

ENHANCING EDUCATION AND PRACTICE

Development of Family Medicine Education in Moldova with Carelift International

GRIGORE BIVOL, MD, PhD¹, GHENADIE CUROCICHIN, MD, PhD¹, ALTON I. SUTNICK, MD², VICTOR I. VOVC, MD, PhD¹, JOSEPH P. WELSH, Esq, MBA, RRT², LIVIU I. VEDRASCO, MD, MPH², THEODORE R. KANTNER, MD³, PERTTI KEKKI, MD, ScD⁴, ADAM LISIEWICZ, MD⁵, ARTHUR KAUFMAN, MD⁶, JONATHAN E. RODNICK, MD⁷ & ANDREI ISSAKOV, MD⁸

¹Moldova State Medical and Pharmaceutical University, Chisinau Moldova; ²Carelift International, Philadelphia, PA, USA; ³MCP–Hahnemann University, Philadelphia, PA, USA; ⁴University of Helsinki, Finland; ⁵Johns Hopkins University, Baltimore, MD, USA; ⁶University of New Mexico, Albuquerque, NM, USA; ⁷University of California San Francisco, USA; and ⁸World Health Organization, Geneva, Switzerland

ABSTRACT Background: As in other former Soviet republics, Moldova's health system has been dependent upon multispecialty and hospital care. The government has undertaken a planning process to develop a primary care-based system utilizing family physicians. Carelift International and Moldova State Medical and Pharmaceutical University joined together to design an educational program to help create a family medicine specialty in the country.

Methods: Introductory concepts were incorporated into a workshop co-sponsored by the World Health Organization, Carelift International, UNICEF and the Moldova Ministry of Health. Faculty teams participated in Carelift's 8-week US program, comprising a range of topics in family medicine: educational development at all levels, public health applications, health care organization, insurance, financing, and technology. Training also included 1 week in Finland, a fellowship in Lithuania, an in-country workshop on rural health, and a supplemental 5-week US immersion program.

Outcomes: A Department of Family Medicine was established, and a residency program instituted. It has already been strengthened with a 2-week introduction to the specialty, and rotations in family practice centers. Continued improvements and updates are planned. Urban and rural model family practice centers serve concurrent purposes of teaching, demonstration and health care. Carelift shipped equipment for the principal

Address for correspondence: Alton I. Sutnick, MD, Carelift International, GSB Building, Suite 425, One Belmont Avenue, Bala Cynwyd, PA 19004, USA. Tel: +1-610-617-0995. Fax: +1-610-668-0930. E-mail: alsutnick@carelift.org

center and a departmental library, and is equipping a teaching family practice center near the university. The Society of Family Physicians of Moldova was founded. The introduction of family medicine as a discipline into the health system of Moldova could be a valuable model for other former Soviet republics.

KEYWORDS *Family medicine, Moldova, educational development*

Health System in Moldova

Moldova is a small country with a population estimated at 4.32 million and a predominantly agricultural economy, situated between Romania and Ukraine (King, 1999). Prior to World War II it was part of Romania, and it became incorporated into the Soviet Union in 1940. The dominant culture is Romanian and the majority of the population is Romanian-speaking, but there is a substantial minority of Ukrainians and Russians, with other smaller minorities. It is the least urbanized of the former Soviet republics outside of Central Asia; nearly one-half of the population lives in rural areas. The country is divided into 40 districts and four municipalities.

The health care delivery system was (and remains) principally based in the capital city of Chisinau, the location of most of the secondary and tertiary care hospitals and their polyclinics, including the major academic medical center where all of the medical and health sciences education and research is conducted (Nestman *et al.*, 1999). The management of health care is organized according to the administrative and political divisions. Prior to 1948 a generalist physician was the health officer responsible for the care of the population in each of the districts and municipalities. In that year a team consisting of an internist, a pediatrician, and an obstetrician/gynecologist replaced the district physician. This was perceived as improving the quality of primary care. In 1968 a range of subspecialists was introduced, creating the polyclinic system (Ministry of Health, 1968), which was essentially an extension of the hospital and its departments, managed by the hospital director as part of the hospital budget (World Health Organization, 1996a). This dependence of the health care system on multiple specialties, hospitals and polyclinics resulted in fragmentation and lack of coordination of care. Even at that time, in an attempt to improve coordination of health services, some effort was directed toward developing a primary care-based system utilizing family physicians.

