A Report of a Romanian–Bulgarian Cooperation Cross-Border Collaboration in Oral Health

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Abstract
This report describes a Romanian–Bulgarian cross-border collaboration in oral health that has been run as a project to improve cross-border cooperation within the European Union.

Aim: The aim of the collaboration was to improve the quality of life and health of the population of this essentially rural area and to reduce the differences in oral health between the populations of the two border regions. Methods: After an introduction that sets the scene in the context of the European Union’s programme for border areas, the report details the selection of the geographic areas that were (and are) involved in the project, the selection of partners and beneficiaries, the selection of the participating pilot clinics, and agreements between local authorities, regional authorities and the Faculty of Dental Medicine, Ovidius University, Constanța, Romania. It then explains how the oral health problems of the population of the cross-border area were identified, the joint planning that was necessary, the organisation of interactive training sessions and media conferences, the collection of clinical oral health data, the acquisition and distribution of IT equipment for the pilot clinics, and the creation of a network between them and the Faculty of Dental Medicine. Results: The results so far have included better access to oral health care and oral health education for the populations of the border areas, the foundation of an Oral Health Cross-Border Research Centre, the development of the Romanian–Bulgarian Network for Cooperation in the Field of Oro-Dental Health (ROBUDENT), increased availability of continuing professional education for local dentists, and computerisation of the oral health clinics in the cross-border area. Conclusions: The Romanian–Bulgarian cross-border cooperation has led to the development of professional networks in the field of oral health and the creation of a strong partnership between the local authorities, dentists from the pilot oral health clinics who take part in the cooperation, and the Faculty of Dental Medicine, Ovidius University, Constanța.

Key Words: Cross-Border Cooperation, Oral Health, Romania–Bulgaria, ROBUDENT Network, European Union

Introduction
Since 1986, the cohesion policy of the European Union (EU) has been set out in a number of treaties, which have had the objective of decreasing the differences concerning development between different regions and member states within the EU, in order to consolidate economic and social cohesion. With the integration of ten new member states in 2004 (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovak Republic, Slovenia), and then Bulgaria and Romania in 2007, this policy needed further impetus [1]. The European Regional Development Fund (ERDF) was called upon to provide for the economic development of the new partners.

In the meantime, the whole EU faced challenges due to the acceleration of economic reorganisation following globalisation, open trade, techn-
logical innovations, development of knowledge, an ageing population, and an increase in immigration [2,3].

One aspect of EU cohesion is cross-border cooperation. This represents direct cooperation between neighbouring regions of EU member states along their borders in all aspects, between local and regional authorities, involving all the participating groups (local authorities, the population, social and health services, including doctors and dentists).

The aim of cross-border cooperation is to transform member states’ borders from dividing lines into channels of communication between neighbours. It is also to try to end mutual prejudices and animosities between the border populations, to reinforce democracy, and to help administrative structures to evolve, so that they become capable and functional at regional and local levels.

Guidelines Governing Every Cross-Border Joint Activity

There are a number of guidelines to encourage cross-border activities and cooperation, which include:

1. **Partnership:** This can be vertical, referring to the relations established between different levels (EU, national, regional, local) from both neighbouring regions, and horizontal, referring to the relations between the neighbouring partners.

2. **Subsidiarity:** Cross-border cooperation is efficient and functional only when the local and regional performers take the initiative and are ready to take responsibility. Subsidiarity involves action by local and regional organisations that are the most appropriate for cross-border cooperation. These organisations have the necessary freedom to overcome existing differences regarding structures and capabilities between the neighbouring regions and, if necessary, to collaborate within the cross-border structures.

3. **Joint programme of cross-border development:** Partnership and subsidiarity are very important for the process of implementing cross-border strategies and programmes. Designing strategies for development is essential for underlining shared problems, realising the potential for development, overcoming isolated single initiatives on both sides of the border, and ultimately for creating a common perspective for development.

