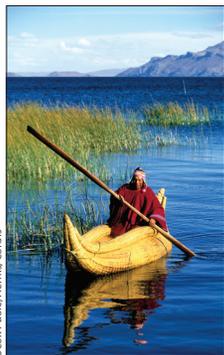


## Back to the roots: traditional medicine for cancer control in Latin America and the Caribbean



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See *The Lancet Oncology Commission* page 391

WHO estimates that 65% of the world's population uses traditional medicine alone or in combination with modern medicine. Thus, in Latin America at least 390 million people, including 50–60 million indigenous people who have access only to traditional medicines and medicinal plants, use traditional medicines for various health problems, including cancer. The number of Latin Americans who use traditional medicines could be higher than world averages because of the migration of people with indigenous backgrounds to large modern cities, where shops of medicinal plants and traditional healers are often located near modern hospitals.

Acceptance of traditional medicine is based on the widespread perception of the safety of medicinal plants, but wide dissemination and accessibility also have roles. For example, the graviola (the fruit of *Annona muricata*), also called the soursop or Brazilian paw paw, and known in Spanish as *guanabana*, can be bought in any local market in South America, is credited with anti-inflammatory and antihyperglycaemic properties, and has shown efficacy against cancer in preclinical settings.<sup>1–3</sup> The bark of *Uncaria tomentosa*, or cat's claw, an Amazon vine with antiproliferative activity, is often used as a complement to chemotherapy, even by western doctors.<sup>4,5</sup>

The search for medicinal plants with potential anti-tumour activity by the US National Cancer Institute was intense from 1960 to 1980,<sup>6</sup> even in Latin America.<sup>7,8</sup> However, there is another less obvious aspect of traditional medicine's role in cancer control in Latin America—namely, the possibility that the traditional medical system itself contributes to control.

In *The Lancet Oncology Commission*, Paul Goss and colleagues<sup>9</sup> show the limited access to cancer services in much of Latin America and the Caribbean, but in these places traditional medicine is available, with practitioners such as indigenous healers who have therapeutic arsenals, whom people can attend when modern health services fail. The acceptability of traditional medicine in the general population should lead to consideration of intercultural approaches to these diverse systems, which, when combined with modern medicine, could provide an alternative first line

of diagnosis to conventional cancer services. Culturally appropriate services in Bolivia, Ecuador, Guatemala, and Peru, among other countries, have shown the wide acceptance and the possibility of coexistence and collaboration between traditional and modern medicines.<sup>10</sup>

Try to imagine a future in which traditional medicine is not only a source of therapeutic drugs for cancer control, but also a mechanism for cancer prevention. Focus on the tens of millions of Latin Americans who have access only to traditional medicine. We need to develop policies that allow for the recognition of traditional healers, recover and preserve their knowledge, and lead efforts in research, not only to find new resources, but also to incorporate traditional medicine and its practitioners into modern medicine.

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I declare that I have no conflicts of interest.

- Oberlies NH, Chang CJ, McLaughlin JL. Structure–activity relationships of diverse *Annonaceae* acetogenins against multidrug resistant human mammary adenocarcinoma (MCF-7/Adr) cells. *J Med Chem* 1997; **40**: 2102–06.
- Torres MP, Rachagani S, Purohit V, et al. Graviola: a novel promising natural-derived drug that inhibits tumorigenicity and metastasis of pancreatic cancer cells in vitro and in vivo through altering cell metabolism. *Cancer Lett* 2012; **323**: 29–40.
- Dai Y, Hogan S, Schmelz EM, Ju YH, Canning C, Zhou K. Selective growth inhibition of human breast cancer cells by graviola fruit extract in vitro and in vivo involving down regulation of EGFR expression. *Nutr Cancer* 2011; **63**: 795–801.
- Pilarski R, Poczekaj-Kostrzewska M, Ciesiolka D, Szyfter K, Gulewicz K. Antiproliferative activity of various *Uncaria tomentosa* preparations on HL-60 promyelocytic leukemia cells. *Pharmacol Rep* 2007; **59**: 565–72.
- Dreifuss AA, Bastos-Pereira AL, Avila TV, et al. Antitumoral and antioxidant effects of a hydroalcoholic extract of cat's claw (*Uncaria tomentosa*) (Willd Ex Roem & Schult) in an in vivo carcinosarcoma model. *J Ethnopharmacol* 2010; **130**: 127–33.
- Fabricant D, Farnsworth N. The value of plants used in traditional medicine for drug discovery. *Environ Health Perspect* 2001; **109** (suppl 1): 69–75.
- Mans DR, da Rocha AB, Schwartzmann G. Anti-cancer drug discovery and development in Brazil: targeted plant collection as a rational strategy to acquire candidate anti-cancer compounds. *Oncologist* 2000; **5**: 185–98.
- Popoca J, Aguilar A, Alonso D, Villarreal ML. Cytotoxic activity of selected plants used as antitumorals in Mexican traditional medicine. *J Ethnopharmacol* 1998; **59**: 173–77.
- Goss PE, Lee BL, Badovinac-Crnjevic T, et al. Planning cancer control in Latin America and the Caribbean. *Lancet Oncol* 2013; **14**: 391–436.
- Salaverry O. Interculturalidad en salud. *Rev Peru Med Exp Salud Publica* 2010; **27**: 80–93.