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15. PLoS Med 2023;20(10):e1004294
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17. NEJM 2023;389(3):1159-61
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18. Am J TMH 2023;109(6):1356-62
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19. Lancet 2023;402(10417):2101-10
Primaquine radical cure in patients with Plasmodium falciparum malaria in areas co-endemic for P falciparum and Plasmodium vivax (PRIMA): a multicentre, open-label, superiority randomised controlled trial

20. Lancet 2023;Nov 1:S0140-6736(23)01249-7
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22. PLoS Med 2023;20(11):e1004312
Rectal artesunate suppositories for the pre-referral treatment of suspected severe malaria

## Mental Health

23. Lancet 2023;402(10402):656-66 doi: 10.1016/S0140-6736(23)00918-2
Transforming mental health systems globally: principles and policy recommendations

24. Glob Ment Health (Camb) 2023;Oct 18:10:e71 doi: 10.1017/gmh.2023.62
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## Non-communicable diseases

25. Lancet Glob Health 2023;11(11):e1700-e1712
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26. HPP 2023;38(8):895–906
Nutrition policy reforms to address the double burden of malnutrition in Zambia: a prospective policy analysis

27. PLoS Med 2023;20(9):e1004291
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28. BMJ 2023;382:e072249
Research
Suboptimal gestational weight gain and neonatal outcomes in low and middle income countries: individual participant data meta-analysis

29. BMJ 2023;383:p2763
The BMJ Appeal 2023-24: Periods don't stop for disasters

30. BMJ Global Health 2023;8:e012673
Original research
Implementing maternal and newborn health quality of care standards in healthcare facilities to improve the adoption of respectful maternity care in Bangladesh, Ghana and Tanzania: a controlled before and after study

31. Bull WHO 2023;101(11):723–29
A research agenda to improve incidence and outcomes of assisted vaginal birth

32. HPP 2023;38(9):1079-98
Understanding communication in community engagement for maternal and newborn health programmes in low- and middle-income countries: a realist review

33. Lancet Glob Health 2023;Dec 5:S2214-109X(23)00468-0. DOI:https://doi.org/10.1016/S2214-109X(23)00468-0
A global analysis of the determinants of maternal health and transitions in maternal mortality.

The other Series papers:

33a. Lancet Glob Health 2023 DOI:https://doi.org/10.1016/j.eclinm.2023.102264
Vulnerabilities and reparative strategies during pregnancy, childbirth, and the postpartum period: moving from rhetoric to action

33b. Lancet Glob Health 2023 Dec 5:S2214-109X(23)00454-0
Neglected medium-term and long-term consequences of labour and childbirth: a systematic analysis of the burden, recommended practices, and a way forward

33c. Lancet Glob Health 2023 DOI:https://doi.org/10.1016/j.eclinm.2023.102180
Towards a better tomorrow: addressing intersectional gender power relations to eradicate inequities in maternal health

34. Lancet 2023;402(10412):1580-96
The forgotten girls: the state of evidence for health interventions for pregnant adolescents and their newborns in low-income and middle-income countries

## Tuberculosis

35. Lancet 2023;402(10411):1473-98 doi: 10.1016/S0140-6736(23)01379-X
Scientific advances and the end of tuberculosis: a report from the Lancet Commission on Tuberculosis

36. Lancet Glob Health 2023;11(10):e1640-e1647
Costs incurred by people receiving tuberculosis treatment in low-income and middle-income countries: a meta-regression analysis

## Miscellaneous

37. BMJ Global Health 2023;8:e013399
Practice
Development and validation of a new measurement instrument to assess internship experience of medical doctors in low-income and middle-income countries

38. Lancet Glob Health 2023 Dec;11(12):e1863-e1873. doi: 10.1016/S2214-109X(23)00417-5
Prevalence and changes of intimate partner violence against women aged 15 to 49 years in 53 low-income and middle-income countries from 2000 to 2021: a secondary analysis of population-based surveys

Comment:

38a. Lancet Glob Health 2023;11(12):e1828-e1829 doi: 10.1016/S2214-109X(23)00471-0
Is intimate partner violence declining in low-income and middle-income countries?

# IHA 2023-4

## Child Health

1. BMJ Global Health 2023;8:e012204
Original research
Impact and cost-effectiveness of measles vaccination through microarray patches in 70 low-income and middle-income countries: mathematical modelling and early-stage economic evaluation
Fu H et al., <Han.Fu@lshtm.ac.uk>

Background. Microarray patches (MAPs) are a promising technology being developed to reduce barriers to vaccine delivery based on needles and syringes (N&S). To address the evidence gap on the public health value of applying this potential technology to immunisation programmes, we evaluated the health impact on measles burden and cost-effectiveness of introducing measles-rubella MAPs (MR-MAPs) in 70 low-income and middle-income countries (LMICs).
Methods. We used an age-structured dynamic model of measles transmission and vaccination to project measles cases, deaths and disability-adjusted life-years during 2030–2040. Compared with the baseline scenarios with continuing current N&S-based practice, we evaluated the introduction of MR-MAPs under different measles vaccine coverage projections and MR-MAP introduction strategies. Costs were calculated based on the ingredients approach, including direct cost of measles treatment, vaccine procurement and vaccine delivery. Model-based burden and cost estimates were derived for individual countries and country income groups. We compared the incremental cost-effectiveness ratios of introducing MR-MAPs to health opportunity costs.
Results. MR-MAP introduction could prevent 27%–37% of measles burden between 2030 and 2040 in 70 LMICs, compared with the N&S-only immunisation strategy. The largest health impact could be achieved under lower coverage projection and accelerated introduction strategy, with 39 million measles cases averted. Measles treatment cost is a key driver of the net cost of introduction. In countries with a relatively higher income, introducing MR-MAPs could be a cost-saving intervention due to reduced treatment costs. Compared with country-specific health opportunity costs, introducing MR-MAPs would be cost-effective in 16%–81% of LMICs, depending on the MR-MAPs procurement prices and vaccine coverage projections.
Conclusions. Introducing MR-MAPs in LMICs can be a cost-effective strategy to revitalise measles immunisation programmes with stagnant uptake and reach undervaccinated children. Sustainable introduction and uptake of MR-MAPs has the potential to improve vaccine equity within and between countries and accelerate progress towards measles elimination.

2. TMIH 2023;28(9):731-5 doi: 10.1111/tmi.13920
Insufficient measles antibody protection in 6-month-old Malawian infants: Reconsider vaccination schedule?
Baroncelli S et al., National Center for Global Health, Istituto Superiore di Sanità, Rome, Italy

Measles vaccination is currently recommended at 9 months, since maternal antibodies are supposed to protect infants until that age. In this study of 6-month-old Malawian infants 98.3% (58/59) had non-protective IgG levels against measles, irrespective of HIV exposure. Anticipating the first dose at 6 months could be considered.

## Climate Change and Health / Planetary Health

3. BMJ 2023;383:p2020
Editorials
Protecting populations from the health harms of air pollution

Sullivan J, Sorensen C. Correspondence to: C Sorensen <cjs2282@cumc.columbia.edu>

Policies and practices must account for the synergistic effects of different pollutants
The combustion of fossil fuel drives climate change by producing greenhouse gases, and it harms human health through air pollution, which is responsible for more than eight million deaths annually, accounting for nearly 15% of deaths worldwide.
The linked study by Liu and colleagues (doi:10.1136/bmj-2023-075203) sheds new light on the pervasive harms of air pollution and exemplifies how climate change—and the human activities that drive it—multiply the risk of harm. These authors showed how two common air pollutants, fine particulate matter (PM2.5, airborne particles with a diameter of ≤2.5 μm) and ozone (O3), act synergistically to harm those exposed, providing compelling new evidence that both policies and healthcare practices must change to account for new and evolving understanding of the compound effects of climate change, its drivers, and its consequences on human health.
PM2.5 is generated primarily from the burning of fossil fuels and other industrial activities, and ground level O3 forms when byproducts of fossil fuel combustion react in sunlight and heat. These particles damage lung tissue when inhaled and eventually cross into the bloodstream where they cause or exacerbate systemic diseases through pro-inflammatory mechanisms, including cardiovascular disease, diabetes, obesity, preterm birth, pre-eclampsia, and cancer.
Although evidence suggests that concomitant exposure to PM2.5 and O3 can lead to worse health outcomes, national and international organizations currently regulate each pollutant independently. Using an international dataset of 372 cities across 19 countries and regions, Liu and colleagues found a statistically significant synergistic interaction between these two pollutants and prevalence of daily total, cardiovascular, and respiratory mortality. When PM2.5 and O3 were both present, mortality rates were greater than the additive effects of exposure to each pollutant alone.

