

Indigenous Medical Knowledge: Building Scientific and Legal Governance Frameworks for its Safe Utilisation Worldwide

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Indigenous Medical Knowledge: Building Scientific and Legal Governance Frameworks for its Safe Utilisation Worldwide

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Abstract

This paper discusses how indigenous medical knowledge can be effectively harnessed towards advancing the human right to health for Sustainable Development. The paper defines indigenous medical knowledge. It argues that indigenous medical knowledge plays a key role in fostering the right to health for indigenous peoples and local communities all over the world. The paper further posits that integrating indigenous medical knowledge with modern medicine is crucial in advancing the right to health globally. Despite its efficacy, the paper notes that indigenous medical knowledge is yet to be fully embraced undermine the achievement of the human right to health. The paper discusses some of the major challenges facing indigenous medical knowledge. In light of these concerns, the paper explores how indigenous medical knowledge can be effectively harnessed by building scientific and legal governance frameworks for its safe utilisation worldwide.

1.0 Introduction

The pursuit of Sustainable Development depends on ensuring good health and well-being for every person. For example, it has been argued that respecting, protecting and fulfilling the human right to health for every person is one of the cornerstones for the enhancement and improvement of overall wellbeing and human development since it enables human beings to undertake social, economic and cultural activities as well partake in civil and political activities¹. Health has been identified as both a basic human right in itself and an essential means for the realisation of other fundamental human

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¹ Nampewo. Z., Mike. J., & Wolff. J., 'Respecting, Protecting and Fulfilling the Human Right to Health.' *International Journal of Equity in Health*, Volume 21, No. 36 (2022)

rights². It has been argued that ensuring the human right to health has positive impacts on education, work productivity and poverty reduction³. It also fosters equality, inclusivity, political participation and peace⁴. Further, it has been argued that fostering health behaviours can support environmental sustainability by tackling threats such as climate change, biodiversity loss and pollution⁵. The *United Nations 2030 Agenda for Sustainable Development*⁶ recognises the importance of good health in the pursuit of Sustainable Development. Under the Agenda, Sustainable Development Goal (SDG) 3 aims to ensure healthy lives for every person and promote well-being for all at all ages towards Sustainable Development⁷.

Fostering the human right to health is therefore vital in the quest for Sustainable Development. In particular, it has been argued that access to essential medicines is a human right, linked to the right to health⁸. Ensuring the availability, accessibility, affordability and quality of essential medicines is key in fostering the right to health including through tackling infectious diseases, fostering maternal and child health and addressing non-communicable diseases⁹. According to the World Health Organization (WHO), the right to health can only be achieved when there is affordable access to safe, effective and quality medicines and health products¹⁰.

² Ibid

³ Siciliani. L., & Cylus. J., 'The contribution of health and health systems to other sustainable development goals. An overview of the evidence on co-benefits' *Health Policy.*, Volume 162., December 2025

⁴ Ibid

⁵ Ibid

⁶ United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 06/12/2025)

⁷ Ibid

⁸ Balasubramaniam. K., 'Access to Essential Medicines as a Human Right' Available at <https://haiweb.org/storage/2019/11/Access-to-essential-medicines-as-a-human-right.pdf> (Accessed on 06/12/2025)

⁹ Ibid

¹⁰ World Health Organization., 'Access to medicines and health products' Available at <https://www.who.int/our-work/access-to-medicines-and-health-products> (Accessed on 06/12/2025)

Access to medicines is therefore a fundamental component of the full realization of the right to health for Sustainable Development. In particular, it has been argued that indigenous medical knowledge enables indigenous peoples, local communities and rural households to access essential medicines for maintenance of their health and the prevention, diagnosis, improvement and treatment of illnesses towards attaining the human right to health¹¹. However, due to advances in modern medicine, indigenous medical knowledge has been deemed inferior, marginalised and is largely ignored undermining the right to health for vulnerable groups including indigenous peoples and local communities¹². Protecting indigenous medical knowledge is therefore necessary towards fostering the human right to health for Sustainable Development.

