
PANGOLINS

AND THE PRACTITIONER PERSPECTIVE

A CASE STUDY ON TRADITIONAL MEDICINE IN VIETNAM



WILDAID

ABOUT WILDAID

WildAid inspires change and empowers the world to protect wildlife and vital habitats from critical threats including illegal wildlife trafficking, climate change, and illegal fishing. WildAid delivers impact at scale in two distinct ways: 1) creating innovative communications campaigns that inspire millions of people in China, South East Asia, Africa, and the U.S. to protect endangered wildlife and reduce climate impacts, and 2) strengthening effective ocean enforcement of priority marine areas including marine protected areas, coastal fisheries, coral reefs, and blue carbon habitats with government, NGO, and community partners in 16 countries around the globe.

www.wildaid.org

CONTACT INFORMATION

WILDAID

220 Montgomery St, #1200

San Francisco, CA 94104

Tel: 415.834.3174

Christina Vallianos

vallianos@wildaid.org

PARTNERS

CHOICE

WildAid operates in Vietnam through Choice, a locally-led organization whose mission is to promote environmental conservation through education and creative communications that encourage behavioral change and inspire the Vietnamese community to take actions, with a focus on tackling climate change, wildlife trade, and pollution.

EMERGING WILDLIFE CONSERVATION LEADERS (EWCL)

The Emerging Wildlife Conservation Leaders (EWCL) is an initiative that helps jump-start early career conservation professionals through training, networking, and completing a global wildlife conservation initiative. EWCL addresses a long-standing need for capable leaders in the conservation field who are equipped with a full arsenal of skills to launch successful conservation campaigns and build successful leadership careers in the wildlife conservation profession.

www.wildlifeleaders.org

AUTHORS

This project is a joint effort of WildAid, Choice, and EWCL.

The report was authored by a EWCL team comprised of:

Alexander Nicolas

Dillon Hanson-Ahumada

Fátima Ramis

Inov Sectionov

Kaitlyn Bock

Melissa Fenton

Melissa Fisher

Special thanks
to the Pangolin Crisis Fund and
the SeaWorld Busch Gardens
Conservation Fund for supporting
our pangolin conservation efforts.

DESIGNER

Kassia Wordley

COVER PHOTO

© *Paul Hilton*

CONTENTS

EXECUTIVE SUMMARY	05
PANGOLINS IN PERIL AND THE ROLE THEY PLAY IN TRADITIONAL MEDICINE	06
UNVEILING INSIGHTS FROM TRADITIONAL MEDICINE PRACTITIONERS IN VIETNAM	09
DEMOGRAPHICS	11
WORRYING SIGNS OF SUPPORT FOR PANGOLIN PRODUCT USAGE	12
ENCOURAGING SIGNS AND OPENNESS TO TRYING ALTERNATIVES TO PANGOLIN PRODUCTS	13
CONCERNINGLY STRONG PERCEIVED EFFECTIVENESS OF PANGOLIN PRODUCTS FOR TREATING MAMMARY GLAND AND LACTATION PROBLEMS	14
SIGNIFICANT AWARENESS OF THE ILLEGALITY OF USING PANGOLIN PRODUCTS	15
POTENTIAL DETERRENTS TO USING PANGOLIN PRODUCTS	16
OPPORTUNITIES FOR ENGAGEMENT WITH PRACTITIONERS	17
A CALL TO ACTION: HARNESSING THE INFLUENCE OF TRADITIONAL MEDICINE PRACTITIONERS TO SAVE PANGOLINS	19



EXECUTIVE SUMMARY

PANGOLINS ARE THE WORLD'S MOST HEAVILY TRAFFICKED WILD MAMMAL.

While international regulations have been imposed on the trade of these species, including protection by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and domestic laws are in place in many range countries, the demand for pangolin parts and products continues. Vietnam is recognized as a significant player in the trafficking of pangolins, despite the country's ban on trade and consumption. Much of this growing demand is fueled by the belief that pangolin scales possess healing properties, making them a prime ingredient in Traditional Medicine products. This exploitation is now threatening the survival of all eight pangolin species.

