

- Governance

For governance, the Commission recommends the integration of One Health within the global, regional, and national governance structures.

- Economics

There is overwhelming evidence supporting the cost-effectiveness of One Health interventions relative to non-One Health alternatives. The Commission calls for a slow, yet radical, paradigm shift in local, national, and international budgetary allocations, innovative financing of One Health initiatives, and novel economic frameworks focused on realising and sustaining healthy socioecological systems.

- Knowledge

The Commission asserts the importance of equitable and inclusive practices of knowledge production, integration, and sharing that yield a diverse cadre of competent professionals and empowered citizens who espouse One Health values and who generate transformative, systemic change for the achievement of sustainable health throughout the socioecological system.

27. Lancet Glob Health 2025;13(8):e1349-e1357

Global, regional, and national health-care inefficiency and associated factors in 201 countries, 1995-2022: a stochastic frontier meta-analysis for the Global Burden of Disease Study 2023

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Background: All governments face pressure to maximise the impact of their health budget. We aimed to measure health spending inefficiency for 201 countries from 1995 to 2022, estimate the cost of one additional year of healthy life, and assess contextual factors associated with health spending inefficiency.

Methods: We extracted data from the Global Burden of Diseases, Injuries, and Risk Factors Study 2023 and the Financing Global Health 2024 project to estimate health spending inefficiency using a non-linear stochastic frontier meta-analysis model designed to assess health-adjusted life expectancy (HALE). This model produced a frontier that represents the best possible HALE for a given level of health spending. Inefficiency scores were measured as the distance between a country's HALE and the frontier at that country's level of spending. We used the slope of the frontier to estimate the cost of one additional year of healthy life, and we regressed inefficiency scores on contextual factors and policy variables to measure their association with health spending inefficiency.

Findings: The relationship between health spending and HALE was positive for all levels of spending, although health spending inefficiency existed in most countries. Globally, health spending inefficiency

decreased from 1995 to 2019, increased considerably in 2020 and 2021 due to the COVID-19 pandemic, and recovered substantially in 2022. We found decreasing returns to additional health spending, with the cost of one additional health-adjusted life-year varying from US$92 (95% uncertainty interval 43-239) per capita for a country spending $100 per capita to $11 213 (8031-57 754) per capita for a country spending $5000 per capita. More efficient spending was associated with better governance, having a higher percentage of health expenditure from the government, infrastructure that facilitates access to and delivery of health care, and higher uptake of preventive care measures.
Interpretation: Expanding government-provided health-care coverage would decrease the inefficiency of the health-care system. Countries should also focus on strengthening democracy, building infrastructure, and increasing the use of, and access to, preventive care.

28. Lancet Glob Health 2025;13(8):e1396-e1405
Effective refractive error coverage in adults: a systematic review and meta-analysis of updated estimates from population-based surveys in 76 countries modelling the path towards the 2030 global target
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Background: In 2024, WHO included effective refractive error coverage (eREC) into the results framework of the 14th General Programme of Work, which sets a road map for global health and guides WHO's work between 2025 and 2028. eREC is a measure of both the availability and quality of refractive correction in a population. This study aimed to model global and regional estimates of eREC as of 2023 and evaluate progress towards the WHO global target of a 40 percentage-point absolute increase in eREC by 2030.
Methods: For this systematic review and meta-analysis, the Vision Loss Expert Group analysed data from 237 population-based eye surveys conducted in 76 countries since 2000, comprising 815 273 participants, to calculate eREC (met need / met need + undermet need + unmet need]) and the relative quality gap between eREC and REC ([REC - eREC] / REC × 100, where REC = [met + undermet need] / [met need + undermet need + unmet need]). An expert elicitation process was used to choose covariates for a Bayesian logistic regression model used to estimate eREC by country-age-sex grouping among adults aged 50 years and older. Country-age-sex group estimates were aggregated to provide estimates according to Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) super-regions.
Findings: Global eREC was estimated to be 65·8% (95% uncertainty interval [UI] 64·7-66·8) in 2023, 6 percentage points higher than in 2010 (eREC 59·8% [59·4-60·2]). There were marked differences in eREC between GBD super-regions in 2023, ranging from 84·0% (95% UI 83·0-85·0) in high-income countries to 28·3% (26·4-30·4) in sub-Saharan Africa. In all super-regions, eREC was lower in females than males, and decreased with increasing age among adults aged ≥50 years. Since 2000, the relative increase in eREC was 60·2% in sub-Saharan Africa, 45·7% in North Africa and the Middle East, 41·5% in southeast Asia, east Asia and Oceania, 40·3% in south Asia, 16·2% in Latin America and the Caribbean, 8·3% in central Europe, eastern Europe and central Asia, and 6·8% in the high-income super-region. The relative quality gap ranged from 2·9% to 78·3% across studies, with larger gaps characteristically in regions of lower eREC. Globally, the percentage of those with a refractive need that was undermet reduced between 2000 and 2023, from 10·0% (95% UI 9·5-10·5) to 5·3% (5·1-5·5).
Interpretation: The current trajectory of improvement in eREC and the relative quality gap are insufficient to meet the 2030 target. Global efforts to equitably increase spectacle coverage, such as the WHO SPECS 2030 initiative, and to address equity failings associated with geography, age, and sex, are crucial to accelerating progress towards the 2030 targets. No region is close to achieving universal coverage.