Government Initiatives in Primary Care

Following the Declaration of the World Health Organization (WHO) Conference in Alma-Ata in 1978, which called for promotion of reforms in primary care (World Health Organization, 1978), the Moldovan Ministry of Health issued order no 1284, "About starting of experimental training of family physicians" (Ministry of Health, 1988). The first approach was a 4-month

retraining program for internists and pediatricians, subsequently increased to 6 months. In 1992 this was increased to a one-year primary care internship, with the goal of creating 200 family physicians/year, to implement the new type of primary care delivery in the country by a generalist who replaced the district internist and pediatrician around the country, as demonstrated in four model outpatient centers. These generalists accepted their new roles, as did the patients and their families. Although the initial goal was not met, about 150 general practitioners were retrained over the subsequent 2 years. However, an avalanche of problems emerged in health care, which forced the discontinuation of this training in 1995. As a result, the only route for training general practitioners was a 1-year internship after medical school.

Health Problems

These health care problems were temporally related to the declaration of independence by the Republic of Moldova from the Soviet Union in August 1992, initiating a period of increasing instability in trade, inflation, ethnic tensions, and a decline in health status. The health budget was cut 35%, effectively 50% with inflation taken into account. Per capita health spending is only \$10/year. Moldova experienced higher mortality rates for all ages, from 9.7/1,000 in 1990 to 11.9 in 1997 (European Commission, 1998); lower life expectancy at birth; increased incidence and prevalence of serious infectious diseases; increased rates of alcoholism, drug and tobacco use, nutritional deficiencies and lack of exercise; widespread food contamination and pollution of water supply; higher unemployment, lower wages and deterioration of living and working conditions; higher mortality from gastrointestinal and cerebrovascular disease; and higher maternal mortality (World Health Organization, 1996a). The infant mortality rate is over 20/1000, compared to about 13/1000 in Central and Eastern Europe, and about 6/1000 in the European Union. On an encouraging note, it is lower now than it was in the 1980s (Nestman *et al.*, 1999).

The government undertook a major political and economic reform process directed at establishing a market economy for the country, including reform of the over-centralized health and social services. In 1993 the Ministry of Health appointed a Reform Commission, which was directed to design a new model of health care for the country. There was widespread consensus in support of this Commission, and a new Law on Health Protection was adopted by Parliament. This was consistent with the report of a European WHO Conference (World Health Organization, 1996b) held in Ljubljana in 1996 (the Ljubljana Charter). The legislation called for (1) improvement of medical education, (2) reorganization of health service administration and financing, (3) enhanced family planning services, (4) prioritization of primary health care with a central role for the general practitioner/family physician, (5) private sector development, and (6) introduction of health insurance. The Ministry decided to build on the family practice model, and to firmly establish the discipline as a medical specialty.

Carelift International Hospital Development Programs

Carelift International is a non-profit organization, established in 1992, dedicated to improving global health by creating measurable solutions to the problems challenging developing health care systems. It is funded by individuals, foundations, corporations, and governmental agencies, and receives in-kind contributions from a network of over 1200 potential health care donors. Carelift partners with medical facilities in other countries to meet immediate health care needs while strengthening and supporting changes that lead to long-term tangible improvements in health care systems. They design and implement comprehensive projects to augment current operations and/or add new services to facilities, resulting in concrete, visible improvements in patient care. Carelift extends the life cycle of surplus medical equipment, pharmaceuticals and supplies donated by US health care institutions and companies by redeploying them to developing countries (the hospital development program). Carelift has developed a very deliberate and thorough process, including needs assessment, consulting on redistribution of equipment and supplies, testing and refurbishing all equipment to bring it to US standards and the appropriate electrical power of the recipient country, packing and shipping all items with detailed documentation and accessories to support a year of operations and comprehensive equipment operation and maintenance manuals, onsite installation and training, and follow-up and monitoring. Most of the projects have been carried out in Eastern Europe and Central Asia, especially the Newly Independent States (NIS) of the former Soviet Union. Since 1992 Carelift has delivered over \$47 million worth of goods to 35 countries. Currently the bulk of the support for the Carelift operation comes from the United States Agency for International Development (USAID), and the countries and institutions aided are principally those connected through partnerships created by the American International Health Alliance (AIHA).

