# **Single Integrated Metadata Structure (SIMS)**

**Country:** Greece

**Compiling agency:** ELSTAT

**Domain name: Survey on Physicians – Dentists** 

# **ELSTAT** metadata Reference metadata 1. Contact 2. Introduction 3. Metadata update 4. Statistical presentation 5. Unit of measure 6. Reference period 7. Institutional mandate 8. Confidentiality 9. Release policy 10. Frequency of dissemination 11. Dissemination format, Accessibility and clarity 12. Accessibility of documentation 13. Quality management 14. Relevance 15. Accuracy and reliability 16. Timeliness and punctuality 17. Comparability 18. Coherence 19. Cost and burden 20. Data revision 21. Statistical processing 22. Comment

1. Contact	<u> Top</u>
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3.1 Metadata last certified	October 2014
3.2 Metadata last posted	October 2014
3.3 Metadata last update	October 2014

# 4. Statistical presentation

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# 4.1 Data description

The purpose of the survey on Physicians (medical doctors) and Dentists is to collect data on the number of physicians by speciality and on the number of dentists at the level of Regional Unit and of the Region (NUTS 2).

Data are collected from administrative sources, specifically from the Pan Hellenic Medical Association and the Dentist's Association of Greece. The survey covers Greece total.

The survey is a census survey conducted on a yearly basis and the survey results refer to the 31<sup>st</sup> of December of the reference year. Available results are published on ELSTAT's website and on the website of international organizations (Eurostat, OECD, WHO).

#### 4.2 Classification system

The implemented classification system refers mostly to medical specialties at the level of Regional Unit and of the Region (NUTS 2)..

Until the end of year 2010 occupation was classified in accordance with the national Statistical Classification of Occupations (STEP92) while from 2011 onwards, occupation is classified in accordance with the international classification ISCO-08. Changes between STEP92 and ISCO-08 do not affect the census results since the classifications related to physicians are general. For instance, according to ISCO, generalist medical practitioners (2211) and specialist medical practitioners (2212) are summed at a 3-digit level 221 (medical doctors), while in STEP, there is classification for general doctors (2321) and the doctors-macrobiologists (2322) that are summed at the 3-digit 232 (medical doctors) so there is no change in the classification system to be reported. Moreover, medical doctors not classified within ISCO-08 are recorded, such as medical doctors with no speciality, unemployed doctors etc.

Using the NUTS classification, geographically the census is conducted at NUTS 3 level (Regional Unit), while the survey results are presented at NUTS 2 level (Region).

#### 4.3 Sector coverage

All medical specialties are covered.

## 4.4 Statistical concepts and definitions

The basic variable is "medical speciality" which covers all the existing medical specialties. It is fully compatible with the requirements of international standards, specifically with the Joint Questionnaire of EUROSTAT – OECD – WHO (Joint Data Collection on Non-Monetary Health Care Statistics).

According to the international classification medical doctors are grouped into three categories:

A) Physicians licensed to practice B) Practising physicians and C) Professionally active physicians. Statistics on physicians which are produced by ELSTAT refer to the physicians classified in the first

category, i.e., "Physicians licensed to practice".

Physicians licensed to practice are those who practice medicine and those who do not practice medicine but are officially registered and licensed to practice medicine as health care professionals.

That includes: Medical doctors that provide health care activities directly to patients, medical doctors who are obliged to be medically trained prior to their practising medicine, medical doctors who are not obliged to be medically trained prior to their practising medicine, physicians licensed to practice but due to various reasons are not economically active (eg. unemployed or pensioners), medical doctors working abroad and other.

#### 4.5 Statistical unit

The statistical unit is the "medical doctor" (physician) and the "dentist" of Greece.

## 4.6 Statistical population

The statistical population is all the medical doctors and dentists of Greece that are licensed to practice medicine.

#### 4.7 Reference area

Greece total.

