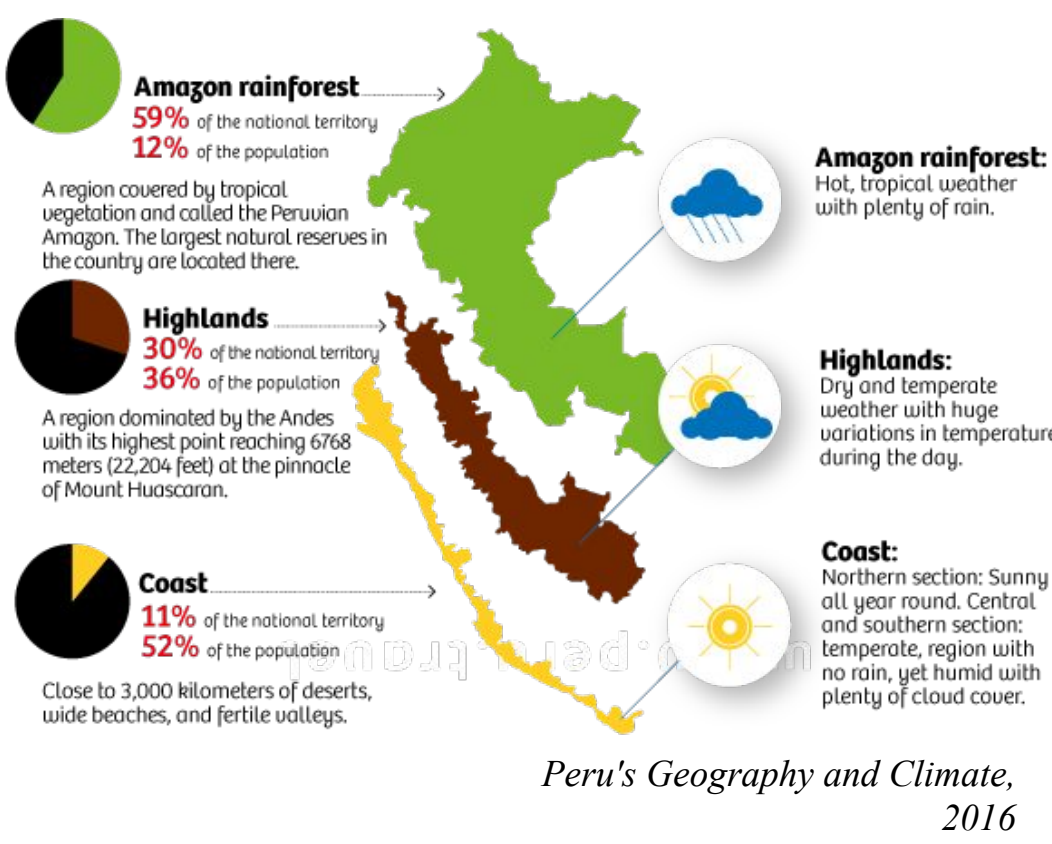


# Cultural Preservation of Ethnomedicine in Perú

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## Background

Minority Health & Health Disparities International Research Training Program (MHIRT-Perú) was funded by NIH in 2002, since then the Perú Ethnomedical Project in Trujillo has been an ongoing research both in the ethno-botanical and biochemical field. The summer 2015 Ethnomedical Project completed by MHIRT and supported by Linfield College focused on the usage of medicinal plants in northern Perú. Interviews were conducted in the coastal city of Trujillo, which has a population of around 800,000. The city has six districts: the urban core (Moche), las Delicias on the littoral, la Curva on the Panamerican Highway, an agricultural periphery (la Campiña), and two peri-urban sectors inhabited by migrants from the sierra (the older Alto Moche I and the more recent Alto Moche II, both also designated Miramar). The research was done on the urban core of Moche and the more rural sector of Miramar. The data collection of the commonly used plants was used to restore the garden in the Chan Chan archaeological site museum (Fajardo, Sours, 2012).



Traditional medicine—including the use of medicinal plants—is defined by the World Health Organization as “the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, used in the maintenance of health and in the prevention, diagnosis, improvement or treatment of physical and mental illness” (World Health Organization 1999, 2002).