Soros Foundations Network

The Soros Foundations Network was created by philanthropist George Soros with a goal of developing open societies in many countries, particularly in Central and Eastern Europe and the former Soviet Union, but also in some other parts of the world. National foundations have been established in 33 countries, one of which is the Soros Foundation – Moldova. These are described in the Soros website, <http://www.soros.org>. The Open Society Institute (OSI) based in New York, with other offices in Baltimore, Brussels, Budapest and Paris, provides support to the national foundations, establishes relations with other international charitable organizations and government agencies, and operates independent network-wide and US-based programs. Administrative, financial and technical support for the national foundations is provided by OSI

in New York and the Open Society Institute–Budapest. The project on development of family medicine in Moldova was accomplished in collaboration with OSI and the Soros Foundation–Moldova.

OSI had been providing a training program in the United States for Eastern European physicians. Upon return to their countries, these physicians did not have the necessary equipment and supplies to provide hospital-based care for their patients. In 1994 OSI and the Soros Foundation–Moldova invited Carelift International to Moldova to help in the upgrading of seriously obsolescent hospital equipment. Carelift performed an evaluation of urban and rural hospitals and provided modern medical equipment, supplies and pharmaceuticals to selected hospitals. Over the subsequent few years, the Moldova State Medical and Pharmaceutical University redirected some of its clinical training programs to hospitals that were equipped through this program. This prompted a consideration of strengthening the clinical education programs in Moldova.

Carelift International Educational Program With Moldova

By this time Carelift International had established a Department of International Medical and Health Sciences Education, and OSI again turned to Carelift. Moldova's health problems noted previously were reviewed once more in that context. The functional approach to addressing these problems fell into two categories: providing better access to the health care delivery system with greater coordination of services, and training more skilled public health professionals. A program was designed to provide the academic basis for the creation of a specialty of family medicine in the country to provide a primary care access to the system, and to establish an educational program in public health. In the process of developing these educational programs, it seemed reasonable to include some elements in the program to strengthen medical and health sciences education. This aspect of the program would also be widely applicable to other departments throughout the university. The proposal was jointly finalized by Carelift International's Director of International Medical and Health Sciences Education and the Dean for International Affairs of Moldova State Medical and Pharmaceutical University.

A Carelift team visited Moldova, met with a number of officials, and discussed the proposal with a task force of leaders assembled by the Rector of the University. It was in the context of this visit that top priority was placed on the development of family medicine as a discipline, with public health to be addressed at a later date. However, some public health training would be incorporated into the family medicine program. Strengthening of medical education would remain an important part of the project, and was seen as benefiting the Medical University at large. The Ministry of Health was supportive of this approach, and issued a directive to the university to initiate a family medicine residency on a very tight deadline, and to establish a

Department of Family Medicine. The Rector promptly appointed a respected and dedicated Professor of Internal Medicine as Chair of a new Department of Family Medicine, and shortly thereafter several internists and pediatricians were named as the first family medicine faculty members. The highest priority of the department would be to produce family physicians for the country through the creation and management of the residency, and a revised retraining program for general internists and pediatricians.