Most research and conservation interventions addressing this issue to date have focused on consumer demand for medicinal pangolin products. However, Traditional Medicine practitioners are key players in the prescription and consumption of these products—they are pivotal decision-makers and influencers when it comes to determining suitable treatments and vouching for the efficacy of certain medications. This report illustrates findings from research conducted in 2023 in Hue City, Thừa Thiên Huế province, Vietnam. We sought to gain a better understanding of the behaviors and motives of Traditional Medicine practitioners in Vietnam,

including those who may use pangolin-based medications to treat a variety of ailments. These results begin to unveil the dynamics of the perception that Traditional Medicine practitioners have on the effectiveness of medicinal pangolin products, as well as their openness to exploring potential alternative ingredients and medications.

In total, 131 practitioners were surveyed across Hue City. Most of these practitioners (80.7%) said that pangolin products are useful for treating at least one type of ailment. Most notably, over half (52.67%) indicated that pangolin-containing products are an effective treatment for mammary gland blockages in lactating women, which was the most popular use for pangolin-infused medicines. Yet, the majority of respondents (83%) were aware that pangolin products are illegal. When practitioners were specifically asked what would most likely deter them from prescribing a medication associated with pangolins, wildlife endangerment was the most frequently mentioned deterrent, with the illegality of pangolin products being a strong second. Most practitioners (55.2%) went on to indicate a willingness to try medications using alternative ingredients as a substitute to pangolin scales, especially if alternatives were already a part of Traditional Medicine practice.

In August 2023, practitioners from across Thừa Thiên Huế province came together as part of a

workshop to explore strengthening multilateral coordination for stopping and restricting the use of wildlife products in Traditional Medicine, and 73% of participants signed on to a “Pledge for Wildlife,” committing to stopping the use and purchasing of medicinal formulas derived from wild animals, using sustainable and plant-based alternatives when possible.

THE RESULTS OF THIS RESEARCH PROVIDE A WINDOW INTO THE INTRICATE RELATIONSHIP BETWEEN TRADITIONAL MEDICINE PRACTITIONERS AND PANGOLIN PRODUCT USE IN VIETNAM.

It also highlights the need for continued targeted interventions with practitioners to reduce demand for pangolin products, the potential for the prescription of alternative wildlife-friendly medicinal products with improved education and guidance about sustainable alternatives, and the promise of a new unified voice and network of Vietnamese practitioners who call for the protection of pangolins and other endangered species.

URGENT ACTION IS NEEDED TO IMPROVE THE BALANCE BETWEEN A VALUED CULTURAL PRACTICE AND THE CONSERVATION OF ONE OF THE PLANET'S MOST THREATENED ANIMALS.

PANGOLINS IN PERIL

AND THE ROLE THEY PLAY IN TRADITIONAL MEDICINE

In a world where unsustainable human consumption continues to push wildlife to the brink of extinction, pangolins, the world's only scaly mammal, have emerged as an unexpected focal point in the plight to save a species. Known as scaly anteaters, pangolins are reclusive, solitary, and nocturnal animals that have few natural predators and are known to roll up into a ball when threatened. Despite their unassuming nature, pangolins are considered to be the world's most heavily trafficked mammal and account for a disproportionate amount of the illegal wildlife trade.

Since they are exceedingly difficult to raise or breed in captivity, the global demand for pangolin scales is met by poaching these animals in the wild. Native to Africa and Asia, pangolins are captured and taken from their native habitats and trafficked between continents and across borders, despite international agreements that mandate their protections. According to the International Union for Conservation of Nature (IUCN), more than one million pangolins were poached in the decade prior to 2014. The growing demand for pangolin scales, which are believed to possess healing properties, is fueling an illicit business that is threatening the survival of the species.

Vietnam is noted as a significant hub in the trade of pangolin products. Despite legal protections imposed both within Vietnam and

internationally, pangolin parts continue to be illegally trafficked into and within the country. In Vietnamese culture, pangolin meat is consumed as a culinary delicacy, and the scales are used in Traditional Medicine to treat a variety of ailments, all despite the significant legal framework in place to prevent such usage. In high-end restaurants, pangolin is consumed as an exotic meat enjoyed by the upper-class. The interrelated demands for culinary and medicinal use create a vicious cycle of suffering that turns pangolins into commodities.