Mental Health

29. Br J Psychiatry 2025;Jun 27:1-9
Effectiveness of peer support for people with severe mental health conditions in high-, middle- and low-income countries: multicentre randomised controlled trial
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Background: Some trials have evaluated peer support for people with mental ill health in high-income, mainly English-speaking countries, but the quality of the evidence is weak.
Aims: To investigate the effectiveness of UPSIDES peer support in high-, middle- and low-income countries.
Method: This pragmatic multicentre parallel-group wait-list randomised controlled trial (registration: ISRCTN26008944) with three measurement points (baseline and 4 and 8 months) took place at six study sites: two in Germany, and one each in Uganda, Tanzania, Israel and India. Participants were adults with long-standing severe mental health conditions. Outcomes were improvements in social inclusion (primary) and empowerment, hope, recovery, health and social functioning (secondary). Participants allocated to the intervention group were offered UPSIDES peer support.
Results: Of the 615 participants (305 intervention group), 337 (54.8%) identified as women. The average age was 38.3 (s.d. = 11.2) years, and the mean illness duration was 14.9 (s.d. = 38.4) years. Those allocated to the intervention group received 6.9 (s.d. = 4.2) peer support sessions on average. Intention-to-treat analysis showed effects on two of the three subscales of the Social Inclusion Scale, Empowerment Scale and HOPE Scale. Per-protocol analysis with participants who had received three or more intervention sessions also showed an effect on the Social Inclusion Scale total score ($\beta = 0.18$, $P = 0.031$, 95% CI: 0.02-0.34).
Conclusions: Peer support has beneficial impacts on social inclusion, empowerment and hope among people with severe mental health conditions across diverse settings. As social isolation is a key driver of mental ill health, and empowerment and hope are both crucial for recovery, peer support can be recommended as an effective component of mental healthcare. Peer support has the potential to move global mental health closer towards a recovery- and rights-based orientation.

30. Lancet Glob Health 2025;13(8):e1484-e1488
Integrating mental health care to reduce intimate partner violence in complex humanitarian emergencies
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The public health burden of intimate partner violence (IPV) is immense, particularly in complex humanitarian emergencies, where up to three in four women report experiencing lifetime IPV. Informed by feminist theory, current interventions addressing IPV in these settings often use gender-transformative approaches to advance more equitable gender attitudes, community mobilisation efforts to engage men in changing gender norms, and economic-focused programming to advance equitable financial decision making within couples. In this Viewpoint, we argue that feminist-grounded efforts to reduce IPV might benefit from incorporating interventions specifically targeted towards improving mental health. Taking settings affected by armed conflict as an example, we reflect on the utility of integrating mental health interventions into IPV programming and highlight three innovations and approaches to advance these efforts. Fundamentally, we aim to support researchers' and interventionists' incorporation of mental health care into gender-transformative programming in a robust manner, to reduce the burden of IPV in complex humanitarian emergencies.

Non-Communicable Diseases

31. JAMA Cardiol 2025;Aug 30:e253377
Prevalence, Determinants, and Time Trends of Cardiovascular Health in the WHO African Region
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Importance: The distribution and determinants of cardiovascular health (CVH) in the World Health Organization (WHO) African Region have been limited to single-country studies.

Objective: To estimate the distribution and determinants of CVH score in the WHO African Region, which comprises Algeria and countries in Sub-Saharan Africa. The secondary objective was to estimate time trends in CVH over 20 years.
Design, setting, and participants: This study constituted repeated nationwide and subnational cross-sectional WHO STEPS (STEPwise Approach to Noncommunicable Disease Risk Factor Surveillance) surveys from 2003 to 2022 in 22 countries in the WHO African Region. Participants included nonpregnant adults aged 18 to 69 years without known cardiovascular disease (CVD).
Exposures: Individual factors (age, sex, education level, and marital status) and contextual data from the United Nations Development Programme and the World Bank databases.
Main outcomes and measures: The primary outcome was the weighted prevalence of the Life's Simple 7 score categories (0-7, 8-11, and 12-14 indicating poor, intermediate, and ideal CVH, respectively) and the factors associated with CVH status.
Results: The study population included 73 024 individuals free of CVD (mean [SD] age, 35.4 [12.9] years; 49 505 female [weighted, 49.4%]) and representing 95 million people across 22 countries and 25 surveys. The weighted prevalence of ideal, intermediate, and poor CVH was 26.2% (95% CI, 25.7%-28.0%), 57.9% (95% CI, 54.8%-59.0%), and 15.9% (95% CI, 15.1%-17.0%), respectively. Older age, female sex, lower education, and heavy alcohol consumption were associated with lower odds of achieving intermediate or ideal CVH scores (females vs males: odds ratio [OR] for intermediate CVH, 0.77; 95% CI, 0.67-0.89; OR for ideal CVH, 0.80; 95% CI, 0.64-0.92; ages 55-69 vs 18-25 years: OR for intermediate CVH, 0.14; 95% CI, 0.10-0.20; OR for ideal CVH, 0.06; 95% CI, 0.04-0.09; no education vs tertiary: OR for ideal CVH, 0.63; 95% CI, 0.43-0.92; heavy episodic drinking vs nondrinking: OR for ideal CVH, 0.51; 95% CI, 0.39-0.67). Country-level contextual factors, particularly higher mean years of schooling (β = 0.24; 95% CI, 0.17-0.32), higher education percentage (β = 0.01; 95% CI, 0-0.02), and higher prevalence of undernourishment (β = 3.14; 95% CI, 0.63-5.65), were associated with higher CVH scores. The spatial-temporal model did not reveal any statistically significant trend in the weighted prevalence of CVH score categories between 2003 and 2022, overall and by sex.
Conclusions and relevance: This situational analysis of cross-sectional WHO STEPS surveys of CVH status region identified actionable factors of the CVH status across 22 countries in the WHO African Region. This information is crucial for guiding policy efforts in CVD prevention in countries of the WHO African Region.

32. Lancet 2025;406(10504):731-78
The Lancet Commission on addressing the global hepatocellular carcinoma burden: comprehensive strategies from prevention to treatment
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(Abbreviated)
Liver cancer is the sixth most common cancer and the third leading cause of cancer-related mortality globally. The number of new liver cancers will nearly double, from 0·87 million in 2022 to 1·52 million in 2050, if there is no change in the current trend. Hepatocellular carcinoma, the most prevalent histological subtype of liver cancer, accounts for approximately 80% of all primary liver cancers. In response to this issue, a Commission comprising a broad spectrum of experts in clinical medicine and public health was established with the primary objective of addressing the rising disease burden of hepatocellular carcinoma. We undertook a systematic process of idea generation, literature review, evidence scoping, novel data synthesis, and modelling, as well as case study analysis to underscore the urgent need for global action against hepatocellular carcinoma.
First, we present the new finding that an annual reduction of at least 2% in the age-standardised incidence rate (ASIR) is required to stop the rising burden of new cases of liver cancer.
Second, our new analysis shows that hepatitis B virus (HBV) will remain the leading cause of liver cancer in 2050, although its proportion is expected to reduce from 39·0% in 2022 to 36·9% in 2050. Similarly, the proportion of liver cancer cases caused by hepatitis C virus (HCV) will decline from

