



MMS Bulletin #106

Chronische Krankheiten

Comprehensive prevention and care in Bosnia and Herzegovina

Diabetes may affect the whole family...

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Chronic diseases, such as diabetes, inordinately affect the population and health care systems of the poorer countries in the European region. A pilot approach, developed by the Swiss NGO Fondation Partnerships in Health (FPH) with the public sector, patient and professional associations demonstrates that increased prevention and improved patient care can be integrated successfully into the primary health care system, benefiting patients, families, and health providers.

Due to changing diets and sedentary life styles, diabetes rates are growing epidemically worldwide. Without major changes, WHO expects diabetes deaths to increase by more than 50%. Because most patients with chronic diseases in low and middle income countries are actually under 70 years (1), diabetes presents a significant psychosocial and economic burden for the individuals, their families, the health care system and country. Diabetes increases the overall risk of dying: the risk of dying from heart disease, stroke, and kidney failure, as well as the rate of visual impairment and blindness, foot amputations, and limb nerve damage.

Premature deaths and long-term disability are to a large degree preventable, however, medical treatment alone is insufficient. Diabetes requires significant and persistent life style changes and continuous monitoring and control of blood sugar levels. The behavioural changes and the patient's reaction to them, as well as some of side effects of the disease may affect the whole family. In severe cases (blindness, foot amputations, dialysis, heart condition), adults who would otherwise still be economically active can require significant home care. To address the patient and the family's multiple needs, a comprehensive psycho-social and medical support system is needed by the patient and his/her family.

Health care in one of the poorest countries

Bosnia and Herzegovina (B&H), one of the poorest European countries, has a complex health care system, with 13 ministries of health and 13 health insurance funds, and 264 health care institutions. Patients in need of treatment often have to travel long distances for services that are covered by their geographic entity health insurance fund, even though the services may be available at closer proximity and cost, provided by another entity. This results in significant additional costs to the patient and health care system.

In 2000, Bosnia and Herzegovina reported estimated 111'000 diabetes patients. This number is expected to increase to 180'000 patients by 2030. Because of the high costs of the disease and resulting complications, improved capability of the health care system to prevent and manage diabetes as much as possible at the primary health care level, is an important contribution to the ongoing health reform efforts of the government.

Fondation Partnerships in Health (FPH), a Swiss NGO, has supported health reform efforts of Bosnia and Herzegovina since 1998. Several projects in partnerships with the Geneva University Hospitals and funded by the Swiss Agency for Development and Cooperation have built local capacity to retrain doctors and nurses in family medicine, rehabilitated ambulatory clinics, and procured essential equipment in key regions across the country. In addition, from 2005 to 2007, FPH provided basic HIV training to 1313 primary care doctors and nurses, using infectious diseases specialists and primary care trainers. This has also contributed to strengthening the working relationship between specialists and the primary care level.

In 2005, patients diagnosed at the primary/ambulatory level of care with diabetes in the Canton of Sarajevo were immediately referred to specialist care. Sarajevo had one diabetes specialty clinic, serving a population of nearly half a million people and more than 10'000 patients with diabetes. Before the introduction of the new multi-disciplinary approach in 2006, specialists would share limited information with the patient, in order not to create anxiety. Patients would be requested to return to the specialist, if necessary daily, to check glucose levels, and be referred immediately to the hospital when specialists were overloaded with cases or on the weekend. Psychosocial counselling was not available to the patient, and primary health care providers were lacking the basic information about diabetes to provide routine care, follow-up, and counselling. Today, this situation has changed substantially in the Canton of Sarajevo thanks to an innovative pilot project.

Multi-disciplinary treatment and care

In 2006, Fondation Partnerships in Health and its partners (the Canton Sarajevo, the Cantonal Ministry of Health and its primary and secondary health care system, the professional chambers of doctors and nurses, and the Diabetic Patient Association, with financing from the Canadian Agency for International Development, the Medtronic Foundation, and the Vontobel Stiftung) developed a new approach to diabetes that encompasses primordial, primary and secondary prevention, including improved treatment and care for more than 2'000 diabetic patients. Under the guidance of a locally established working group consisting of FPH staff, an eminent Sarajevo diabetologist, Professor Dr. Heljic, and representatives of the other local

partners, multi-disciplinary diabetes teams were established at the primary care level. These teams consist of family medicine doctors and nurses, social workers and psychologists and are directly linked to the specialists and their nursing staff at the secondary level.

To build the capacity of the cantonal health care system, a training-of-trainer course was developed, based on internationally validated technical curricula, team building approaches, and adult pedagogical methodologies. Twelve trainer teams (consisting of a diabetologist, nurse, family medicine doctor and nurse, psychologist and social worker) completed this course and then trained 151 family medicine teams (doctor and nurse), six social workers, and five psychologists in the Sarajevo health centres and ambulatory clinics. In addition, the 12 trainer teams were trained to provide supervision and support to the trained staff at the primary care level to assist them to implement the new government-approved protocols and apply their new skills, particularly related to patient education. International patient education materials were adapted for local use, and the team developed an information booklet for children, with input from young patients with diabetes.

