

Traditional Herbal Medicine and Community Health in Mongolia's Darhad Valley: Creating a holistic balance in the face of globalization

Sean Armstrong, RN, University of Michigan School of Public Health MPH candidate

Cliff Montagne, PhD, BioRegions International and Montana State University BioRegions Program

N. Kherlenchimeg MD and University of Birmingham MPH candidate

Holistic Health and Globalization

A healthy organism depends on the correct balance of energy and materials, and a diversity of relationships with other organisms in its biological community. Lack of sufficient energy, materials or biological diversity may result in an unsustainable situation. For people, this balance can be expressed as a wealth profile consisting of natural wealth, social wealth, and financial wealth. A skilled person can create an optimal balance of natural, social and financial wealth needed for a contented and healthy life. An integral part of this wealth profile is health. The ability of people to manage their own health is essential to individual health maintenance and presents a major challenge in rural Mongolia. In today's globalizing world, many people spend considerable energy and resources seeking financial wealth, but neglect social and natural wealth as well as health.

Human communities have evolved with the natural wealth available in their location. Their social wealth of knowledge, practices, and organizations, combined with financial wealth, help them use natural wealth to meet their needs. Most indigenous communities have resources of 'traditional knowledge' to help them use their natural wealth to meet these needs. People living in communities within a bioregion (a place with common climate and biological conditions, and its people) can share their

indigenous knowledge. With rapid globalization, outside entities are rapidly influencing communities and altering the balance of natural, social, and financial wealth. These imbalances often express themselves in frustration, lack of contentment, and mental and physical disease. Symptoms of obesity, alcoholism, depression and crime rise from these imbalances and indicate lack of contentment and health. Land and natural resource degradation often accompany these imbalances, and in turn cause greater poverty and human health problems.

If we view the Earth like a single organism, we see the imbalance at a global scale. Degradation of natural and social wealth has occurred in many locations as we lose our wealth of biological diversity and cultural diversity. While financial wealth is being created at rapid rates, much of it is controlled by relatively few people and is often not available to those who could utilize it most effectively.

In Mongolia human communities have lived for centuries using their social wealth, or cultural knowledge and social structure, to provide their needs. Globalization forces have influenced the natural wealth, social wealth, and financial wealth available to Mongolia. Each bioregion, community and person has been influenced by these changes. Imbalances are expressed by poverty, disease, and other social ills. Many Mongolians seek a balance in which adequate financial wealth producing capacity would allow more effective expression of existing social wealth and more sustainable use of natural wealth.

The BioRegions Program works within the Darhad Valley, part of a high mountain and deep valley bioregion in northern Mongolia's Hovsgol Province where the Siberian taiga meets the mountain forest and grassland steppe. The Darhad people and the Dukha (Tsaatan) live here in the three counties of Renchinlumbe, Tsagaan Nuur, and

Ulaan Uul. The Darhad Valley had vast reserves of natural wealth: forests, grasslands, rivers, lakes, and wild life. But poaching and high numbers of domestic grazing animals have begun to deplete this wealth. Darhad and Dukha people have developed a high level of social wealth through the traditional customs and skills needed to live in the severe climate. Their social knowledge was based on a close relationship with nature, but some of it has been diminished or lost with more dependence on machinery and manufactured items. With little development of knowledge and skills needed to add value to natural products and outside marketing, and little available financial capital, Darhad and Dukha people have expressed a high need for ways to generate and access financial wealth. As they have moved to a lifestyle which is globally integrated, they find it necessary to be able to generate and access financial wealth for basic necessities which they used to provide themselves. This financial wealth is also necessary to provide access to important items such as manufactured items, conventional medicines, health services, education and petroleum. Lack of conventional employment leads herders to increase animal numbers, leading to overgrazing and potential soil erosion. Alcoholism and other diseases are other symptoms of this lack of financial wealth or the ability to generate it.

Community Decision-making Process

In a manner similar to a physician, BioRegions has asked the Darhad people to share their lifestyle and concerns and also to express the values for their own natural, social and financial wealth. Darhad people have expressed desires for increased access to health care, small business opportunities, and infrastructure creation. As more knowledge is available describing the items of wealth which are available, and their condition, the

community will be able to make more proactive decisions for using available wealth to produce needed goods and services. Communities and citizens can become healthier as they gain a sufficient balance of natural, social and financial wealth. If this process occurs on a bioregional basis, all communities are likely to benefit.

Communities that once existed in Mongolia, however, are no longer functioning. They have traditionally had strong leadership that assisted in making the difficult decisions that must be made to manage range-land and nomadic populations well. This lack of community coherence has resulted in a tremendous amount of confusion and mismanagement of resources. The loss of perceived control has been a central theme to many of the negative social trends observed in other countries undergoing a transition from a Socialized to a Capitalist economy. Therefore, it was not unexpected that loss of perceived control in managing individual health was observed in community surveys. By working at the community level we can first work to identify what communities are still functioning and how they are defined. Then, identify the assets these communities bring and draw on them in designing a program. This will create ownership of the program and increase the community's perceived control.