29·1% in 2022 to 25·9% in 2050. In contrast, both alcohol use and metabolic dysfunction-associated steatohepatitis (MASH) are anticipated to increase as causes between 2022 and 2050, with alcohol use accounting for 21·1% of liver cancer cases and MASH for 10·8% of liver cancer cases. These data suggest that preventive measures targeting a comprehensive number of risk factors for hepatocellular carcinoma are sorely needed.
Third, we estimated that at least 60% of liver cancers are preventable via control of modifiable risk factors, including HBV, HCV, metabolic dysfunction-associated steatotic liver disease (MASLD), and alcohol.
Based on new data and existing evidence, we identified the current challenges for addressing the hepatocellular carcinoma burden and formulated ten recommendations.
These recommendations concern:

- Strengthening viral hepatitis prevention, screening, and treatment
- Reduction of alcohol consumption
- Control of environmental risk factors
- Preparing for the increase in MASLD and MASH
- Raising awareness of liver health
- Improving early HCC detection (hepatocellular carcinoma)
- Standardisation of non-invasive diagnosis of HCC
- Addressing the East–West differences in clinical management
- Improving HCC survivorship
- Facilitating access to treatment

33. Lancet Glob Health 2025;13(7):e1191-e1202
The burden of stroke, ischaemic heart disease, and dementia in Africa, 1990-2021: an ecological analysis of the Global Burden of Disease 2021
Avan A et al., Robarts Research Institute, University of Western Ontario, London, ON, Canada

Background: Stroke, ischaemic heart disease, and dementia share risk factors and influence one another, substantially affecting brain health. Limited health-care resources in Africa might exacerbate the burden of these diseases, with serious brain health consequences. We analysed trends from 1990 to 2021 to inform optimised prevention strategies.
Methods: Using The Global Burden of Diseases, Injuries, and Risk Factors Study 2021 data, we assessed the burden of these conditions, measured by disability-adjusted life-years (DALYs) lost attributed to 12 risk factors, and their changes from 1990 to 2021. Bayesian modelling generated means and 95% uncertainty intervals (UIs) based on the 2·5th and 97·5th percentiles of 500 posterior distribution draws.
Findings: In Africa in 2021, 17·3 (95% UI 15·5-19·2) million DALYs were lost due to strokes, 17·6 (15·5-19·6) million were lost due to ischaemic heart diseases, and 1·8 (0·8-4·0) million were lost due to dementia. New and prevalent cases doubled from 1990 to 2021, with two-thirds of DALYs occurring before age 70 years. Among five continents, Africa had the highest age-standardised DALY rates per 100 000 population for stroke (2628·1 [2367·4-2893·0]) and ischaemic heart disease (2743·5 [2451·8-3033·6]), and the lowest for dementia (423·4 [190·6-934·6]). Regionally, central and southern Africa showed higher stroke DALY rates, northern Africa had the highest rates for ischaemic heart disease, and central and northern Africa had the highest rates for dementia. Among 12 modifiable risk factors, high systolic blood pressure, unhealthy diet, and air pollution contributed most to DALYs. Stroke DALYs rose prominently due to high BMI, high fasting plasma glucose, high LDL cholesterol, low physical activity, and high systolic blood pressure.
Interpretation: Africa faces substantial challenges from stroke, heart disease, and dementia, including the highest DALY rates globally, with worsening trends over the past three decades, including younger ages of onset. These patterns, coupled with limited health resources, necessitate urgent and targeted strategies to protect, preserve, and promote brain health in Africa.

See also on this topic:
* Lancet Glob Health 2025;13(8):e1406-e1414

The burden of cardiovascular events according to cardiovascular risk profile in adults from high-income, middle-income, and low-income countries (PURE): a cohort study
Leong DP

Interpretation: To achieve a substantial population-level reduction in cardiovascular disease, a fundamental change is needed, so that preventive strategies for cardiovascular disease extend beyond those at high or even intermediate predicted risk to include those at considered to be at low risk.

34. Lancet Glob Health 2025;13(8):e1378-e139
Global, regional, and national prevalence of kidney failure with replacement therapy and associated aetiologies, 1990-2023: a systematic analysis for the Global Burden of Disease Study 2023
GBD 2023 Kidney Failure with Replacement Therapy Collaborators

Background: Kidney failure with replacement therapy (KFRT) such as dialysis or transplantation represents a severe stage of chronic kidney disease (CKD) and poses a major global health burden. Although many CKD cases are diagnosed in the earlier stages, the greatest risk occurs when CKD progresses to KFRT. Despite its considerable financial and imposing impact on public health, there is a notable gap in international policies addressing CKD and KFRT. To bridge this gap and help policy makers and health systems effectively tackle the public health challenge of KFRT, a better understanding of the disease burden is essential. Thus, this analysis aims to provide a detailed overview of the global prevalence of KFRT and its associated aetiologies with estimates from the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) from 1990 to 2023.
Methods: This study defined KFRT as individuals on maintenance dialysis for 90 days or more or those who have undergone a kidney transplant, aligning with the Kidney Disease: Improving Global Outcomes (KDIGO) 2024 Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease. Renal registries served as the primary data sources. Prevalence and underlying aetiology estimates (type 1 diabetes, type 2 diabetes, hypertension, glomerulonephritis, and other causes) were generated with DisMod-MR 2.1, an epidemiological Bayesian mixed-effects meta-regression modelling tool. Both all-age and age-standardised estimates were reported and accompanied with 95% uncertainty intervals (UIs).
Findings: In 2023, the number of global cases of KFRT was 4·59 million (95% UI 4·17-5·08) for both sexes and all ages, with an age-standardised prevalence of 50·7 (46·1-56·0) per 100 000 population. Over the past three decades, there has been a steady increase in KFRT prevalence globally. The highest prevalence was found in the GBD high-income regions, while the lowest was observed in sub-Saharan Africa. KFRT prevalence was generally higher in countries classified within the World Bank's high-income and upper-middle-income groups, while lower prevalence was more common in countries within the World Bank's low-income and lower-middle-income groups. Additionally, a pronounced sex disparity was identified, where male dialysis and transplant prevalence estimates were consistently higher than those for females in most countries. Type 2 diabetes and hypertension were among the leading associated aetiologies of KFRT globally. From 1990 to 2023, the all-age and age-standardised prevalence estimates across the ascribed aetiologies increased for KFRT, with the largest increases associated with type 2 diabetes and hypertension.
Interpretation: KFRT affects approximately 5 million people globally, with high treatment and mortality costs. Our study unveiled considerable geographical variation in KFRT prevalence, which should be seen as indicators of health-care system opportunities. As the prevalence of the leading aetiologies of KFRT-type 2 diabetes and hypertension-continues to rise, there is a crucial need to prioritise the development and implementation of cost-effective strategies aimed at preventing CKD and its progression to KFRT, particularly in low-resource settings. These preventive efforts must happen in tandem with efforts to expand capacity for dialysis and transplant services.