## Purpose

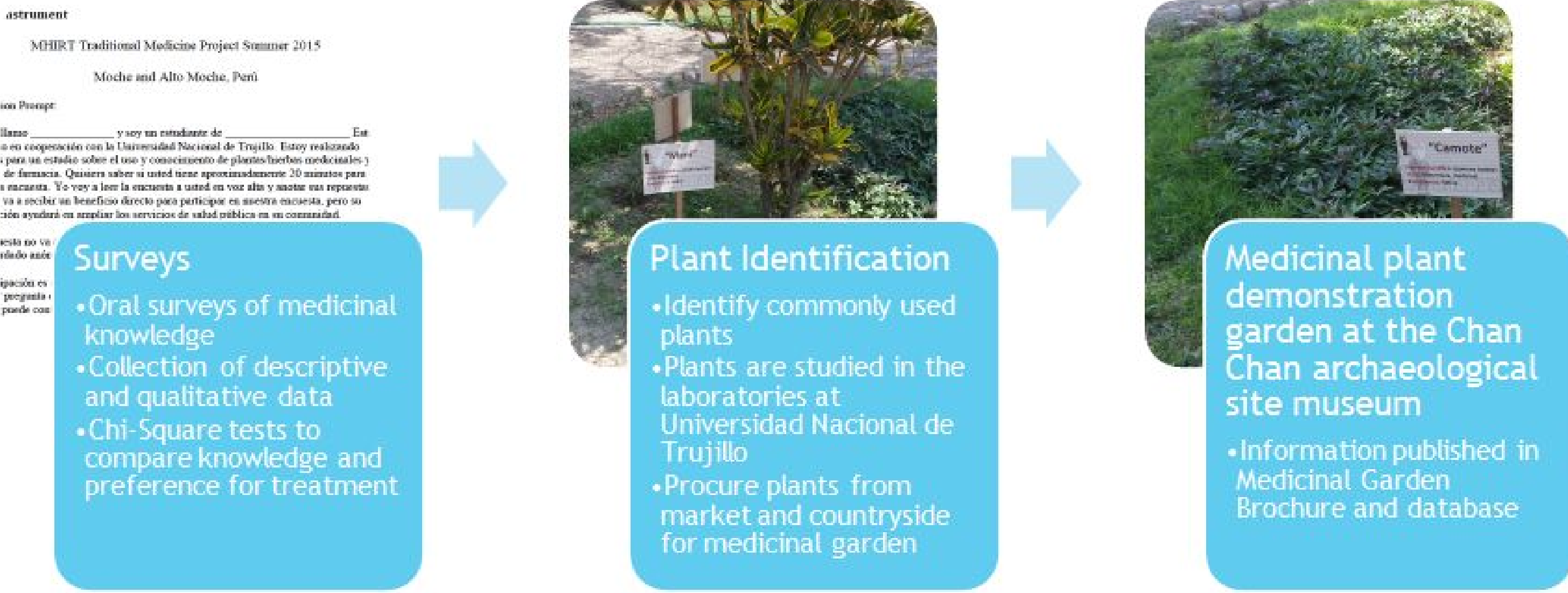
- Preserve the knowledge of these practices
- Analyze the plant properties
- Publish the information
- Provide the community with a garden
- Bring back and apply this in the Linfield community



## Hypothesis

High cost of pharmaceuticals draws people toward using traditional use of medicinal plants. Recent migrants to peripheral areas are maintaining sierra traditions (Bussmann, Sharon, 2007).

## Methods



(Bernard 2006, Burnard et al. al 2008) (Brod et al. 2009) (Revene et al. al 2008)

## Results/Conclusion

- No statistical significance between the preference in medicinal plants and location
- Deeply rooted practice of plant medicine in Perú
- In Moche, 49% of the participants preferred medicinal plants over pharmaceuticals, compared to 41.6% in Alto Moche
- 90% or higher for both communities’ belief in culturally bound illnesses
- 81% in Alto Moche and 66% in Moche-- Parents more knowledgeable about traditional medicine

Our descriptive and qualitative data analyzed through a Chi-Square test resulted in a no statistical significance between the preference in medicinal plants and location. In Moche, 49% of the participants preferred medicinal plants over pharmaceuticals, compared to 41.6% in Alto Moche. While 90% or higher of the participating population for both communities believed in culturally bound illnesses. Our questionnaire regarding the continuous intergenerational knowledge and use of medicinal plants demonstrated that 81% in Alto Moche and 66% in Moche confirmed that parents were more knowledgeable about traditional medicine.

Through our experience working with medicinal plants in Perú, we were motivated and inspired to implement that idea here in the Linfield Garden. The sustainability department granted support to begin the medicinal garden and begin connecting individuals to natural healing resources.

## Medicinal Garden

The other part of the research project was restoration of the medicinal plant garden in the Chan Chan archaeological site museum. In the summer of 2010, the implementation of a medicinal plant garden in the Chan Chan archaeological site was established by two Linfield students for educational purposes on a previous summer faculty-student collaborative research project. Through a series of surveys conducted in the summer of 2015, the most commonly used medicinal plants in Moche were identified. The demonstration garden reflects that diversity of plants, and is meant to serve as an educational model to teach people about the medicinal and cultural components of each species.