Role of Traditional Medicine

The Darhad and Dukha people, living at the interface between taiga, mountain forest and grassland, have had intimate access to a great wealth of traditional medicine materials and the knowledge about how to collect, process and use them. Much of this traditional indigenous knowledge was suppressed during the socialist period which lasted from the 1920's through the 1980's. Today a few people retain and use some of this

traditional knowledge. Some believe there is more traditional knowledge remaining with the Darhad and Dukha people because of their relative isolation and continued reliance on traditional lifestyles. However, our survey work indicates that there is no formal structure in place to provide traditional medicine and local individuals feel they are losing this knowledge at an increasing rate. In the Darhad Valley, community public health and personal health have the potential to be improved through community-based interventions. The health system has already developed innovative educational strategies independently of governmental assistance and guidance. Projects like the ger hospitals, initiated by the soum hospital staff, have the potential to provide enormous advantages to countryside individuals while collaborations between outside organizations already in place in the Darhad (UNDP and the Altai Soyon Project and BioRegions continuing work) have been received well and are changing the way people feel about their environments link to health. Finally, there is the unique receptiveness of the Mongolian health system to traditional medical ideas. This can be seen both in community involvement in this type of treatment (Bernstein, Stibich and LeBaron, 2002) as well as the investment by the health system in terms of education and facilities for treatment (Gerke, 2004).

The survey work completed this summer by Dr. Kherlinchimeg and I, in concert with other BioRegions activities, pointed out the communities' receptiveness to ideas on traditional medicine as well as the importance they place on its inclusion into the available health options. This, combined with the hospitals dedication to promoting traditional medicine options as more sustainable treatment options for a number of chronic illnesses, creates a strong opportunity for increased development of traditional

medical options at the community level. Collaborative community-led interventions would provide a sustainable commitment to both education and monitoring of the effectiveness of such a program. The organizations already committed to working within the community from outside would provide the necessary guidance and organizational management for the implementation of such a project. With measured success, the integration of these measures at the local health system level would be possible and scaling up of the enterprise to other communities more easily accomplished as well.

Darhad Valley medical services include a small amount of traditional medicine materials and techniques in conjunction with a greater emphasis on conventional medicine practice already. In Renchinlumbe, the doctors and hospital staff know about some local medicinal plants and freely use nationally available herbal medicines. The staff has included traditional herbal medicine, how to collect it, where it can be found and how to process it and use it correctly, as part of their health education days in the ger hospitals. They are aided in this endeavor by Basbish, a traditional medicine specialist in Ulaan Uul. He spends extensive time in the taiga collecting medicinal plants and providing them for local use. In 2005 a student from England assisted him in collecting and cataloguing many medicinal plants. He preserved this knowledge in a published book and plans another book to explain the processing and use of these plant materials. He is very concerned about this knowledge being abused by outside collectors who often over harvest medicinal plants.

These resources of plants and knowledge need documentation and protection. A holistic solution for sustained use and benefit of medicinal plant knowledge and materials may lie with the local people. If they can gain the necessary knowledge for the entire

process of sustainable collection/cultivation, processing, and marketing, there is a chance to create small scale local businesses which can nurture the habitats of the medicinal plants, harvest and increase their cultivation in sustainable manners, and provide financial income from local processing and marketing. At the same time, the local people may benefit from connection to outside entities such as the scientists interested in traditional medicine at the Health Sciences University of Mongolia and the Traditional Medical Science, Technology and Production Corporation. With assistance it would be possible to analyze the plant materials to identify their important components, and help local people find sustainable pathways to process, market and distribute medicines to outside markets. This process can make the benefits more widely available while benefiting the local economies and providing for sustainable harvest.

With local health system assistance the knowledge gained from continuing to integrate these traditional medicines with the local population would also provide fertile ground for testing the effectiveness of these medicines and creating scientifically recognized efficacy for them. Outside research assistance from the above mentioned organizations performed in a community-based participatory manner guided by an organization like BioRegions presents a strong opportunity to provide evaluation of this program. This type of evaluation would provide continuing support for the increasing work of Mongolian herbal medicine internationally.

Conclusion

The need and opportunity for Darhad and Dukha people to share and make more widely available their traditional medicinal knowledge may be one way for their communities to create a more beneficial balance of natural, social and financial wealth.

These steps can lead to greater community and personal health for those living here. The holistic approach can provide a way to attain a desired quality of life and state of health at personal, community and bioregion levels. Other types of natural wealth, such as grasslands and forests, can also be more effectively utilized through the holistic resource inventory and decision making process. As globalization continues, urban populations will place more value on sustainable use of natural products. Rural populations will have opportunities to care for the natural wealth of their place while adding value to the natural materials of their place in a sustainable manner. Both populations can increase their wealth balance through this kind of synergy.