4. **Regional and local analogue structures and independent sources of finance:** Cross-border cooperation is not just limited to neighbouring border regions that pursue their own programmes, priorities or projects, independent of one another. It is also possible at a national level. Indeed, national approval is invariably necessary in order to obtain finance for the project(s).

Political Considerations

The realities of Europe are not just about a diversity of culture and history but also the existence of numerous borders between states. These state borders have been consolidated in Europe over the last three centuries. They often separate regions whose inhabitants share a common ethnicity. Thus, artificial borders between states have been created, and because of fears regarding possible military aggression, the border regions have become sparsely populated. Economic activity, population migration and commerce all frequently conspire to marginalise border regions and make their populations poorer when compared to central regions. Therefore, European cross-border regions are often considered underdeveloped peripheral areas [4]. Furthermore, the inhabitants of border regions have suffered from the consequences of historic conflicts, and have developed mutual feelings of fear and uncertainty. This ever-changing situation has negative effects on willingness to cooperate and establish closer relationships. The basic principle of cross-border cooperation is accomplishing contractual frameworks within the border regions in order to find joint solutions to shared problems. In general, national Governments are not ignorant of the particularities and specifics of border-related problems.

A cross-border region is an area that frequently has a common history, ecology, ethnicity and economy, but is limited by the sovereignty of the states on each side of the border. In spite of these commonalities, there may be widespread differences in the provision of services on each side of a border. Thus health care provision may vary widely across EU member state borders.

Historically, the EU policy for health is derived from ECCS (European Community of Coal and Steel) and EURATOM (European Community of Atomic Energy) treaties regarding health and safety [5,6].

The treaty regarding the European Union (also called the Treaty of Maastricht—TEU), was signed by the Council of Europe on 7th February 1992 in the Dutch city of Maastricht. It set the basis for the
EU and for the first time, even if it is subordinate to the principle of subsidiarity, public health was promoted as an official issue within the EU. The treaty states that “The EU will ensure a high level of defence for public health by encouraging the cooperation among the member states and if it is necessary, will support their pursuits” [7].

The subsequent Treaty of Amsterdam, Art. 152 (129), states that “by defining and implementing all of the policies and activities, the Community will ensure a high level of protection for public health” [8].

**Aims of Romanian–Bulgarian Cross-Border Cooperation**

In this context, the aims of the Romanian–Bulgarian cooperation described in this paper were (and are) to support the continuous evolution of cross-border cooperation, in order to improve further the quality of life and health of the populations who live in the predominantly rural environments on each side of the border, and to reduce the differences between the two neighbouring regions, Constanta (in Romania) and Dobrich (in Bulgaria), by improving the quality of life of the two populations.

These aims are based on the concept of the evolution of public health. A vital component is developing a population-oriented infrastructure for the public health system, involving human resources, information systems and partnerships to protect and support public health. Human resources are among the key factors that determine the adequate functionality of a health-care system. Health and social services in the cross-border area play an important role in cross-border cooperation.

**Issues Taken Into Consideration**

The Romanian–Bulgarian cross-border cooperation for oral health was based on identifying the main issues in the respective countries, especially in the regions involved [9]. These were seen as:

- A lack of cross-border medical and dental networks to ensure joint services for prevention and the development of oral health care.
- Very poor dental services in the rural environments on both sides of the border, where they are very undeveloped or non-existent.
- The necessity to respect the requirements of the European Directives, according to which it is the right of every European citizen to have access to health services.
- A lack of health education and information for the population.
- An insufficient number of dentists and modern dental offices in the border area.
- The lack of programmes to prevent oral diseases and a poor level of knowledge, skills, attitudes and perceptions regarding oral health.
- The lack of medical and dental education, which had a negative impact on the general health of the population, thus decreasing their quality of life. The population in the rural area is in general unaware of the need for oral health, its interaction with general health, and its influence on quality of life.
- The poor standard of equipment found in dental clinics in rural areas and the lack of an adequate health-monitoring system, conditions that allow the dental practitioner to provide only simple treatment, such as emergency extraction of teeth, while completely ignoring prevention measures.
- The low level of education of the population in the rural region, which influences the patient’s decisions regarding oral health. Some individuals with a limited education assume that the symptoms of disease are normal and that preventive dentistry is useless. Therefore, educational programmes concerning oral health are badly needed to allow parents to understand better the importance of oral health.
- The long distances to travel to dental offices, the high costs of dental health services, and budget difficulties consequent to the economic crisis.