Papers of this theme issue on climate change:

3a. BMJ 2023;383:p2217
Feature
The climate emergency could be the ultimate health opportunity, says WHO's Maria Neira
Mahase E., <emahase@bmj.com>

3b. BMJ 2023;383:e075081
Research
Mortality risks associated with floods in 761 communities worldwide: time series study
Yang Z et al., Correspondence to: S Li <shanshan.li@monash.edu>

3c. BMJ 2023;383:e075203
Research
Interactive effects of ambient fine particulate matter and ozone on daily mortality in 372 cities: two stage time series analysis
Liu C et al., Correspondence to: H Kan <kanh@fudan.edu.cn>

4. TMIH 2023;28(S1):1-407
Abstracts of the 13th European Congress on Tropical Medicine and International Health (ECTMIH 2023), Shaping the future of equitable and sustainable planetary health, 20–23 November 2023, Utrecht
Themes:
- Planetary Health and Health Systems
- Infectious Diseases and Neglected Tropical Diseases
- Non-communicable Diseases

- Mental Health
- Sexual and Reproductive Health and Rights
- Child and Adolescent Health

## Communicable Diseases

5. TMIH 2023;28(11):844-854 doi: 10.1111/tmi.13937
Persistence of onchocerciasis and associated dermatologic and ophthalmic pathologies after 27 years of ivermectin mass drug administration in the middle belt of Ghana
Otabil KB et al., Consortium for Neglected Tropical Diseases and One Health, Department of Biological Science, School of Sciences, University of Energy and Natural Resources, Sunyani, Bono Region, Ghana

Objectives: There is a pressing need to regularly evaluate the progress of onchocerciasis elimination programmes to timely identify and mitigate potential risks hindering the reaching of the 2030 targets proposed by the World Health Organization (WHO) in its roadmap on neglected tropical diseases (NTDs). We determined the prevalence of onchocerciasis and associated dermatological and ophthalmological manifestations in six endemic communities in the Bono Region of Ghana after 27 years of ivermectin mass treatment.
Methods: In a cross-sectional study, 564 participants aged ≥5 years were enrolled (49.1% females), with a median age of 26 (range: 5-89) years. In 54% and 47%, skin-snip microscopy and Ov16 rapid diagnostic tests were performed, respectively. Skin disease was determined using the WHO Skin NTD App. Visual function assessments included tests of visual acuity.
Results: The overall microfilarial prevalence was 12.5% (38/305) and Ov16 seroprevalence was 24.2% (64/265). Severe itching was recorded in 24.3%, acute papular onchodermatitis in 52.8%, chronic papular onchodermatitis in 12.5%, lichenified onchodermatitis in 0.7%, skin atrophy in 11.3%, depigmentation in 1.7% and palpable nodules in 5.3%. Of the 301 persons in which visual acuity was examined, 17% were visually impaired and 5.3% were blind and 47.3% presented with cataract. Chronic papular onchodermatitis, lichenified onchodermatitis, depigmentation and visual impairment were significantly associated with the presence of skin microfilariae and Ov16 seropositivity.
Conclusions: The persistence of Onchocerca volvulus infection and onchocerciasis-associated dermatological and ophthalmological pathologies after prolonged treatment is of concern. There is a need to include morbidity management in onchocerciasis elimination programmes and understand better patterns of treatment coverage, adherence and actual intake of ivermectin.

## Decolonisation of Global Health

6. BMJ 2023;383:p2256
Opinion
Decolonising health and medicine. The case for a Global South centred model in global health
Rasheed MA., <muneera.rasheed21@gmail.com>

We need to reframe the approach to decolonising global health by centring the Global South as primary actor and leader, writes Muneera Rasheed
Calls to decolonise global health and tackle historic and systemic injustices in the field have intensified in recent years, but sometimes the way the argument is presented can be counterproductive.
For those of us in the Global South, the discourse can make us feel that our experiences are invalid. We are often portrayed as helpless and needing to be rescued, not by white saviours as in the past, but by well meaning actors in the Global North who are themselves struggling with the legacy of white supremacy, such as racism. This portrayal oversimplifies the power dynamics in the Global South. An essential element of coloniality is that it reproduces itself in colonised countries in the Global South by using incentives—such as granting access to the decision makers in coloniser countries in the Global North. The current discourse overlooks this complexity, and ignores that many people and institutions

in the Global South are both beneficiaries and enablers of the existing inequities in global health. This idea is often ignored or resisted.
I write this as a woman from Pakistan and a researcher in early childhood development. I have trained in psychology, which enables me to understand the needs behind human behaviours. But beyond my professional roles, I am also human as much as you are, with a heart that can feel and hurt deeply. My views on decolonisation have evolved over the years as I have engaged with the global health community in Pakistan and in other countries of the Global South.
Concentrating only on changing global health institutions in the Global North to decolonise while ignoring the voices and perspectives of the health community in the Global South misses the point of decolonisation. The calls for action should go beyond the notions of equity in research authorship3 or funding generously granted to us by our colleagues in the Global North, and must recognise that our existence is not solely defined by partnerships. This approach implies that we need to fit into a system that exists in the Global North, even though it may not function in our contexts nor align with our needs.

7. Lancet Glob Health 2023;11(9):e1464-e1468
What research evidence can support the decolonisation of global health? Making space for deeper scholarship in global health journals
Ramani et al., Johns Hopkins India, Pune, Maharashtra, India <sudha921@gmail.com>

Much of the current global health publishing landscape is restricted in its epistemological diversity, relying heavily on a biomedical lens to examine and report on global health issues. In this Viewpoint, we argue that the space within global health journals needs to be expanded to include diverse forms of research scholarship, thereby shifting the kinds of stories that get told in these spaces. We particularly call for the inclusion of deeper research that values the tacit, experiential knowledge possessed by actors (eg, communities, health-care workers, policy makers, activists, and researchers) in low-income and middle-income countries, and legitimises the perspectives of local doers and thinkers; research that pays careful attention to context, and does not treat local realities as mere background occurrences; and research that draws on alternative, counter-dominant epistemologies, that allow for the crucial examination of power imbalances, and that challenge hegemonic discourses in global health. To decolonise academic work in the global health field, we should look beyond diversity in research authorship. We need to tackle other unconscious biases such as presumptions about the superiority of particular forms of evidence over others, and thereby expand the plurality of perspectives in global health.

8. Lancet Glob Health 2023;11(9):e1469-e1474
Viewpoint
Towards a bidirectional decoloniality in academic global health: insights from settler colonialism and racial capitalism
Wispelwey B et al., FXB Center for Health and Human Rights, Harvard University, Boston, MA, USA <bwispelwey@hsph.harvard.edu>

This Viewpoint considers the implications of incorporating two interdisciplinary and burgeoning fields of study, settler colonialism and racial capitalism, as prominent frameworks within academic global health. We describe these two modes of domination and their historical and ongoing roles in creating accumulated advantage for some groups and disadvantage for others, highlighting their relevance for decolonial health approaches. We argue that widespread epistemic and material injustice, long noted by marginalised communities, is more apparent and challengeable with the consistent application of these two frameworks. With examples from the USA, Brazil, and Zimbabwe, we describe the health effects of settler colonial erasure and racial capitalist exploitation, also revealing the rich legacies of resistance that highlight potential paths towards health equity. Because much of the global health knowledge production is constructed from unregenerate contexts of settler colonialism and racial

capitalism and yet focused transnationally, we offer instead an approach of bidirectional decoloniality. Recognising the broader colonial world system at work, bidirectional decoloniality entails a truly global health community that confronts Global North settler colonialism and racial injustice as forcefully as the various colonialisms perpetrated in the Global South.

## Health Systems, Health Systems Financing & Health Policy

9. Bull WHO 2023;101(12):751–751A
Health sector leadership to strengthen civil registration and vital statistics systems
Lopez AD, LM Consulting, Queensland, Australia <adlopez704@gmail.com>

For governments to control outbreaks and address the complex demands of changing disease and injury patterns, they need dependable health intelligence. The cornerstone of this information base is a reliable and functioning civil registration and vital statistics system that provides governments with accurate and timely information on who is dying of which causes and at what ages, differentially in various population subgroups, and how these patterns are changing.
Understanding the levels and patterns of fertility in a population on a continuous and disaggregated basis is similarly important for planning maternal and child health care, as well as for schooling and other social benefits and programmes. Functioning civil registration and vital statistics systems serve this need, since information on birth registration derived from surveys is potentially biased and generally out of date.
Good quality civil registration and vital statistics systems are also essential for reliably monitoring progress with national health and development goals, particularly the health-related sustainable development goals. To make informed decisions about the policies and programmes that are needed to optimize population health, increase health system efficiency and accelerate progress towards universal health coverage, governments depend upon the availability of recent and reliable birth and death data. Yet, poor quality and incomplete vital statistics have been repeatedly identified as the weakest component of national health information systems.
As the primary provider of services around the time of birth – and increasingly around the time of death – the health sector is well placed to ensure that governments obtain the information they need on fertility and mortality. Recognizing this key yet underexploited interface between the health sector and civil registration systems, the World Health Organization (WHO) has developed a comprehensive Civil registration and vital statistics strategic implementation plan 2021–2025 to stimulate, guide and support efforts by Member States to enhance the role of the health sector in developing these key data for development, including guidance for health managers on practical, operational steps that the health sector can take to improve birth and death registration.
A fundamental component of WHO's implementation plan is to ensure a comprehensive and comparable understanding of the current status and functioning of civil registration and vital statistics systems in countries, to better target improvement efforts and monitor progress at national, regional and global levels. The three studies that I co-authored in this issue of the Bulletin of the World Health Organization provide scientific and comparable assessments of the availability, completeness and quality of birth, death and cause-of-death data worldwide, as well as of the operational characteristics of civil registration and vital statistics systems in countries. One article provides a detailed overview of the performance, strengths and weaknesses of civil registration and vital statistics systems in countries, based on a standardized and comparable assessment framework that synthesizes all available information from previous global assessments. The two other articles assess in more detail the availability and quality of vital statistics on births and deaths separately, focusing on indicators likely to be of greatest relevance for public policy. Their analyses provide a comprehensive account of the state of the world's vital statistics.
The results are grim. Vital statistics, so fundamental for guiding health and social sector planning, do not exist for many countries, and where they do, are often of insufficient quality to reliably inform policy. Poor data consolidation, transmission and quality assessment practices limit their usefulness,

while lack of analytical capacity in countries often means that the full policy potential of birth and death data is not being realized.
Given the major advances in population health measurement research over the past two decades, and the rapidly accumulating experience with the application of new data collection techniques, artificial intelligence and information technology applications, rapid progress to address these challenges and thus improve the policy utility of national vital registration systems is now feasible. Indeed, the health sector can and should provide national vital registration systems with more active and purposeful leadership to support automated notifications of births and deaths from health facilities, improve cause-of-death certification skills, and promote the routine incorporation of automated verbal autopsy methods to attribute cause for deaths at home.
The three papers provide a timely and sobering view of the state of birth and death data worldwide and of the data systems that generate them. The large data gaps identified are unacceptable, given the critical role of reliable vital statistics in development strategies and promoting health for all. While the technology and partnerships to make rapid progress in creating reliable vital statistics exist, effective global health leadership is essential.
These three papers are:

