

# Oral Health Care Provision Systems in the Black Sea Countries: Part 15 Georgia

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## Abstract

This paper describes how oral health care delivery is organized in the country of Georgia in 2013. It also describes the dental workforce, detailing the number of dentists in dental specialties. A section on dental education both at undergraduate as well as post-graduate levels follows. National statistics and governmental reports were used as data sources for this paper. They were provided by the Ministry of Health and Public Service Hall (Ministry of Justice of Georgia).

*Key Words: Georgia, Oral Health Care System, Dental Workforce, Dental Education*

## Introduction

This paper will outline some aspects of oral health care in Georgia. It will also detail the dental workforce as well as dental education in the country. All the data cited in the paper are related to 2012 and 2013 unless stated contrary and were provided by the Ministry of Health and Public Service Hall (Ministry of Justice of Georgia).

### The country and its population structure

Georgia is a sovereign state in the region of the Caucasus that covers a territory of 69,700 km<sup>2</sup>. The country is located at the crossroads of Western Asia and Eastern Europe, bounded by to the west by the Black Sea, to the north by Russia, to the south by Turkey and Armenia, and to the southeast by Azerbaijan.

Georgia was part of the Soviet Union from 1924, until April 9 1991 when it declared independence. Since the formation of Republic of Georgia, it has strived to develop a civil democracy. The major objective of the country remains Euro-Atlantic integration. This greatly influences economical, political and social policies.

Excluding the population of occupied (by Russia) territories (Abkhazia and South Ossetia), the current population of Georgia is 4 632 230, of whom 52.21% are female, while 47.79% are male. Out of the whole population 55.25% is distributed in urban and 44.75% in rural areas. The majority of Georgian population consists of ethnic Georgians, while minorities are represented by ethnic Azerbaijanis, Armenians, Russians, Ukrainians and other minorities. However the Public Service Hall (Ministry of Justice of Georgia) could not provide exact data as national censuses in Georgia do not identify ethnicity.

The country is structured into two autonomous republics, nine regions and the capital city of Tbilisi.

### Health insurance

The entire population has partial health insurance. Children up to one year, people with disabilities, pregnant women, military personnel and pensioners are insured by the government. The system is administered by the Ministry of Health and covers only urgent medical services such as relief of pain and treatment of oral cancer. Therefore non urgent oral health

treatment services have to be paid for by patients and/or their guardians. In other words in Georgia oral health is almost exclusively provided on a private basis and is not funded by the State. There are no state oral health education programs in the country. However, in 2006, Colgate-Palmolive launched an oral health educational program “Bright Smile Bright Future”. The program is collaboration with the voluntary support from the Department of Dentistry and Maxilla-Facial Surgery of the Tbilisi State University and Georgian Dental Students Association. Seventy thousand first and second grade (6 and 7 years old respectively) school children are enrolled in the program. Out of these children, around 70% were from the capital, while remaining 30% from the regions.

### Dental workforce

The number of dentists registered in 2012 was 8423. This is the number of licensed dentists. The Ministry of Health could not provide the number of dentists in active practice. However, as the ratio of population per dentist is around 500, it is not surprising that many dentists are either unemployed or under-employed. However, as most of the dentists are self-employed there is no method to determine how many are unemployed either immediately after they have been licensed or later on in their careers.

The number of dentists who were licensed each year from 2001-2012 is at *Figure 1*. There is a gender imbalance among the Georgian dentists with an estimated percentage of 65% female to 35% male dentists.

There are an estimated 2000 Dental Nurses, out of which only 200 are trained to work four handed (in patients' mouths). There are about 1000 Dental Technicians. No dental hygienists are trained in Georgia and there are no orthodontic nurses, dental therapists or clinical dental technicians.

All the dental clinics have at least one or two dental nurses. But only few dental clinics (around 20) have trained chair-side dental assistants that are trained to work four handed.

