

and livebirth.⁴ With available data, more knowledge could be gained by conducting an individual participant data meta-analysis (IPDMA), based on the ALIFE2 study and the previous randomised controlled trials included in the meta-analysis by Skeith and colleagues.⁵ This approach would increase the chance of performing subgroup analyses of interest.

The authors recommend not to screen for inherited thrombophilia, as there is no effective treatment available and the association with recurrent pregnancy loss can be questioned. A 2022 cohort study showed that the prevalence of inherited thrombophilia in a large cohort of women with a history of recurrent pregnancy loss is similar to that of the general population.⁶ By showing no effect of LMWH on recurrent pregnancy loss, the ALIFE2 trial has strengthened the recommendation from the European Society of Human Reproduction and Embryology guideline,¹ which recommends not to screen for inherited thrombophilia unless in the context of research, or in women with additional risk factors for thrombophilia, such as with own or family history of venous thromboembolism.⁷⁻⁹

Despite the lack of effect of LMWH for women with recurrent miscarriage and inherited thrombophilia demonstrated by the ALIFE2 trial, more research on thrombophilia of rare occurrence is needed. Subgroup analyses of interest in IPDMA of previous trials and

collaborative prospective registries should bring some important insights.

We declare no competing interests.

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Indigenous determinants of health: a unified call for progress



The UN General Assembly formally declared 1993 as the International Year of the World's Indigenous People, with a "view to strengthening international cooperation for the solution of problems faced by Indigenous communities in areas such as human rights, the environment, development, education, and health".¹ In 2000, the UN Permanent Forum on Indigenous Issues (UNPFII) was formally established with health as one of its six mandated areas of focus. The UNPFII supported the work to ensure the 2007 adoption of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), a human rights instrument specifying the rights of Indigenous Peoples worldwide, including the right to health and social security.² Yet, globally, substantial challenges remain for Indigenous Peoples.

More than 476 million Indigenous Peoples reside in over 90 countries and they represent at least 5000 unique cultures.³ Despite comprising about 6% of the world's population, Indigenous Peoples are disproportionately affected by poverty.⁴ Many continue to report experiencing barriers to and being prevented from accessing basic rights and freedoms, including the prerequisites of health: peace, shelter, education, food, income, a stable eco system, sustainable resources, social justice, and equity.⁵ In some countries Indigenous Peoples are denied the fundamental right to identify as Indigenous Peoples. This lack of identification amplifies human rights violations and perpetuates data erasure, as there is no systematic collection of data available to support strategy and development for Indigenous Peoples' rights and needs.

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Several publications have reported on the health status of Indigenous Peoples in different nation states,⁶ but few have focused on the health and wellbeing indicators from an Indigenous worldview.^{5,7} In 2022, Indigenous Peoples identified a crucial need to establish a framework on the Indigenous determinants of health derived from Indigenous Peoples' communities to guide the UN and "member states in the strategy, policy-setting and actions taken" under the Sustainable Development Goals.⁸ Almost 30 years from the International Year of the World's Indigenous People, and 16 years since UNDRIP, for the first time a study by members of UNPFII and the Indigenous Determinants of Health Working Group (IDHWG) on the determinants of Indigenous health was formally considered and adopted at the 22nd session of the UNPFII in April, 2023—the first global Indigenous-led organisational effort to specifically increase visibility and awareness of the health and wellbeing of Indigenous Peoples to UN member states and entities.⁸ This UNPFII study makes a number of key recommendations on the important connections between territories, cultures, and health for Indigenous Peoples' community wellbeing.⁸ The "Health of Mother Earth" is highlighted with specific calls for ensuring sustainable Indigenous food systems and land and water protections, which includes the protection of

Indigenous traditional medicines.⁸ The member study emphasises the need to move towards implementation of key priorities to ensure intergenerational healing and the decolonisation of the determinants of health landscape for Indigenous Peoples (panel).⁸