**Current Situation**

The European Commission considers that EU member states should design their health-care systems, including cross-border health, so that their citizens’ needs are best met. In this context, cross-border medical assistance is defined as medical assistance offered in a different member state to the one in which the patient concerned is insured.

Since they were admitted to the European Union, Romania and Bulgaria have taken measures to support rapid development in all areas that may reduce the differences in social and health care between their border regions and other, better-
developed regions of each country. The social component is another aspect of development and, together with a concern for the quality of life and public health, is a major objective of both European and national policies.

**Key Targets for Oral Health**

As far as the cross-border collaboration was concerned, a number of key targets related to oral health were identified within the need to establish a cross-border medical cooperation network. As a result, a model has been piloted, which it is hoped eventually to extend. Within the pilot, the initial targets were to modernise six cross-border clinics for oral health and to connect them with a research centre with experience in dental public health, so that realistic programmes to improve oral health further, involving both preventive and curative therapies, could be developed. Within this overall target, the following targets were identified:

- The need to increase population access to preventive and curative dental health services within the border regions.
- The need to convince the population that preventive measures not only help save money, but also improve quality of life.
- The need to establish a forum for scientific research in order to improve the quality of dental assistance and the necessity for career development for the Romanian and Bulgarian dentists involved in the exchange.
- The need for continuing education training programmes for all staff from the six pilot dental clinics, to meet any deficiencies in their knowledge, skills and attitude if these became apparent.

**Methods**

For cross-border cooperation to succeed, it was necessary to establish the basis of an agreement between partners, with a well-defined purpose and an interdisciplinary approach.

It was also necessary to stress this purpose and to establish the duration of the cooperation with the direct participation of communities, territorial authorities and organisations, and their associates. Thus, the following steps were taken:

- The selection of the cross-border areas of which seven were in Romania (the districts of Mehedinti, Dolj, Olt, Teleorman, Giurgiu, Calarasi, and Constanta) and seven in Bulgaria (the districts of Vidin, Vratsa, Montana, Pleven, Veliko Tarnovo, Ruse Silistra, and Dobrich). The Constanta district, Romania, and the Dobrich district, Bulgaria, were chosen from the seven largely because the Constanta District Council has strong ties with the Dobrich City Hall, Bulgaria.
- For the oral health cooperation, the areas of Negru-Voda and Baneasa from the Constanta district and the areas of General-Toshevo and Krushari from the Dobrich district were selected.
- The collaborating partners were then finalised as the Faculty of Dental Medicine (Ovidius University, Constanta), the Constanta District Council, Negru-Voda City Hall, and Baneasa City Hall.
- Oral health clinics from each county within the collaboration were then selected to take part in a pilot 12-month collaboration (one clinic in Negru-Voda, two clinics in Baneasa, two clinics in General-Toshevo, and one clinic in Krushari).
- The project management team was then recruited. It consisted of:
  - A coordinator, who oversaw the project.
  - Assistants selected from among the teachers at the Faculty of Dental Medicine, Ovidius University, Constanta, who were responsible for organising events within the collaboration, preparing all documents and other papers throughout the collaboration, maintaining the links between the Bulgarian and Romanian public authorities, and ensuring good communication between all those involved in the project.
  - An information technology (IT) specialist from within the Ovidius University of Constanta, who was responsible for the administration of the Romanian–Bulgarian Network for Cooperation in the Field of Oro-Dental Health (ROBUDENT) webpage and for hosting this site on the webpage of the Faculty of Dental Medicine, Ovidius University, Constanta.
  - A technical team, composed of lecturers and professors, entrusted with the professional training of dentists from the six oral health pilot clinics that took part in the project. They were also responsible
for public information campaigns in the Romanian and Bulgarian counties where the pilot oral health clinics were located.