Subsequently, a primary care workshop was conducted in Moldova, co-sponsored by WHO, Carelift International, UNICEF and the Moldova Ministry of Health. It was prepared and conducted primarily by WHO and representatives of the other sponsoring organizations. Participants included most of the district medical officers, the leadership and senior faculty members of the University's Department of Family Medicine, and key members of the Ministry of Health. The workshop served to introduce basic concepts of family medicine, its application in several countries, and its potential benefit to Moldova's health system. It also provided the opportunity for Carelift to introduce its US-based medical and health sciences education program to Moldovan participants, and to arrange a collaborative educational experience with the University of Helsinki in Finland. After one group of recently appointed Moldovan family medicine faculty members spent a week in Helsinki, a team of four traveled to the United States to gain an understanding of how family practice centers are organized and how family physicians are educated at the undergraduate and graduate levels.

US Program for Moldova

Carelift's US program for Moldova spanned a broad range of topics in family medicine organization and education, including the public health aspects of the discipline. The Moldovan team studied the roles of national organizations, major components of residency programs and their accreditation process (Sutnick, 1999b), certification and re-certification of family physicians, elements of family medicine incorporated into the undergraduate medical curriculum, new instructional design and pedagogical approaches, and new technology in health care and medical education. They learned of how family medicine developed and is practiced in the United States, and observed the function of the family practice center. They studied the organization of departments of family medicine and variations in the residency curricula. Additional topics included project development and management, components of health care organization, health systems and financing, and health insurance. These topics were addressed in didactic and practical sessions, conducted in multiple institutions, demonstrating elements of uniformity and diversity. For example, they had didactic sessions on requirements for the content of the residency curriculum, reviewed curricula from several residency programs, discussed them with the residency program director, then observed selected residents in their learning activities. They attended resident conferences, clinical confer-

ences and department meetings in several institutions. They met with Department Chairs, and learned about the structure of their departments. Numerous institutions and organizations collaborated with Carelift International on the Family Medicine Education Program. Most of them partnered with Carelift International in actual educational sessions at their institutions or organizations. Others provided facilities or other resources (Table 1).

Supplemental Educational Activities

After the US program, one Moldovan faculty member took a 2-month fellowship at Kaunas Medical University in Lithuania. The Chair of that department had had previous experience in family medicine in a training program at McMaster University. He had also sent two faculty members as part of a Lithuanian team to participate in the Carelift International program, joining participants from Vilnius University. Carelift and OSI sponsored the participation of a team from Moldova at the III Baltic Conference of Family Medicine/General Practice in Lithuania. They made two presentations on the program, and stayed in Lithuania for several more days to observe the progress made in family medicine education in both Kaunas and Vilnius. A follow-up expert site visit was conducted in Moldova in September 1999 to evaluate the existing status of family medicine development, and to conduct a workshop on the role of rural health in resident training.

Carelift designed and conducted a supplemental program for two additional physicians, who traveled to the United States for a slightly different goal. They had an observational immersion experience in the clinical practice of family medicine, which demonstrates the comprehensiveness and continuity that define the specialty, and the utilization of community resources. They learned the pedagogic techniques, then participated in the education of residents in the practice setting, and some undergraduate medical education sessions. They experienced the preceptorship model, problem-based learning, and standardized patients. They were to return to Moldova to function as family physicians in their department, to act as preceptors with residents, and to teach elements of family medicine incorporated into the curriculum of undergraduate medical students.

The emphasis of the overall program was on learning about as many different approaches as possible, including American and European, so the university can select those that appear most applicable to their culture.

Outcomes

The program helped to expedite the inauguration and subsequent strengthening of a Department of Family Medicine and a family medicine residency at Moldova State Medical and Pharmaceutical University (Sutnick *et al.*, 2000). As noted above the Department Chair was appointed by the Rector after the proposal was circulated, and a directive to create a residency and a department

Table 1. Collaborating institutions and organizations in Family Medicine Education Program for Moldova

Academic and health care institutions

Abington Memorial Hospital
 Abington Family Medicine
 North Willow Grove Family Medicine

Aetna US Healthcare

Albany Medical College
 Department of Family Medicine

Franklin Institute

Johns Hopkins University
 School of Public Health
 Department of International Health
 Department of Epidemiology

Kaunas Medical University (Lithuania)
 Department of Family Medicine

Lancaster General Hospital

MCP–Hahnemann University (operated by Drexel University)
 School of Medicine
 Office of Education
 Department of Family Medicine