Substantial barriers exist in advancing these UNPFII and IDHWG recommendations.⁸ Specific implementation targets and accountability mechanisms for Indigenous health and wellbeing will be difficult to operationalise. In addition to Indigenous Peoples not being recognised in a number of nation states, there have been decades of human rights violations, such as forced assimilation and relocation agendas; broken treaties; racism and political marginalisation; and a lack of overarching free, prior, and informed consent.^{5,7,10–12} Indigenous Peoples are additionally too often viewed through a deficit-based lens that minimises community strengths and abilities at local, national, and international levels of influence.¹³ For example, despite an increasing presence of Indigenous Peoples with the expertise to lead large policy and implementation initiatives, local, national, and international agencies typically appoint non-Indigenous "experts" to design, implement, and oversee Indigenous-specific initiatives, perpetuating colonial and patriarchal approaches antithetical to the recommendations in the UNPFII report.⁸

Indigenous Peoples' communities, including Indigenous scholars and health professionals, have long advocated for strengths-based approaches within public health and wellness research, within interventions and funding mechanisms, and with regard to health policy implementation.¹⁴ Ensuring respect for and elevation of Indigenous Peoples' brilliance and strengths-based approaches¹⁴ in advancing culturally grounded solutions for all areas of health will therefore be crucial for addressing the Indigenous determinants of health across all practice areas, levels of health-care service delivery, research, and health policy.^{13–15} Additionally, Indigenous Peoples are recognised through varied national and international mechanisms as self-determined peoples,¹⁶ and therefore specific and delineated actions to address the key priority areas shown in the panel should be mobilised on the ground from within Indigenous Peoples' communities and be specific to unique and diverse geopolitical and cultural contexts.

Panel: Key priority areas for addressing the determinants of Indigenous health

- WHO and other local, national, and international health agencies to explicitly recognise "Indigeneity" and "colonialism" as overarching determinants of health
- Direct implementation support from all nation states with regard to operationalising the 76th World Health Assembly resolution passed on The Health of Indigenous Peoples (A76/A/CONF./1) in May, 2023⁹
- The development of a Global Action Plan on the Health of Indigenous Peoples to be led and informed by Indigenous Peoples and communities with outcome benchmarks and progress timelines delineated
- Local, national, and international policy recognition and implementation that connects Indigenous Peoples health and land and water rights as intrinsically connected to the planet's wellbeing
- Direct support from individual nation states to ensure the design and development of national implementation plans led by Indigenous Peoples and communities

Some of the text for this panel is adapted from the study Indigenous determinants of health in the 2030 Agenda for Sustainable Development.⁸

We are living in a pivotal time in human history. Our planet, Mother Earth, is in crisis. Indigenous Peoples steward 80% of the world's remaining biodiversity¹⁷ and, therefore, the wellbeing of Indigenous Peoples is an explicit determinant of planetary health.¹⁸ The Indigenous determinants of health are not only for Indigenous Peoples, but also have a benefit that is intimately connected to the future survival of all humanity and the planet. The strengths and wisdom inherent to Indigenous Peoples are "intrinsically connected to everything that exists on the planet".⁸ This reality demands nation states, the UN, WHO, and other entities act now on the Indigenous determinants of health.

DMK reports travel support from the International Fund for Agricultural Development to attend as an observer to the UNPFII. GR reports travel support from the National Indian Health Board (NIHB) to attend meetings on the Indigenous determinants of health, an NIHB conference, and the World Health Assembly meeting in Geneva, and travel support from the UN Department of Economic and Social Affairs (secretariat to the UNPFII) to attend the UNPFII as an unpaid Expert Member and Vice Chair of the UNPFII. All other authors report no competing interests. NR, PR, DKW, AK, and GR were volunteer coauthors of the study Indigenous determinants of health in the 2030 Agenda for Sustainable Development⁷ that is discussed in this Comment; PR, DMK, DKW, and AK were in attendance at the UNPFII meeting as observers.

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Human health depends on thriving oceans

Healthy oceans, from coastal waters to remote high seas and deep seabed areas, are integral to human health, wellbeing, and survival. Covering over 71% of the Earth's surface, the oceans serve as an essential carbon sink.¹ Oceans also regulate climate-associated human health risks between land and sea, ranging from direct injuries and deaths associated with extreme weather events, to negative effects on food and nutrition

security, and even chronic diseases (eg, cancer) from ocean pollution.² Furthermore, oceans are a source of joy, recreation, spiritual and mental wellbeing, healing, and entertainment, enriching human lives beyond their basic needs. Although more is known about areas that are near the coast, it is clear that the deep sea (ie, the seabed beyond national jurisdiction) and the high seas (ie, the parts of oceans beyond national jurisdiction),



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