This paper discusses how indigenous medical knowledge can be effectively harnessed towards advancing the human right to health for Sustainable Development. The paper defines indigenous medical knowledge. It argues that indigenous medical knowledge plays a key role in fostering the right to health for indigenous peoples and local communities all over the world. The paper further posits that integrating indigenous medical knowledge with modern medicine is crucial in advancing the right to health globally. Despite its efficacy, the paper notes that indigenous medical knowledge is yet to be fully embraced undermine the achievement of the human right to health. The paper discusses some of the major challenges facing indigenous medical knowledge. In light of these concerns, the paper explores how indigenous medical knowledge can be effectively harnessed by building scientific and legal governance frameworks for its safe utilisation worldwide.

¹¹ World Health Organization., 'Traditional Medicine' Available at <https://www.who.int/news-room/questions-and-answers/item/traditional-medicine> (Accessed on 06/12/2025)

¹² Panghal. M., 'Indigenous knowledge of medicinal plants used by Saperas community of Khetawas, Jhajjar District, Haryana, India' Available at <https://ethnobiomed.biomedcentral.com/articles/10.1186/1746-4269-6-4> (Accessed on 06/12/2025)

2.0 Indigenous Medical Knowledge and the Right to Health: Opportunities and Challenges

According to WHO, indigenous/traditional medical knowledge comprises of codified or non-codified systems of healthcare and well-being, including practices, skills, knowledge and philosophies originating in different historical and cultural contexts, which are distinct from and pre-date biomedicine¹³. Further, indigenous medical knowledge has also been defined as the knowledge, skills, and practices which are based on the theories, beliefs, and experiences indigenous to different cultures that are used in the maintenance of health and the prevention, diagnosis, improvement or treatment of physical and mental health¹⁴. Indigenous medical knowledge can also be described as traditional healing practices and beliefs that encompass a holistic understanding of health by taking into account physical, emotional, intellectual, and spiritual well-being, and are closely tied to the cultural and environmental contexts of indigenous peoples and local communities¹⁵.

Indigenous medical knowledge plays a key role in fostering the right to health for indigenous peoples and local communities all over the world. It has been argued that indigenous medical knowledge has been practiced by indigenous peoples and local communities all over the world since the dawn of humanity¹⁶. Before advances in modern medicine, people all over the world utilised indigenous medical knowledge by relieving pain and illness using plants, herbs, animal organs, roots, leaves and soil among other

¹³ World Health Organization., 'Traditional, Complementary and Integrative Medicine' Available at https://www.who.int/health-topics/traditional-complementary-and-integrative-medicine#tab=tab_1 (Accessed on 07/12/2025)

¹⁴ Gakuya. D.W et al., 'Traditional medicine in Kenya: Past and current status, challenges, and the way forward' *Scientific African.*, Volume 8, 2020

¹⁵ Indigenous Medicine., Available at <https://www.sciencedirect.com/topics/psychology/indigenous-medicine#:~:text=Indigenous%20medicines%20refer%20to%20traditional,environmental%20contexts%20of%20Indigenous%20communities.> (Accessed on 07/12/2025)

¹⁶ Kilimwiko. L., 'Why Indigenous knowledge must be preserved' Available at <https://www.dandc.eu/en/article/maasai-know-how-treat-malaria-bark-many-other-indigenous-groups-they-have-immense-medical#:~:text=For%20the%20Maasai%2C%20the%20Earth,aid%20recovery%20from%20blood%20loss.> (Accessed on 07/12/2025)

traditional remedies¹⁷. WHO notes that traditional medicine is effective since it emphasizes nature-based remedies and holistic, personalized approaches to restore balance of mind, body and environment¹⁸. Further, it has been argued that indigenous medical knowledge including the use of medicinal plants plays a crucial role in meeting primary healthcare needs for indigenous peoples and local communities who usually face challenges in accessing modern medicines and healthcare systems¹⁹.