Mediq/PRN

Philadelphia College of Osteopathic Medicine
 Department of Medical Humanities and Education

Temple University
 Fox School of Business and Management

Thomas Jefferson University
 Jefferson Medical College
 Department of Family Medicine

University of California, San Francisco
 School of Medicine
 Department of Family and Community Medicine

University of Helsinki (Finland)
 School of Medicine
 Department of Family Medicine

University of New Mexico
 School of Medicine
 Department of Family and Community Medicine

University of Pennsylvania
 School of Medicine
 Department of Family and Community Medicine
 Family Practice Center, Chestnut Hill Hospital

Vilnius University (Lithuania)
 Faculty of Medicine
 Department of Family Medicine

Warminster Hospital

continued

Table 1. *Continued*

Local, national and international health and education organizations

Accreditation Council for Graduate Medical Education

American Academy of Family Physicians

American Medical Association

Association of American Medical Colleges

College of Physicians of Philadelphia

Society of Teachers of Family Medicine

World Health Organization

Other collaborators

Astrion

Crown Cork and Seal, Inc.

Granary Associates

was received from the Ministry of Health. The strong support of the Ministry of Health and the agreement of a respected senior member of the faculty to assume the Chair were major factors in the success of the venture. The Chair appointed internal medicine and pediatric faculty members to the new department, and a Vice Chair was appointed to carry out the details of developing the residency. The knowledge, care and vigor of the Vice Chair in proceeding with this task was another factor in its success.

They have already revised the residency curriculum based on their experience and a re-evaluation of their resources. One innovation is the introduction of a 2-week rotation in family medicine for first year residents to introduce them to the specialty, followed by rotations through internal medicine and pediatrics. The second year consists of experience in obstetrics/gynecology, surgery and other shorter rotations. Residents now spend 7 months full time in family practice centers under the supervision of preceptors. This enables them to participate in the continuity of care that is so essential to the practice of family medicine. Strengthened training in behavioral medicine and public health is still needed to address the level of alcoholism, violence and depression seen by Moldovan primary care physicians. In their zeal to produce family physicians for the nation they have appointed too many residents for the clinical facilities and faculty members, a problem that remains to be addressed.

The first family practice center was established with the help of Carelift in the Botanica District of Chisinau (known as Practice Pro-San) in an existing polyclinic building. Carelift acquired and shipped the necessary equipment for the center, and books for a reference library for the Department of Family Medicine. Patients drawn from the neighboring community are enrolled in this center. The Pro-San family practice center also serves as a site for retraining other specialists as family physicians, and as a model clinic for observation by physicians from regional outpatient clinics. A teaching family practice center near the university is being equipped and is projected to open in fall 2002. It will

assume the teaching functions as its principal role. The university is in the process of developing several more family practice centers, not only to train all of its residents, but to provide a focus on the creation of a primary care system, and to provide employment opportunities for recently trained family physicians. The university now offers 2-week continuing medical education courses for family physicians, conducted in the Pro-San Family Practice Center and conducted by Department of Family Medicine faculty. The residents are evaluated on their practical skills, a written multiple choice examination, and an oral examination before the State Medical Examination Board. CME students have the same examination of their skills and the multiple choice examination. The centers serve the concurrent purposes of teaching family medicine residents and medical students, demonstrating the practice of family medicine, and providing primary health care services to a segment of the population. Plans are in progress to increase the amount of direct patient care in the residency curriculum, to encourage more independent study, and to develop a method to evaluate clinical skills. The Ministry of Health plans to convert more polyclinics to family practice centers, ultimately extending throughout the country.