35. PLoS Med 2025;22(6): e1004632
Community health worker–facilitated telehealth for moderate–severe hypertension care in Kenya and Uganda: A randomized controlled trial
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Background. Hypertension is underdiagnosed and undertreated in sub-Saharan Africa. Improving hypertension treatment within primary health centers can improve cardiovascular disease outcomes; however, individuals with moderate–severe hypertension face additional barriers to care, including the need for frequent clinic visits to titrate medications. We conducted a pilot study to test whether a clinician-driven, community health worker (CHW)–facilitated telehealth intervention would improve hypertension control among adults with severe hypertension in rural Uganda and Kenya.
Methods and findings. We conducted a pilot randomized controlled trial (RCT) of hypertension treatment delivered via telehealth by a clinician (adherence assessment, counseling, decision-making) and facilitated by a CHW in the participant's home, compared to clinic-based hypertension care (NCT04810650). We recruited adults ≥40 years with BP ≥ 160/100 mmHg at household screening by CHWs, with no restrictions by HIV status. After initial evaluation at the clinic, participants were randomized to telehealth or clinic-based hypertension follow-up. Randomization assignment was not blinded, except for the study statistician. All participants were treated using standard country guideline-based antihypertensive drugs. The primary outcome was hypertension control at 24 weeks (BP < 140/90 mmHg). We also assessed hypertension control at 48 weeks. In intention-to-treat analyses, we compared outcomes between randomized arms with targeted minimum loss-based estimation using sample-splitting to select optimal adjustment covariates (candidates: age, sex, baseline hypertension severity, and country). We screened 2,965 adults ≥40 years, identifying 266 (9%) with severe hypertension and enrolling 200 (98 telehealth arms, 102 clinic arms). Participants were 67% women, median age of 62 years (Q1–Q3 51–72); 14% with HIV. Week 24 blood pressure was measured in 96/99 intervention and 99/102 control participants; week 24 hypertension control was 77% in telehealth and 51% in clinic arms (risk difference (RD) 26%, 95% confidence interval (CI) [14%, 38%], $p < 0.001$). Week 48 hypertension control was 86% in telehealth and 44% in clinic arms (RD 42%, 95% CI [30%, 53%], $p < 0.001$). Three participants died (telehealth: 2, clinic: 1); all deaths were unrelated to the study interventions. Our study was limited by its small sample size, although findings are strengthened by being conducted in three primary health centers across two countries.
Conclusion. In this pilot, RCT, clinician-driven, CHW-facilitated telehealth for hypertension management improved hypertension control and reduced severe hypertension compared to clinic-based care. Telehealth focused on individuals with moderate–severe hypertension is a promising approach to improve outcomes among those with the highest risk for CVD.

Ophthalmology

36. Br J Ophthalmol 2025;Aug 18:bjo-2025-327776
Global trends in cataract burden: a 30-year epidemiological analysis and prediction of 2050 from the Global Burden of Disease 2021 study
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Background/aims: Cataracts remain the leading cause of global blindness, particularly among ageing populations. This study evaluates the evolving burden of cataracts from 1990 to 2021, examines gender and socioeconomic disparities, assesses key risk factors and projects trends to 2050.
Methods: Data from the Global Burden of Disease 2021 database were systematically analysed across 204 countries, 21 regions and 5 sociodemographic index (SDI) levels. Indicators, including cataract prevalence, age-standardised prevalence rates, disability-adjusted life-years (DALYs) and age-standardised DALY rates (ASDR), were assessed. Decomposition analysis quantified the impacts of population growth, ageing and healthcare improvements, while Bayesian age-period-cohort models forecast trends to 2050. Joinpoint regression identified temporal trends, and health inequality metrics evaluated disparities. Risk factor contributions, such as air pollution, high BMI and metabolic risks, were also analysed.
Results: Global cataract prevalence increased significantly due to aging and population growth, while ASDR decreased, reflecting improved disease management. Disparities persist, with South Asia and sub-Saharan Africa bearing the highest burden due to limited surgical access, and females consistently

exhibiting higher cataract burdens. Key contributors included air pollution and metabolic disorders, particularly in low-SDI regions. Predictions indicate a continued rise in global cataract cases and DALYs by 2050 under current demographic and epidemiological trends.
Conclusions: This study highlights persistent inequities in cataract burden and underscores the urgent need for tailored prevention, equitable surgical access and policies addressing ageing populations and modifiable risks to manage the rise in global cataract cases by 2050. Future policies should focus on improving surgical accessibility in low-SDI regions, enhancing chronic disease prevention and leveraging technological advancements for early detection and treatment.

