



Open to the world



- Cooperation
- Emergency aid
- Migrations
- Partnerships
- Research
- Teaching
- Telemedicine
- Training

www.hug-ge.ch/affaireshumanitaires



Micheline Calmy-Rey
Federal Councillor
Head of the Federal Department
of Foreign Affairs (DFA)



Pierre-François Unger
President of the Council of State
Republic and Canton of Geneva



Bernard Gruson
Chief Executive Officer
University Hospitals of Geneva
(HUG)



Jean-Louis Carpentier
Dean of the Faculty of Medicine
University of Geneva

A humanitarian tradition

Switzerland considers the current inequalities in the field of health to be unacceptable violations of the basic right to healthcare. Poverty is one of the main causes of health problems in the world, and these problems are, in turn, major obstacles to sustainable development.

Switzerland has a long humanitarian tradition, which is underlined by the fact that the headquarters of the ICRC are in Geneva.

In addition to our indispensable activity in the face of natural and political crises in the world, we must work proactively to improve healthcare, and we must start by reducing inequalities. To this end, we support our partners in the development of systems and structures to assist the disadvantaged and we contribute to the empowerment of collectivities and users of health services.

I am delighted about the support that the HUG (University Hospitals of Geneva) has given to many projects financed by the Confederation. I welcome its efforts in the field of training and its partnerships in Africa, Asia and Eastern Europe. I would like to congratulate the HUG on its commitment, which is at the heart of the Swiss and Genevan humanitarian tradition.

The spirit of Geneva

Jean-Jacques Rousseau, Henry Dunant, Jean-Jacques de Sellon. A philosopher, spiritual father of the French Revolution and defender of human rights; a humanitarian, founder of the Red Cross; a philanthropist who worked in the name of 'the inviolability of human life'. Each in their own way, these three Genevans embody the spirit of Geneva: openness to the world, a humanitarian tradition, and the international recognition as a city of peace.

Listening to the hopes and fears of the world, Calvin's city pursues its vocation as the international capital of peace and human rights. It is a place that is privileged to host international meetings and the dialogue between nations. The most prestigious international organizations have established their headquarters here, most particularly those involved in the field of health and humanitarian activities. This situation represents exceptional challenges for Geneva and for Switzerland.

The same applies for the HUG (University Hospitals of Geneva), which has long-standing experience in the field of humanitarian aid and is involved in cooperation and development projects in some fifty countries. The HUG thus makes a real contribution in the field, maintaining and extending the spirit of Geneva beyond our borders. May the HUG be thanked for this.

A particular responsibility

Supporting access to care for everyone is the public service mission fulfilled by the HUG within the local community. This mission, however, does not stop there. In keeping with the international character of Geneva, the HUG has the special responsibility of disseminating knowledge and expertise to the four corners of the planet.

The development aid comes in different forms:

- aid to disaster victims
- training of local medical personnel and care providers
- participation in international programmes and clinical research
- collaboration with the World Health Organization, the International Committee of the Red Cross, the Swiss Humanitarian Aid Unit, the International Organization for Migration, Terre des hommes, UNICEF and Doctors without Borders.

This implies promoting international cooperation in the field of health. Naturally, community and humanitarian medicine figures among the strategic orientations of the HUG for the years to come.

Today, the triple role of the HUG – caring, training, and researching – is fully expressed in humanitarian action. Tomorrow, this will still be the case and will reinforce the international influence of the HUG.

Exchanging knowledge

A faculty of medicine has to be open to the world if it wants to be at the forefront of research and be exemplary as a teaching establishment. This is all the more so for our Faculty, which is part of Geneva's international fabric and which is intimately associated with the HUG's humanitarian projects.

Being at the forefront in terms of research requires creativity in questioning, rigour in investigation and vision in the interpretation of results.

Only a confrontation with the international scientific community can bring this about.

Being exemplary in the field of teaching involves caring about efficacy and pedagogical relevance. Only by sharing our experiences with other training institutions, originating from different cultures and other disciplines, can we achieve this goal.

It is by aiming for excellence that we will fully embrace our role as an academic leader beyond our borders.

We have a social responsibility to exchange our knowledge and know-how with institutions all around the world in the area of biomedical research and training of health professionals. It is also our priority and we commit ourselves to it with conviction.