To emphasize the relevance of the family medicine residency training program to Moldova's underserved, mostly rural population, the original concept of an urban-based program was modified to include model rural teaching sites. Two rural family medicine sites were identified as potential educational resources. The use of rural as well as urban family practices for residency training programs is an important innovation for Eastern Europe. As another important outcome, the Society of Family Physicians of Moldova was founded, and is expected to become the base for establishing standards for a certification process for family physicians. The university continues its family medicine development in a partnership with Eastern Virginia Medical School. This partnership is funded by USAID by cooperative agreement with AIHA. Carelift International continues to provide supplies and equipment. In planning its family medicine program, the Medical and Pharmaceutical University of Moldova has had a special opportunity for exposure to a number of institutions in the United States, experiences in Finland and Lithuania, an international conference with Baltic and Scandinavian countries, and a workshop with multinational input. This gave them a world view in formulating their approach to establishing family medicine in the country as a means of improving access and reducing fragmentation of health care. The introduction of family medicine as a discipline into the health delivery system of Moldova could be a valuable model for other countries.

Building on Success

The family medicine program with Moldova was developed jointly by Carelift International with OSI, the Soros Foundation–Moldova, and the Moldova

State Medical and Pharmaceutical University. In many ways it was an outgrowth of Carelift's hospital development program, and it drew heavily upon the previous collaborative experience of Carelift's Director of International Medical Education in developing primary care education in China (Liu *et al.*, 1997a,b). Lithuania participated with Moldova in the Carelift International US program, but they had had previous opportunities to develop expertise in family medicine education. They took a fellow from Moldova, and conducted an international meeting in family medicine. They have achieved the capability of becoming a training center in the field. The establishment of geographically distributed training centers could potentially expedite the expansion of family medicine education to benefit more developing countries at reduced cost.

The Moldova program became a prototype for Carelift to introduce in 1997 complementary international education programs for medical and health science professionals who are representatives of institutions, organizations and government agencies in their countries (Sutnick, 1999a; Sutnick *et al.*, 1998, 1999). They provide training and ongoing support customized to match the specific needs of health care professionals in a particular country. The goal of these education programs is to promote health care development, improve general health status, strengthen educational programs in medicine and the health sciences, and address pressing public health needs. These outcome-oriented programs address the long-term needs of countries in the process of refining some aspect of their health systems. Each program is customized to respond to the specific needs of the country and emphasizes sustainability by identifying and strengthening in-country health care and educational expertise. The focus has generally been on basic health services, such as family practice, emergency medicine, public health, and maternal/child health, but some may be directed towards development of more sophisticated medical services or administrative areas when indicated.

Typically a planning workshop is conducted with a task force in the country, a targeted curriculum is created directed towards implementing the country's defined project, and educational programs are conducted for a selected team in the country, as well as in the United States and other countries. Long-term follow-up and evaluation are critical components of the program, as are ongoing opportunities for consultation, collaboration and communication between institutions and individuals (Liu *et al.*, 1997b). In addition to Moldova, Carelift has now conducted such programs with seven countries (Brazil, Croatia, Cyprus, Estonia, Jordan, Lithuania, and Zimbabwe), covering topics in family medicine, emergency medicine, hospital/health services administration, development of specialty fellowships, instructional design and medical editing and publishing.

The principal impact of these programs is upon the institution, organization or government agency that the members of the team represent, which will be enabled to introduce new programs or directions to their activities. The returning program participants help to implement these new activities. Some of

them will also be in a position to participate in health policy and planning to address major health issues affecting their country's population. It was possible to introduce such a program first in Moldova (Sutnick *et al.*, 1998) because of the success of the hospital development program, Soros Foundations support, cooperation from the Minister of Health and Parliament, and commitment of the Medical University.

Acknowledgements

The authors are indebted to David C. Leach, MD, Executive Director, Accreditation Council on Graduate Medical Education, for components on quality in family medicine residencies; Dennis K. Wentz, MD, Director of Continuing Medical Education, American Medical Association, for components on lifelong learning; John L. Randall, MD, Alumni Professor and Chair, Department of Family Medicine, Jefferson Medical College of Thomas Jefferson University, for assistance in planning the curriculum and offering the services of his faculty and educational resources; Patrick F. Caulfield, MD, Professor of Family Medicine, Albany Medical College, for conducting a rotation in Albany; Mikko Vienonen, WHO/EURO Regional Adviser for Health Services Management, World Health Organization, for his central role in the workshop in Chisinau; and to Carroll A. Caulfield, Administrator, Department of International Medical Education, and Paul D. Osimo, Director of Environmental Programs, Carelift International, for their assistance in the planning, operation and management of the US program. This project was funded by Open Society Institute – New York, with additional support by Soros Foundation – Moldova, Open Society Fund – Lithuania, and the World Health Organization. Continuing funding is provided by the United States Agency for International Development.