9a. Bull WHO 2023;101:758–67
Comparative performance of national civil registration and vital statistics systems: a global assessment
Mikkelsen L et al. Correspondence to Tim Adair <timothy.adair@unimelb.edu.au>

9b. Bull WHO 2023;101:768–76
Global analysis of birth statistics from civil registration and vital statistics systems
Adair T et al., <timothy.adair@unimelb.edu.au>

9c. Bull WHO 2023;101(12):777–85
Assessing the policy utility of routine mortality statistics: a global classification of countries
Adair T et al., The Nossal Institute for Global Health, Melbourne School of Population and Global Health, University of Melbourne <timothy.adair@unimelb.edu.au>

10. HPP 2023;38(Issue Supplement_1):i1-i4
Editorial (abridged)
Procedural fairness in health financing for universal health coverage: why, what and how
Gopinathan U et al., Norwegian Institute of Public Health, Oslo <unni.gopinathan@fhi.no>

As countries strive to make progress towards universal health coverage (UHC), the pressing decisions confronting policymakers and the public bring to the forefront the vital role of procedural fairness. The concept encompasses how people should be informed, the level of their involvement in the decision-making processes and how their interests should be considered when important decisions affecting them are made. Procedural fairness has attracted attention across different policy-making domains, from taxation, criminal justice and environmental management to priority-setting in health. For health financing policies for UHC, the issue of procedural fairness has heightened relevance. Over the past 3 years, the world has faced successive shocks which have stalled and, in some cases, reversed previous gains in UHC. With increasing inequities within and between countries and many demands for limited public resources, policymakers will face challenging trade-offs, often reflecting competing values and interests related to fairness, solidarity, individual responsibility and freedom of choice. These trade-offs give rise to widespread disagreements regarding how funds should be raised, pooled and used, which can persist long after major decisions have been reached.
Health financing decisions exhibit additional characteristics that strengthen the case for prioritizing procedural fairness. First, many decisions are guided by technical assessments with complex assumptions and methodological approaches; a sound process can contribute to stakeholders such as providers, patients and the public comprehending the core rationale of policy options. Second, power

differences among stakeholders tend to play a significant role in health financing debates; fairer processes can, by broadening participation and representation and empowering marginalized stakeholders in the decision-making process, contribute to levelling the playing field towards greater equity. Finally, the benefits of many health financing decisions are experienced over an extended period; decision-making processes must therefore secure the trust and buy-in from different parties to contribute to the sustainability of reforms. Yet despite the essential role that process plays, how the core tenets of procedural fairness should be applied to health financing has, with few exceptions, been an underexplored area.
With eight articles examining the critical relationship between procedural fairness and health financing, this special supplement contributes to theoretical and empirical advancements in two significant ways. First, it expands on guiding frameworks for fair processes when allocating health-care resources, including the influential accountability for reasonableness (A4R) framework proposed by Daniels and Sabin (2002), by drawing on insights from a wider body of literature. Second, through country case studies in five different settings, it extends thinking on procedural fairness to questions on revenue generation and pooling. Procedural fairness has increasingly been given attention for priority-setting in purchasing (e.g. health benefit design), especially through various applications of the A4R framework. Comparatively less attention has been given to decisions in the two other core health financing functions of revenue generation and pooling.
Supplement contributions:
Commentaries

- New strides towards fair processes for financing universal health coverage
- Policymakers' perspective on the importance of procedural fairness to implement and sustain health financing reforms

Scoping review

- Criteria for the procedural fairness of health financing decisions: a scoping review

Case studies

- Procedural fairness in benefit package design: inclusion of pre-exposure prophylaxis of HIV in Universal Coverage Scheme in Thailand
- The passage and implementation of a Health Promotion Levy in South Africa as a case study of fair financing procedures
- Procedural fairness and the resilience of health financing reforms in Ukraine
- Procedural fairness in decision-making for financing a National Health Insurance Scheme: a case study from The Gambia
- Developing the improved Community Health Fund in Tanzania: was it a fair process?

11. HPP 2023;38(Issue Supplement_2):ii1-ii2
Editorial
Health equity: access to quality services and caring for underserved populations
Lazo-Porras Met al., Cronicas Centre of Excellence in Chronic Diseases, Universidad Peruana Cayetano Heredia, Lima, Perú <maria.lazo.porras@gmail.com>

Barriers to access to quality services and caring for underserved populations are a call to action for researchers and other key partners to achieve health equity. In order to accomplish this, several key partners play important roles. More participation of younger generations, women and people of color from different contexts should be encouraged and facilitated. This editorial serves to present this journal issue that includes the articles of young women from low- and middle-income countries. Different methodologies are used to demonstrate the problem of access to quality services and care in a comprehensive way. After understanding the public health problems using an equity lens, we need to implement evidence-based interventions to improve the health system response.
Supplement articles:

- Paper promises: Peruvian frontline health workers' perspectives on mental health policies during COVID-19
- 'We stay silent and keep it in our hearts': a qualitative study of failure of complaints mechanisms in Malawi's health system
- Policy and practices shaping the delivery of health services to pregnant adolescents in informal urban settlements in Kenya
- Justice implications of health and food security policies for Indigenous peoples facing COVI-19: a qualitative study and policy analysis in Peru
- Do Indian women know about and use the emergency contraceptive pill? An analysis of nationally representative data from 2005–06 and 2019–21
- The nature, drivers and equity consequences of informal payments for maternal and child health care in primary health centres in Enugu, Nigeria
- Making progress in early-career publishing: evolutions of the women's publication mentorship programme

12. Lancet 2023;402(10413):1613
World Report
New laws bring major reform to Kenyan health care
Makoni M.

Four new bills introduce new funding mechanisms with the aim of strengthening universal health coverage in Kenya.
Kenya's health-care system is set for an overhaul after President William Ruto signed four Universal Health Care Bills into law on Oct 19. The laws align with Kenya's efforts to ensure all Kenyans have access to quality health care without experiencing financial hardship.
"Today four crucial Bills for the implantation of Universal Health Care have become law", said Ruto. "These laws together with various policy strategies and regulations that will be subsequently implemented including the community health policy and primary health financial strategies will lay the foundation for the biggest change in the health care system ever witnessed."
The Social Health Insurance Act repeals the National Health Insurance fund, establishing a social health authority that introduces three new funds that will secure publicly funded primary health care, universal health insurance, and equitable access to quality health services.
A primary care fund to pay for primary health care services will be set up. The new Social Insurance Fund payment will enable low-income households to receive subsidised national health insurance to help pay for care, with an emphasis on primary care and prevention. A third fund will pay the costs of management of chronic illnesses after the depletion of Social Health Insurance and pay for emergency treatment.
To support the primary care fund, employed Kenyans will make a monthly contribution of 2·75% of their salary capped at a minimum of Ksh 300 and a maximum of Ksh 5000. Non-Kenyans resident in the country for more than 12 months are eligible to register.
The Primary Healthcare Act, which focuses on preventive and promotive health services, will see over 100 000 community health promoters being deployed to help improve health-care accessibility and affordability.
Health workers' unions have reacted strongly against placing community health promoters at the centre of primary health systems.
"The community health promoters have no formal health- related training and neither do they fall under [a] regulatory body. Yet, they have been entrusted to not only offer health education but also treat 'minor' ailments."

13. Lancet 2023;402(10413):1661–722
The Lancet Commission on peaceful societies through health equity and gender equality

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The multiple and overlapping crises faced by countries, regions, and the world appear unprecedented in their magnitude and complexity. Protracted conflicts continue and new ones emerge, fuelled by geopolitics and social, political, and economic pressures. The legacy of the COVID-19 pandemic, economic uncertainty, climatic events ranging from droughts to fires to cyclones, and rising food insecurity add to these pressures. These crises have exposed the inadequacy of national and global leadership and governance structures. The world is experiencing a polycrisis—ie, an interaction of multiple crises that dramatically intensifies suffering, harm, and turmoil, and overwhelms societies' ability to develop effective policy responses.

Bold approaches are needed to enable communities and countries to transition out of harmful cycles of inequity and violence into beneficial cycles of equity and peace. The Lancet Commission on peaceful societies through health equity and gender equality provides such an approach. The Commission, which had its inaugural meeting in May, 2019, examines the interlinkages between Sustainable Development Goal 3 (SDG3) on health; SDG5 on gender equality; and SDG16 on peace, justice, and strong institutions. Our research suggests that improvements to health equity and gender equality are transformative, placing societies on pathways towards peace and wellbeing.

Four key messages emerge from our research. First, health equity and gender equality have a unique and powerful ability to contribute to more peaceful societies. This Commission recognises the complex web of factors that contribute to conflict. Moreover, health equity and gender equality are themselves shaped by social and economic processes that are complex, contextually specific, and unfold over long timescales. Even accounting for this complexity, our Commission provides evidence that improvements in health equity and gender equality can place societies on pathways to peace.

Second, to deliver the promise of the Commission's research, health equity and gender equality principles and processes must be led by communities and tailored to their context. Local and national actors must drive improvements in health equity and gender equality, a process we refer to as change from the inside out.

Third, within the health sector and beyond, the Commission calls on policy makers to embrace, advocate for, and advance health equity and gender equality. In the health sector, services and systems must adopt, implement, and be accountable to benchmarks for gender equal health responses. The health sector is a key social, economic, and political institution. Individuals engage with health services throughout their lifespan. Health professionals are respected leaders within their communities. Given their reproductive and caregiving roles, women are a majority of users as well as providers of health care. Yet health services and systems can reflect and reinforce implicit biases that undermine access to and delivery of services and the effectiveness of health policy decisions.