A long-term commitment

Humanitarian projects and international cooperation constitute a main axis in the overall policy of the University Hospitals of Geneva (HUG). This brochure, published on the occasion of the *Geneva Forum: Towards Global Access to Health*, gives an overview of the HUG's commitments abroad.

Humanitarian Affairs Committee⁽¹⁾

Faithful to the tradition of Geneva, the HUG has been investing for more than twenty years in humanitarian medicine and cooperation. In order to assist this international influence, a humanitarian affairs committee was created in 1999. As its mission is to promote and coordinate projects, it emphasizes sustainable development through:

- training
- transfer of knowledge and techniques
- research
- development and rehabilitation of services
- partnerships with local institutions.

A number of projects are managed in collaboration with the Faculty of Medicine (University of Geneva) and with international or non-governmental organizations.

⁽¹⁾ For more information, acthumanitaire@hcuge.ch and www.hug-ge.ch/affaireshumanitaires

Original financing

The financing of development aid is assured in an original manner, peculiar to the HUG, by a levy on private activity fees (Equalization Fund). The money serves to:

- support projects
- complete training in Geneva within a project framework with a view to returning to the country concerned
- purchase materials.

To this can be added the 'human capital', meaning the personnel that carry out missions abroad: in 2005, 32 colleagues were away on missions for a total of 450 days.

International Forum

The *Geneva Forum: Towards Global Access to Health*, organized in 2006 by the HUG and the Faculty of Medicine, has the objective of exploring new approaches with a view to improving access to health and care (access to medicines, vaccines and diagnostics). It also aims to reinforce the international health networks, both university and hospital based, and to launch other forms of collaboration within civil society. For participants in developing countries, this Forum represents an opportunity to express their needs in terms of partnerships and training.

In aid of victims

In the event of a disaster, the HUG participates in international aid together with organizations such as the International Committee of the Red Cross, the Swiss Humanitarian Aid Unit (SHA), Doctors without Borders, the World Health Organization and UNICEF.

Link in the Swiss rescue chain

As the operational branch abroad of the Swiss Agency for Development and Cooperation (SDC), the Swiss Humanitarian Aid Unit (SHA) is involved in prevention, emergency aid, reconstruction and aid for victims. The HUG has been a partner of the SHA since 1997. To help disaster victims (e.g. earthquakes, tsunamis), the SHA mobilizes the Swiss rescue chain, which can call upon around 100 people and for which the HUG sends an anaesthetist, a surgeon, an anaesthetist nurse and an emergency treatment nurse.



Testimony

'On 8 October, a violent earthquake ravaged northern Pakistan. We arrived the following day, joining 5 Pakistani orthopaedic surgeons and 7 anaesthetists. The toll was 70,000 deaths and hundreds of villages destroyed – it was terrible, the massive arrival of injured, sometimes more than 200 per day. Emotions were highly charged.

Most of the victims with thoracic or abdominal traumas did not survive. The volume and speed of treatment was impressive, especially during the first week. Ninety per cent of the patients had injuries to the extremities of upper and lower limbs: open fractures, grave skin conditions, purulent infections caused by the presence of soil in the wounds.

We used basic surgical instruments: scalpel, pincer, curette, scissors, external attachments. We were provided with radiology equipment, but the anaesthetists worked without oxygen and monitors. Recovery surgery was not possible for everyone. Some amputations were unavoidable.'

Dr Daniel Petek, orthopaedic surgery and traumatology of the locomotor system, Pakistan, October 2005



Agreement with the ICRC

Since 1999, the HUG makes available to the International Committee of the Red Cross (ICRC), medical, nursing and paramedical personnel, who participate in the ICRC's assistance to victims of armed conflicts or similar situations.

A role in the SAMDM

The Swiss Academy for Military and Disaster Medicine (SAMDM), founded in 2001 and a partner of the SHA, offers courses and training sessions to doctors who are pursuing civil and military careers, as well as possibilities for research in military and disaster medicine.

The five Swiss universities participate in this programme: Basel for anaesthetics and reanimation, Bern for internal medicine, Geneva for surgery, Lausanne for medicine and disaster management and Zurich for psychiatry and psychosocial medicine.



Partnerships and sustainable development

The HUG places greater emphasis on projects involving colleagues in the transfer of knowledge and techniques, research and the rehabilitation of services. It also focuses on collaboration with local institutions.