References

- EUROPEAN COMMISSION, NIS/TACIS SERVICES (1998). *Economic trends, Moldova*.
 KING, C. (1999). *The Moldovans: Romania, Russia, and the politics of culture*. Stanford: Hoover Institution Press.
 LIU, H., ZHOU, D., FINK, D.L., RODNICK, J.E., YUAN, H., LIN, K., WANG, L., LU, F. & SUTNICK, A.I. (1997a). Family medicine education in China: an example of cross-cultural collaboration. *Revista de Medicina e Chirurgia*, 1, 85–89.
 LIU, H., ZHOU, D.H., FINK, D.L., RODNICK, J.E., YUAN, H.Z., WANG, L.Y., LU, F. & SUTNICK, A.I. (1997b). Faculty development and primary health care education in China. In: A.J.J.A. SCHERPBIER, C.P.M. VAN DER VLEUTEN, J.J. RETHANS & A.F.W. VAN DER STEEG (Eds), *Advances in Medical Education* (pp. 234–236). Dordrecht: Kluwer Academic Publishers.

- MINISTRY OF HEALTH, MOLDOVA SOVIET SOCIALIST REPUBLIC (1968). Order no. 340.
- MINISTRY OF HEALTH, MOLDOVA SOVIET SOCIALIST REPUBLIC (1988). Order no. 1284.
- NESTMAN, L., FAWCETT-HENESY, A. & DAVIES, M. (1999). *Hospital restructuring in Moldova: mission report*. Geneva: World Health Organization.
- SUTNICK, A.I. (1999a). Carelift International, United States of America. *Network of Community-Oriented Educational Institutions for Health Sciences Newsletter*; 31, 17.
- SUTNICK, A. (1999b). Quality assurance mechanisms in medical education. In: P. Mestres (Ed.), *Perspektiven des Medizin-studiums* (pp. 165–169). St. Ingbert: Rohrig Universitats Verlag.
- SUTNICK, A.I., WELSH, J.P., KANTNER, T.R., WELTON, W.E., VEDRASCO, L., VOVC, V. & MAXIMENCO, D. (1998). Health reform through medical education: Carelift International education exchange; towards managing the health of the population. *Association of Medical Schools of Europe Newsletter*, 20, 11–12.
- SUTNICK, A.I., GLOSS, J., GLOSS, L.J. & WELSH, J.P. (1999). Carelift International educational program for global health development: a dermatology perspective. *International Journal of Dermatology*, 38, 101–102.
- SUTNICK, A.I., VOVC, V.I., WELSH, J.P., KANTNER, T.R., MAXIMENCO, D., RANDALL, J.L., BIVOL, G., KEKKI, P. & ISSAKOV, A. (2000). Creation of family medicine as a specialty in the Republic of Moldova. In: D.E. MELNICK (Ed.), *Eighth International Conference on Medical Education and Assessment Proceedings. Evolving Assessment: Protecting the Human Dimension* (pp. 887–889). Philadelphia: National Board of Medical Examiners.
- WORLD HEALTH ORGANIZATION (1978). *Alma-Ata declaration for primary care reform*. Geneva: World Health Organization.
- WORLD HEALTH ORGANIZATION, REGIONAL OFFICE FOR EUROPE (1996a) *Health care systems in transition, Republic of Moldova*. Geneva: World Health Organization.
- WORLD HEALTH ORGANIZATION, REGIONAL OFFICE FOR EUROPE (1996b). *Ljubljana charter on reforming health care in Europe*. Geneva: World Health Organization.