Systems for the Provision of Oral Health Care in the Black Sea Countries
Part 4: Armenia

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Abstract
This paper outlines some aspects of oral health care for the population in Armenia in 2008. It details the oral health care and treatment that is funded by the public health insurance system. It then describes the dental workforce in Armenia, setting out the numbers of dentists and other dental workers. It highlights that there has been a rapid expansion in the number of dental students, young dentists, and dental technicians. A section on dental education at undergraduate, specialist, and continuing levels follows. Finally the paper gives brief details of the numbers of dental clinics in Armenia.

Key Words: Armenia, Oral Health Care System, Dental Workforce, Dental Education

Introduction
This paper will describe the systems for the provision of oral health care in Armenia. Unless stated to the contrary, all data quoted in this paper relate to 2008 and were provided by the Ministry of Health of the Republic of Armenia.

The Country and its Health Insurance System
In 2008, the population of Armenia was 3,230,100 of whom 48.4 % were male and 51.6 % were female. Just under 2,069,400 (64%) lived in urban areas and just under 1,160,700 (36%) in rural areas [1]. The country is administered as ten districts (counties) and the capital city, Yerevan. The entire population has partial health insurance. Children up to eight years of age, unemployed people, people with disabilities, pregnant and nursing (one year after the birth of a child) mothers, military personnel and war veterans are covered by the insurance system [2]. The system is administered centrally by the Ministry of Health. Theoretically, the health insurance system covers dentistry.

The Provision of Oral Health Care
However, in practice, to date this has not been the case. Children up to the age of eight years are covered for an annual consultation, preventive treatment (dietary and oral hygiene advice, application of topical fluoride, fissure sealants, preventive fillings), dental radiography (including intra- and extra-oral views), conservative treatment (composite fillings), endodontic treatment, periodontal treatment, prosthetic treatment (acrylic dentures, resin crowns, resin with metal crowns, and cast metal crowns), orthodontic treatment (removable and functional orthodontic appliances, fixed orthodontic appliances, space retainers, advice on controlling habits such as thumb-sucking), oral surgery (extractions, alveolar surgery, emergency immobilisation of maxillary fractures), and consultations for oral medical problems (cancer, ulcers, and so on). The costs of some prosthetic treatment (ceramic crowns, metal-based dentures, prostheses covering implants), periodontal surgery, and dental implants are not covered. The patients, invariably their parents, have to pay the dentist concerned for these treatments, as do all adults.

The Dental Workforce
The number of dentists registered in 2008 was 1755; most of them were in active practice. The number of dentists working in the private practice was 1110; the remaining 645 worked in state clinics, universities, and for the Health Ministry [3]. Most of them also worked part time in private clinics.

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The number of dentists graduating from the dental school of the state university between 1998 and 2008 is shown in Figure 1. There is a potential problem in that the number of dentists graduating each year in Armenia has grown rapidly in last ten years. In 2008, 88 graduated from the dental school of the state university [3]. There are no official statistics but about 350 graduated from dental schools of private universities. If this level of graduation is maintained, there will potentially be many under- or unemployed dentists in Armenia.

When they graduate, all dentists are registered by the Health Ministry. However, professional monitoring of dentists (dentists’ data, qualifications, and professional information) is carried out only by the Health Ministry.

The number of dental technicians graduating in Armenia from 1998 to 2008 is shown in Figure 2. The number of dental technicians graduating in Armenia in 2008 was 422 [3]. There are no official data on the number of the dental technicians in Armenia. Most of them work in private laboratories, and not all of them are registered. The situation is the same for dental nurses, most of whom work part-time in different private clinics, because of low salaries. There are no official data on the number of dental nurses working in Armenia.

Dental Education

Dentists train in one of the five dental faculties of Armenian universities, of which one is a public (state) faculty and four are private. Those who attend private dental schools pay fees. The government pays the fees of some of the students who attend the state dental school. Entrants to the state dental school have the highest marks in their school-leaving examinations. During their dental education in the state dental school, the fees of students who gain the highest marks are paid by the government; those who gain lower marks have to pay their own fees. As mentioned previously, currently about 450 new dentists graduate each year from the five dental schools in Armenia.