Family medicine in Bosnia and Herzegovina

Since 1998, the Travel and Migration Medicine Unit of the HUG and the Partnerships in Health Foundation have been working on a project financed by the SDC in Bosnia and Herzegovina. In this way, the HUG contributes to the reconciliation process by participating in the country's medical reforms through the training of doctors, nurses, trainers and project managers, and the implementation of family medicine in rehabilitated ambulatory centres. Results: over 150 rehabilitated medical centres and some 700 trained doctors and nurses.

Intensive care in Mongolia

Following a request from the Ministry of Health of Mongolia, the management of a hospital and the Faculty of Medicine of Ulanbaatar, the HUG has been participating since 2002, in partnership with the SDC and the Swiss Surgical Team, in the training of the medico-nursing team of the post-operative intensive care unit of the main hospital in the capital.

These month-long missions take place twice a year: one doctor and one nurse from the intensive care unit of the HUG give theoretical and practical training, particularly on working methods involving patients admitted to intensive care. The collaboration also touches on areas of management and organization. An in-depth six-month training course has also been given to a Mongolian nurse and doctor at the intensive care unit of the HUG.

Emergency radiology in Romania

In 2001, the University of Geneva, the HUG and the Faculties of Medicine and Pharmacology of Bucharest and of Iasi signed an agreement. The objective is to enable Romanian doctors with a specialization in medical radiology and who have a development project in their country, to benefit from an in-depth training in emergency radiology at the HUG or in Romania.

In this context, the HUG Equalization Fund and the SDC financed the development of an educational CD-Rom as well as the purchase of a portable ultrasound machine with a computerized digitization system for images.

In 2006, support was also given for a symposium in Bucharest on emergency radiology.

The global challenge of patient safety

In 2004, the World Health Organization (WHO) created the World Alliance for Patient Safety, a vast programme whose essential element is the global challenge relating to the safety of patients.

First challenge: the prevention of treatment-related infections. This project, entitled *Clean care is safer care*, launched in October 2005, concerns both industrialized and developing countries. It comprises several elements: the promotion of hand hygiene – in this domain, the HUG is a world reference – and the improvement of safety linked to the taking and transfusion of blood, to intravenous injections and vaccinations, to surgical procedures, as well as to water and sanitary installations and management of waste material.



Exchanges between two maternity units

In 2001, an agreement was signed by the HUG, the University of Geneva and the University of Cadi Ayyadde in Marrakesh, sealing a bilateral collaboration agreement with Morocco.

On one side, a Genevan gynaecologist-obstetrician travels to Marrakesh, to the university hospital of Ibn Tofail, to set up the research protocols, favouring evidence-based medicine, and propose changes in the functioning of services, the flux of patients, the guidelines and even the equipment. On the other side, a Moroccan colleague comes to Geneva for a six-month stay to become familiar with laparoscopies, the organization of the delivery room and the strategies adopted for the treatment of women giving birth. This trainee also has the possibility of studying for the certificate of ongoing training in patient-oriented clinical research.

Testimony

'In some areas of Vietnam, during an epidemiological survey financed in part by the HUG Equalization Fund, we were able to demonstrate that the frequency of epilepsy is double that of Switzerland, i.e. 1.4% of the population is affected by the illness. Good hygiene, in particular of the hands, would enable the prevention of epilepsy due to neurocysticercosis, a contamination of the central nervous system by the larvae of the parasite Taenia solium. Another major problem that surfaced during this survey: many patients are often too poor to buy medicines and thus have recourse to traditional therapy.

Our collaboration is based on the long-term work entered into in the context of missions to the Bach Mai university hospital in Hanoi.

Another element is the teaching and exchanges of students. It is essential that Vietnamese neurologists come to Europe to train in basic clinical epileptology, applicable locally. Furthermore, the Geneva students learn to exercise a bare hands medicine.'

Prof. Pierre Jallon, electroencephalography and epileptology, Vietnam, numerous missions



Participating in reconstruction

With its rich secular tradition and as the cradle of the World Association, psychiatry in Geneva invests beyond its borders, notably in Rwanda, where a training curriculum for mental health was developed.