Finally, given the evidence we present in this Commission, health equity and gender equality must form an integral part of national and global processes to promote peace and wellbeing. The beneficial cycles of health equity and gender equality unfold over long time scales. Conflict management and humanitarian efforts understandably prioritise short-term interventions to reduce human suffering and stop violence. However, given the path dependencies established by such engagement, gender equality and health equity must be built into these short-term interventions. Gender equality and health equity processes must also recognise how gender norms impact men and boys, and not assume women and girls have the power to single-handedly transform their environments.

14. Lancet Glob Health 2023;11(10):e1598-e1608

Labour conditions in dual-cadre community health worker programmes: a systematic review

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Background: Health care delivered by community health workers reduces morbidity and mortality while providing a considerable return on investment. Despite growing consensus that community health workers, a predominantly female workforce, should receive a salary, many community health

worker programmes take the form of dual-cadre systems, where a salaried cadre of community health workers works alongside a cadre of unsalaried community health workers. We aimed to determine the presence, prevalence, and magnitude of exploitation in national dual-cadre programmes.
Methods: We did a systematic review of available evidence from peer-reviewed databases and grey literature from database inception to Aug 2, 2021, for studies on unsalaried community health worker cadres in dual-cadre systems. Editorials, protocols, guidelines, or conference reports were excluded in addition to studies about single-tier community health worker programmes and those reporting on only salaried cadres of community health workers in a dual-cadre system. We extracted data on remuneration, workload, task complexity, and self-reported experiences of community health workers. Three models were created: a minimum model with the shortest time and frequency per task documented in the literature, a maximum model with the longest time, and a median model. Labour exploitation was defined as being engaged in work below the country's minimum wage together with excessive work hours or complex tasks. The study was registered with PROSPERO, CRD42021271500.
Findings: We included 117 reports from 112 studies describing community health workers in dual-cadre programmes across 19 countries. The majority of community health workers were female. 13 (59%) of 22 unsalaried community health worker cadres and one (10%) of ten salaried cadres experienced labour exploitation. Three (17%) of 18 unsalaried community health workers would need to work more than 40 h per week to fulfil their assigned responsibilities. Unsalaried community health worker cadres frequently reported non-payment, inadequate or inconsistent payment of incentives, and an overburdensome workload.
Interpretation: Unsalaried community health workers in dual-cadre programmes often face labour exploitation, potentially leading to inadequate health-care provision. Labour laws must be upheld and the creation of professional community health worker cadres with fair contracts prioritised, international funding allocated to programmes that rely on unsalaried workers should be transparently reported, the workloads of community health workers should be modelled a priori and actual time use routinely assessed, community health workers should have input in policies that affect them, and volunteers should not be responsible for the delivery of essential health services.

15. PLoS Med 2023;20(10):e1004294
Measuring people's views on health system performance: Design and development of the People's Voice Survey
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Summary points

- People should be at the center of health system performance assessment. Populations can provide critical insight on quality of care, confidence in health services, and health outcomes.
- However, today's measurement approaches overlook key dimensions of population perspective such as confidence in the health system. Surveys are rarely standardized to enable cross-country comparison.
- The People's Voice Survey (PVS) aims to fill this gap. The PVS is a novel multicountry survey of people's perspective on health system performance. It measures a wide range of domains, including health status, health system utilization patterns, ratings of care quality, and confidence and trust in the health system.
- The survey allows for a flexible, mixed mode design that uses telephone, online, and in-person data collection approaches to achieve a nationally representative sample of adults. Critically, the survey includes both health system users and non-users. It can be adapted for use in high-, middle-, and low-income countries.

- We describe the motivation for this new instrument, the multistep collaborative development and validation process, and policy use cases for 19 countries participating in the first wave of data collection.
- Findings from the survey can be used to integrate people's voices into health system policymaking and guide strategic investments towards higher quality health systems.

## HIV/AIDS

16. Lancet 2023 Nov 30:S0140-6736(23)01381-8
Seminar
HIV epidemiology, prevention, treatment, and implementation strategies for public health
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The global HIV response has made tremendous progress but is entering a new phase with additional challenges. Scientific innovations have led to multiple safe, effective, and durable options for treatment and prevention, and long-acting formulations for 2-monthly and 6-monthly dosing are becoming available with even longer dosing intervals possible on the horizon. The scientific agenda for HIV cure and remission strategies is moving forward but faces uncertain thresholds for success and acceptability. Nonetheless, innovations in prevention and treatment have often failed to reach large segments of the global population (eg, key and marginalised populations), and these major disparities in access and uptake at multiple levels have caused progress to fall short of their potential to affect public health. Moving forward, sharper epidemiologic tools based on longitudinal, person-centred data are needed to more accurately characterise remaining gaps and guide continued progress against the HIV epidemic. We should also increase prioritisation of strategies that address socio-behavioural challenges and can lead to effective and equitable implementation of existing interventions with high levels of quality that better match individual needs. We review HIV epidemiologic trends; advances in HIV prevention, treatment, and care delivery; and discuss emerging challenges for ending the HIV epidemic over the next decade that are relevant for general practitioners and others involved in HIV care.

17. NEJM 2023;389(3):1159-61
Perspective (Abridged)
Threatening the Global AIDS Response — Obstacles to PEPFAR's Reauthorization
Karim SSA et al.

The U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the largest commitment in history by any single country to address a disease, is estimated to have averted 25 million deaths from AIDS and enabled 5.5 million babies to be born free from HIV infection over the past 20 years. It has provided more than $100 billion in funding for HIV prevention, care, and treatment internationally, supporting 55 low- and middle-income countries that are collectively home to 78% of all people living with HIV. In creating PEPFAR, its architect, President George W. Bush, instilled in the program his strong belief in "partnership, not paternalism." PEPFAR has been key to addressing global inequity in access to AIDS treatment and demonstrates what can be achieved with global solidarity and long-term committed leadership. Together with the Global Fund to Fight AIDS, Tuberculosis, and Malaria, PEPFAR has transformed AIDS in low-income countries, especially those in Africa, from a death sentence to a readily treatable chronic disease by deploying programs that provide antiretroviral treatment even in the most remote villages. Right from the start, PEPFAR was more than just an AIDS program; it partnered with countries in Africa to support the development of health systems for essential community services, trained thousands of health care workers, fostered security and stability in affected countries, and engendered hope amid a devastating global AIDS crisis. We are therefore

deeply concerned that PEPFAR has not been reauthorized for the next 5 years, particularly given that its current authorization ends in September 2023.
Since its establishment, PEPFAR has had bipartisan support in the United States and has been reauthorized by both chambers of the U.S. Congress three times. But several Republican politicians, including the chair of the House Foreign Affairs Subcommittee on Global Health, Global Human Rights, and International Organizations, are now demanding that reauthorization be linked to new prohibitions related to abortion. Some influential antiabortion organizations have warned Republican members of Congress that voting for the reauthorization of PEPFAR without abortion-related restrictions would negatively affect the ratings these organizations give members each year, which would, in turn, diminish their prospects for reelection. //
PEPFAR is critical to the global AIDS response. The program set a brave path in tackling AIDS; it vigorously pursued evidence-informed strategies, worked closely with in-country partners, and never shied away from tackling some of the pandemic's biggest challenges. This last achievement was most clearly illustrated when PEPFAR responded to stubbornly high rates of HIV infection among adolescent girls in 16 African countries with its DREAMS (Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe) initiative, which successfully reduced new HIV infections among young women.
In December 2022, PEPFAR released its impressive new 5-year strategy detailing how it would lead and contribute to global efforts to reach the AIDS-related Sustainable Development Goals by 2030. Toward that end, the strategy focuses on building long-term sustainability in the HIV/AIDS response, strengthening public health systems, leveraging those systems to respond to health threats such as Covid-19, strengthening partnerships, supporting innovation, and ensuring that programs are guided by science.
The world has benefited from the sustained leadership and bipartisan support for PEPFAR in the U.S. Congress since its initiation. Its reauthorization should not be held hostage to policies about health care that are only distantly related, if at all, to the primary goals of the PEPFAR program. As scientists with long experience in the AIDS response, we call on Congress to reauthorize PEPFAR for its next 5-year term with no encumbrances or currently proposed prohibitions. Such a reauthorization is critical not only to the global AIDS response but also to responses to future pandemics and threats to global security.
(1 Dec 2023: PEPFAR not yet reauthorized)

## Malaria

18. Am J TMH 2023;109(6):1356-62
Impact of Pyrethroid Plus Piperonyl Butoxide Synergist-Treated Nets on Malaria Incidence 24 Months after a National Distribution Campaign in Rwanda
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Malaria remains a public health priority in Rwanda. The use of insecticide-treated nets (ITNs) is a key malaria prevention tool. However, expanding pyrethroid resistance threatens the gains made in malaria control. In 2018, the Rwandan malaria program strategic approach included the use of newer types of ITNs such as pyrethroid plus piperonyl butoxide (PBO) synergist-treated nets to counter pyrethroid resistance. In February 2020, 5,892,280 ITNs were distributed countrywide; 1,085,517 of these were PBO nets distributed in five districts. This study was a pragmatic observational study that leveraged the 2020 net distribution and routinely collected confirmed malaria cases to determine the impact of PBO nets 1 and 2 years after ITN distribution. No differences were observed in the average net coverage between the PBO and standard net districts. A significant reduction in malaria incidence was reported in both the PBO ($P = 0.019$) and two control districts that received standard nets ($P = 0.008$) 1 year after ITN distribution. However, 2 years after, this reduction was sustained only in the PBO ($P = 0.013$) and not in the standard net districts ($P = 0.685$). One year after net distribution, all districts had a significant reduction in malaria incidence rate (incidence rate ratio < 1). In the second

year, incidence in districts with PBO nets continued to decrease, whereas in districts with standard nets, incidences were similar to predistribution levels. The results indicate that PBO nets are a promising tool to combat pyrethroid resistance in Rwanda, with protective effects of up to 2 years post distribution.