### Dental education

Dentists study in one of the 11 Dental Schools, out of which four are state funded and seven are private. Entrants to the state dental schools are selected according to the National

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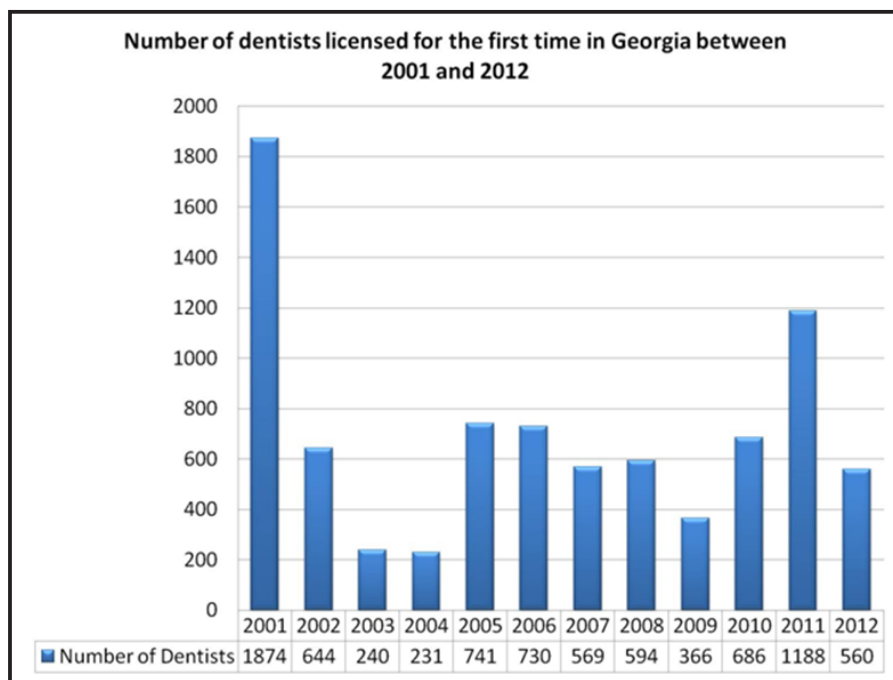


Figure 1. Number of dentists licensed for the first time in Georgia between 2001 and 2012.

Table 1. Number of dentists of 7 sub-specialties registered in Georgia in 2012.

| Sub-Specialty   | Number of Dentists |
|---|--------------------|
| Pedodontics   | 328                |
| Pedodontic surgical dentistry   | 125                |
| Therapeutic dentistry (conservative dentistry, endodontics, periodontology) | 5781               |
| Prosthetic dentistry  | 813                |
| Surgical dentistry  | 1244               |
| Orthodontics  | 97                 |
| Maxilla-facial surgery  | 35                 |

Examination Grades which they obtain when they leave school. Students at private schools (or their parents) pay all their education fees. However, at the state schools only students with high National Examination Grades are supported by the government. Students with higher grades during their studies are awarded scholarships and support from the government. Currently around 600 new dentists graduate each year from 11 schools of Georgia.

Dental studies last for five years, out of which two years are taught basic sciences and general medicine and clinical dentistry in the three subsequent years. After graduating from dental school, dentists are not allowed to obtain an immediate dental license. They can enter one of the state Residency Programs or start working as a junior dentist under the supervision of a licensed dentist. State Clinical Residency programs are offered by the Tbilisi State University and Tbilisi State Medical University in seven sub-specializations of Dentistry: maxillofacial surgery, orthodontics, prosthetic dentistry, therapeutic dentistry (conservative dentistry, endodontics, periodontology), surgical dentistry, pedodontics, pedodontic surgical dentistry. Each sub-specialization follows its own curricula and lasts from 12 to 36 months based on the curriculum for the specialization.

The State Residency Programs are linked with Private Dental Clinics that offer individual programs based on the type of specialization. Upon the completion of the Residency program, dentists are required to pass the state dental licensing examination. They then receive a specialist license

and a diploma. In addition, residency programs are also offered independently, by the private dental clinics that meet the state requirements. An estimated 450 newly graduated dentists enter clinical residency programs each year, of which 90-95% acquire the state license after completing the clinical residency program.

The number of dentists in each of the seven sub-specialties is reported in Table 1. As can be seen, the majority are in the sub specialty of Therapeutic Dentistry, which would be called General Dental Practice in most other countries.