Traditional Medicine is very important in Vietnam, and contains many modalities that utilize animal parts, such as from pangolins. It is a popular product amongst Traditional Medicine practitioners because of its many uses. Practitioners have cited using pangolin scales due to their blood cooling properties, and therefore, the capacity to cure mammary gland blockages in breastfeeding women, treat rheumatism, stimulate blood flow, reduce swelling and promote discharge of pus from wounds, and more.

Alternatives to pangolin medicine are available and range from plant-based options, behavioral techniques, and medicine made from parts of domesticated species. Existing research has found that in China, plant-based alternatives are likely to be a viable and preferred option for consumers of wildlife

as Traditional Medicine. So, it was important in this study to also assess Vietnamese practitioner preferences for medicinal alternatives.

Since 2014, all eight pangolin species have been included in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Appendix I, thereby prohibiting international trade in pangolins and their parts and derivatives. However, despite its ongoing protections and the illegality of buying pangolin-derived medications, including in Vietnam, practitioners continue to contribute to the demand for these medicines. Law enforcement is a limited resource. Thừa Thiên Huế province, for example, specifically does not conduct a lot of law enforcement on Traditional Medicine practices. Violations will only be inspected and handled when they are reported, and while raids on restaurants are frequent, none have been conducted on the Traditional Medicine community.

Most pre-existing research has been focused on understanding the patient's perspective. There is a noticeable lack of research evaluating different kinds of Traditional Medicine practitioners, highlighting the need to fill this gap and gain a comprehensive understanding of their perspectives and recommendations.



**“BELIEF IN THE EFFECTS
OF THE MEDICATION
COMING FROM WILDLIFE
IS STILL HIGH IN PUBLIC
PERCEPTION.”**

- Traditional Medicine Practitioner



VẤY TÊ TÊ

UNVEILING INSIGHTS

FROM TRADITIONAL MEDICINE PRACTITIONERS IN VIETNAM

Conventional wisdom has suggested that much of the demand for pangolin scales stems from patient preferences, gauged by the perceived efficacy of medications containing them. However, contemporary research contradicts this notion, illustrating that the demand predominantly arises from practitioners. “Patients usually have no idea what they need for their symptoms”¹. They typically lack the knowledge to determine the most suitable treatment for their symptoms, deferring this responsibility to practitioners who select the medication. This establishes practitioners as pivotal decision-makers and further emphasizes the need to incorporate their perspectives and experiences as a window into understanding the persevering role of pangolin products in Traditional Medicine.

This pilot study sought to address this need by starting in Hue City in 2022-2023, aiming to complement WildAid’s broader efforts to raise awareness and change behavior on this issue. Developing an effective Traditional Medicine-focused behavior change campaign for pangolin conservation in Vietnam is dependent on the ability to leverage relevant points of knowledge and emotions associated with pangolin

product prescription. Since there is insufficient literature available to understand the role of Vietnamese Traditional Medicine practitioners in fueling the demand for pangolin product usage, this pilot study provides relevant and critical information for continued behavior change campaign efforts on the use of wildlife products in Traditional Medicine.

The objectives of this pilot study included identifying relevant social and cultural characteristics of Traditional Medicine practitioners, identifying relevant sources of social and knowledge-based influences as they relate to medical decision-making, identifying the reasons why practitioners prescribe pangolin and other wildlife products, and exploring their willingness to use non-wildlife products to replace pangolin and other endangered species products in Traditional Medicine prescriptions.

A survey was launched in April 2023, in partnership with the Thừa Thiên Huế Acupuncture Association (TAA). TAA collaborated with the Hue University of Medicine and Pharmacy to deploy enumerators and gather responses from members. A total of 131 Traditional Medicine practitioners

were surveyed in Hue City, each consisting of 20-30 minute in-person interviews. Participation in the survey was voluntary and participants were kept anonymous to protect their identities and help reflect honest perspectives. There were also no mandatory questions, allowing participants to omit responses at their discretion.

“THE DEMAND FOR PANGOLINS COMES FROM PHARMACIES OR FROM PATIENTS’ WISHES. THE USE ALSO DEPENDS ON THE ADVICE OF THE PHYSICIAN BECAUSE THE PATIENT ONLY RELIES ON THE BELIEF ABOUT THE EFFECTIVENESS OF THE MEDICINE TRANSMITTED BY WORD OF MOUTH, NOT KNOWING HOW EFFECTIVE IT REALLY IS.”