Training Rwandan care providers

In 1994, the war and genocide caused nearly one million deaths in Rwanda and engendered immense psychological suffering. Two years later, the HUG's Psychiatry Department and Direction of Nursing Care undertook a programme for mental health, in collaboration with the SDC, with the aim of answering to the needs of Rwandan care providers. The objectives were as follows:

- rehabilitation of the Ndera psychiatric hospital in Kigali, considered as the reference centre
- establishment of ambulatory services for psychosocial consultations in Kigali and Kibuya
- training of doctors, psychologists and nurses in Rwanda, centred on the conducting of interviews, and evaluation and treatment of the main psychiatric problems, including for children and adolescents, interventions in the case of somatoform problems, caregiver-patient relations, knowing how to handle and behave with patients in crisis
- training of doctors in Rwanda to interpret electroencephalograms and clinical pharmacology
- hosting, in Geneva, of Rwandan doctors and nurses specializing in psychiatry.

Post-traumatic stress in Kosovo

Between 1998 and 1999, during the Balkan war, more than one million civilians were displaced from the province of Kosovo. Two years after the end of the conflict, a study led by the HUG's Adult Psychiatry Service and Travel and Migration Medicine Unit determined the prevalence of post-traumatic stress among this population. It also estimated the impact of violent events on families exiled in Switzerland, who returned to the country.

The other violence of the earthquake

The earthquake that shook the north of Pakistan in October 2005 caused tens of thousands of deaths and led to repercussions for the mental health of the populations. With 350 psychiatrists and only two child psychiatrists, the country, despite its well-established expertise, was lacking trained personnel in the domain to face the needs.

Commissioned by the ICRC, a doctor from the HUG's Substance Abuse Service participated in the launching of a national action plan, with the particular aim of providing logistical support for the training of some 600,000 assistant care providers.

Promotion of training

Caring, researching and teaching. Clearly inscribed in the HUG's mission, teaching also has an important place in international cooperation activities, in partnership with the Faculty of Medicine of the University of Geneva.

Relief in Cameroon

Since 1980, the partnership between the hospitals and the faculties of medicine of Geneva and Yaoundé, has developed in three directions:

- for Cameroonian students: local teaching of basic medical sciences (pathology, physiology, infectious diseases) and community health in the context of pre-graduate training
- for Genevan students: a two-month internship in Cameroon to study tropical medicine and community health (completed by some 200 students)
- the possibility for Cameroonian doctors to complete their post-graduate training in Geneva: over 70 doctors have attended or completed this specialized training.

Furthermore, other collaboration projects exist in the areas of promoting dental and public health and cooperation at a clinical level (neurosurgery, neurology, psychiatrics).

Clinical teaching in Eritrea

Asmara, the capital of Eritrea, has had a Faculty of Medicine since 2004. In order to help structure and complete the clinical teaching programme, the Faculty has asked for support from Geneva. Managers from the HUG and the Faculty of Medicine generously committed themselves to this project, which is in its infancy (courses in semiology, internal medicine, but also pedagogy).

Exchanges with Lithuania

An agreement between the Faculty of Medicine of Geneva and the Medical Academy of Kaunas was signed in 1994. It concerns pre-graduate, post-graduate and technical training, academic exchanges of young researchers and the development of research.

About 30 young doctors, faculty members and nursing personnel from Lithuania stayed in Geneva during periods of several weeks to one year. The collaboration involved three areas:

- diabetology and therapeutic education
- neurology and neurophysiology
- intensive care.

The Kaunas curriculum integrates learning through problems, inspired by the Geneva experience.

Testimony

'The pain that the Rwandans have experienced is unspeakable. They often express this pain through the body. Behind a somatic complaint, often hides a depressive state or one of post-traumatic stress.

The network for mental health in Rwanda is under construction. There is only one psychiatrist and several general practitioners trained on the job in psychiatry. Because of this lack of doctors, the follow-up is carried out for the most part by nurses. They confront these colossal needs with great enthusiasm and determination.

With them, Dr Carlos Sanchez and myself have, above all, worked on crises, somatoform problems and patient relations. These ongoing training sessions enable the development of competencies, the maintenance of motivation and experience sharing. They are a veritable source of mutual enrichment, inviting us also to revisit and reflect on our own practices.'