# 4.8 Time coverage

The survey results that are published on ELSTAT's website cover the years from 1999 until 2013.

# 4.9 Base period

5. Unit of measure Top

Unit of measure is the number of physicians and dentists.

# 6. Reference period

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The 31<sup>st</sup> of December of the reference year.

# 7. Institutional mandate

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## 7.1 Legal acts and other agreements

The legal framework concerning the organization and operation of ELSTAT is as follows:

Law 3832/2010 (Government Gazette No 38, Issue A): "Hellenic Statistical System Establishment of the Hellenic Statistical Authority (ELSTAT) as an Independent Authority", as amended by article 90 paragraphs 8 and 9 of the Law 3842/2010 (Government Gazette No 58, Issue A): "Restoration of fiscal justice, confrontation of tax evasion and other provisions", by article 10 of the Law 3899/2010 (Government Gazette No 212, Issue A): "Urgent measures for the implementation of the assistance program of the Greek Economy", by article 45 of the Law 3943/2011 (Government Gazette No 66, Issue A): "Combating tax evasion, staffing of auditing services and other provisions falling within the competence of the Ministry of Finance", by article 22 paragraph 1 of the Law 3965/2011 (Government Gazette No 113, Issue A): "Operations Reform of the Consignment and Loan Fund, Public Debt Management Agency, Public Enterprises and Government bodies, the establishment of the General Secretary of Public Property and other provisions", by article first of the Law 4047/2012 (Government Gazette No 31, Issue A): "Ratification of the Act of Legislative Content "Very urgent measures for the implementation of the Medium-term Fiscal Strategy 2012-2015 and of the State Budget for 2011" and of the Act of Legislative Content "Regulation of very urgent issues for the implementation of law 4024/2011 "Pension provisions, uniform pay scale - grading system, labour reserve and other provisions for the implementation of the Medium-term Fiscal Strategy Framework 2012-1015" and of issues falling within the competence of the Ministries of Administrative Reform and E-Governance, Interior, Finance, Environment, Energy and Climate Change, and of Education, Lifelong Learning and Religious Affairs and related to the implementation of the Medium-term Fiscal Strategy Framework 2012-2015" and other provisions", by article 323 of the Law 4072/2012 (Government

Gazette No 86, Issue A): "Improvement of the business environment New corporate form - Trade Marks - Realtors - Regulating maritime, port and fishing matters and other provisions" and by article 7 paragraph 1 of the Act of Legislative Content dated 18/11/2012 (Government Gazette No 228, Issue A): "Financial rules and other provisions", by Article 93 of the Law 4182/2013 (Government Gazette No 185, Issue A): "Code of charitable estate, inheritances in abeyance and other provisions", by Article 6 paragraph 8 of the Law 4244/2014 (Government Gazette 60, Issue A): "Integration in Greek law of the Council Directive 2013/1/EU of 20 December 2012 amending Directive 93/109/EC as regards certain detailed arrangements for the exercise of the right to vote and stand as a candidate in elections to the European Parliament for citizens of the Union residing in a Member State of which they are not nationals and amendment of law 2196/1994 (A´41) and other provisions", by Article first subparagraph C.3 of the Law 4254/2014 (Government Gazette No 85, Issue A): "Measures for the support and development of the Greek economy, in the context of the implementation of Law 4046/2012, and other provisions of law" and by Article 33, paragraphs 5a and 5b of the Law 4258/2014 (Government Gazette No 94, Issue A): "Demarcation process and arrangements of matters for streams - arrangements of Urban Planning legislation and other provisions".

## http://www.statistics.gr/en/legal-framework

Regulation (EC) No 223/2009 of the European Parliament and of the Council, on the European statistics (Official Journal of the European Union L 87/164).

Article 14 of the Law 3470/2006 (Government Gazette No 132, Issue A): "National Export Council, tax regulations and other provisions".