In 2013, it is planned that the seven dental specialties will be merged into four which are Therapeutic Dentistry, Prosthetic Dentistry, Orthodontics and Maxillo-facial Surgery.

Since 15 March 2008, when the law changed once licensed dentists are allowed to work without completing continuing education programs [1].

Dental technicians are trained in dental technician colleges organized by the private sector. Therefore it was impossible to collect the data regarding the number of dental technician students and graduates. Their training lasts up to three years. After the graduation dental technicians are not required to complete continuing education programs in order to retain their license.

Dental nurses are not required to complete special education programs. They are trained as general medical nurses and learn dental skills during “on the job training” in dental clinics. It is estimated that there are around 2000 dental nurses in Georgia.

As mentioned previously, continuing dental education is not compulsory in Georgia. However, every year dental associations organize a number of dental conferences and attendance is usually high. For example, the Georgian Stomatological Association holds two annual dental conferences and three regional conferences in different regions of Georgia. Recently, in April 2013, the Georgian Implantological Association held its first Congress. Concurrently with the congresses Master-Classes are also organized so that dentists can advance their clinical skills.

### Epidemiology

There were no comprehensive epidemiological studies carried out in Georgia between 1985 and 2011. In 2012, a national epidemiological survey was conducted. It assessed caries experience and the periodontal status of the school children in Georgia. A total of 1053 children were examined using the World Health Organization's (1997) Pathfinder methodology. The children were from the first, seventh and tenth grades. The mean caries prevalence for the first grade children (5-6 years,  $n=404$ ) were DMF=0.04 (D=0.04; M=0; F=0) and dmf=4.40 ( $d=3.95$ ;  $m=0.24$ ;  $f=0.21$ ). Sixty-eight (16.83%) children were caries-free. The mean caries prevalence for the seventh grade children (12 years,  $n=334$ ) was DMF=1.81 (D=1.37; M=0.09; F=0.35). 113 (33.83%) children were caries-free. The mean caries prevalence for the tenth grade children (15 years,  $n=313$ ) was DMF=3.19 (D=2.21; M=0.13; F=0.85). 64 (20.44%) children were found to be caries-free. For the tenth grade group periodontal status was also evaluated by recording plaque, calculus and bleeding on probing. Visible plaque was present in 230 (73.25%) children and in 125 (39.81%) children visible plaque was found on all the teeth. Calculus was present in 117 (37.26%) children. Probing pocket depth of 5mm and above was detected in 85 of the 15 year-olds (27.07%). Seventeen (5.41%) of whom presented with more than 3 sites with PD>5 mm. Bleeding on probing was recorded in 83 (26.43%) of the 15 year-olds. The study revealed that caries experience as well as periodontal diseases seems to be prevalent in Georgia [2-4]. As a result it

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is planned to start education and prevention programs in order to improve the oral health status of Georgian children.

### Cost of Oral Health Services

As virtually all oral health services are provided under private arrangements between patients and dentists, it is impossible to know exactly how much is spent on oral health care in Georgia.

It is estimated that only 20-25% of Georgians visited a dentist in 2012.

### Dental associations

The major dental association in Georgia is the Georgian Stomatological Association (GSA), which is a member of the World Dental Federation (FDI). Since 2005, the GSA has organized two major annual dental meetings one of which is an FDI Continuing Program. These conferences are multidisciplinary meetings that bring people in academia, research, industry and everyday practice together and offers collaborative platform to address the emerging issues in modern dentistry. GSA Annual dental meetings intend to bridge the gap between science and everyday practice by offering Lecture Sessions as well as workshops and exhibition. The congresses welcome professional speakers from around the world.

The second big dental association in Georgia is the Georgian Implantological Association (GIA) an associate member of the FDI. As mentioned previously, the GIA held the First Tbilisi International Congress on Dental Implantology in April 2013.

### Contribution of each author

Mariam Margvelashvili: planned the study, collected the data, wrote the manuscript, and prepared the tables and figures.

**Tinatin Mikadze:** Reviewed the manuscript.

**Vladimer Margvelashvili:** provided administrative supervision, wrote the section of the manuscript "Dental Associations" and reviewed the manuscript.

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