Harnessing indigenous medical knowledge is therefore vital in promoting the right to health for indigenous peoples and local communities who are usually marginalized and face challenges in accessing modern health services. For example, it has been argued that indigenous peoples and local communities often face challenges related to the physical accessibility of health services since they mostly reside in geographically isolated areas, hindering timely and appropriate care²⁰. Further, due to economic marginalization, indigenous peoples face challenges related to affordability of modern medicines and health services²¹. In light of these challenges, indigenous medical knowledge provides an effective solution towards advancing the right to health for indigenous peoples globally. For instance, it has been observed that the practice of traditional medicine and healing in Africa predates most of the other traditional medical sciences and is much more prevalent among indigenous and local communities in the continent when compared to modern medicine²². Further, it has been argued that in developing countries, traditional medicine is usually more accessible to larger segments of the population especially in rural areas

¹⁷ Ibid

¹⁸ World Health Organization., 'Traditional Medicine' Op Cit

¹⁹ El-Mernissi. Y et al., 'Indigenous Knowledge of the Traditional Use of Aromatic and Medicinal Plants in Rif Mountains Ketama District' Available at <https://onlinelibrary.wiley.com/doi/10.1155/2023/3977622> (Accessed on 07/12/2025)

²⁰ World Health Organization., 'Frequently asked questions on the health and rights of Indigenous Peoples' Available at <https://www.who.int/initiatives/global-plan-of-action-for-health-of-indigenous-peoples/frequently-asked-questions-on-the-health-and-rights-of-indigenous-peoples> (Accessed on 07/12/2025)

²¹ Ibid

²² Ozioma. E., & Chinwe. O., 'Herbal Medicines in African Traditional Medicine' Available at <https://www.intechopen.com/chapters/64851> (Accessed on 07/12/2025)

due to fewer cultural barriers and the availability of more traditional healers when compared to physicians²³. In addition, the high cost of modern medical treatment has seen more people embracing indigenous healing practices such as the use of herbal remedies²⁴. Indigenous healing practices are easily available, affordable, accessible and culturally acceptable by indigenous peoples and local communities making them indispensable in advancing the right to health²⁵.

Indigenous medical knowledge therefore provides a valuable solution in enhancing the right to health particularly for vulnerable indigenous peoples and local communities. Further, indigenous medical knowledge has played a significant contribution to breakthroughs in modern medicine. For example, there is a long history of herbal medicine being translated into pharmaceutical products for effective treatments of health conditions²⁶. Despite its efficacy, indigenous medical knowledge faces several challenges. For instance, it has been argued that indigenous medical knowledge has largely been ignored due to advances in modern medicine and as a result, this knowledge is disappearing in most parts of the world²⁷. Further, it has been pointed out that indigenous medical knowledge in most parts of the world is not well-documented which can lead to its loss undermining the right to health for future generations²⁸. WHO further notes that traditional medicine products are not always safe and can have negative health consequences, particularly when used in combination with other medicines or when taken in high doses²⁹. Challenges such as incorrect diagnosis, improper dosage and low

²³ Mayer. J.D., 'Medical Geography' *International Encyclopedia of the Social & Behavioral Sciences.*, 2001, pp 9518-9523

²⁴ Fokunang. C.N., 'Traditional Medicine: Past, Present and Future Research and Development Prospects and Integration in the National Health System of Cameroon' Available at <https://pmc.ncbi.nlm.nih.gov/articles/PMC3252219/> (Accessed on 07/12/2025)

²⁵ Indigenous practices in health care promotion and diseases prevention., Available at <https://www.ncbi.nlm.nih.gov/books/NBK601348/> (Accessed on 07/12/2025)

²⁶ World Health Organization., 'Traditional, Complementary and Integrative Medicine' Op Cit

²⁷ Panghal. M., 'Indigenous knowledge of medicinal plants used by Saperas community of Khetawas, Jhajjar District, Haryana, India' Op Cit

²⁸ Indigenous practices in health care promotion and diseases prevention., Op Cit

²⁹ World Health Organization., 'Traditional Medicine' Op Cit

hygiene standards also undermine the efficacy of indigenous healing practices³⁰. Further, according to the World Intellectual Property Organization (WIPO), there have been cases involving misappropriation of indigenous medical knowledge by unauthorized third parties, who have patented compounds derived from traditional medicines without the consent of and fair compensation to traditional medical knowledge holders³¹.