- Traditional Medicine Practitioner

¹ Sexton R, Nguyen T, & Roberts DL. (2021). The Use and Prescription of Pangolin in Traditional Vietnamese Medicine. *Tropical Conservation Science*, Volume 14. <https://doi:10.1177/1940082920985755>



DEMOGRAPHICS



131 RESPONDENTS FROM HUE CITY



WITH AN AVERAGE AGE OF 26-73

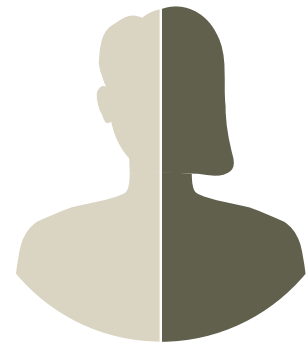


67 IDENTIFIED AS MALE



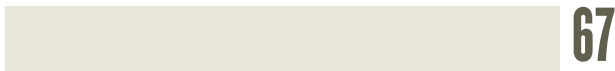
60 IDENTIFIED AS FEMALE

(with 4 people not reporting their sex)



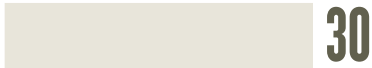
PRACTICE TYPE

ONLY TRADITIONAL MEDICINE



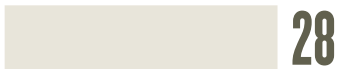
67

MAINLY TRADITIONAL MEDICINE



30

EQUAL MIX OF TRADITIONAL AND WESTERN MEDICINE



28

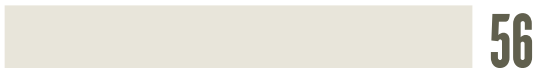
ONLY WESTERN MEDICINE



3

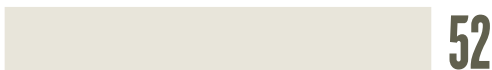
FACILITY TYPE

STATE RUN FACILITY / CLINIC



56

PRIVATE PRACTICE / DISPENSARY



52

TRAVEL CLINIC



22

OTHERS



10

PRACTITIONERS REPORTED SEEING AN AVERAGE OF 1,392 PATIENTS IN A YEAR

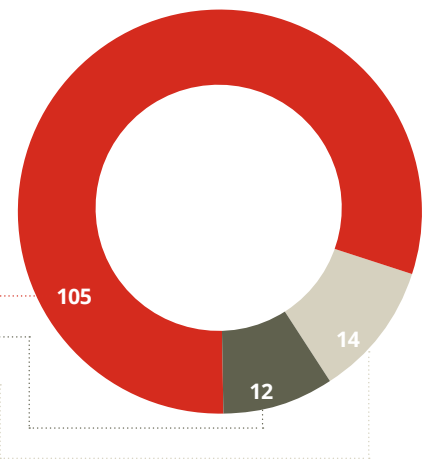
ON AVERAGE INDIVIDUALS PRACTICED TRADITIONAL MEDICINE FOR 17 YEARS

WORRYING SIGNS OF SUPPORT FOR PANGOLIN PRODUCT USAGE

80.7%
SAID PANGOLIN
PRODUCTS WERE
USEFUL FOR AT LEAST
ONE AILMENT

INDIVIDUALS WERE ASKED WHAT AILMENTS PANGOLIN PRODUCTS MAY BE USEFUL FOR CURING. 105 INDIVIDUALS OUT OF 131 MENTIONED PANGOLIN SCALES WERE USEFUL FOR AT LEAST ONE OF THE 12 ILLNESS PROMPTS PROVIDED.

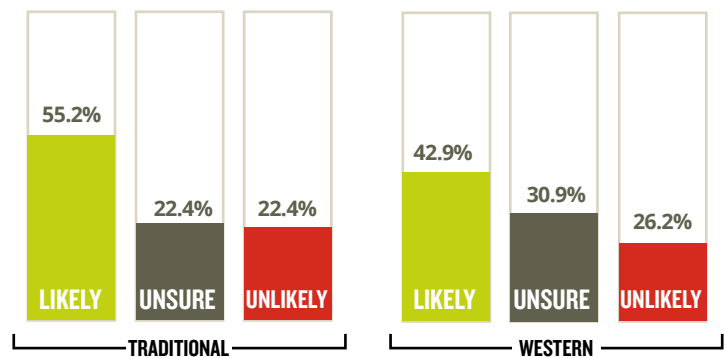
PANGOLINS ARE USEFUL FOR AT LEAST ONE ILLNESS ●
PANGOLINS ARE NOT USEFUL FOR ANY ILLNESS ●
UNSURE OR NO RESPONSE ●