- Volunteers (students of the Faculty of Dental Medicine, Ovidius University, Constanța, years five and six).

- Target groups were established:
  - As previously mentioned, the dentists from the six oral health clinics were recruited to the project.
  - Some 600 schoolchildren in grades 1 to 8 (6 to 14 year olds) from schools in Negru-Voda, Baneasa, General-Toshevo, and Krushari (150 children from each of the four areas) were recruited.
  - Socially deprived patients with low income and other disadvantages from the same four areas were recruited.
  - The population of the four border counties: Negru-Voda, Baneasa, General-Toshevo, and Krushari (50,000 inhabitants).
  - All other dentists from the Constanța and Dobrich districts.

- Agreements were signed with all parties involved.

- An inauguration meeting for the collaboration, held at the Faculty of Dental Medicine, Ovidius University, Constanța, was organised and attended by the dentists from the six pilot oral health clinics and translators.

- Interactive training sessions (seminars, workshops) and media conferences were organised, in which common issues and solutions were developed. Also within these seminars, the objectives of this collaboration were presented and the sources of information for cross-border cooperation were identified; an exchange of information and knowledge was accomplished; possibilities for the dissemination of the cross-border cooperation results were discussed, and new avenues of interests/opportunities for future cooperation were established.

- Clinical data relating to the oral health of the population within the study were collected, in order to obtain a baseline.

- Each pilot centre was given a computer with a multifunctional printer, a projector screen, a video-projector, a laptop and a digital camera for taking pictures during the training courses and information campaigns. The photos were (and are) uploaded on the ROBUDENT website. The computers were linked the Faculty of Dental Medicine, Ovidius University, Constanța, where the server was (and is) located.

- A team from the Faculty of Dental Medicine, Ovidius University, Constanța, comprising the coordinator, assistants, the technical team and student volunteers, developed posters for ROBUDENT and the Oral Health Education brochure, published in both Bulgarian and Romanian. (The team also organised visits and provided information to the local authorities and briefed the mayors, vice-mayors, and social and health workers from the city halls.)

- To reinforce the collaboration, all printed material carried the logos and heraldic symbols of the local communities in the cross-border area.

**Outcomes**

1. The Constanța District Council together with the Commission of European Integration, a regional authority in the Constanța District with excellent cooperation relationships with local authorities from Bulgaria, maintained a very strong link with all the partners and in particular with the Romanian and Bulgarian local authorities. This helped to ensure smooth joint actions.

2. The city halls of Negru-Voda, Baneasa, General-Toshevo, and Krushari were given oral health promotion material by the collaboration team. These posters and leaflets were distributed to the population in all the counties taking part in the collaboration. The four local authorities within the project publicised ROBUDENT among other local authorities in order to inform other dental clinics about the newly created network. The partner city halls offered public halls and meeting places where continuing professional training seminars for dentists from the six oral health pilot centres took place. They also publicised the opportunity for free-of-charge consultations during the collaboration to socially deprived people.

3. Schools from Negru-Voda, Baneasa, General-Toshevo, and Krushari hosted the information
and education campaigns for the school population, provided classrooms, and ensured that their pupils attended. They also distributed posters and leaflets received from the collaboration’s management team.

Thus, the cross-border collaboration had two major components, which were:

1. **An organisational component** comprising (a) the inauguration of the first “Cross-Border Centre for Research in Oral Health” in Constanta, within the Faculty of Dental Medicine, Ovidius University, Constanta, and (b) the establishment of a cooperation network for oral health, ROBUDENT, consisting of six pilot oral health clinics in the border regions of Bulgaria and Romania.

2. **A component for professional training** for Romanian and Bulgarian clinicians from the border region involving continuing medical (dental) education and free-of-charge consultation campaigns for schoolchildren and for socially and economically deprived people from the border regions.