Improving prevention

One of the local project partners is the Diabetic Patient Association which has worked closely with Fondation Partnerships in Health and the Ministry of Health staff on the organization of activities for the World Diabetes Day on November 14, the development of information, education and communication (IEC) materials, public education, and the promotion of the new services with their members. For the World Diabetes Day in 2006, all 12 participating clinics offered screening for diabetes, and 442 individuals were tested. Of these, 132 had glucose levels exceeding 7 mmol/l, the cut-off level for diabetes. These individuals were referred directly to the new medical and psychosocial support services that are assisting them now in bringing their disease under control and prevent serious and costly side effects.

Because of the great success of this one-day event, a special one-month campaign to reach high-risk individuals for screening was organized for December 2006 to January 2007. Pharmaceutical companies (Novo Nordisk, Oktal Pharma, Roche Diagnostics, and Bauerfiend) assisted with some of the testing materials, reagents, and equipment, further increasing the public-private cooperation around diabetes prevention and care.

Expanding access to individualized counselling

Until this project had started, all patients were served by the main Diabetes Clinic at the University Hospital campus. The local working group members agreed that counselling and specialty care is needed to be more accessible to many of the patients in the Canton. A Diabetes Counselling Centre was established at one of the largest ambulatory care facilities, Ilidza, outside of the city centre of Sarajevo.

The new counselling site opened in May 2007 and is staffed by a family medicine doctor and nurse who received additional training in counselling, adult and child education, and diabetes technical skills. The Centre was equipped with educational materials, glucometers, testing strips and books donated by Roche and Oktal Pharma. Using a patient appointment system, individualized attention is given to assisting patients and their families with insulin injection techniques and use of the blood glucose meter, individualized diabetes meal planning, and other special needs. The centre is also organizing patient support group sessions.

Approximately 110 patients per month benefit now from these special services that help individuals to take an active role in controlling their disease and preventing some of the serious consequences. Because of critical needs in other geographic locations, the Canton of Sarajevo has requested FPH's assistance in helping to set up two more counselling centres.

Radio, television, and newspapers have covered many of the key events of the project, including the celebration of the World Diabetes Day, the training workshops for the multi-disciplinary teams, the opening of the Ilidza Diabetes Counselling Centre, and the one-month screening campaign. Each of these events has provided a special opportunity to talk about diabetes and educate the public about its causes, possibilities for prevention, as well as the symptoms that should alert individuals to get tested.

The future

Fondation Partnerships in Health and its local partners are implementing methodologies to track patient satisfaction with this new approach and monitor the skills of the participating providers. In addition, they are working on scaling up this approach with current and new donors to more underserved and remote rural areas, given the success of the pilot project and continuing needs of patients and the health care system.

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Story from an involved doctor

“Hey, this one is on insulin.”

The patient, 65 years, walked into my office confused, scared... accompanied by his worried wife. With sunken eyes, red face and dry lips looked like a person lost in desert for many days. He was confused and told me that he was very healthy until yesterday, but suddenly felt very thirsty, hungry and often needed to go to the toilet.

He was diagnosed with severe diabetes, with a blood sugar level of 29.5, and urine showing the presence of ketones. He did not understand how it could happen at his age, as he had eaten well, felt fine and was not obese. It was obvious that he was trying to hide his despair with the diagnosis of this newly discovered disease. Very proudly he mentioned that his wife is a great cook and that he loves pies, baklavas, meet...

When I told him that he would need insulin injections, he jumped out of his chair and asked me to give any other medication, promising that he will listen to all advice and obey any other solution. I had the feeling he would be a difficult patient.

I told him about the new project to prevent diabetes and related complications and referred him to our family medicine team that had just been trained to deal with diabetic patients. I also convinced him to take insulin for few days and maybe later on he would be able to continue with tablets, but I was almost sure that he would need to stay on insulin injections.

Within a few days time his blood sugar level became more normal and his appearance improved, but at every visit he asked me when he will be able to drop the insulin injections. I contacted the psychologist of our team and his family doctor and explained that the patient needs to stay on insulin for another 3 weeks. After consultation with my colleagues I thought that with appropriate psychological support and nutrition advice, he should be able to get used to being insulin dependent.

Meanwhile, the trained nurse from the counselling section educated the patient about proper insulin intake, and his wife was counselled about the type of food to prepare, and the family medicine team provide other routine care.

At the 3-week check up, there was significant improvement. When I asked the patient how he is dealing with insulin therapy, he became very embarrassed, and admitted that he does not use the therapy at all. After all the efforts I had made, I was surprised and a bit angry. To make me happy, the patient suggested measuring his blood sugar level. I was shocked when the nurse told me that his level was only 7.8mmol, just two hours after the meal.

He smiled and told me about his talks with psychologist and family medicine doctor who tried to help him overcome his fear of insulin therapy. He promised them that he would take care of what he eats and get sufficient exercise, just so he would not to inject himself and have people talk „hey, this one is on insulin“. His strong will and support from my trained colleagues helped him to achieve some control over his disease.

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