ENCOURAGING SIGNS AND OPENNESS TO TRYING ALTERNATIVES TO PANGOLIN PRODUCTS

MOST PARTICIPANTS ARE OPEN TO TRYING ALTERNATIVES TO PANGOLIN PRODUCTS

THEY ARE MORE OPEN TO ALTERNATIVES THAT ARE TRADITIONAL MEDICINE-DERIVED AS OPPOSED TO WESTERN MEDICINE-DERIVED



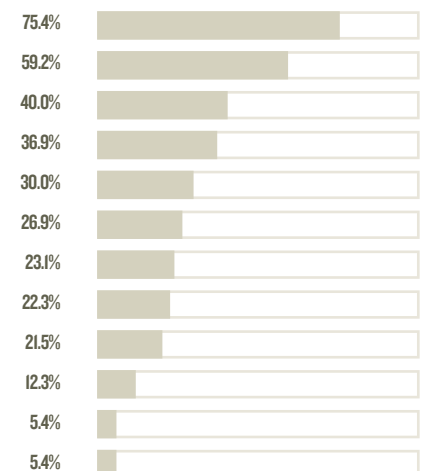
CONCERNINGLY STRONG PERCEIVED EFFECTIVENESS OF PANGOLIN PRODUCTS FOR TREATING MAMMARY GLAND AND LACTATION PROBLEMS

OBSTRUCTION OF MILK GLANDS DURING LACTATION AND PROBLEMS RELATED TO MAMMARY GLANDS WERE THE MOST COMMONLY CHOSEN AILMENTS AND REASONS FOR UTILIZING PANGOLIN PRODUCTS

AILMENTS THAT PANGOLIN PRODUCTS ARE CONSIDERED USEFUL FOR:

OBSTRUCTION OF MILK GLANDS IN LACTATING WOMEN	75.4%
PROBLEMS RELATED TO MAMMARY GLANDS	59.2%
HEMOLYSIS	40.0%
BONE DISEASE (ARTHRITIS, RHEUMATISM)	36.9%
ARTERIOSCLEROSIS OF THE EXTREMITIES	30.0%
IRREGULAR MENSTRUATION	26.9%
BROKEN BONES	23.1%
FIBROCYSTIC BREASTS	22.3%
EDEMA	21.5%
SKIN ACNE	12.3%
INFERTILITY	5.4%
POSTPARTUM DEPRESSION	5.4%

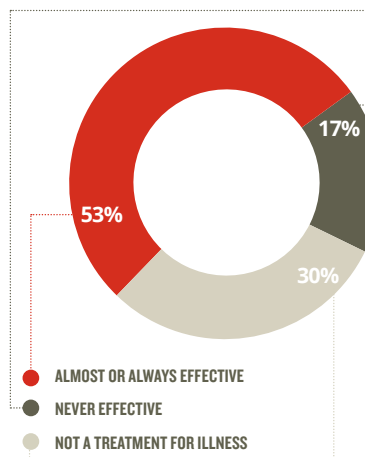
PERCENTAGE OF ALL INDIVIDUALS THAT LISTED THE AILMENT AS TREATABLE BY PANGOLIN SCALES.



53%

THINK PANGOLIN PRODUCTS ARE AN EFFECTIVE TREATMENT FOR MAMMARY GLAND BLOCKAGES

69 INDIVIDUALS OUT OF 131 THINK PANGOLIN PRODUCTS ARE EFFECTIVE TREATMENTS FOR MAMMARY GLAND BLOCKAGES. 22 SAID THEY WERE NOT EFFECTIVE. 40 DID NOT MENTION THEM AT ALL AS A TREATMENT.



PANGOLIN SCALES RANKED AS THE 5TH MOST-CITED TREATMENT OUT OF 20 FOR MAMMARY GLAND BLOCKAGES

MORE FREQUENTLY MENTIONED TREATMENTS WERE THREE HERBAL ALTERNATIVES AND BEHAVIOURAL MASSAGE THERAPY, SUCH AS THE USE OF PUMPS OR MANUAL STIMULATION.

