

Community dermatology – a Utopia come true

Medicine has experienced constant progress in many areas. However, health services in developing countries still face many challenges.

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Countries in Africa and Latin America, while facing increases in population, have a markedly uneven distribution of wealth, which increases the problem of uneven distribution of health services.

Dermatological conditions in the community are seldom life threatening. However, skin diseases are common, and can be disfiguring and uncomfortable. This leads patients to feel marginalised or hopeless, particularly when the means are not available to solve their problems.

During a course covering dermatology and epidemiology in 1991 at the Center for Research of Tropical Diseases (CIET), in Guerrero State, Mexico, the concept of community dermatology^[1] was born (Fig. 1). A baseline study was developed by CIET, which consisted of dermatology and epidemiological research.^[2]

The initial goal of the programme was to gather epidemiological information on skin diseases affecting patients in Guerrero State in the south of the Mexican Republic.^[3] This gradually evolved by improving dermatological services provided by government health institutions. Specifically, the health secretary and Family Integral Development (DIF) increased the provision of dermatological services to more communities in the seven regions of the State (Fig. 2).^[4] Community Dermatology Mexico was established in 2000 as a civil association.

The goals of the association are:

- the provision of dermatological services to poverty-stricken communities and low-income patients
- epidemiological research in dermatological conditions
- identification of health priorities
- identification of new health research areas
- referral of complicated cases to specialised hospitals

- basic dermatology training of community health personnel
- increased communication with health personnel in remote or isolated areas of Guerrero State through teledermatology
- expansion of the programme to places with similar needs.^[5]

To date, the following has been accomplished:

- After 22 years, 132 communities have been visited throughout Guerrero State. There were approximately 20 000 consultations and treatment is free.
- The base study started with the CIET group visiting 7 626 homes, in which 20 966 patients were studied. The results showed that 50% of the patients had at least one skin problem.
- In the communities, during the *jornadas* (dermatological attention, treatment to patients in rural areas, as well as training of health personnel), health priorities were defined by identifying the top ten skin diseases in order of frequency:
 - dyschromias (cloasma, vitiligo, pityriasis alba)
 - acne
 - pyoderma
 - dermatophytosis
 - contact dermatitis
 - sweat-related diseases
 - pityriasis versicolor
 - warts
 - seborrhoeic dermatitis
 - lichen planus.^[2]

Approximately 60% of all patients treated during the *jornadas* were diagnosed with these conditions,^[3] which allowed the teaching topics to be prioritised. Together with the American Academy of Dermatology and the International



Fig. 2. Location of Guerrero State in the Mexican Republic.



Fig. 1. Participants attending the Tropical Dermatology International Course at the CIET, 1991.

Foundation for Dermatology, a *Manual of Basic Dermatology* was developed.^[6] This was distributed free in 1 500 health centres in Guerrero State and during teaching courses to health personnel in the communities.

The way forward

The different situations in different communities have led to research studies, such as appropriate medications in community dermatology,^[7] pediculosis in schools,^[8] appropriate use of resources,^[9] pyodermas in tropical rural areas,^[10] and mycological problems, e.g. eumycetoma.^[11]

Difficult and complicated conditions, such as skin cancers, cutaneous tuberculosis (Fig. 3), leprosy, subcutaneous mycosis as mycetoma or sporotrichosis, as well as deforming genodermatoses, are of particular concern - not only do they cause marked morbidity but they may lead to death. Community dermatology services are vital to the management of these conditions in poor and rural communities.

Acne and solar diseases are relatively frequent (Fig. 4); therefore information brochures are necessary to provide patient education (Fig. 5). One hundred and forty-three patients with complex conditions were referred to specialist hospitals for treatment. However, only 30 - 40% of patients accept referral because of language problems and a fear of leaving their home communities.^[12]

Remote areas, such as the mountainous Guerrero State, are difficult to cover. Therefore, community nurses or health

promoters are an indispensable part of health provision.

After 22 years of work, 132 communities have been visited throughout Guerrero State with approximately 20 000 consultations, with free distribution of treatment.

Teledermatology has also become a vital part of teaching and consultation in these remote communities, as the programme no longer allows health providers to visit the communities as frequently as they did at the start of the initiative. Where possible, health workers have access to a community dermatology web page, developed by the health secretary. The health providers will have access to two dermatology courses per year. Advice on the treatment of complicated cases is also available remotely.

The last goal of our programme has been possible because of the efforts of the International Foundation for Dermatology, which has expanded the basic principles of our system, e.g. in Argentina, Malaysia and Africa.^[5,13] This sharing of information and experience will help other countries to develop their own community dermatology programmes and, in so doing, improve the quality of life of their communities.