19. Lancet 2023;402(10417):2101-10
Primaquine radical cure in patients with Plasmodium falciparum malaria in areas co-endemic for P falciparum and Plasmodium vivax (PRIMA): a multicentre, open-label, superiority randomised controlled trial
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Background: In areas co-endemic for Plasmodium vivax and Plasmodium falciparum there is an increased risk of P vivax parasitaemia following P falciparum malaria. Radical cure is currently only recommended for patients presenting with P vivax malaria. Expanding the indication for radical cure to patients presenting with P falciparum malaria could reduce their risk of subsequent P vivax parasitaemia.
Methods: We did a multicentre, open-label, superiority randomised controlled trial in five health clinics in Bangladesh, Indonesia, and Ethiopia. In Bangladesh and Indonesia, patients were excluded if they were younger than 1 year, whereas in Ethiopia patients were excluded if they were younger than 18 years. Patients with uncomplicated P falciparum monoinfection who had fever or a history of fever in the 48 h preceding clinic visit were eligible for enrolment and were required to have a glucose-6-dehydrogenase (G6PD) activity of 70% or greater. Patients received blood schizontocidal treatment (artemether-lumefantrine in Ethiopia and Bangladesh and dihydroartemisinin-piperaquine in Indonesia) and were randomly assigned (1:1) to receive either high-dose short-course oral primaquine (intervention arm; total dose 7 mg/kg over 7 days) or standard care (standard care arm; single dose oral primaquine of 0·25 mg/kg). Random assignment was done by an independent statistician in blocks of eight by use of sealed envelopes. All randomly assigned and eligible patients were included in the primary and safety analyses. The per-protocol analysis excluded those who did not complete treatment or had substantial protocol violations. The primary endpoint was the incidence risk of P vivax parasitaemia on day 63. This trial is registered at ClinicalTrials.gov, NCT03916003.
Findings: Between Aug 18, 2019, and March 14, 2022, a total of 500 patients were enrolled and randomly assigned, and 495 eligible patients were included in the intention-to-treat analysis (246 intervention and 249 control). The incidence risk of P vivax parasitaemia at day 63 was 11·0% (95% CI 7·5-15·9) in the standard care arm compared with 2·5% (1·0-5·9) in the intervention arm (hazard ratio 0·20, 95% CI 0·08-0·51; p=0·0009). The effect size differed with blood schizontocidal treatment and site. Routine symptom reporting on day 2 and day 7 were similar between groups. In the first 42 days, there were a total of four primaquine-related adverse events reported in the standard care arm and 26 in the intervention arm; 132 (92%) of all 143 adverse events were mild. There were two serious adverse events in the intervention arm, which were considered unrelated to the study drug. None of the patients developed severe anaemia (defined as haemoglobin <5 g/dL).
Interpretation: In patients with a G6PD activity of 70% or greater, high-dose short-course primaquine was safe and relatively well tolerated and reduced the risk of subsequent P vivax parasitaemia within 63 days by five fold. Universal radical cure therefore potentially offers substantial clinical, public health, and operational benefits, but these benefits will vary with endemic setting.

20. Lancet 2023;Nov 1:S0140-6736(23)01249-7
Review
Malaria
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Malaria is resurging in many African and South American countries, exacerbated by COVID-19-related health service disruption. In 2021, there were an estimated 247 million malaria cases and 619000 deaths in 84 endemic countries. Plasmodium falciparum strains partly resistant to artemisinins are entrenched in the Greater Mekong region and have emerged in Africa, while Anopheles mosquito vectors continue to evolve physiological and behavioural resistance to insecticides. Elimination of Plasmodium vivax malaria is hindered by impractical and potentially toxic antirelapse regimens. Parasitological diagnosis and treatment with oral or parenteral artemisinin-based therapy is the mainstay of patient management. Timely blood transfusion, renal replacement therapy, and restrictive fluid therapy can improve survival in severe malaria. Rigorous use of intermittent preventive treatment in pregnancy and infancy and seasonal chemoprevention, potentially combined with pre-erythrocytic vaccines endorsed by WHO in 2021 and 2023, can substantially reduce malaria morbidity. Improved surveillance, better access to effective treatment, more labour-efficient vector control, continued drug development, targeted mass drug administration, and sustained political commitment are required to achieve targets for malaria reduction by the end of this decade.

21. NEJM 2023;389;13:1162-64
Perspectives (Abridged)
Artemisinin-Resistant and HRP-Negative Malaria Parasites in Africa
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The first two decades of this century saw substantial progress in the control of malaria: deaths from malaria fell by one half, and over the past 10 years, 15 countries have been certified by the World Health Organization as being malaria-free. This success has been achieved by means of the scale-up of effective methods of diagnosis, treatment, chemoprevention, and vector control. Unfortunately, this progress has stalled in many high-transmission areas of Africa because of political instability, funding constraints, the Covid-19 pandemic, difficulty in increasing coverage with currently available control tools, and resistance to currently deployed drugs and insecticides.
Progress in malaria control in some countries in sub-Saharan Africa is now challenged by several new threats. These include colonization of parts of the region by the Asian mosquito vector Anopheles stephensi, which, unlike the main malaria vectors currently responsible for most malaria transmission in sub-Saharan Africa, thrives in urban settings, increasing the risk of malaria in the region's large urban centers that are currently relatively malaria-free. A second major threat comes from the recent emergence in East Africa of Plasmodium falciparum parasites with reduced susceptibility to artemisinin-based combination drugs (ACTs), the drugs that form the mainstay of treatment of falciparum malaria. Artemisinin resistance is characterized by slow clearance of parasites, which are still detectable in the blood by microscopy on day 3 of treatment. Such resistance is linked to mutations in the P. falciparum kelch13 (Pfkelch13) gene that reduce the susceptibility of the parasite to the drug in the early ring stages. As long as the partner drug in an ACT is still fully effective, ACTs still achieve a high rate of cure in patients infected with an artemisinin-resistant parasite. But full treatment failure, with consequent severe disease, may occur if there is resistance to the partner drug in the ACT, such as lumefantrine, as well as resistance to artemisinin. //
To counter the threat posed to malaria control in sub-Saharan Africa by P. falciparum parasites with hrp2 or hrp3 deletions and mutations associated with resistance, countries must rely first on enhanced surveillance to detect these parasites. It is important that staff understand that patients who have clinical features of malaria but who have negative RDTs could still have malaria and that these cases should be reported promptly to an appropriate person for further evaluation, especially if they occur frequently. Similarly, frontline workers need to be made aware that a delayed response or failure of treatment with an ACT is now a possibility and also needs to be reported. In addition, surveillance for parasite mutations that could influence diagnosis or the success of treatment needs to be undertaken in sentinel sites on a regular basis so that novel mutations are detected quickly. Finally, the development of cheap and effective antimalaria drugs that could be used as a replacement for

ACTs (should substitution become necessary) continues to be a high priority, and RDTs based on detection of antigens other than HRP need to become more widely available and price-competitive. Treatment of drug-resistant malaria infections will always be a challenge, but that challenge will be amplified if infections with a resistant parasite cannot be detected readily using simple and affordable assays.

22. PLoS Med 2023;20(11):e1004312
Rectal artesunate suppositories for the pre-referral treatment of suspected severe malaria
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Summary points

- The World Health Organization Malaria Policy Advisory Group (WHO MPAG) has recently advised against deployment of rectal artesunate suppositories (RAS) for the treatment of severe malaria in remote areas where efficient referral to hospital is not possible.
- Untreated severe malaria is almost always fatal. In these remote areas, no RAS availability will very likely mean no treatment at all. These are the areas where childhood mortality from malaria is greatest.
- The earlier artesunate is given in the course of severe malaria illness, the greater the life-saving benefit.
- Most of the life-saving benefit of artesunate follows the first dose. The route of administration does not change the antimalarial effect of artesunate.
- In places where referral is not possible, treatment with RAS only, followed by oral artemisinin combination therapy when the patient can take oral medications, is likely to be sufficient in most cases.
- Selection of artemisinin resistance following a single RAS dose is highly unlikely.
- Bacterial septicaemia is frequently misdiagnosed as severe malaria. There are no broad-spectrum antibiotics that can be rectally administered—a major therapeutics gap for community treatment of severe febrile illness.
- We urge the WHO MPAG to reconsider their recommendation against deployment of RAS in places where efficient referral to hospital is not possible and to promote development of the community health worker infrastructure that would support effective deployment of RAS in remote areas where it will save the most young lives.

## Mental Health

23. Lancet 2023;402(10402):656-66 doi: 10.1016/S0140-6736(23)00918-2
Transforming mental health systems globally: principles and policy recommendations
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A burgeoning mental health crisis is emerging globally, regardless of each country's human resources or spending. We argue that effectively responding to this crisis is impeded by the dominant framing of mental ill health through the prism of diagnostic categories, leading to an excessive reliance on interventions that are delivered by specialists; a scarcity of widespread promotive, preventive, and recovery-oriented strategies; and failure to leverage diverse resources within communities. Drawing upon a series of syntheses, we identify five principles to transform current practices; namely, address harmful social environments across the life course, particularly in the early years; ensure that care is not contingent on a categorical diagnosis but aligned with the staging model of mental illness; empower diverse front-line providers to deliver psychosocial interventions; embrace a rights-based approach that seeks to provide alternatives to violence and coercion in care; and centre people with lived experience in all aspects of care. We recommend four policy actions which can transform these

principles into reality: a whole of society approach to prevention and care; a redesign of the architecture of care delivery to provide a seamless continuum of care, tailored to the severity of the mental health condition; investing more in what works to enhance the impact and value of the investments; and ensuring accountability through monitoring and acting upon a set of mental health indicators. All these actions are achievable, relying-for the most part-on resources already available to every community and country. What they do require is the acceptance that business as usual will fail and the solutions to transforming mental health-care systems are already present within existing resources.