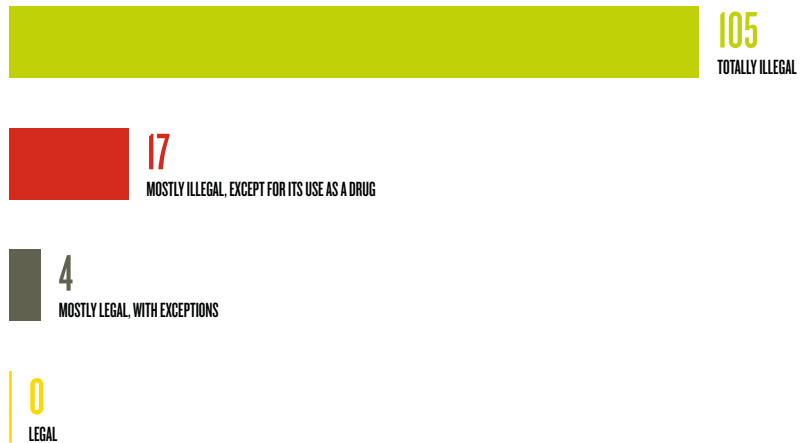
PANGOLIN PRODUCTS AS A PERCEIVED TREATMENT FOR BONE ILLNESS IS NOT AS COMMON

PANGOLIN SCALES AS A TREATMENT OPTION FOR BONE ILLNESS RANKED AS THE 24TH MOST-CITED TREATMENT OUT OF 29 LISTED. 81 INDIVIDUALS REPORTED IT; HOWEVER, 56.8% OF THESE INDIVIDUALS SAID THAT SCALES WERE EFFECTIVE.

SIGNIFICANT AWARENESS OF THE ILLEGALITY OF USING PANGOLIN PRODUCTS

83%

ARE AWARE THAT THE USAGE OF PANGOLIN PRODUCTS IS ILLEGAL

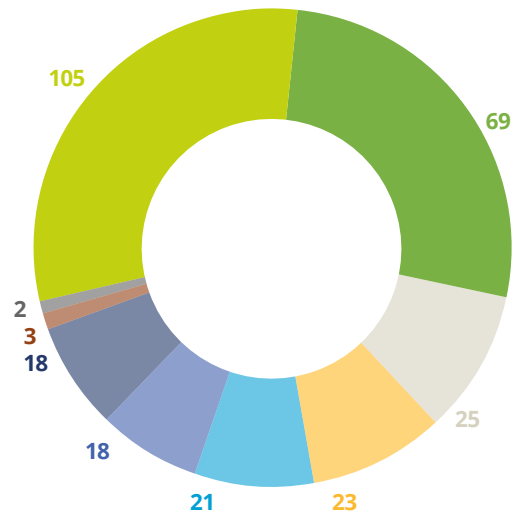


POTENTIAL DETERRENTS TO USING PANGOLIN PRODUCTS

WILDLIFE ENDANGERMENT MESSAGING AND LEGAL STATUS OF PANGOLIN PRODUCTS ARE THE TOP TWO BARRIERS TO PRESCRIBING PANGOLIN PRODUCTS

INDIVIDUALS LISTED ALL THE POSSIBLE REASONS THAT THEY WOULD NOT PRESCRIBE PANGOLIN PRODUCTS:

- WILDLIFE ENDANGERMENT
- IT IS ILLEGAL TO USE PANGOLIN PRODUCTS
- COST TO ME
- COST TO MY PATIENTS
- ACCESS TO PRODUCTS (LIMITED HOSPITAL AVAILABILITY, SELF SOURCING)
- SOCIETAL REASONS
- THERE IS NO REASON WHY I WOULD NOT PRESCRIBE IT
- SAFETY (ZOOONOTIC SPILLOVER)
- OTHER