37. HPP 2025;40(7):696-707
Integrating eye health into a child health policy in Tanzania: global and national influences
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Global consensus has shifted to focus on how children can be supported to not only 'survive' but to 'thrive'. Blindness and visual loss in early childhood undermine a child's ability to thrive, affecting psychomotor, cognitive, and social development leading to life-long consequences for educational attainment, employment, economic and social status, and wellbeing. Despite this, eye health for children under the age of 5 years has been neglected, and not politically prioritized. In Tanzania, policy makers decided in 2019 to include eye conditions in the national Integrated Management of Newborn and Childhood Illness (IMNCI) programme, despite eye health not being part of the global World Health Organization/UNICEF IMNCI strategy. We conducted a qualitative policy analysis to explore enabling factors and barriers to this policy change. The interviews were semi-structured with key actors selected purposively and by snowball sampling, including those with a role in child and eye health at national and global levels. We used an adapted Shiffman and Smith framework (Generation of political priority for global health initiatives: a framework and case study of maternal mortality. Lancet 2007;370:1370–9) to guide the interviews and analysis, and the Consolidated Criteria for Reporting Qualitative Research for planning and reporting. This study shows how rapidly one country altered its overall child health policy to include eye health, driven by good quality collaborative research and collective action (cohesive policy community) which importantly included co-design with the decision makers (Ministry of Health actors). These developments coincided with the shift in the international agenda moving from 'survive to thrive' in child health which was leveraged to include eye care in the national strategy.

Sexual Reproductive Health and Rights

38. BMJ Global Health 2025;10:e019030
Self-care interventions for sexual and reproductive health: a strategic health systems investment
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Self-care interventions for sexual and reproductive health (SRH), including HIV self-testing, self-injected contraception and self-managed abortion, offer promising pathways to advance universal health coverage, particularly in low- and middle-income countries. While often framed as cost-saving measures, this paper argues that self-care should be understood as a strategic investment in health system performance. Drawing on costing and financing analyses and previous literature, we explore how self-care interventions can enhance efficiency, resilience and equity of health systems. We propose a costing framework that outlines cost components across development, implementation and scale-up, emphasising both system and individual-level considerations. We argue that sustainable scale-up of self-care requires diversified financing models, including tax-based funding, insurance mechanisms and reduced out-of-pocket costs for users. Successful integration also demands governance structures that prioritise quality, equity and continuity of care. By reframing self-care as a health system investment rather than a cost-containment tool, policymakers can better harness its potential to improve access, reduce burden on facilities and empower individuals in managing their health. Self-care interventions for SRH, when embedded within broader health system strengthening

efforts, have the potential to be transformative for SRH outcomes and for progressing towards universal health coverage.

39. BMJ Global Health 2025;10:e019102
Barriers to improving preterm newborn outcomes through effective antenatal corticosteroid use in Ethiopia
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Ethiopia has prioritised high-impact interventions to reduce neonatal deaths, including antenatal corticosteroids (ACS) utilisation. However, effective ACS use has faced various challenges. We used multiple data sources to examine the current landscape of ACS use in Ethiopia and to elucidate barriers to effective ACS utilisation, including a review of national obstetric guidelines over the past decade, a review of literature, and a descriptive analysis of health facility data.
National obstetric protocols recommend administering ACS in both hospitals and health centres. However, ACS remains substantially underused. The 2016 Ethiopian Emergency Obstetric and Newborn Care Assessment reported that only 5% of preterm infants were born to women who had received corticosteroids before delivery. At the health facility level, the 2021 Ethiopian Service Provision Assessment survey showed that only 22.1% of facilities providing antenatal care and delivery services had administered ACS in the past 3 months, and 44.7% of facilities had injectable corticosteroids in stock at the time of the survey. Notably, private clinics had both the lowest corticosteroid availability (16.9%) and utilisation rate (2.8%).
We identified several barriers to effective ACS use, including healthcare service delivery organisation, gaps in healthcare providers' knowledge and skills (particularly at the primary healthcare level and in private facilities), challenges in accurate gestational age assessment resulting from limited access to early ultrasound and late initiation of antenatal care, and insufficient corticosteroid availability. Increasing ACS uptake alone is unlikely to have the desired population benefits without considering health service delivery redesign and integration with other life-saving maternal and newborn health interventions.

40. Bull WHO 2025;103(9):518–518A
Efforts to implement WHO recommendations on antenatal, intrapartum and postnatal care
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Maternal and perinatal morbidity and mortality remain unacceptably high. Many countries will fall short of achieving sustainable development goal targets on maternal and neonatal mortality, resulting in many women and newborns facing life-threatening conditions and sequelae. In 2024, the World Health Assembly reaffirmed that high-quality antenatal care, intrapartum care and postnatal care are fundamental to the health and well-being of women and their newborns, and critical for reducing preventable maternal, fetal and neonatal deaths and complications.
The World Health Organization (WHO) continuously updates and publishes recommendations for improving maternal and newborn care. These recommendations mainly focus on provision of high-quality care, ensuring a positive experience throughout pregnancy, childbirth and the postnatal period. They highlight maternal well-being and mental health; prevention and screening strategies; breastfeeding and nurturing care for newborns; better preparation for discharge and transition to self-care and family care in the home after birth; strengthened health systems and workforce; and integrated service delivery. Yet, implementation remains uneven. In many settings, demand for and coverage of high-quality antenatal, intrapartum and postnatal care remains low, and recommended practices are not consistently reflected in local guidelines and clinical practice. In response to country requests for technical and implementation support, WHO has developed a suite of implementation tools to bridge this gap. These tools support translation of global recommendations into context-appropriate policies, guidelines, programmes and practices.