**Activities Within the Collaboration**

The following activities formed the initial basis for the collaboration:

- The inauguration of the first “Cross-Border Centre for Research in Oral Health” within the Faculty of Dental Medicine, Ovidius University, Constanta (*Figure 1*).

- The acquisition of IT equipment and the development of a webpage within the existing website www.oralhealth.ro for the Cross-Border Centre for Research in Oral Health (*Figure 2*).

- The creation of ROBUDENT and its connection to the Cross-Border Centre for Research in Oral Health in Constanta (*Figure 3*) and the organisation of the “Oral Health: An Essential Factor for the Quality of Life” workshop (*Figure 4*).
The organisation of seminars for professional training concerning oral health, the creation of the Oral Health Education brochure in both Bulgarian and Romanian, and the development of oral health promotion and free-of-charge consultations in the four counties within the project [10].

A recent press conference (Figure 5) was attended by representatives of the professional associations from Romania and Bulgaria, from the local authorities, members of ROBUDENT, university staff, and doctors and dentists from the two countries. It underlined the importance of cooperation in oral health within the cross-border area and highlighted the need for future cooperation programmes. At the press conference, the achievements so far were described as follows.

The project started in 2006 when the plans for the Cross-Border Centre for Research in Oral Health were made during the annual International Congress of Oral Health, held in Constanta. Further planning took place in Varna and in Constanta. The inauguration of the Cross-Border Centre for Research in Oral Health in Constanta, which ensures specialised consulting for Romanian and Bulgarian dentists within the cross-border region, took place early in the project. The six oral health clinics have been equipped with IT facilities, linking them to ROBUDENT and connecting them with the Cross-Border Centre for Research in Oral Health in Constanta. The Centre maintains the link with the other members in the pilot oral health clinics and hosts annual professional training programmes, joint campaigns in Romania and Bulgaria, and international scientific conferences in Constanta, which publicise the project internationally.

This Centre offers the possibility of assessing and monitoring oral health status of populations in the cross-border region and of establishing a national and international centre of excellence for education and research in cross-border oral health care.

Another activity that was fundamental for the collaboration consists of the seminars held for pro-
Professional training concerning oral health and the creation of the *Oral Health Education* brochure in both Bulgarian and Romanian.

The seminars were held in Negru-Voda (Romania) and General-Toshevo (Bulgaria). Continuing medical (dental) education classes and practical demonstrations have been a part of these seminars. The themes of continuing medical (dental) education were:

1. Modern practices in the prevention of oral diseases.

The staff of the Faculty of Dental Medicine, Ovidius University, Constanta, ran the classes. Representatives of the professional associations from both countries were invited to these seminars. The evaluation of knowledge gain was carried out by taking tests at the beginning and at the end of the classes. At the end of the training seminars, the dentists from the pilot centres received continuing education (CE) credits from the Romanian College of Medicine (the authorising body for medical and dental CE in Romania) and learning material on CDs. These professional training seminars were followed by health promotion and free-of-charge consultations campaigns in the counties involved in the project. Other interested dental staff from the Constanta and Dobrich districts attended the training sessions. In parallel with the professional training seminars, the *Oral Health Education* brochure in both Romanian and Bulgarian was developed, together with leaflets on oral health and posters supporting ROBUDENT.

The information and education campaigns for the population in the cross-border region have been carried out in two steps: within the city halls and schools from the partner counties and within the pilot oral health clinics, where the consultations were performed. The leaflets and the *Oral Health Education* brochure were distributed within schools in the cross-border region.

**Results so Far**

Thus the results so far from the collaboration [9,10] have been:

- The inauguration of the Cross-Border Centre for Research in Oral Health within the Faculty of Dental Medicine, Ovidius University, Constanta.
- Establishing ROBUDENT, a permanent cooperation structure for Romanian and Bulgarian specialists.
- The improvement of the professional training opportunities for Romanian and Bulgarian dentists within ROBUDENT.
- Better quality oral health care and improved access to oral health care clinics in the cross-border area.
- An improved level of awareness and oral health education in the population.
- Improved quality of life as a result of better oral health for the persons in the risk groups (students, socially challenged);
- Acknowledgement of the research in the field by the Faculty of Dental Medicine, Ovidius University, Constanta.
- Assessment and monitoring of the oral health status of the population in the cross-border region.