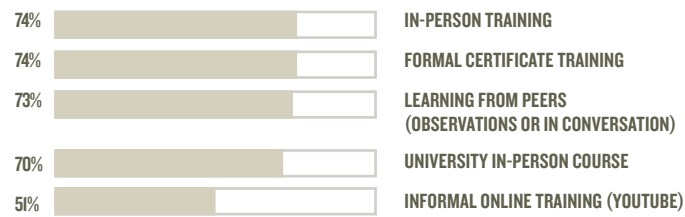


OPPORTUNITIES FOR ENGAGEMENT WITH PRACTITIONERS

PRACTITIONERS ARE OPEN TO ADDITIONAL TRAINING ON HERBAL ALTERNATIVES IN A VARIETY OF FORMATS

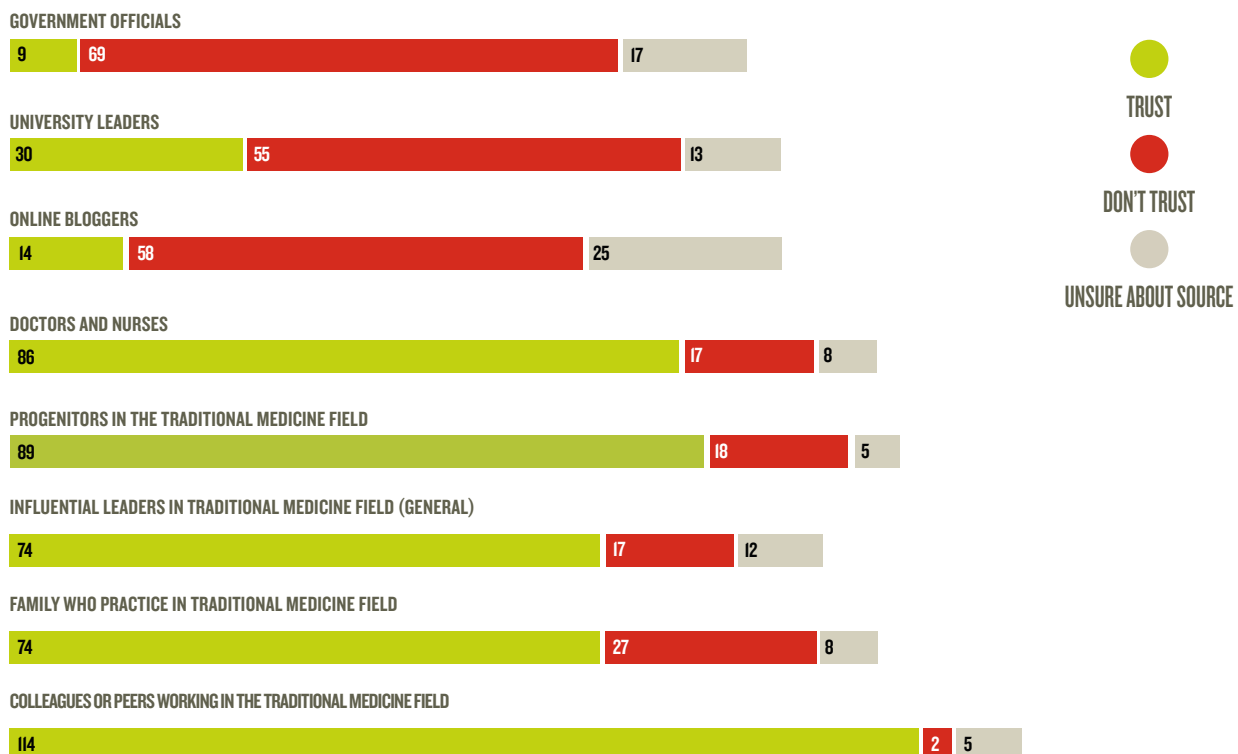
THERE IS A PREFERENCE FOR IN-PERSON PEER TRAINING, AND FORMAL CERTIFICATES

INDIVIDUALS SELECTED PREFERENCE FOR AND LIKELIHOOD OF PARTICIPATING IN VARIOUS TRAINING FORMATS:



PRACTITIONERS TRUST FELLOW PEERS IN THE TRADITIONAL MEDICINE FIELD AND OTHER DOCTORS AND NURSES WHEN MAKING MEDICAL DECISIONS

WHO DO YOU TRUST TO INFORM YOUR MEDICAL PRACTICE DECISIONS?



