<u>Traditional medicine</u>

WHO provides guideline for traditional medicine [http://www.who.int/medicines/areas/traditional/definitions/en/] Traditional medicine is the sum of the knowledge, skills, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness.

<u>Complementary/alternative medicine (CAM):</u> The terms "complementary medicine" or "alternative medicine" are used interchangeably with traditional medicine in some countries. They refer to a broad set of health care practices that are not part of that country's own tradition and are not integrated into the dominant health care system.

For instance, acupuncture is a kind of alternative medicine and traditional medicine in Japan. However, acupuncture is also a kind of alternative medicine, but not traditional in USA (It is documented that in 1972 President Nixon's Secretary of State, Henry A. Kissinger, traveled to China. A journalist for the New York Times, James Reston, accompanied him. While in China, James Reston fell ill and ended up in a Chinese hospital requiring an emergency appendectomy. Doctors used acupuncture to relieve his pain. That was an introduction of acupuncture to USA.)

<u>Herbal medicines</u>: Herbal medicines include herbs, herbal materials, herbal preparations and finished herbal products, that contain as active ingredients parts of plants, or other plant materials, or combinations.

- *Herbs*: crude plant material such as leaves, flowers, fruit, seed, stems, wood, bark, roots, rhizomes or other plant parts, which may be entire, fragmented or powdered.
- *Herbal materials*: in addition to herbs, fresh juices, gums, fixed oils, essential oils, resins and dry powders of herbs. In some countries, these materials may be processed by various local procedures, such as steaming, roasting, or stir-baking with honey, alcoholic beverages or other materials.
- *Herbal preparations*: the basis for finished herbal products and may include comminuted or powdered herbal materials, or extracts, tinctures and fatty oils of herbal materials. They are produced by extraction, fractionation, purification, concentration, or other physical or biological processes. They also include preparations made by steeping or heating herbal materials in alcoholic beverages and/or honey, or in other materials.
- *Finished herbal products*: herbal preparations made from one or more herbs. If more than one herb is used, the term mixture herbal product can also be used. Finished herbal products and mixture herbal products may contain excipients (=complementary materials) in addition to the active ingredients. However, finished products or mixture products to which chemically defined active substances have been added, including synthetic compounds and/or isolated constituents from herbal materials, are not considered to be herbal.

<u>Traditional use of herbal medicines:</u> Traditional use of herbal medicines refers to the long historical use of these medicines. Their use is well established and widely acknowledged to be safe and effective, and may be accepted by national authorities. Chinese herbal medicine (so called *Kampo* in Japan) is legalized in Japan, some of which are covered by national health insurance system. (eg.) Kallawayas in Bolivian Andes use various herbal medicine for treatment. They are listed in UNESCO's Cultural Heritage of Humanity (http://www.unesco.org/culture/ich/RL/00048).

<u>Therapeutic activity:</u> Therapeutic activity refers to the successful prevention, diagnosis and treatment of physical and mental illnesses; improvement of symptoms of illnesses; as well as beneficial alteration or regulation of the physical and mental status of the body.

<u>Active ingredients</u>: Active ingredients refer to ingredients of herbal medicines with therapeutic activity. In herbal medicines where the active ingredients have been identified, the preparation of these medicines should be standardized to contain a defined amount of the active ingredients, if adequate analytical methods are available. In cases where it is not possible to identify the active ingredients, the whole herbal medicine may be considered as one active ingredient.

<Debate of next week>

- There are several conflicts between pharmaceutical company and indigenous people who have utilized some specific natural plants as traditional medicine. Even though the pharmaceutical company pays compensation, the exploitation of such natural plants may destroy natural environments. The company sometimes takes patents and earn huge money from such herbal materials without any payment for indigenous people. However, some kinds of herbal-origin medicine are truly effective to save millions of children's life: For instance, artemisinin extracted from Qinhaosu cured millions of malaria patients. (See, related articles below)
 - * https://ejatlas.org/conflict/dragons-blood-tree-biopiracy-shaman-pharmaceuticals-in-the-amazon-ecuador
 - * https://academic.oup.com/jlb/article-lookup/doi/10.1093/jlb/lsw003
 - * http://web.stanford.edu/class/e297c/trade_environment/children/hline.html
 - * http://www.un.org/en/events/indigenousday/pdf/Indigenous Industry Eng.pdf
- Considering such situation, should the exploitation of herbal medicine by pharmaceutical companies be allowed?
 - Prop side: Yes, it should be allowed extensively.
 - Opp side: No, the activities by pharmaceutical companies should be limited if the indigenous people, who held the traditional knowledge and used the herbs as their own natural resources, don't allow it.