24. Glob Ment Health (Camb) 2023;Oct 18:10:e71 doi: 10.1017/gmh.2023.62
Interventions addressing family violence and mental illness or substance use in low- and middle-income countries: A systematic review
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Most family violence research has been conducted in high-income countries, although family violence rates are higher in low- and middle-income countries (LMICs), and outcomes more severe. Given the strong associations of family violence with substance use and mental illness, the aim of this systematic review was to examine interventions that targeted familial violence and at least one other condition of substance use or mental illness to determine effective treatments in LMICs. We conducted a systematic review of interventions that addressed family violence and mental illness or substance use. A committee of three researchers independently screened titles and abstracts and conducted full-text eligibility assessments. Two researchers conducted a risk of bias assessment. Data were extracted using a structured spreadsheet and narratively synthesized. Our search identified 29 articles produced from 19 studies conducted in 13 LMICs. Most (n = 15) studies randomized to study condition. Lack of blinding was the most common threat. The external validity of studies was generally poor. Fourteen studies had a primary intervention target of family violence, mental health, substance use, economic improvement, or HIV. None of the studies showed improvements in all intervention areas. Child maltreatment was less likely to be addressed than intimate partner violence (IPV). Targeted interventions for substance and mental health mostly improved primary outcomes, although they were less effective in reducing IPV. Evidence-based treatments must be rigorously evaluated before innovations in implementation can occur. Interventions overwhelmingly addressed IPV victimization and should consider how to work with couples and include men and children.

## Non-communicable diseases

25. Lancet Glob Health 2023;11(11):e1700-e1712
Quantitative estimates of preventable and treatable deaths from 36 cancers worldwide: a population-based study
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Background: Cancer is a leading cause of premature mortality globally. This study estimates premature deaths at ages 30-69 years and distinguishes these as deaths that are preventable (avertable through primary or secondary prevention) or treatable (avertable through curative treatment) in 185 countries worldwide.
Methods: For this population-based study, estimated cancer deaths by country, cancer, sex, and age groups were retrieved from the International Agency for Research on Cancer's GLOBOCAN 2020 database. Crude and age-adjusted cancer-specific years of life lost (YLLs) were calculated for 36 cancer types.
Findings: Of the estimated all-ages cancer burden of 265·6 million YLLs, 182·8 million (68·8%) YLLs were due to premature deaths from cancer globally in 2020, with 124·3 million (68·0%) preventable and 58·5 million (32·0%) treatable. Countries with low, medium, or high human development index

(HDI) levels all had greater proportions of YLLs at premature ages than very high HDI countries (68·9%, 77·0%, and 72·2% vs 57·7%, respectively). Lung cancer was the leading contributor to preventable premature YLLs in medium to very high HDI countries (17·4% of all cancers, or 29·7 million of 171·3 million YLLs), whereas cervical cancer led in low HDI countries (26·3% of all preventable cancers, or 1·83 million of 6·93 million YLLs). Colorectal and breast cancers were major treatable cancers across all four tiers of HDI (25·5% of all treatable cancers in combination, or 14·9 million of 58·5 million YLLs). Interpretation: Alongside tailored programmes of early diagnosis and screening linked to timely and comprehensive treatment, greater investments in risk factor reduction and vaccination are needed to address premature cancer inequalities.

## Nutrition

26. HPP 2023;38(8):895–906
Nutrition policy reforms to address the double burden of malnutrition in Zambia: a prospective policy analysis
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The evolution of nutrition patterns in Zambia has resulted in the coexistence of undernutrition and overnutrition in the same population, the double burden of malnutrition. While Zambia has strong policies addressing undernutrition and stunting, these do not adequately address food environment drivers of the double burden of malnutrition and the adolescent age group and hence the need for nutrition policy reforms. We conducted a theory-based qualitative prospective policy analysis involving in-depth interviews with nutrition policy stakeholders and policy document review to examine the feasibility of introducing nutrition policy options that address the double burden of malnutrition among adolescents to identify barriers and facilitators to such policy reforms. Using the multiple streams theory, we categorized the barriers and facilitators to prospective policy reforms into those related to the problem, policy solutions and politics stream. The use of a life-course approach in nutrition programming could facilitate policy reforms, as adolescence is one of the critical invention points in a person's lifecycle. Another key facilitator of policy reform was the availability of institutional infrastructure that could be leveraged to deliver adolescent-focused policies. However, the lack of evidence on the burden and long-term impacts of adolescent nutrition problems, the food industry's strong influence over governments' policy agenda setting and the lack of public awareness to demand better nutrition were perceived as critical barriers to policy reforms. In addition, the use of the individual responsibility framing for nutrition problems was dominant among stakeholders. As a result, stakeholders did not perceive legislative nutrition policy options that effectively address food environment drivers of the double burden of malnutrition to be feasible for the Zambian context. Policy entrepreneurs are required to broker policy reforms that will get legislative policy options on the government's agenda as they can help raise public support and re-engineer the framing of nutrition problems and their solutions in Zambia.

27. PLoS Med 2023;20(9):e1004291
Comprehensive mandatory policies are needed to fully protect all children from unhealthy food marketing
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The World Health Organization (WHO) have released a new guideline, "Policies to protect children from the harmful impact of food marketing" which recommends the development of comprehensive laws to reduce children's exposure to unhealthy food marketing. This new guideline extends previous recommendations to limit the adverse effects of unhealthy food marketing on the health of the world's children. We consider here whether these new recommendations go far enough.

Nutrition-related noncommunicable diseases (NCDs) represent a truly global concern. Countries are increasingly responding to calls by the WHO and others to enact policies that improve diets through the reduction of foods high in added fats, sugars, and/or sodium (HFSS). Efforts to reduce unhealthy food marketing is included in these calls since children are disproportionately exposed to food marketing for HFSS products, which attracts the children's attention and, ultimately, shapes their food preferences and increases their caloric intake. The resulting dietary behaviors constitute a critical risk factor for childhood obesity, which can persist into adulthood and lead to cardiometabolic diseases, cancers, and other health complications.
Building on their previous recommendations published in 2010 [2], the WHO has published an updated guideline that supports food marketing policy development with considerations for implementation, monitoring, and enforcement. //
The new WHO guideline on food marketing policy marks a significant and positive step in protecting children, and future iterations must go even further to encourage the sea change needed for worldwide collaboration in tackling the role of food marketing in global health. Likely, a focus on HFSS products will not be enough to fully address nutrition-related NCDs. As the WHO's new guideline was released, a larger concern has been developing about the link between consumption of ultra-processed foods and mortality. Countries will need to adopt comprehensive definitions of marketing content, placement, and targeting strategies, and of unhealthy food and beverage products and brands including ultra-processed foods not covered by HFSS criteria, if they are to fully protect all children from unhealthy food marketing and its influence on their health trajectories.

## Sexual and Reproductive Health

28. BMJ 2023;382:e072249
Research
Suboptimal gestational weight gain and neonatal outcomes in low and middle income countries: individual participant data meta-analysis
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Objective To estimate the associations between gestational weight gain (GWG) during pregnancy and neonatal outcomes in low and middle income countries.
Design. Individual participant data meta-analysis.
Setting. Prospective pregnancy studies from 24 low and middle income countries.
Main outcome measures. Nine neonatal outcomes related to timing (preterm birth) and anthropometry (weight, length, and head circumference) at birth, stillbirths, and neonatal death.
Analysis methods. A systematic search was conducted in PubMed, Embase, and Web of Science which identified 53 prospective pregnancy studies published after the year 2000 with data on GWG, timing and anthropometry at birth, and neonatal mortality. GWG adequacy was defined as the ratio of the observed maternal weight gain over the recommended weight gain based on the Institute of Medicine body mass index specific guidelines, which are derived from data in high income settings, and the INTERGROWTH-21st GWG standards. Study specific estimates, adjusted for confounders, were generated and then pooled using random effects meta-analysis models. Maternal age and body mass index before pregnancy were examined as potential modifiers of the associations between GWG adequacy and neonatal outcomes.
Results. Overall, 55% of participants had severely inadequate (<70%) or moderately inadequate (70% to <90%) GWG, 22% had adequate GWG (90-125%), and 23% had excessive GWG (≥125%). Severely inadequate GWG was associated with a higher risk of low birthweight (adjusted relative risk 1.62, 95% confidence interval 1.51 to 1.72; 48 studies, 93337 participants; $\tau^2$=0.006), small for gestational age (1.44, 1.36 to 1.54; 51 studies, 93191 participants; $\tau^2$=0.016), short for gestational age (1.47, 1.29 to 1.69; 40 studies, 83827 participants; $\tau^2$=0.074), and microcephaly (1.57, 1.31 to 1.88; 31 studies, 80046 participants; $\tau^2$=0.145) compared with adequate GWG. Excessive GWG was associated with a higher risk of preterm birth (1.22, 1.13 to 1.31; 48 studies, 103762 participants; $\tau^2$=0.008), large for

gestational age (1.44, 1.33 to 1.57; 47 studies, 90044 participants; τ2=0.009), and macrosomia (1.52, 1.33 to 1.73; 29 studies, 68138 participants; τ2=0) compared with adequate GWG. The direction and magnitude of the associations between GWG adequacy and several neonatal outcomes were modified by maternal age and body mass index before pregnancy.
Conclusions. Inadequate and excessive GWG are associated with a higher risk of adverse neonatal outcomes across settings. Interventions to promote optimal GWG during pregnancy are likely to reduce the burden of adverse neonatal outcomes, however further research is needed to assess optimal ranges of GWG based on data from low and middle income countries.