Training lasts for five years. Basic sciences are studied in the first and second years, general medi-
cine during subsequent year, and clinical dentistry during the final three years. After graduating from university and passing a licensing examination, newly qualified dentists cannot obtain a certificate for practice (practising certificate) that entitles them to practise independently as general practitioners. They are required to study in a clinical residency (ordinatura) for 1.5 years or internship (internatura) for one year. Clinical residencies are offered only by state organisations: Yerevan State Medical University and the National Institute of Health (NIH). Once they have been awarded a practising certificate, they are required to complete continuing professional education throughout their careers in order retain the right to practise. The minimum is two months of courses in every five-year period. The courses are organised by NIH.

Currently, six specialities are recognised in Armenia. Dentists who wish to specialise compete for training appointments (posts). Full-time training lasts three years for orthodontics, prosthodontics, therapeutics (this specialty includes preparing of dental fillings, periodontolgy and endodontics) maxillofacial surgery, and oral surgery, and 18 months for family dentistry. The training programmes take place in accredited universities and follow their own curricula. When training, the dentists are paid a salary by the Ministry of Health but are forbidden to work in private practice during their training years. At the end of training, they receive a specialist degree and diploma.

One of the most important duties of the dentists, as a necessary condition for continuing dental practice, is to undertake continuing professional education (CPE) in order to maintain their registration. A range of activities (courses, seminars, conferences, and so on) is organised by dental associations and dental faculties. The activities are delivered by the staff of the dental faculties (schools) and other dentists with experience and professional probity.

Dental technicians are trained in dental technician colleges organised by the dental medicine faculties. Training lasts for three years, at the end of which there is a qualifying examination. Those who pass are awarded a diploma. They are required to complete continuing professional education throughout their careers in order retain the right to practise.

There is no special educational programme for dental nurses (chair-side assistants). They have to train as general medical nurses, and learn practical dental skills while working in dental clinics following graduation. The general medical nurse training takes place in the College of General Medicine and lasts for three years. Dental nurses are not required to complete continuing professional education throughout their careers in order retain the right to practise.

### Epidemiology and Stomatological Aid Rendered

There have been no comprehensive national epidemiological surveys of oral health. A number of local studies have been organised by staff of dental medicine faculties but without any overall plan. There are some data on the number of dental clinics (stomatological clinics) and the percentage of the population who have attended these clinics [2]. They are shown in Table 1.

These independent out-patient clinics are not part of a hospital or other big medical institution; most are private and the stomatological aid they provide consists of consultations for oral (dental) problems and onward referral of patients to appropriate specialists (endodontic, prosthetics, orthodontics, cancer, oral surgery, and so on).

There are no estimates of the percentage of the Armenian population that visited a dentist for all types of oral health care in 2008.

<table>
<thead>
<tr>
<th>Table 1. Stomatological Aid Centres 2003-2007</th>
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<td>STOMATOLOGICAL AID RENDERED</td>
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<tr>
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<th>2003</th>
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<tr>
<td>Number of independent stomatological out-patients’ clinics</td>
<td>37</td>
<td>41</td>
<td>41</td>
<td>41</td>
<td>43</td>
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<tr>
<td>Number of establishments with stomatological departments (rooms)</td>
<td>136</td>
<td>144</td>
<td>132</td>
<td>142</td>
<td>139</td>
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<tr>
<td>Share of persons who received stomatological aid in total number of population,%</td>
<td>1.5</td>
<td>1.6</td>
<td>4.1</td>
<td>4.2</td>
<td>4.5</td>
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Costs
Because most of the money spent on dentistry is paid direct to dentists by patients, it is virtually impossible to know the proportion of the Armenian gross national product spent on oral health care. There is no information on the amount of public (state) money spent on oral health care in 2008.

References