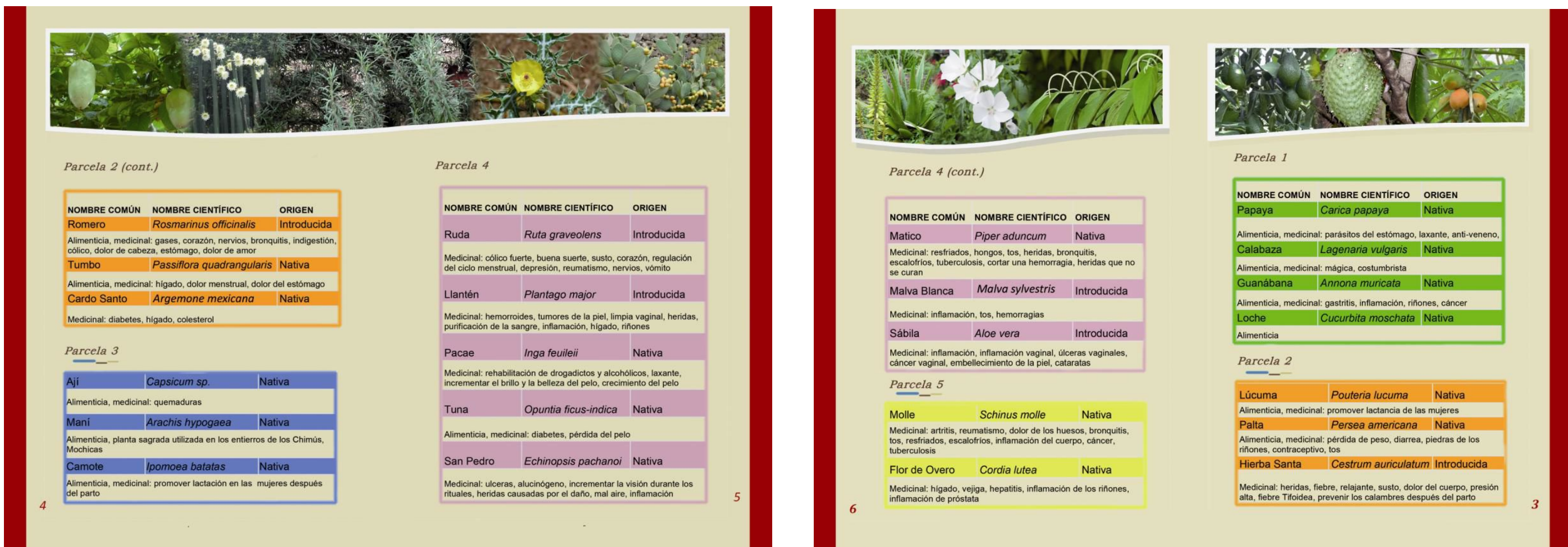
## Garden Restoration

<b>Echinopsis pachanoi</b> <p><b>Family:</b> Cactaceae <b>Uses:</b> ulcers, as a hallucinogen during rituals to enhance vision, wounds caused by sorcery, inflammation, acne and for hair washing</p>	<b>Ruta graveolens</b> <p><b>Family:</b> Rutaceae <b>Uses:</b> Abortion, good luck, success fright, heart, menstrual regulation, depression, rheumatism, nerves nausea, aphrodisiac</p>	<b>Plantago major</b> <p><b>Family:</b> Plantaginaceae <b>Uses:</b> Hemorrhoids, benign skin tumors, vaginal cleansing, wounds, blood purification, inflammation, liver, kidneys, arthritis, sprains, respiratory problems</p>	<b>Carica papaya</b> <p><b>Family:</b> Caricaceae <b>Uses:</b> Stomach parasites, laxative, anti-venom, reverse poison effects, inflammation of the liver</p>
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(Bussmann, Sharon, 2007)

## Publication

A brochure was created to guide tourists and locals through the garden. The brochure includes the following information for each plant species in the garden: common name, scientific name, origin, and medicinal use.



## References

Bernard H. *Research methods in anthropology: Qualitative and quantitative approaches*. Fourth edition. Altamira Press; 2006.

Brod M, Tesler LE, Christensen TL. Qualitative research and content validity: developing best practices based on science and experience. *Qual Life Res*. 18(9): 1263-1278; 2009.

Burnard R, Gill P, Stewart K, Treasure E, Chadwick B. Analyzing and presenting qualitative data. *British dental journal* 204(8):429-432; 2008.

Bussmann RW, Sharon D. *Plants of the four winds: The magic and medicinal flora of Peru—Plantas de los cuatro vientos: Flora mágica y medicinal del Perú*. Graficart, Trujillo; 2007.

Bussmann RW, Sharon D, Lopez A. Blending Traditional and Western Medicine: Medicinal plant use among patients at Clínica Amicoma in El Porvenir, Peru. *Ethnobotany Research & Applications* 5:185-199; 2007.

Bussmann RW, Sharon D, Vandeboeck I, Jones A, Revene Z. Health for sale: the medicinal plant markets in Trujillo and Chiclayo, Northern Peru. *Journal of Ethnobiology and Ethnomedicine* 3:37-9/VIII-xvi; 2007.

Fajardo S, Sours A. *Patient Surveys at EsSalud's Complementary Medicine Clinic in Trujillo, Peru*. MHIRT-Peru; 2012.

Revene Z, Bussmann R, Sharon D. From Sierra to Coast: Tracing the supply of medicinal plants in Northern Peru – A plant collector's tale. *Ethnobotany Research & Applications* 6:15-22; 2008.

World Health Organization: *Consultation Meeting on Traditional Medicine and Modern Medicine: Harmonizing the Two Approaches*. World Health Organization, Geneva. (document reference (WP)TM/ICP/TM/001/RB/98-RS/99/GE/32(CHN)); 1999.

World Health Organization: *WHO Traditional Medicine Strategy 2002–2005*. World Health Organization, Geneva; 2002.

## Sponsors



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