Article 3, paragraph 1c, of the Law 3448/2006 (Government Gazette No 57, Issue A): "For the further use of information coming from the public sector and the settlement of matters falling within the responsibility of the Ministry of Interior, Public Administration and Decentralization".

European Statistics Code of Practice, adopted by the Statistical Programme Committee on 24 February 2005 and promulgated in the Commission Recommendation of 25 May 2005 on the independence, integrity and accountability of the national and Community statistical Authorities, after its revision, which was adopted on 28 September 2011 by the European Statistical System Committee. http://www.statistics.gr/en/european-statistics-code-of-practice

Presidential Decree 226/2000 (Government Gazette No 195, Issue A): "Organization of the General Secretariat of the National Statistical Service of Greece".

Articles 4, 12, 13, 14, 15 and 16 of the Law 2392/1996 (Government Gazette No 60, Issue A): "Access of the General Secretariat of the National Statistical Service of Greece to administrative sources and administrative files, Statistical Confidentiality Committee, settlement of matters concerning the conduct of censuses and statistical works, as well as of matters of the General Secretariat of the National Statistical Service of Greece".

#### 7.2 Data sharing

Data are collected in cooperation with Eurostat, the World health Organization (WHO) and the Organization of Economic Cooperation and Development (OECD). Since 2010 a survey is conducted using the Joint Questionnaire on non-Monetary Health Care Statistics of Eurostat- OECD- WHO-Eurostat.

# 8. Confidentiality <u>Top</u>

## 8.1 Confidentiality policy

The issues concerning the observance of statistical confidentiality by the Hellenic Statistical Authority (ELSTAT) are arranged by articles 7, 8 and 9 of the Law 3832/2010 as in force, by Articles 8, 10 and 11(2) of the Regulation on Statistical Obligations of the agencies of the Hellenic Statistical System and by Articles 10 and 15 of the Regulation on the Operation and Administration of ELSTAT.

More specifically,

ELSTAT disseminates the statistics in compliance with the statistical principles of the European Statistics

Code of Practice and in particular with the principle of statistical confidentiality.

## 8.2 Confidentiality - data treatment

ELSTAT protects and does not disseminate data it has obtained or it has access to, which enable the direct or indirect identification of the statistical units that have provided them by the disclosure of individual information directly received for statistical purposes or indirectly supplied from administrative or other sources. ELSTAT takes all appropriate preventive measures so as to render impossible the identification of individual statistical units by technical or other means that might reasonably be used by a third party. Statistical data that could potentially enable the identification of the statistical unit are disseminated by ELSTAT if and only if:

- a) these data have been treated, as it is specifically set out in the Regulation on Statistical Obligations of the agencies of the Hellenic Statistical System (ELSS), in such a way that their dissemination does not prejudice statistical confidentiality or
- b) the statistical unit has given its consent, without any reservations, for the disclosure of data.

The confidential data that are transmitted by ELSS agencies to ELSTAT are used exclusively for statistical purposes and the only persons who have the right to have access to these data are the personnel engaged in this task and appointed by an act of the President of ELSTAT.

ELSTAT may grant researchers conducting statistical analyses for scientific purposes access to data that enable the indirect identification of the statistical units concerned. The access is granted provided the following conditions are satisfied:

- a) an appropriate request together with a detailed research proposal in conformity with current scientific standards have been submitted:
- b) the research proposal indicates in sufficient detail the set of data to be accessed, the methods of analyzing them, and the time needed for the research;
- c) a contract specifying the conditions for access, the obligations of the researchers, the measures for respecting the confidentiality of statistical data and the sanctions in case of breach of these obligations has been signed by the individual researcher, by his/her institution, or by the organization commissioning the research, as the case may be, and by ELSTAT.

Issues referring to the observance of statistical confidentiality are examined by the Statistical Confidentiality Committee (SCC) operating in ELSTAT. The responsibilities of this Committee are to make recommendations to the President of ELSTAT on:

- · the level of detail at which statistical data can be disseminated, so as the identification, either directly or indirectly, of the surveyed statistical unit is not possible;
- $\cdot$  the anonymization criteria for the microdata provided to users;
- $\cdot$  the granting to researchers access to confidential data for scientific purposes.