It is imperative to address the foregoing challenges in order to effectively harness indigenous medical knowledge.

3.0 Harnessing Indigenous Medical Knowledge for Posterity

Indigenous medical knowledge is a valuable resource that can make a significant contribution in advancing the right to health for indigenous peoples and local communities who often face challenges in accessing modern medicines and health services. Further, indigenous medical knowledge can play a key role in modern medicine discoveries³². In light of its vital importance, it has been argued that indigenous peoples have the full right to preserve their traditional medicines and maintain their various health practices³³. However, concerns relating to marginalisation, lack of documentation, misappropriation and safety require effective frameworks in order to harness indigenous medical knowledge and ensure its safe utilisation worldwide³⁴.

In order to effectively harness indigenous medical knowledge, it is necessary to build effective legal frameworks. It has been argued that putting in place appropriate legal frameworks is key in ensuring the effective use of indigenous medical knowledge by harmonizing its practice, mainstreaming it into national health policies and systems and

³⁰ Fokunang. C.N., 'Traditional Medicine: Past, Present and Future Research and Development Prospects and Integration in the National Health System of Cameroon' Op Cit

³¹ World Intellectual Property Organization., 'Intellectual Property and Traditional Medical Knowledge' Available at <https://www.wipo.int/edocs/pubdocs/en/wipo-pub-rn2023-5-6-en-intellectual-property-and-traditional-medical-knowledge.pdf> (Accessed on 07/12/2025)

³² World Health Organization., 'Traditional, Complementary and Integrative Medicine' Op Cit

³³ Sharma. S., 'Indigenous People and their Right to Health' Available at [https://www.aalco.int/journal2019/3.%20Swati%20Sharma-%20\(17-32\).pdf](https://www.aalco.int/journal2019/3.%20Swati%20Sharma-%20(17-32).pdf) (Accessed on 07/12/2025)

³⁴ World Health Organization., 'Traditional Medicine' Op Cit

fostering quality control systems including the standardization of traditional medicine³⁵. Further, effective legal frameworks can enhance the uptake and safe use of indigenous medical knowledge by fostering appropriate training for traditional healers, quality assurance, and establishing clear practice frameworks³⁶. In addition, sound legal frameworks including strong intellectual property protection can ensure that indigenous medical knowledge is not misappropriated and its benefits are shared equitably with indigenous peoples and local communities³⁷.

In addition, it is vital to integrate indigenous medical knowledge with modern advances in medicine. It has been argued that building synergies between indigenous medical knowledge and modern medical knowledge can ensure that traditional medicines and healing practices complements biomedicine³⁸. This is also key in addressing the marginalisation that indigenous medical knowledge faces in modern science and ensuring that it can be harnessed to support modern medical discoveries³⁹.

Further, it is of utmost importance to preserve indigenous medical knowledge. It has been observed that indigenous medical knowledge is being lost in many parts of the world due to lack of documentation among other causes⁴⁰. It is therefore vital for governments to invest in documentation and preservation of indigenous medical knowledge for the benefit of present and future generations⁴¹.

4.0 Conclusion

Indigenous medical knowledge plays an important role in fostering the right to health especially for vulnerable indigenous peoples and local communities. However, it is

³⁵ Ibid

³⁶ Ibid

³⁷ World Intellectual Property Organization., 'Intellectual Property and Traditional Medical Knowledge' Op Cit

³⁸ World Health Organization., 'Traditional, Complementary and Integrative Medicine' Op Cit

³⁹ Ibid

⁴⁰ Indigenous practices in health care promotion and diseases prevention., Op Cit

⁴¹ Ibid

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necessary to ensure that indigenous medical knowledge is effectively harnessed by putting in place appropriate legal frameworks, integrating indigenous medical knowledge with modern medicine and preserving indigenous medical knowledge for the benefit of current and future generations⁴². Harnessing indigenous medical knowledge is therefore necessary and important towards protecting the human right to health now and in the future.

⁴² World Health Organization., 'Traditional Medicine' Op Cit

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