29. BMJ 2023;383:p2763
The BMJ Appeal 2023-24: Periods don't stop for disasters
Feinmann J, <jane@janefeinmann.com>

Jane Feinmann reports on ActionAid UK, which champions women's rights during humanitarian crises
The plight of women and girls managing menstruation during humanitarian crises is below the radar of many aid organisations. But it's a priority for ActionAid UK, the choice for The BMJ's annual appeal this year—and the charity's response to the September earthquake in Morocco shows why.
That earthquake, which killed 3000 people and left 300000 homeless, hit the remote Atlas Mountains—a very poor region that already had a high level of inequality, says Halima Begum, chief executive of ActionAid UK. This had led to widespread sexual exploitation through domestic work and meant that child marriage was a constant risk.
She says, "Thousands of women and girls are now living in rudimentary shelter without access to menstrual products, either because of lack of availability or lack of funds to buy them, and without access to facilities to wash their clothes.
"The need for period products can be overlooked in the rush to provide food and shelter. And it will continue to be overlooked if women's voices are not heard. The gender inequality and discrimination that women and girls experience in their daily lives continues when disasters occur. That's why we have to do things differently."
Mike Noyes, head of ActionAid UK's humanitarian team in emergencies, adds, "Far too many marginalised women are forced to use torn pieces of clothing or dirty rags instead of safe, clean period products, and this puts them at risk of dangerous infections. Having bloodstains on your clothes causes embarrassment and isolation."

30. BMJ Global Health 2023;8:e012673
Original research
Implementing maternal and newborn health quality of care standards in healthcare facilities to improve the adoption of respectful maternity care in Bangladesh, Ghana and Tanzania: a controlled before and after study
Manu A, Pingray V et al., Correspondence to: Veronica Pingray <vpingray@iecs.org.ar>

Introduction. Many women worldwide cannot access respectful maternity care (RMC). We assessed the effect of implementing maternal and newborn health (MNH) quality of care standards on RMC measures.
Methods. We used a facility-based controlled before and after design in 43 healthcare facilities in Bangladesh, Ghana and Tanzania. Interviews with women and health workers and observations of labour and childbirth were used for data collection. We estimated difference-in-differences to compare changes in RMC measures over time between groups.
Results. 1827 women and 818 health workers were interviewed, and 1512 observations were performed. In Bangladesh, MNH quality of care standards reduced physical abuse (DiD −5.2;−9.0 to −1.4). The standards increased RMC training (DiD 59.0; 33.4 to 84.6) and the availability of policies and procedures for both addressing patient concerns (DiD 46.0; 4.7 to 87.4) and identifying/reporting abuse (DiD 45.9; 19.9 to 71.8). The control facilities showed greater improvements in communicating

the delivery plan (DiD −33.8; –62.9 to –4.6). Other measures improved in both groups, except for satisfaction with hygiene. In Ghana, the intervention improved women's experiences. Providers allowed women to ask questions and express concerns (DiD 37.5; 5.9 to 69.0), considered concerns (DiD 14.9; 4.9 to 24.9), reduced verbal abuse (DiD −8.0; −12.1 to –3.8) and physical abuse (DiD −5.2; −11.4 to –0.9). More women reported they would choose the facility for another delivery (DiD 17.5; 5.5 to 29.4). In Tanzania, women in the intervention facilities reported improvements in privacy (DiD 24.2; 0.2 to 48.3). No other significant differences were observed due to improvements in both groups.
Conclusion. Institutionalising care standards and creating an enabling environment for quality MNH care is feasible in low and middle-income countries and may facilitate the adoption of RMC.

31. Bull WHO 2023;101(11):723–29
A research agenda to improve incidence and outcomes of assisted vaginal birth
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Access to emergency obstetric care, including assisted vaginal birth and caesarean birth, is crucial for improving maternal and childbirth outcomes. However, although the proportion of births by caesarean section has increased during the last few decades, the use of assisted vaginal birth has declined. This is particularly the case in low- and middle-income countries, despite an assisted vaginal birth often being less risky than caesarean birth. We therefore conducted a three-step process to identify a research agenda necessary to increase the use of, or reintroduce, assisted vaginal birth: after conducting an evidence synthesis, which informed a consultation with technical experts who proposed an initial research agenda, we sought and incorporated the views of women's representatives of this agenda. This process has allowed us to identify a comprehensive research agenda, with topics categorized as: (i) the need to understand women's perceptions of assisted vaginal birth, and provide appropriate and reliable information; (ii) the importance of training health-care providers in clinical skills but also in respectful care, effective communication, shared decision-making and informed consent; and (iii) the barriers to and facilitators of implementation and sustainability. From women's feedback, we learned of the urgent need to recognize labour, childbirth and postpartum experiences as inherently physiological and dignified human processes, in which interventions should only be implemented if necessary. The promotion and/or reintroduction of assisted vaginal birth in low-resource settings requires governments, policy-makers and hospital administrators to support skilled health-care providers who can, in turn, respectfully support women in labour and childbirth.

32. HPP 2023;38(9):1079-98
Understanding communication in community engagement for maternal and newborn health programmes in low- and middle-income countries: a realist review
Dada S et al., UCD Centre for Interdisciplinary Research Education and Innovation in Health Systems (UCD IRIS Centre), School of Nursing Midwifery and Health Systems, University College Dublin, Ireland <sara.dada@ucdconnect.ie>

As community engagement (CE) is implemented for sustainable maternal and newborn health (MNH) programming, it is important to determine how these approaches work. Low- and middle-income countries (LMICs) have become a particular focus for MNH CE activities due to their high burden of maternal and neonatal deaths. MNH messaging and communication to engage communities are likely to differ by context, but how these approaches are actually developed and implemented within CE is not well understood. Understanding how communications in CE actually work is vital in the translation of learnings across programmes and to inform future projects. The purpose of this realist review is to describe how, why, to what extent and for whom communications in CE contribute to MNH programming in LMICs. After searching academic databases, grey literature and literature suggested

by the expert advisory committee, documents were included if they described the CE communication processes/activities used for MNH programming in an LMIC. Relevant documents were assessed for richness (depth of insight) and rigor (trustworthiness and coherence of data/theories). Data were extracted as context–mechanism–outcome configurations (CMOCs) and synthesized into demi-regularities to contribute to theory refinement. After screening 416 records, 45 CMOCs were extracted from 11 documents. This informed five programme theories explaining that communications in CE for an MNH programme work when: communities are actively involved throughout the programme, the messaging and programme are acceptable, communication sources are trusted, the community has a reciprocal relationship with the programme and the community sees value in the programme. While these findings reflect what is often anecdotally known in CE or acknowledged in communications theory, they have implications for policy, practice and research by highlighting the importance of centring the community's needs and priorities throughout the stages of developing and implementing communications for CE in MNH.

33. Lancet Glob Health 2023;Dec 5:S2214-109X(23)00468-0. DOI:https://doi.org/10.1016/S2214-109X(23)00468-0
A global analysis of the determinants of maternal health and transitions in maternal mortality.
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This is the first Series paper of the Series: Maternal health in the perinatal period and beyond.
The reduction of maternal mortality and the promotion of maternal health and wellbeing are complex tasks. This Series paper analyses the distal and proximal determinants of maternal health, as well as the exposures, risk factors, and micro-correlates related to maternal mortality. This paper also examines the relationship between these determinants and the gradual shift over time from a pattern of high maternal mortality to a pattern of low maternal mortality (a phenomenon described as the maternal mortality transition). We conducted two systematic reviews of the literature and we analysed publicly available data on indicators related to the Sustainable Development Goals, specifically, estimates prepared by international organisations, including the UN and the World Bank. We considered 23 frameworks depicting maternal health and wellbeing as a multifactorial process, with superdeterminants that broadly affect women's health and wellbeing before, during, and after pregnancy. We explore the role of social determinants of maternal health, individual characteristics, and health-system features in the production of maternal health and wellbeing. This paper argues that the preventable deaths of millions of women each decade are not solely due to biomedical complications of pregnancy, childbirth, and the postnatal period, but are also tangible manifestations of the prevailing determinants of maternal health and persistent inequities in global health and socioeconomic development. This paper underscores the need for broader, multipronged actions to improve maternal health and wellbeing and accelerate sustainable reductions in maternal mortality. For women who have pregnancy, childbirth, or postpartum complications, the health system provides a crucial opportunity to interrupt the chain of events that can potentially end in maternal death. Ultimately, expanding the health sector ecosystem to mitigate maternal health determinants and tailoring the configuration of health systems to counter the detrimental effects of eco-social forces, including though increased access to quality-assured commodities and services, are essential to improve maternal health and wellbeing and reduce maternal mortality.

The other Series papers:

33a. Lancet Glob Health 2023 DOI:https://doi.org/10.1016/j.eclinm.2023.102264
Vulnerabilities and reparative strategies during pregnancy, childbirth, and the postpartum period: moving from rhetoric to action
Sheikh J et al. Corresponding author O.T. Oladapo <oladapoo@who.int>

33b. Lancet Glob Health 2023 Dec 5:S2214-109X(23)00454-0
Neglected medium-term and long-term consequences of labour and childbirth: a systematic analysis of the burden, recommended practices, and a way forward
Vogel JP et al., Maternal, Child and Adolescent Health Program, Burnet Institute, Melbourne, VIC, Australia <joshua.vogel@burnet.edu.au>

33c. Lancet Glob Health 2023 DOI:https://doi.org/10.1016/j.eclinm.2023.102180
Towards a better tomorrow: addressing intersectional gender power relations to eradicate inequities in maternal health
Bohren MA et al., Gender and Women's Health Unit, Nossal Institute for Global Health, School of Population and Global Health, University of Melbourne, Carlton, Victoria, Australia <meghan.bohren@unimelb.edu.au>

34. Lancet 2023;402(10412):1580-96
The forgotten girls: the state of evidence for health interventions for pregnant adolescents and their newborns in low-income and middle-income countries
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Every year, an estimated 21 million girls aged 15-19 years become pregnant in low-income and middle-income countries (LMICs). Policy responses have focused on reducing the adolescent birth rate whereas efforts to support pregnant adolescents have developed more slowly. We did a systematic review of interventions addressing any health-related outcome for pregnant adolescents and their newborn babies in LMICs and mapped its results to a framework describing high-quality health systems for pregnant adolescents. Although we identified some promising interventions, such as micronutrient supplementation, conditional cash transfers, and well facilitated group care, most studies were at high risk of bias and there were substantial gaps in evidence. These included major gaps in delivery, abortion, and postnatal care, and mental health, violence, and substance misuse-related outcomes. We recommend that the fields of adolescent, maternal, and sexual and reproductive health collaborate to develop more adolescent-inclusive maternal health care and research, and specific interventions for pregnant adolescents. We outline steps to develop high-quality, evidence-based care for the millions of pregnant adolescents and their newborns who currently do not receive this.

