



The use of herbal remedies has become more than an alternative medicine for many Philippine families, it may be the only source of medical drugs to growing numbers who cannot afford expensive pharmaceuticals. The low annual per capita expenditure for drugs in the Philippines — about 80 pesos (about CA\$5) — is at once revealing and misleading. The figure represents an average between high-income families, which may spend thousands of pesos, and low-income families, who may never be inside a drugstore. Drug industry figures further show that the majority of sales are in the capital of Manila, where only 15 percent of the population lives.

The high cost of drugs obviously limits their accessibility to those few Filipinos who can afford them. Because 95 percent of the raw materials used in drug manufacturing are imported and the Filipino peso is being constantly devalued, customers have been faced with price increases on the order of 300 percent a year (1984). Drug sales have fallen as a result.

The Philippine Ministry of Health

slowed the application of the research. Thus, only nine medicinal plants have reached the stage of clinical trials and the formulary lists mainly aromatic plants, whose medicinal use is the relief of minor symptomatic ailments such as fevers and coughs.

Nongovernmental organizations involved in primary health care have tried to help speed up the process. In the early 1970s, some began to develop community-based health programs (CBHPs), mainly through the training of paramedics in rural communities. Traditional medicine was soon identified as a priority area for research, particularly as a means of developing more self-reliance in health care. It was not popular then to advocate the training of village health workers or the use of traditional medicine, and it took the World Health Organization's endorsement of primary health care and traditional medicine in the late 1970s to make the nongovernmental programs more acceptable.

Today, the CBHP network includes such nationally based organizations as AKAP and the Council for Primary Health Care and Rural Missionaries, which coordinate the various regional and local programs throughout the country. These agencies and programs work on a common premise, that the development of medicinal plant usage must start with communities, where the real expertise lies.

Ongoing research on the traditional medical system in the Philippines suggests that each of the 42 000 *barangays* (the basic political unit) has at least one *arbolaryo* or herbalist. Moreover, the herbalists do not have a monopoly on the knowledge about medicinal plants — many Filipinos in rural areas are familiar with a few household herbal remedies and often grow them in their backyards.

There is an extensive marketing system for medicinal plants. Villagers in remote areas of the northern mountain provinces gather medicinal plants and distribute these to vendors throughout the country, as far as the island of Mindanao at the southern end of the Philippines. The *poblacion* (town centre) markets, even in Manila, inevitably have herbal vendors who offer fresh plants as well as packaged preparations, complete with trademarks. In the shadow of an old Catholic church and a Mercury drugstore, in Manila, these vendors offer everything from abortifacients (to "restore menstruation") to vermifuges (to rid worm infestations).

There is an astounding variety of medicinal plants in the Philippines. AKAP has been able to list 1297

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TAPPING MEDICINAL PLANTS IN THE PHILIPPINES

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has responded by encouraging research on the medical properties of plants and by setting up factories to produce tablet and ointment preparations from the herbs. Preparations such as "Davagesic" and "Davarrhea" are becoming common household items. A Philippine national formulary has been published, endorsing 33 local medicinal plants.

However, lack of funds have limited the government agencies' efforts to develop medicinal plants, and centralized bureaucracies have

plants in the Philippines cited as having folk medicinal uses, the most commonly used ones numbering about a hundred.

It is therefore almost facetious to say that we need to "promote" or "teach" the use of medicinal plants—especially among rural villagers who have been using them for centuries. What needs to be done is to systematize these uses, to share and broaden regional experiences, and to research the scientific basis of folk uses.

Unlike countries such as China and India, the Philippines never developed a "scholarly" tradition in medicine, so one must rely on oral traditions.

Such traditions are tapped in training sessions, where villagers are asked to gather the plants they use as medicine, and to group these according to folk uses. Once this is done, it is easy for trained staffers to explain the medicinal plants' pharmacological action, using terms from western medicine and the idea of chemicals while relating these to local concepts.

For example, the plants commonly used for coughs are almost always aromatics: villagers learn to associate the idea of aromatic qualities with the presence of volatile oils, chemicals that are effective expectorants.

Villagers are also aware that many astringent-tasting plants are useful for diarrhoeas and wounds. The two apparently diverse uses become rational when the concept of "tannin" is explained, since tannins react with proteins, hardening the stool in diarrhoea and reducing bleeding to promote wound healing. The tannins give the plants their astringent taste.

Introducing concepts of "chemicals" helps in developing a more scientific approach towards the uses of the plants. It becomes easier to explain why certain "hot" plants (e.g. red pepper) are helpful for "cold" ailments like rheumatism, or why certain bitter plants (often alkaloid-rich) need to be used with caution.

The efforts to develop a "folk pharmacognosy" grew out of the idea that science can and must develop at the grass roots level. A cookbook approach, where five or six plants are enumerated for a particular illness, has its limitations, because people tend to apply such prescriptive knowledge mechanically, if not magically.

Much debate, in fact, continues on what constitutes "superstition". Certainly, CBHP staffers know that little separates empiricism from magico-religious beliefs and practices. Principles of imitative magic still determine many folk uses of plants

— for instance, plant dosages are often based on numbers with magical or religious significance.

At the same time, community health personnel are aware that modern superstitions also exist, attributing health care to the use of drugs alone, so they try to demystify the use of drugs, whether from nature or from the *botika* or drugstore. For instance, the use of drugs of any kind is discouraged in diarrhoea unless it is clearly of infectious origins. Instead, the use of oral rehydration preparations is emphasized in CBHP programs. Similarly, the importance of nutrition as both a preventive and curative measure is underscored by explaining that many medicinal plants are "medicinal" because they are in fact food plants which provide vital nutrients.

Another example of the demystification process is the community projects to produce herbal preparations such as "SLK Cough Syrup" (made out of tamarind leaves, ginger root and lime juice). The "recipe" is of folk origin and first received attention after a hospital-affiliated CBHP in the central Philippines began

At present, CBHP agencies are studying the feasibility of villagers conducting their own "clinical" studies, monitoring local uses of the plants and the effectivity of these uses through systematic records.

All these experiences are being documented and disseminated as health education materials adapted to different levels (e.g. health professionals, social workers, grass roots communities). The work has been challenging and fulfilling, but few CBHP staffers entertain illusions about medicinal plants solving all the health problems of Filipinos. Infectious disease, mainly respiratory and gastrointestinal, still accounts for about 40 percent of total deaths in the country, and crude herbal preparations will not suffice for such diseases. The needed anti-infectives will still have to come from the *botika* — if the patient can afford them.

Ultimately, discussions about medicinal plants must include an analysis of the economic and political reasons for high drug prices and for the causes of ill



Folk medicine is extensively marketed in the Philippines: refining existing knowledge

encouraging villagers to produce the syrup in bulk, which the hospital itself prescribed. Expenditures on drugs are therefore reduced through communal efforts. But more importantly, the communities are regaining a sense of control over the demystified cures to their illnesses and are developing their own methods of processing medicinal plants. Tablets, ointments, cataplasms (plasters or poultices), syrups and tinctures are produced with local materials such as honey, rice starch, coconut oil or even *basi*, a popular alcoholic beverage. In other villages, the new concepts of doses have stimulated communities to improvise weighing scales out of bamboo materials, with coins used as weights.

health itself. Thus, while it is encouraging to see communities developing "herbal songs" explaining uses and preparations of medicinal plants, it is also disheartening to hear passages such as the following (translated) lines from a popular primary health care song: "Follow the doctor's orders if you are sick/Mercury (drugstore) has the medicine/But my pocket's empty/Must I pawn my wife?" □

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