Two WHO toolkits aim to facilitate the adoption, adaptation and implementation of routine antenatal, intrapartum and postnatal care recommendations. The Toolkit for adaptation of the WHO recommendations for a positive pregnancy and postnatal experience supports countries in developing or updating national and subnational guidelines, and integrated country-specific intervention packages of antenatal and postnatal care. This toolkit encourages integration of services within existing health systems and alignment with community preferences and legal frameworks, including wider legislation beyond essential services, such as birth registration, parental protections and regulation against the marketing of breastmilk substitutes. The Toolkit for implementation of the WHO intrapartum care and immediate postnatal care recommendations in health-care facilities offers guidance for facility-level change. This second toolkit draws on implementation and behavioural science to support managers and health workers to identify priority practices and influencing factors, and to apply strategies likely to successfully change behaviours.
Both toolkits were co-developed with stakeholders from policy, programme, clinical and implementation backgrounds at global, regional and country levels. The toolkits orient users through a participatory, stepwise process to identify national or subnational adaptation needs and implementation enablers and barriers, and to select and implement priority actions to improve the demand, uptake and provision of high-quality maternal and newborn health services. Each toolkit includes a user guide with structured steps, and for each step a set of resources to complete baseline assessments and identify obstacles and enablers, summaries of evidence, case examples and recommended indicators aligned with global monitoring frameworks. Although these tools provide specific guidance for essential care during pregnancy, childbirth and the postnatal period, the processes proposed could also be followed when preparing for implementation of recommendations for management of maternal and newborn complications or recommendations related to other health domains.
In addition, digital adaptation kits for antenatal and postnatal care are now available to support the integration of WHO's recommendations into digital systems. These kits enable translation of guidance into electronic platforms, facilitating the implementation of the country-adapted intervention packages. The digital adaptation kits are foundational components in translating WHO recommendations to existing or newly developed digital systems, which in turn support health workers through decision support and longitudinal patient tracking. Digital adaptation kits can also support linkages to other services such as immunization and family planning, as well as birth notifications. A digital adaptation kit for intrapartum care is under development to support quality of care and data flows across the maternal and newborn health continuum.
The way forward depends on international, national and subnational government and stakeholder commitment to improving use and provision of high-quality maternal and newborn health services. To accelerate progress, countries can adapt and implement WHO's maternal and newborn care recommendations using these tools. The tools offer a practical path forward, bridging the gap between global guidance, national programmes and local practices, leading to improved health outcomes for women and newborns in the context of universal health coverage and human rights-based approaches.

41. Lancet 2025;405(10497):2302-12
Community-based mentoring to reduce maternal and perinatal mortality in adolescent pregnancies in Sierra Leone (2YoungLives): a pilot cluster-randomised controlled trial
Turienzo CF et al., Department of Women and Children's Health, School of Life Course and Population Sciences, Faculty of Life Sciences and Medicine, King's College London, London, UK <cristina.fernandez_turienzo@kcl.ac.uk> CRIBS Collaborative Group

Background: Sierra Leone has very high maternal and neonatal mortality rates, and a large proportion of these deaths occur in adolescents, a particularly vulnerable group, and is usually driven by poverty, lack of education, and sparse employment opportunities. We evaluated the feasibility and potential effects of a community-based mentoring intervention from pregnancy up to 1 year after birth to inform a subsequent larger trial aiming to reduce mortality among adolescent girls and their newborns (2YoungLives).
Methods: We conducted a parallel-arm, pilot, hybrid implementation-effectiveness cluster randomised controlled trial of the introduction of the 2YoungLives intervention as an adjunct to maternity care in

rural and urban communities served by 12 peripheral health units in five districts of Sierra Leone. Clusters were randomly allocated 1:1. All pregnant adolescent girls aged younger than 18 years living in those cluster communities and presenting for maternity care were eligible. The primary outcome was a composite of maternal and perinatal deaths (including stillbirths and neonatal deaths), assessed in all randomly allocated participants who remained in follow-up. The trial was prospectively registered (ISRCTN32414369).
Findings: Between July 4, 2022, and Nov 30, 2023, 673 girls were included in the trial; six clusters with 372 girls were allocated to 2YoungLives (intervention group; 361 included in primary analysis) and six clusters with 301 girls were allocated to the control group (279 included in primary analysis). Loss to follow-up accounted for less than 10% in both groups. The incidence of the primary composite outcome by intention to treat was significantly lower in the intervention group (23 [6%] of 361 compared with 35 [13%] of 279 in the control group [adjusted risk ratio 0·52, 95% CI 0·34 to 0·81, p=0·0034; risk difference -0·05%, 95% CI -0·10 to -0·01]). The number needed to treat with 2YoungLives to prevent one maternal or perinatal death was 18 (95% CI 10 to 92).
Interpretation: 2YoungLives, a community-based mentoring intervention for adolescent girls from pregnancy up to 1 year after birth, was feasible to implement in urban and rural communities in Sierra Leone and significantly reduced a composite of maternal deaths, stillbirths and neonatal deaths.

42. Lancet Glob Health 2025;13(8):e1415-e1424
Prophylactic strategies for prevention of postpartum haemorrhage in caesarean delivery: a systematic review and Bayesian network meta-analysis of randomised controlled trials
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Background: Postpartum haemorrhage is a leading cause of maternal mortality, particularly in low-income and middle-income countries. Several pharmacological agents, such as oxytocin, ergot alkaloids, prostaglandins, and tranexamic acid, have been used prophylactically to prevent postpartum haemorrhage. However, the optimal prophylactic regimen and the comparative efficacy of these agents and their combinations have not been fully elucidated for individuals undergoing caesarean delivery. We aimed to conduct a network meta-analysis to assess different agents for postpartum haemorrhage prophylaxis in caesarean deliveries.
Methods: In this systematic review and meta-analysis, we conducted a Bayesian network meta-analysis of randomised controlled trials (RCTs) evaluating the relative effectiveness of different prophylactic agents and their combinations for postpartum haemorrhage in caesarean deliveries. We searched MEDLINE, the Cochrane Central Register of Controlled Trials, Embase, and Web of Science from database inception to Nov 7, 2023, for RCTs that enrolled adult pregnant women (ie, older than 18 years) undergoing a caesarean delivery; compared prophylactic strategies (monotherapy or combination drug therapy) with placebo or another active prophylactic regimen; administered prophylactic strategies of any parenteral dosage or regimen systemically before surgical incision or immediately after birth for preventing postpartum haemorrhage; and reported our prespecified endpoints of interest. Quasi-randomised trials, trials evaluating prophylactic strategies exclusively comparing different dosages, routes, or regimens of the same prophylactic agent, trials that included vaginal delivery, single-arm studies, conference abstracts, studies not published in English, and studies with overlapping populations were excluded. Ten authors reviewed study reports and supplementary materials and extracted the data. Two authors performed these tasks independently for each study. For data reported in graphical format, extraction was performed with graph digitising web software. The primary outcome was postpartum haemorrhage (ie, blood loss of ≥1000 mL following caesarean delivery). We fitted a Bayesian random-effects network meta-analysis model to compare multiple regimens simultaneously, with results presented as risk ratios (RRs) and their respective 95% credible intervals (CrIs). Only strategies reported by two or more studies were included in the network. If a prophylactic strategy was reported by only one study, it was included if at least 1000 patients were allocated in each study group. We also synthesised head-to-head RCTs separately to assess differences between regimens with league tables. To assess the hierarchy of treatments based on efficacy, we estimated surface under the cumulative ranking curve (SUCRA) probabilities. This review is registered at PROSPERO, CRD42023488236.