The Faculty of Dental Medicine, Ovidius University, Constanta, has an annual programme for continuing professional training of dentists. The Cross-Border Centre for Research in Oral Health is part of this programme along with the dentistry offices in the network. The programme is run within the annual International Congress of Oral Health and Management in the Black Sea Region. It is attended by a wide range of international speakers and clinicians from the Black Sea countries, including the dentists from the pilot clinics.

The training of Romanian and Bulgarian dentists who work in the pilot oral health clinics is continuous, both from attendance at conferences as well as via videoconference links.

A recent development in the project has been the purchase by the Faculty of Dental Medicine, Ovidius University, Constanta, of a mobile motor dental caravan, which offers consultations and treatment to the population of the cross-border area. This purchase was financed within the Romania–Bulgaria Operational Programme 2007-2013.

**Some Reflections**

In Central and Eastern Europe, the interest in establishing cross-border cooperation was fairly modest after the opening of the borders in 1989/1990. This was perhaps understandable because the borders had been strictly closed frontiers since 1945. The need for cross-border cooperation was felt especially along the tightly closed borders. This cooperation concerned every aspect of the populations, communities and regions, in their attempt to over-
come the geographic disadvantages posed by the existence of separating borders and the major differences between income or infrastructure [11].

The current border between Bulgaria and Romania dates from 1945 when Bulgaria was ceded (received) the southern part of Dobrudja from Romania. Many Romanians who lived in this area have either died or moved away. However, traditions and cultural ties with Romania remained. This factor may have contributed significantly to the cross-border collaboration.

In other parts of Europe, cross-border movement of dentists and patients is frequently driven by economic or political forces [12]. These may not necessarily be viewed as cooperative.

Following the implementation of activities by the Cross-Border Centre for Research in Oral Health, a comparison of the systems for delivering oral health care in both countries was made [13-15]. This has helped to establish a cooperative environment and friendship between Romanian and Bulgarian dentists.

The six pilot oral health clinics now have a permanent exchange of information with the Cross-Border Centre for Research in Oral Health within the Faculty of Dental Medicine, Ovidius University, Constanta, and with each other; other clinics in the area are joining the project. This expansion has been supported by European funding from the Phare Program (the programme of community aid to the countries of Central and Eastern Europe) CBC Romania–Bulgaria 2006, “Cooperation for Health” project (ROBUCOSAN), with both Romania (Ovidius University of Constanta, District Public Health Division, Ostrov Mayor, Baneasa Mayor) and Bulgaria (Alfatar Municipality, Dobrogean Danube Association—Silistra District) as partners.

Conclusions
The cross-border cooperation described in this report has:
1. Created and strengthened professional networks and developed a partnership between local authorities, dentists from the six pilot oral health clinics, and an academic institution, the Faculty of Dental Medicine, Ovidius University, Constanta.
2. Contributed to the development of cross-border oral health care services and encouraged local involvement, which has raised the awareness level of the population regarding access to oral health care.

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Contribution of each author
ANZ was assistant manager for the project, wrote the report, and approved the final version.
CIN taught the oral health care clinic dentists during the CPE sessions, edited and re-drafted the report, and approved its final version.
MG took the photographs, assisted in the administration of the project, and approved the final version of the report.
MD taught the oral health care clinic dentists during the CPE sessions, advised on the drafts of the report, and approved its final version.
CGP taught the oral health care clinic dentists during the CPE sessions, advised on the drafts of the report, and approved its final version.
CR helped with translation into English, assisted in the administration of the project, and approved the final version of the report.
CIA led the project, supervised the development of the paper, and approved the final version of the report.

Statement of conflict of interests
All the authors have taken an active role in developing the cross-border initiative described in this report.

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