References

1. Hay R, Andersson N, Estrada R. Community dermatology in Guerrero, Mexico. *Lancet* 1991;337:906-907. [http://dx.doi.org/10.1016/0140-6736(91)90225-E]
2. Andersson N, Martínez E, Villegas A, Rodríguez I. Vigilancia epidemiológica y atención descentralizada: El uso de los sitios centinela en Guerrero. *Salud Pub Mex* 1989;31:493-502.
3. Estrada R, Torres B, Alarcón H, et al. Epidemiología cutánea en dos sectores de atención médica en Guerrero, México. *Dermat Rev Mex* 1992;36(1):29-34.
4. Estrada R, Romero M, Chavez G, Estrada G. Dermatología comunitaria 10 años de experiencia. Estudio epidemiológico comparativo entre población urbana y rural del Estado de Guerrero. *Dermat Rev Mex* 2000;44(6):268-273.
5. Hay R, Estrada R, Grossman H. Managing skin disease in resource poor environments - the roll of community-oriented training and control programs. *Int J Dermatol* 2011;50: 558-563. [http://dx.doi.org/10.1111/j.1365-4632.2011.04954.x]
6. Estrada R. Manual de Dermatología Básica para el personal de salud en el primer nivel de atención. Academia Americana de Dermatología y Fundación Internacional para la Dermatología: Foto-Press, 2006.
7. Estrada R, Andersson N, Hay R. Community dermatology and the management of skin diseases in developing countries. *Tropical Doctor* 1992;suppl(1):3-6.
8. Paredes S, Estrada R, Alarcón H, et al. Can school teachers improve the management and prevention of skin disease? A pilot study based on head louse infestations in Guerrero, Mexico. *Int J Dermatol* 1997;36:826-830. [http://dx.doi.org/10.1046/j.1365-4362.1997.00282.x]
9. Hay R, Estrada R, Alarcón H, et al. Wastage of family income on skin disease in Mexico. *BMJ* 1994;309:848. [http://dx.doi.org/10.1136/bmj.309.6958.848]
10. Alarcón H, Estrada R, Hay R, Torres B, Martínez E. Piodermias en el medio trópicorural: Factores de riesgo y costos de atención. *Dermatología Rev Mex* 1996;40(2):113-117.
11. Estrada R, Chávez LG, Estrada ChG, et al. Eumycetoma. *Clin Dermatol* 2012;30:389-396. [http://dx.doi.org/10.1016%2Fj.cindermatol.2011.09.009]



Fig. 3. Cutaneous TB.



Fig. 4. Polymorphic light eruption.



Fig. 5. Auxiliary brochures.

12. Estrada R, Chavez G, Estrada G, Paredes S. Specialized dermatological care for marginalized population and education at the primary care level:

Is community dermatology a feasible proposal? *Int J Dermatol* 2012;51:1345-1350. [http://dx.doi.org/10.1111/j.1365-4632.2012.05546.x]

13. Hay R, Bendeck SE, Chen S, et al. *Disease Control Priorities in Developing Countries*. 2nd ed. Washington, DC: World Bank, 2006:Ch. 37.



Fundación Dermatología Comunitaria Argentina

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Taking Professor Roberto Estrada-Castañón's Mexican programme as an example, a new programme has started in Neuquén Province (Patagonia, Argentina) to provide accessible dermatological services for rural communities, combining teaching and clinical care.

Fundación Dermatología Comunitaria Argentina is a not-for-profit association whose principal objective is to develop educational activities to prevent, detect and treat common skin conditions. These activities are held in the Argentine Republic.

The programme follows the Mexican model with working days (*jornadas*) in different rural areas. A free dermatology clinic service is offered to each community visited, where specialists work together with local practitioners. The main objective is education of local healthcare workers in common dermatological conditions. Lectures are given as workshops, focusing on diagnostic tools, referral criteria, therapeutic options, how to perform a skin biopsy, etc. Local practitioners may present cases and receive help, advice and education.

One of the main focuses of the work is to produce educational material for people in rural areas and at the same time offer medical assistance. The information provided serves the needs of the community and the non-specialist medical practitioner.

Sun-induced skin conditions are the most prevalent dermatoses found in the region. Consequently, Dermatología Comunitaria

Argentina has added an element to the Mexican model – primary school education to reinforce the sun protection message. This part of the programme is aimed at children between the ages of 4 and 6 years, explaining the beneficial effects of sunlight and the harmful effects of ultraviolet radiation using games and costumes. Each child receives a 'Skin scientist' diploma and the teachers receive a booklet enabling them to continue to work on the programme.

So far, seven *jornadas* have been held, reaching 461 healthcare workers and assistants, including 1 423 consultations. There have been 19 photo-education workshops, reaching 1 260 children and their teachers.

The benefits are numerous: communities receive high-quality primary healthcare at low cost, healthcare workers are trained, epidemiological data are collected and there is a professional forum for the exchange of ideas and information.

The key to the success of this community initiative is passion, commitment and teamwork.

Volunteers willing to participate in these activities should arrive by their own means at Neuquén Province, having contacted Dr Casas in advance to arrange dates, accommodation and other issues.

For more information, photos and contact details see the Facebook page: dermatologia comunitaria argentina.



A free dermatology clinic at Chos Malal, 2012.



Children in the sun protection workshops.



A new 'Skin scientist'.