The staff of ELSTAT, under any employment status, as well as the temporary survey workers who are employed for the collection of statistical data in statistical surveys conducted by ELSTAT, who acquire access by any means to confidential data, are bound by the principle of confidentiality and must use these data exclusively for the statistical purposes of ELSTAT. After the termination of their term of office, they are not allowed to use these data for any purpose.

Violation of data confidentiality and/or statistical confidentiality by any civil servant or employee of ELSTAT constitutes the disciplinary offence of violation of duty and may be punished with the penalty of final dismissal.

ELSTAT, by its decision, may impose a penalty amounting from ten thousand (10,000) up to two hundred thousand (200,000) euros to anyone who violates the confidentiality of data and/or statistical confidentiality. The penalty is always imposed after the hearing of the defense of the person liable for the

breach, depending on the gravity and the repercussions of the violation. Any relapse constitutes an aggravating factor for the assessment of the administrative sanction.

# 9. Release policy

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#### 9.1 Release calendar

No specific date for the release of data.

#### 9.2 Release calendar access

No Release Calendar.

#### 9.3 User access

According to the legal framework of the European Community, ELSTAT publishes statistical data on the Physicians-Dentists Survey on it's website at: <a href="http://www.statistics.gr/en/statistics/">http://www.statistics.gr/en/statistics/</a>-

<u>/publication/SHE09/-</u> in order for all independent users to have access. Consequently, all users are treated equally. Users with further requests on data apart from those which are published on ELSTAT's website, have to address in written or via e-mail the Division of Statistical Information and Publications and in case the requested data are available or do not confront the European Statistics Code of Practice and its provisions on persona data protection, data is provided either electronically or in written within a short period of time. Moreover, statistical data are transmitted electronically on a regular basis (every year) to international organizations such as Eurostat, WHO and OECD through the Joint Questionnaire.

Finally, users have no access to data before their release.

# 10. Frequency of dissemination

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The frequency of dissemination is annual.

# 11. Dissemination format

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#### 11.1 News release

#### 11.2 Publications

The results of the survey on Physicians -Dentists of ELSTAT are published in the Statistical Yearbooks of ELSTAT.

- 1) «Statistical Yearbook of Greece». It is provided to subscribers for a fee or after an application to the Hellenic Statistical Authority.
- 2) «Concise Statistical Yearbook of Greece». ». It is provided to subscribers for a fee or after an application to the Hellenic Statistical Authority.

All above mentioned data are available upon request at:

Division of Statistical Information and Publications

46, Peiraeus & Eponiton str., 185 10 Peiraeus

Tel. (+30) 213-1352173, FAX: (+30) 213-1352022

e-mail: data.dissem@statistics.gr

Moreover, apart from ELSTAT's website, data are available to international organizations like Eurostat – Physicians per 100.000 residents at NUTS2 level and Dentists per 100.000 residents at NUTS2 level, to OECD for the number of Physicians (Physicians of Greece – OECD) and in Health at a Glance, to WHO (World Health Statistics) etc.

Further information on <u>Physicians</u> and Dentists of the country can also be found in other publications of ELSTAT such as <a href="http://www.statistics.gr/living-conditions-in-greece">http://www.statistics.gr/living-conditions-in-greece</a>, etc.

#### 11.3 Data tables - consultations

Total access to the website as regards the above survey for the year 2013 amounts to 1142 hits.

#### 11.4 Micro-data access

The micro data are available upon request at:

Division of Statistical Information and Publications

46, Peireos & Eponiton str., 185 10 Piraeus

Tel. (+30) 213-1352173, FAX: (+30) 213-1352022

e-mail: data.dissem@statistics.gr

Due to confidentiality reasons, access to micro data is allowed only under strict conditions, fully observing the relevant process.