Gérard Langlois, specialist clinical nurse, Rwanda, January 2003



Testimony

'China is a confrontation with the reality of tomorrow. It is a laboratory for experimental ageing. This country has an inversed pyramid of ages, with one child, two parents and four grandparents, from which stems a major problem: the family can no longer take care of its elders, as Chinese tradition would have it. Our knowledge of how to take care of this population is useful to them. Besides traditional medicine, Western medicine is becoming ever more important for treating dementia, Parkinson's disease and diabetes, areas in which Chinese medicine has shown its limitations.

The agreement signed in September 2005 with the Beijing Hospital of the Ministry of Health formalizes a collaborative project initiated a few years prior. It is based on the exchange of professors and training of doctors. We receive Chinese doctors who participate in the clinical activities of the service and in research within the biology laboratory on ageing. They finish their time in Geneva with a doctoral thesis in medicine from the University of Geneva. For her thesis, Dr Yang Fei Guo received the 2006 Tissot Prize.'

Prof. Jean-Pierre Michel, rehabilitation and geriatrics, China, several missions

Acting in Geneva against precariousness

One part of the activities of the HUG's outpatient clinic addresses migrants, people living in precarious circumstances, often suffering greatly from traumatic experiences, coming from countries at war or rife with extreme poverty. It considers intercultural problems, the difficulties of adapting and the consequences of exposure to violence.

Uniting against torture

Migrants fleeing from their countries, torture, war and violence often experience the following types of suffering:

- somatic: pain from the locomotor system, headaches
- psychological: problems sleeping, reminiscence, anxiety, nervousness, aggressiveness
- psychosocial: loss of social competence, social withdrawal, family and social conflicts, administrative difficulties, being overwhelmed by their circumstances.

In order to help them adapt to their new life, a special consultation process has been developed in Geneva. In 2005, in collaboration with the Swiss Red Cross, the HUG's Travel and Migration Medicine Unit formally instituted a coordinated interdisciplinary responsibility for the victims of torture and war. Doctors, psychologists, social welfare assistants, physiotherapists and nurses help the patient to regain autonomy and restructure his or her life, and this over a period of several months. The consultation also offers expertise for crisis situations (short-term care) and on a medico-legal level (evaluation, medical reports).



Street medicine

Since 1996, the Mobile Community Healthcare Unit (UMSCO) answers to the healthcare needs of the homeless and those without legal status. In Geneva, the number of people without legal status is between 8,000 and 12,000. The homeless are most often men aged from 30 to 60, suffering from psychiatric comorbidity, alcoholism or smoking addiction. Those without legal status are mostly women of South American origin, aged from 20 to 40, exposed to all sorts of risks, including exploitation and violence. Doctors, nurses and social workers come to the aid of these disadvantaged people, who are offered three levels of care:

- reception centres for the homeless
- a healthcare centre frequented mostly by people without legal status
- the outpatient department of the university hospital.

Researching to innovate

The sustainable development projects, involving HUG collaborators, also concern research and are led in partnership with local institutions.

Leishmaniasis in Nepal

Visceral leishmaniasis, called Kala-Azar, is a generalized parasitic disease transmitted by the bite of a sandfly. Left untreated, Kala-Azar is fatal. In Nepal, thousands of people suffer from this disease and several million live in endemic areas.

Since 1999, in partnership with the B.P. Koirala Institute of Health Sciences, a university hospital in Dharan and the tropical medicine institutes of Antwerp and London, the HUG's Travel and Migration Medicine Unit and Clinical Immunology Unit are carrying out several studies on:

- the evaluation of mechanisms of resistance to first-line treatment
- the clinical management of cases by use of inexpensive and easy-to-use diagnostic tests
- the impact of insecticide-treated bednets on the transmission of the disease (Kalanet study financed by a European Commission fund).



Testimony

'I arrived in Geneva in 1998 in the context of an exchange grant from the cooperation programme between Switzerland and Cameroon. For three years, I followed basic training in cellular biology, with the aim of teaching histology and embryology in Cameroon. Then, during five years, I completed my clinical training in medical genetics with Professor Antonarakis. During this entire period, there was no academic interruption with Cameroon, because I kept in touch with Yaoundé by teaching there regularly. I see my presence in Geneva as a unique opportunity, because the structure is ideal from the pedagogical, clinical and research point of view. I was able to integrate very well in the healthcare system. Since 2005, we have initiated a research programme for sickle-cell anaemia, which is the greatest genetic disease in Africa. The objectives are to find the determining genetic factors that condition the severity of the disease and the impact of treatment on families. Through this project, we will introduce genetic technology (DNA) into Cameroon's healthcare system and create the first medical genetic service, which will develop, for example, the prenatal diagnosis of sickle-cell anaemia.'