Findings: The search strategy yielded 3339 studies. After removing duplicates, 2241 studies remained, of which a total of 2022 were excluded on the basis of title or abstract screening. After full-text review, 167 RCTs (with 44 817 patients) evaluating monotherapy with or various combinations of oxytocin, carbetocin, carboprost, ergot alkaloids, misoprostol, and tranexamic acid were included in the final analysis. Across all 167 studies, 12 868 patients received oxytocin monotherapy, 5849 patients received tranexamic acid monotherapy, 2964 patients received carbetocin monotherapy, 1773 patients received misoprostol monotherapy, and 100 patients received carboprost monotherapy. The most common combination therapy was tranexamic acid plus oxytocin (n=5331) followed by misoprostol plus oxytocin (n=2983). Oxytocin plus tranexamic acid (RR 0·44 [95% CrI 0·33-0·58]) and carbetocin (0·54 [0·37-0·74]) were the only interventions that were more effective than oxytocin alone in reducing postpartum haemorrhage. Oxytocin plus tranexamic acid ranked as the most effective intervention for postpartum haemorrhage prophylaxis with a SUCRA probability value of 0·85. Most prophylactic combinations reduced intraoperative blood transfusions and the need for additional uterotonics. Two maternal deaths were reported among 29 412 patients. No significant heterogeneity was detected for postpartum haemorrhage (I2=6%), blood transfusion (I2=0%), and additional uterotonics (I2=7%).
Interpretation: Carbetocin alone and oxytocin plus tranexamic acid were superior to oxytocin monotherapy for preventing postpartum haemorrhage in caesarean deliveries. Oxytocin plus tranexamic acid ranked as the most effective intervention for postpartum haemorrhage prevention. These results are crucial in highlighting the comparative efficacy and hierarchy of prophylactic agents for postpartum haemorrhage prevention, especially given the widespread availability and low cost associated with oxytocin and tranexamic acid.

43. PLoS Glob Pub Health 2025;5(9):e0004229
How maternal morbidities impact women's quality of life during pregnancy and postpartum in sub-Saharan Africa and South Asia: A qualitative study
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Maternal morbidities present a major burden to the health and well-being of childbearing women. However, their impacts on women's functional health are not well understood. This work aims to describe how maternal morbidities affect women's quality of life (QoL) in pregnancy and the postpartum period . This qualitative study involved 118 pregnant and 135 postpartum women at six study sites in Kenya, Ghana, Zambia, Pakistan, and India. Data were collected between December 2023 and June 2024. Participants were selected via purposive sampling, with consideration of age, trimester, and time since delivery. A total of 23 focus group discussions with pregnant and late postpartum (≥6 months) participants and 48 in-depth interviews with early postpartum (≤6 weeks) participants were conducted using semi-structured guides. Data were analyzed using a collaborative, inductive, thematic approach. Four overarching themes were identified and were cross-cutting irrespective of continent or country : (1) physical and emotional challenges pose a barrier to daily activities; (2) lack of social support detracts from women's QoL; (3) receipt of social support mitigates adverse impacts of maternal morbidities on QoL; and (4) economic challenges exacerbate declines in women's QoL during pregnancy and postpartum. Physical and emotional morbidities related to childbearing severely limited women's ability to complete daily tasks and adversely impacted their perceived QoL. Social and financial support from the baby's father, family and/or in-laws, community members, and healthcare providers are important to mitigate the impacts of pregnancy and postpartum challenges on women's health and well-being.

44. TMIH 2025;30(8):812-22
Identification of gaps in the continuum of maternal and neonatal care in a high-mortality setting: An observational study in rural Guinea-Bissau
Damerow SM et al., Bandim Health Project, INDEPTH Network, Bissau, Guinea-Bissau

Objectives: Coverage of the continuum of maternal and neonatal care, including antenatal care (ANC), childbirth and early postnatal care (PNC), is critically low across sub-Saharan Africa. Meanwhile,

related monitoring remains neglected. We quantified coverage gaps along the continuum of maternal and neonatal care in rural Guinea-Bissau and assessed background factors associated with continuum-of-care completion.
Methods: In a cross-sectional study using data from the Bandim Health Project's nationally representative rural health and demographic surveillance system (HDSS), we assessed individual-level obtainment of ≥1, ≥4 and ≥8 ANC contacts (ANC1/4/8), facility-based childbirth and PNC within 24 h postpartum for HDSS-registered births between 1 February 2023 and 31 January 2024. Among facility births, we also assessed postpartum admission ≥24 h. We defined continuum-of-care completion as the obtainment of ANC4, facility-based childbirth and PNC within 24 h and investigated associations between background factors (household assets, maternal age, education, parity, region, ethnicity, health facility distance and recall time) and continuum-of-care completion in regression models.
Results: Among 2258 births, 35% (n = 798) completed the continuum of care; 22% (n = 494) obtained none of the contributing services. Individual service coverage ranged from 6% (ANC8, n = 128) to 99% (ANC1, n = 2236). Individual coverage of the services included in the continuum-of-care assessment was 62% (n = 1403) for ANC4, 56% (n = 1268) for facility-based childbirth and 52% (n = 1167) for PNC. Continuum-of-care completion differed by region and ethnicity. Living near a health facility, higher maternal education, more household assets, low parity and longer recall time were associated with higher continuum-of-care completion.
Conclusions: Continuum-of-care completion is low in rural Guinea-Bissau and not fully reflected by individual coverage indicators. This calls for a higher focus on continuum-of-care coverage and related gaps, both locally and globally. Meanwhile, the identified higher reporting of continuum-of-care completion with longer maternal recall questions the use of survey data and beckons for monitoring based on timely routine data.