#### 11.5 Other

The main dissemination source of data is the web page of ELSTAT:

http://dlib.statistics.gr/portal/page/portal/ESYE/

Other sources of data dissemination are international organizations, such as Eurostat:

http://www.statistics.gr/en/international-organizations-cooperation

## 11.5.1 Metadata - consultations

Not calculated. The latest data were validated in October 2014.

# 12. Accessibility of documentation

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## 12.1 Documentation on methodology

The methodological papers are those adopted by the international organizations (Eurostat, WHO, OECD) such as the <u>"Guidelines for completing the OECD/Eurostat/Who-Europe Questionnaire 2011".</u>

# 12.1.1 Metadata completeness - rate

100%

# 12.2 Quality documentation

No quality report is compiled.

# 13. Quality management

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#### 13.1 Quality assurance

Controls on data in order to assure quality mainly refer to comparisons (through logical checks) of data of the current year with the corresponding data of previous years at the level of the Department (NUTS 3). In cases – though rare- where there is significant difference within the time series, the data provided are confirmed after communication with the responsible agency.

Usage of parallel data sources when it is possible (as for instance, comparison of statistical data at the level of the Regional Unity deriving from the local Dentist's Association and from the Pan Hellenic dentist's Association), also contributes to the quality of the produced survey results.

#### 13.2 Quality assessment

The quality of the statistical data of the survey on Physician-Dentists usually depends on the response of data providers.

# 14. Relevance

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## 14.1 User needs

Users are basically individual users or agencies relating to health issues for professional or training – research purposes.

Moreover, the results of the survey are transmitted to international organizations, such as Eurostat, OECD and WHO.

## 14.2 User satisfaction

Data related to the profile of users, the level of their satisfaction along with other relative information are monitored by ELSTAT. More information can be found at Newsletter at the following website:

http://www.statistics.gr/user-satisfaction-survey

#### 14.3 Completeness

Completeness of the survey is considered satisfactory. The response rate of Medical Associations during the last years for the total number of variables is between 83% - 87%, while in absolute numbers that are used to count the statistical units (medical doctors) the response rate is higher since smaller medical associations with less registered members respond with difficulty.

# 15. Accuracy and reliability

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#### 15.1 Overall accuracy

The overall accuracy of the survey on Physicians - Dentists is considered satisfactory with basic source of errors that of non-sampling errors.

## 15.2 Sampling error

Data refer to census survey. There are no sampling errors.

#### 15.3 Non-sampling error

Non-sampling errors relate to the response rate of the respondent Medical and Dentist Associations. The response rate is about 85% or more. Moreover, for some of the associations that have responded some of the questions items are likely to remain unanswered (item non-response).

Errors during data entry are traced and corrected with logical checks.

#### 15.3.1 Coverage error

The survey is a census survey, therefore there are no coverage errors.

# 15.3.1.1 Over-coverage rate

No.

# 15.3.1.2 Common Units - proportion

Not applicable. Data are collected only from administrative sources.

#### 15.3.2 Measurement error

No.

# 15.3.3 Non response error

Response errors due to the non-response of medical and dentists' associations are the main source of errors of the survey, amounting approximately to 15% of the reference population or less.

## 15.3.4 Processing error

No.

### 15.3.5 Model assumption error

Not applicable.

# 16. Timeliness and punctuality

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## 16.1 Timeliness

The final results are published approximately 300 days after the end (31/12) of the reference year.

#### 16.2 Punctuality

Results are usually published on time and the statistical product is updated.

# 17. Comparability

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## 17.1 Comparability - geographical

There is geographical comparability since all Regional Units use the same definitions.

Comparability at international level is ensured since the basic variables are the medical specialties which cover the total of practising medical specialties. Variables are harmonized with the requirements of the international standards and follow the joint questionnaire EUROSTAT-OECD-WHO (Joint Data Collection on Non – Monetary Health Care Statistics).