Dr Ambroise Wonkam, Medical Genetic Service, University Medical Centre, Geneva

Testimony

'Shortly after their arrival in the canton, the applicants are invited to the Travel and Migration Medicine Unit for a border health check. In addition to vaccinations, obligatory in the context of the asylum procedure, a rapid evaluation of the state of health is conducted by the nurses.

Most often, the problems are not only physical, but more psychological, because the people have been exposed to war, organized violence or torture.

If the need for a medical evaluation is not immediately established, the applicant is informed of the day that a nurse will come to his or her place of domicile. The nurse systematically assigns a member doctor of the asylum care network to the applicant and coordinates the eventual treatments and actions of the different healthcare workers involved.'

Dr Sophie Durieux, Migrant Health Centre, Geneva

Therapy against AIDS

In Thailand, some one million people are considered HIV positive. New medication has reduced mortality, but the disease remains incurable and the treatment must be followed for life. In order to reduce the undesirable effects and costs of care, the idea is to interrupt the therapy until the quantity of CD4 lymphocytes attacked by the HIV falls below the critical level of 350 cells per microlitre.

From 2003 to 2005, the STACCATO study, led jointly by Australia, Switzerland and Thailand, evaluates an intermittent treatment guided by the CD4. After two years of following 430 patients, the results of this study, in which the AIDS Unit of the HUG participated, were that only minor manifestations of the HIV infection (candidiases, thrombopenies) were observed more frequently in the group which interrupted the treatment, and that, in contrast, diarrhoea and neuropaths were less frequent. Not one case of AIDS was reported.

Sharing expertise

Thanks to the Association Cœurs pour tous (Hearts for All), the Children Action Foundation and other humanitarian organizations, several hundred children suffering from cardiovascular illnesses or gravely mutilated, have regained a normal existence.



Cœurs pour tous

Founded in 1998, the Association Cœurs pour tous looks after cardiopathic children in developing countries. Active in about ten countries such as Mauritius, Mozambique, Georgia and Morocco, the association works in three phases: first is the renovation of local infrastructure and supply of material; then comes the selection of infants able to benefit from an operation; and finally, the HUG's surgical team travels to the field to operate and train the local team. The paediatric cardiac surgery centres become a point of reference and are open to their neighbours, like the Zgharta centre in Northern Lebanon, which admits young Syrians, and the centre in Mauritius, which takes in young Malagasies, Comorians and Seychelles islanders.

Children Action

Created in 1994, the Children Action Foundation offers concrete aid to disadvantaged children. Since 1996, in Vietnam and Bangladesh, the foundation contributes to operations of primary necessity (cleft lips, orthopaedic malformations and burns), notably with HUG doctors. Since 2001, it offers operations in Geneva to children who cannot benefit from treatment in their own country.

Re-discovering a face

Whether a devoured face, a face with holes or jaws sometimes fused, the ravages of noma, a gangrenous stomatitis that destroys the mouth and face, are impressive. They affect poor countries, particularly those of Africa, where this illness affects mainly infants from two to six years of age. In order to give them a human face again, plastic and reconstructive surgery is required. Thanks to a long and intense collaboration with Sentinelles and Terre des hommes, several hundred seriously mutilated children have been treated. For the most part inoperable in their home countries, they spend between six months and one year in Switzerland. Once a year, the HUG's plastic and reconstructive surgical team travel to Niger in order to operate children with less severe consequences and to follow-up on those operated in Geneva.

Testimony

'Basic facilities and few resources, everything is simplified. Despite that, we always work in conditions that are sufficiently safe for state-of-the-art medicine, such as cardiac surgery for children, because we bring all our equipment (operating theatre, blouses, threads, etc.). We constantly collaborate with the local medical care team: what resourcefulness and what devotion! We go on these missions abroad in our own time, which is a pleasure for us and gives us a chance to serve. They are enriching experiences: the dream would be to work six months here and six months there...'