Miscellaneous

45. BMC Med Educ 2025;25(1):663
Dutch post-graduate training in Global Health and Tropical Medicine: a qualitative study on graduates' perspectives
Tiggelaar IG et al., Vrije Universiteit Amsterdam, Amsterdam, the Netherlands <isabelletiggelaar@gmail.com>

Introduction: The Dutch Medical Doctor-Global Health (MD-GH) prepares to work in low-resource settings (LRS) by completing a hybrid postgraduate training program of 2 years and 9 months, with clinical and public health exposure in the Netherlands and a Global Health residency in LRS. The objectives of the program include acquiring clinical skills to work as a physician in a setting with different (often more severe) pathology and limited resources. In public health teaching, emphasis is given, among other, to adapting to a culturally different environment. After graduation, MD-GH work in a wide variety of countries and settings for variable time. As part of a curriculum review, this study examines MD-GHs' perception of the quality of the training program and provides recommendations for improvement.
Methods: A qualitative study was performed. Thematic analysis was applied to semi-structured interviews with 23 MD-GH who graduated between 2017 and 2021.
Results: MD-GHs predominantly worked as clinicians; several were (also) involved in management or capacity building. The clinical training program adequately addressed general skills, but did not sufficiently prepare for locally encountered, often severe, pathology. During the training, adequate supervision with clear learning goals was found pivotal to a positive learning experience. Gaps included clinical training in Internal Medicine (particularly infectious diseases and non-communicable diseases) and Paediatrics. Public Health teaching as well as cultural awareness should be intensified and introduced earlier in the program. The Global Health residency was considered important, but tasks and learning outcomes varied. Teaching, supervision, and capacity building were considered increasingly important key elements of working in LRS. Consensus favoured the current duration of the training program without extension.
Discussion: While the generalist nature of the MD-GH training was appreciated, the program would benefit from additional clinical training in infectious diseases, non-communicable diseases, and

Paediatrics. Moving forward, emphasis should be placed on structured mentorship, enhanced public health teaching, and standardized residency programs with clearly delineated objectives to better equip MD-GH professionals for their multifaceted roles in LRS. Moreover, future revisions of the training program should incorporate the perspectives of host institutes in LRS and tailor the training needs.

46. Lancet 2025;406(10502):417
Editorial
Sudan: a health catastrophe ignored

(Abbreviated)
Behind the catastrophe lies a brutal conflict now in its third year. Since April, 2023, a power struggle between the Sudanese Armed Forces (SAF) and the Rapid Support Forces (RSF)—marked by widespread violence and allegations of ethnic cleansing—has killed more than 150 000 people according to some estimates. In a conflict where front lines shift and governing legitimacy is fiercely contested, health systems—and the people they serve—are caught in the crossfire.
Sudan's health system is deliberately being targeted. Fewer than 30% of health facilities remain functional.
In the first half of 2025, nearly 1000 people were killed in 38 attacks on health facilities, ambulances, and medical convoys. Medical warehouses have been ransacked, including supplies of therapeutics for severely malnourished children. Health-care workers face violence, arrest, and assassination threats, forcing many to flee.
This destruction has triggered a large-scale public health emergency. Cholera, measles, and malaria are spreading rapidly. Since the cholera outbreak began in July, 2024, more than 83 000 cases and 2100 deaths have been reported, with transmission ongoing. Hunger is deepening: nearly 20 million people are facing acute food insecurity (Integrated Food Security Phase Classification [IPC] Phase 3 or above), including 8·7 million in IPC Phase 4 (emergency) or IPC Phase 5 (catastrophe). WHO and UNICEF estimate that 880 000 children missed their diphtheria, tetanus, and pertussis vaccines last year, with immunisation coverage falling to levels unseen in four decades.
Yet, the global response has been gravely inadequate.
Front-line agencies continue to provide care under near-impossible conditions and severe funding constraints.
The International Criminal Court remains largely on the sidelines, constrained by a narrow mandate and political barriers.
Sudan has been sidelined, allowing preventable deaths to mount and its health system to disintegrate. How can this situation be changed? At the London Sudan Conference in April, 2025, hosted by the UK, the African Union, the EU, France, and Germany, attendees promised to support efforts to find a peaceful resolution, reject external interference, and support transition to a civilian-led government, pledging £813 million. However, on July 26, a coalition led by the RSF declared a rival government, directly challenging the SAF-led authorities in Khartoum, further eroding the already fragile prospects for peace. It will take sustained commitment and attention from the international community to descalate hostilities, help safeguard health, and uphold justice, dignity, and the belief that Sudanese lives are not expendable.

47. Lancet 2025;406(10507):1044-62
Review
The Lancet Countdown on health and plastics
Landrigan PJ et al., Global Observatory on Planetary Health, Schiller Institute for Integrated Science and Society, Boston College, Chestnut Hill, MA, USA Electro <andrigp@bc.edu>

Plastics are a grave, growing, and under-recognised danger to human and planetary health. Plastics cause disease and death from infancy to old age and are responsible for health-related economic losses exceeding US$1·5 trillion annually. These impacts fall disproportionately upon low-income and at-risk populations. The principal driver of this crisis is accelerating growth in plastic production-from 2 megatonnes (Mt) in 1950, to 475 Mt in 2022 that is projected to be 1200 Mt by 2060. Plastic pollution has also worsened, and 8000 Mt of plastic waste now pollute the planet. Less than 10% of plastic is

recycled. Yet, continued worsening of plastics' harms is not inevitable. Similar to air pollution and lead, plastics' harms can be mitigated cost-effectively by evidence-based, transparently tracked, effectively implemented, and adequately financed laws and policies. To address plastics' harms globally, UN member states unanimously resolved in 2022 to develop a comprehensive, legally binding instrument on plastic pollution, namely the Global Plastics Treaty covering the full lifecycle of plastic. Coincident with the expected finalisation of this treaty, we are launching an independent, indicator-based global monitoring system: the Lancet Countdown on health and plastics. This Countdown will identify, track, and regularly report on a suite of geographically and temporally representative indicators that monitor progress toward reducing plastic exposures and mitigating plastics' harms to human and planetary health.

Sexual Reproductive Health and Rights

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