## 17.1.1 Asymmetry for mirror flows statistics - coefficient

Not applicable.

## 17.2 Comparability - over time

The produced data are comparable over time.

18. Coherence <u>Top</u>

#### 18.1 Coherence cross-domain

There is internal coherence between the results of the survey on Physicians-Dentists and the results of the Labour Force Survey that is conducted by ELSTAT every quarter. The classification system for occupation used by the Labour Force Survey from 2011 onwards, is based on ISCO-08. On the basis of this classification system within the counted doctors are also included doctors of general medicine, and specialized doctors.

#### 18.1.1 Coherence - sub annual and annual statistics

Not applicable, the survey is conducted on a yearly basis.

#### 18.1.2 Coherence - National Accounts

Not applicable, no common variables with National Accounts.

#### 18.2 Coherence - internal

Variables of the census have internal coherence.

ELSTAT's questionnaire has not typically changed before and after the year 2010 in relation to the produced statistics with the exception of small differences (eg. at a time where a new medical speciality that did not existed before has been added), or some variables have been adjusted but up today there has not been any presentation of results since the response rate of associations is not satisfactory (as for instance the age of doctors per sex), or the new variable that has been included further to the Joint Questionnaire on Non-Monetary Health Care Statistics request, which up today has not provided any presentation of results for the same reason (eg., the distribution of specialized doctors per specialty).

Basically, data is collected with the same way before and after the Joint Questionnaire on Non-Monetary Health Care Statistics.

Changes between STEP92 and ISCO-08 do not affect the census results since the classifications related to physicians are general. For instance, according to ISCO, generalist medical practitioners (2211) and specialist medical practitioners (2212) are summed at a 3-digit level 221 (medical doctors), while in STEP, there is classification for general doctors (2321) and the doctors- macrobiologists (2322) that are summed at the 3-digit 232 (medical doctors) so there is no change in the classification system to be reported.

19. Cost and burden Top

Not calculated.

20. Data revision Top

#### 20.1 Revision policy

The survey adheres to the Revision policy of ELSTAT posted on ELSTAT's website at:

http://www.statistics.gr/policies

#### 20.2 Revision practice

ELSTAT's revision policy is implemented.

# 21. Statistical processing

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#### 21.1 Source data

The primary data of the survey on Physicians-Dentists census are based on administrative sources and are provided by the local Medical and Dentist Associations of the country. They are collected by the Regional Units (the Health Departments) and are send to ELSTAT via post for the completion of the survey.

# 21.2 Frequency of data collection

Data are collected on an annual basis.

#### 21.3 Data collection

Hardcopy questionnaires of the survey are sent by post to the Health Departments of the Regional Units of the country and from there, they are transmitted to local Medical and Dentist Associations. After having completed them, they send them back to the Regional Units, which then transmits them to the Head Office of ELSTAT.

#### 21.4 Data validation

Qualitative and quantitative checks are carried out on the data of the survey on Physicians -Dentists. Primary data area mainly checked for chronological consistency. Cases that are examined are those with significant differences from year to year related to the total number of Physicians and Dentists per Regional Unit.

## 21.5 Data compilation

Primary data are processed in order for the final table of data to be compiled containing the number of medical doctors per specialty mainly by grouping similar specialties having a limited number of members, to broader ones. For instance, Microbiologists and Haematologists are presented in the table under one category, namely "Microbiologists –Haematologists", etc.

In cases where there is no response by a medical association for one variable of the survey, either data re used from other sources, when possible, or the data are estimated on the basis of the general trend of that variable, in accordance with the value of the same variable during the previous year.

### 21.5.1 Imputation - rate

Imputation rate for the 2012 is 11,6% as regards Physicians and 9,1% as regards Dentists.

## 21.6 Adjustment

No adjustment.

## 21.6.1 Seasonal adjustment

Not applicable.

22. Comment <u>Top</u>