Here we only see the patients on the operating table, whereas in the field, the contact is made before the operation, and continues during it and afterwards in intensive care, then with the family. In this way we are confronted with troubling problems such as the little boy who, after finishing his meal, pouted at his mother for several days because, being famished, she had taken a piece of his bread.'

Jacqueline Richard, Chantal Chatel, operating theatre nurses, Eritrea, Mozambique, several missions

Bridging distances

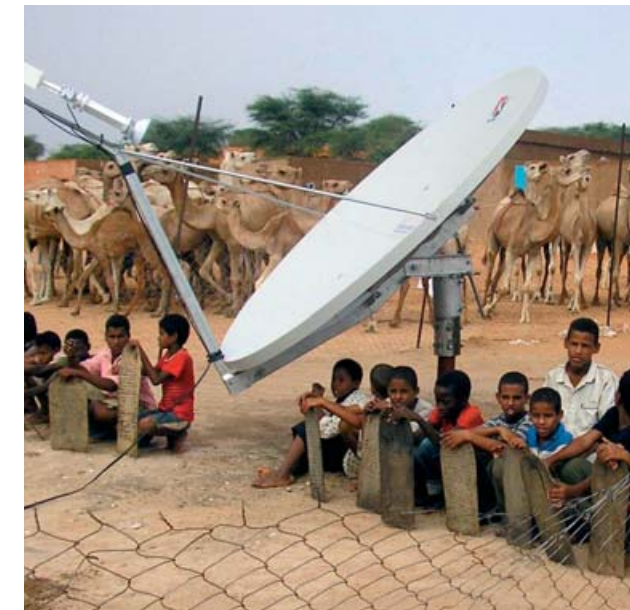
Transferring expertise without transporting the doctor or the patient contributes to development. Thanks to satellite technologies, the opening up of regions has become possible and guarantees better access to healthcare.

The RAFT network

Too few doctors, most of whom are located in the capital, and difficult transport conditions constitute two arguments in favour of telemedicine. Born in 2000, the Telemedicine Network in Francophone Africa (RAFT) aims to connect the district and bush hospitals with the help of locally available means. Thus, a doctor who is far from a centre of expertise can consult a colleague at a distance to:

- resolve a difficult case
- follow a continued training course on the Internet
- access digital libraries.

Today, the network includes 12 countries. Telelearning is developing in a South-South network and virtual communities are organizing themselves to manage concrete cases. In the future, RAFT will create specific on-line medical content and deploy other connection points in rural settings.



Mali: axis of South-South collaboration

In October 2000, through the HUG and with the help of the International Solidarity Fund, the State of Geneva financed a telemedicine project with Mali, the starting point of RAFT. The Keneya Blown ('Hall of Health') project in Mali enabled the establishment of a national telemedicine network linking different health institutions in Bamako, as well as the regional hospitals of Segou and Timbuktoo. This network authorizes:

- North-South teleconsultations for neurosurgery (patient in Bamako, expert in Geneva)
- South-North teleconsultations for leprosy (patient in Geneva, expert in Bamako)
- telelearning transmitted from Geneva to Bamako (course followed in Segou, Timbuktoo, N'Djamena)
- teleexpertise in radiology with a review, in Geneva, of radiological x-rays taken in Bamako
- a Malian medical portal: www.keneya.net.

This project, supported by several ministries (health, national education, communications, new technologies), has become the axis of South-South collaboration, thanks to young doctors, IT workers and documentalists based in Bamako.

Testimony

'While finishing their studies at the faculty in Bamako, young doctors thought that the solution for the country's medical centres, cut off from the world, for villages without telephones or electricity, lay in new technologies. Since Mali was not the only country in this situation, we have extended the project to other francophone countries. In Africa, the main problem is a lack of coordination: RAFT has considered the realities, made sure that everything functions in terms of organization and techniques, supported local teams and finalized the training locally, which has resulted in its success.'

Contrary to popular belief, telemedicine is made for the poor, because it compensates for the healthcare system's lack of resources. For example, from Bamako, we presented the case of a little girl with neurosurgical problems to specialists in Geneva, and we obtained precious results.'

At the moment, I am accumulating experience at the HUG. When I return to Africa in a few years, my main goal will be to get medical IT introduced into the university degree course, so that future doctors can appreciate the role of informatics in the field of health.'

Dr Cheick Oumar Bagayoko, IT doctor, international coordinator of the RAFT network, Geneva