TRUST



DON'T TRUST



UNSURE ABOUT SOURCE

“ALTERNATIVE MEDICINAL HERBS MAY NOT BE AS EFFECTIVE AS WILDLIFE PRODUCTS. NO ONE HAS YET PROVEN THE EFFECTIVENESS OF ALTERNATIVE MEDICINAL HERBS AND WILDLIFE PRODUCTS. THEREFORE, IT IS NECESSARY TO HAVE SCIENTIFIC STUDIES TO PROVE IT, ENSURING CLARITY AND TRANSPARENCY, AND ALSO STRENGTHENING THE BELIEF OF PRESCRIBERS AND PATIENTS TAKING MEDICATIONS.”

- Traditional Medicine Practitioner



© PAUL HILTON / WILDAID

In August of 2023, practitioners from across Thừa Thiên Huế province came together as part of a workshop hosted by Choice and the Hue University of Medicine and Pharmacy to explore strengthening multilateral coordination for stopping and restricting the use of wildlife products in Traditional Medicine.

73% OF THESE PARTICIPANTS SIGNED ON TO A “PLEDGE FOR WILDLIFE”, COMMITTING TO:

- STOPPING THE USE AND PURCHASE OF MEDICINAL FORMULAS DERIVED FROM WILD ANIMALS IN THE TREATMENT OF PATIENTS,
- USING SUSTAINABLE AND PLANT-BASED ALTERNATIVES WHEN POSSIBLE,
- AND PROMOTING WILDLIFE PROTECTION AMONG THE TRADITIONAL MEDICINE COMMUNITY.

“I DO NOT SEE BARRIERS, THANKS TO THE ABUNDANT SOURCE OF TRADITIONAL MEDICINE MEDICINAL HERBS THAT CAN BE REPLACEMENTS.”

- Traditional Medicine Practitioner

A CALL TO ACTION

HARNESSING THE INFLUENCE OF TRADITIONAL MEDICINE PRACTITIONERS TO SAVE PANGOLINS

Traditional Medicine has and always will be an important part of the medical history and culture of Vietnam. However, the legal and illegal use of wildlife products has unfortunately become a major driver for the risk of extinction for many wild species, pangolins included. The continued pangolin poaching crisis and prevalent perceptions about the effectiveness of pangolin products held by Traditional Medicine practitioners and consumers alike serve as a wake-up call for urgent action to protect this endangered animal. However, it is important to acknowledge the need for preserving the cultural practices and heritage of Traditional Medicine in Vietnam; a heritage whose roots are built on preserving the balance between nature and people.

There is hope. Vietnam prohibits the use of pangolins and its derivatives in Traditional Medicine. The majority of practitioners surveyed are aware of this illegality, citing this and the endangered status of pangolins as key reasons to not use pangolin products in their practice, despite their perceived effectiveness as medicine, particularly for treating mammary gland and lactation issues. And while pangolin products do rank high as a course of treatment for mammary gland issues in the collective consciousness of the practitioners who were surveyed, more frequently mentioned treatments were three herbal alternatives and behavioral therapy, such as the use of pumps or manual stimulation. There are, therefore, signs of support and interest in pursuing alternative ingredients in place of pangolin products, and thus charting a new course and future for both Traditional Medicine in Vietnam and pangolins in the wild.

By building on this pilot study and future ones like it, we will gain a deeper understanding of the Traditional Medicine practitioner community in Vietnam and be able to use this knowledge to influence and accomplish our larger goals that call for:

- **A UNIFIED VOICE ON THIS ISSUE** through the establishment of a coalition of practitioners and educators in Vietnam who advocate for recognizing the importance of protecting wildlife, stopping the use of wildlife-based medications, and exploring herbal alternative ingredients.
- **A NEW NETWORK AND PLATFORM FOR TRADITIONAL MEDICINE PRACTITIONERS** to exchange information, share experiences and research, and build connections focused on exploring sustainable medications that do not contain wildlife products.
- **A REVAMPED EDUCATIONAL SYSTEM, NEW TRAINING, AND ACCESSIBLE GUIDANCE** for Traditional Medicine practitioners that explores the efficacy and viability of medicinal herbs and remedies to replace medicinal wildlife products.
- **A CONTINUED PUSH OF INFORMATIONAL COMMUNICATIONS CAMPAIGNS** amongst communities in Vietnam, for both practitioners and consumers, that improve awareness of the threats endangered species like pangolins face and the role Traditional Medicine plays in this, in order to inspire collective behavioral change on this issue.

WILDAID