## Tuberculosis

35. Lancet 2023;402(10411):1473-98 doi: 10.1016/S0140-6736(23)01379-X
Scientific advances and the end of tuberculosis: a report from the Lancet Commission on Tuberculosis
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The 2019 Lancet Commission on Tuberculosis laid out an optimistic vision for how to build a tuberculosis-free world through smart investments based on sound science and shared responsibility. Since then, several major strides have been made towards ending tuberculosis, including substantive improvements in treatment outcomes for people with drug-resistant disease. Although COVID-19 has undermined global progress, many African countries have sustained declines in tuberculosis mortality rates. With excellent short-course preventive regimens and several late-stage vaccine candidates, tuberculosis prevention is also on the cusp of a revolution. Still, much more can be done to fully implement the Commission's recommendations and realise the ambitious targets set out at the UN High-Level Meeting (HLM) on tuberculosis in 2018. In the 5 years since the HLM, more than 7 million people have died of tuberculosis; their deaths are a profound tragedy and a reminder of the urgency of accelerating momentum.

In September, 2023, the UN will convene a follow-up HLM to hold a comprehensive review of global progress towards ending tuberculosis. Before this meeting, we must ask ourselves how we can do better. As background to the HLM and as an update to our initial report, this follow-up report outlines roadblocks that have undermined progress towards ending tuberculosis over the past 5 years; endorses a new set of tools that can catalyse response efforts and should be implemented urgently; provides a revised assessment of the crucial investment priorities; and restates the importance of stronger health systems, emboldened community engagement, action on crucial social determinants of tuberculosis, sustained political will, and increased financial investments as prerequisites to ending tuberculosis.
Although COVID-19 has had a profound negative effect on global tuberculosis efforts, it provides a precedent for what concerted, international collective action can achieve to address a global infectious disease threat. Failings in the global COVID-19 response also underscore the importance of person-centred and equity-oriented tuberculosis programming. This updated report will highlight lessons learned from the successes and failures of the COVID-19 response and the intersecting priorities of pandemic preparedness with tuberculosis response efforts and the universal health coverage agenda, including a shared vision to strengthen multilateralism across political, cultural, institutional, and financial dimensions. Can we build a tuberculosis-free world? Yes. Will we? Each country's answer will depend on the decisions made by leaders and institutions at all levels, in all sectors, and across all parts of society. The leadership of national tuberculosis programmes and the adequacy of the resources at their disposal will be of the utmost importance.

36. Lancet Glob Health 2023;11(10):e1640-e1647
Costs incurred by people receiving tuberculosis treatment in low-income and middle-income countries: a meta-regression analysis
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Background: People accessing and completing treatment for tuberculosis can face large economic costs, even when treatment is provided free of charge. The WHO End TB Strategy targets the elimination of catastrophic costs among tuberculosis-affected households. While low-income and middle-income countries (LMICs) represent 99% of global tuberculosis cases, only 29 of 135 LMICs had conducted national surveys of costs for patients with tuberculosis by December, 2022. We estimated costs for patients with tuberculosis in countries that have not conducted a national survey, to provide evidence on the economic burden of tuberculosis in these settings and inform estimates of global economic burden.
Methods: We extracted data from 22 national surveys of costs faced by patients with tuberculosis that were completed across 2015-22 and met inclusion criteria. Using a Bayesian meta-regression approach, we used these data and covariate data for all 135 LMICs to estimate per-patient costs (2021 US$) by cost category (ie, direct medical, direct non-medical, and indirect), country, drug resistance, and household income quintile. We also estimated the proportion of households experiencing catastrophic total costs (defined as >20% of annual household income) as a result of tuberculosis disease.
Findings: Across LMICs, mean direct medical costs incurred by patients with tuberculosis were estimated as US$211 (95% uncertainty interval 154-302), direct non-medical costs were $512 (428-620), and indirect costs were $530 (423-663) per episode of tuberculosis. Overall, per-patient costs were $1253 (1127-1417). Estimated proportions of tuberculosis-affected households experiencing catastrophic total costs ranged from 75·2% (70·3-80·0) in the poorest quintile to 42·5% (34·3-51·5) in the richest quintile, compared with 54·9% (47·0-63·2) overall.
Interpretation: Tuberculosis diagnosis and treatment impose substantial costs on affected households. Eliminating these economic losses is crucial for removing barriers to accessing tuberculosis diagnosis and completing treatment among affected households and achieving the targets set in WHO's End TB Strategy.

## Miscellaneous

37. BMJ Global Health 2023;8:e013399
Practice
Development and validation of a new measurement instrument to assess internship experience of medical doctors in low-income and middle-income countries
Zhao Y et al., Correspondence to: Yingxi Zhao <yingxi.zhao@ndm.ox.ac.uk>

Routine surveys are used to understand the training quality and experiences of junior doctors but there are lack of tools designed to evaluate the training experiences of interns in low-income and middle-income countries (LMICs) where working conditions and resource constraints are challenging. We describe our process developing and validating a 'medical internship experience scale' to address this gap, work involving nine LMICs that varied in geographical locations, income-level and internship training models. We used a scoping review of existing tools, content validity discussions with target populations and an expert panel, back-and-forth translations into four language versions and cognitive interviews to develop and test the tool. Using data collected from 1646 interns and junior medical doctors, we assessed factor structure and assessed its reliability and validity. Fifty items about experiences of medical internship were retained from an initial pool of 102 items. These 50 items represent 6 major factors (constructs): (1) clinical learning and supervision, (2) patient safety, (3) job satisfaction, (4) stress and burnout, (5) mental well-being, and (6) fairness and discrimination. We reflect on the process of multicountry scale development and highlight some considerations for others who may use our scale, using preliminary analyses of the 1646 responses to illustrate that the tool may produce useful data to identify priorities for action. We suggest this tool could enable LMICs to assess key metrics regarding intern straining and initial work experiences and possibly allow comparison across countries and over time, to inform better internship planning and management.

38. Lancet Glob Health 2023 Dec;11(12):e1863-e1873 doi: 10.1016/S2214-109X(23)00417-5
Prevalence and changes of intimate partner violence against women aged 15 to 49 years in 53 low-income and middle-income countries from 2000 to 2021: a secondary analysis of population-based surveys
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Background: In low-income and middle-income countries (LMICs), intimate partner violence poses a substantial barrier to accomplishing target 5.2 of the Sustainable Development Goals: to eliminate all forms of violence against women and girls. Our study aimed to assess the prevalence and changes of intimate partner violence against women in LMICs. We also explored the association between women's empowerment and intimate partner violence.
Methods: In this secondary analysis of population-based surveys, we obtained data from the nationally representative Demographic and Health Surveys conducted in LMICs between 2000 and 2021. We selected countries with available data on the domestic violence module, and women aged 15 to 49 years who currently or formerly had a husband or partner, and who had provided information about intimate partner violence, were included in the analysis. We first estimated the weighted prevalence of intimate partner violence in LMICs with available data, and then we assessed the average annual rate of change using Poisson regression with robust error variance in a subset of countries with at least two surveys. We used multilevel analysis to investigate the association between intimate partner violence and women's empowerment measured at both the country and individual levels. Country-level empowerment was measured by gender inequality index, while individual-level empowerment considered social independence, decision making, and attitude to violence.
Findings: A total of 359 479 women aged 15 to 49 years were included from 53 LMICs. 336 811 women from 21 countries with two surveys provided data for assessing the trends of intimate partner

violence. The weighted prevalence of any type of intimate partner violence was 37·2% (95% CI 36·6 to 37·8). A significant overall decline in the prevalence of any type of intimate partner violence was observed with an average annual rate of change of -0·2% (95% CI -0·4 to -0·03); however six countries showed significant increasing trends, with average annual rates of change ranging from 1·2% (95% CI 0·7 to 1·7) in Nigeria to 6·6% (5·3 to 7·8) in Sierra Leone. Notably, the prevalence of psychological intimate partner violence has risen (average annual rate of change, 2·3% [95% CI 2·1 to 2·6]), reflected in increased rates across eight countries. Higher levels of country-level women's empowerment were associated with a lower risk of intimate partner violence: women from countries with the highest tertile of gender inequality index had an increased odds of any type of intimate partner violence (odds ratio 1·58 [95% CI 1·12 to 2·23]). Similarly, better individual-level women's empowerment also showed significant associations with a lower risk of intimate partner violence.
Interpretation: The prevalence of intimate partner violence remains high, and some countries have shown an increasing trend. The strong relationship between both country-level and individual-level women's empowerment and the prevalence of intimate partner violence suggests that accelerating women's empowerment could be one strategy to further reduce intimate partner violence against women.

38a. Comment:
Lancet Glob Health 2023;11(12):e1828-e1829 doi: 10.1016/S2214-109X(23)00471-0
Is intimate partner violence declining in low-income and middle-income countries?
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